

Social Media Engagement and Adolescent Mental Health: A Multidimensional Review of Risks, Mechanisms, and Protective Factors



Dr. Shivani Vats¹, Dr. Shivani Wadhwa², Ms. Megha Sharma³

¹Department of IT, Jagan Institute of Management Studies, Email ID : drshivanivats@gmail.com

²Department of Management, Jagan Institute of Management Studies

³Department of Management, Jagan Institute of Management Studies

Abstract

The rapid expansion of social media has significantly transformed adolescents' social environments, raising critical concerns regarding its implications for mental health and psychosocial development. This study presents a comprehensive narrative synthesis of empirical research examining the relationship between social media engagement and mental health outcomes among adolescents. Drawing on a systematic review of 30 studies, the paper analyzes key outcomes including depression, anxiety, body dissatisfaction, self-esteem, cyberbullying exposure, sleep disturbance, and overall psychological well-being.

The findings reveal that the impact of social media is complex and context-dependent. Excessive and passive forms of engagement are consistently associated with negative psychological outcomes, particularly through mechanisms such as social comparison, cyberbullying, and disrupted sleep patterns. In contrast, active and purposeful engagement is linked to positive outcomes, including enhanced social connectedness, peer support, and access to mental health resources. The study further identifies the critical role of moderating factors such as social support, coping strategies, and usage patterns in shaping these relationships.

A key contribution of this study is the development of an integrated conceptual framework that explains how social media influences adolescent mental health through interconnected cognitive, behavioral, and social pathways. By moving beyond simplistic "harm versus benefit" perspectives, the study offers a more nuanced understanding of digital engagement. The findings have important implications for educators, parents, mental health practitioners, and policymakers in promoting healthier and more balanced social media use among adolescents. Future research should prioritize longitudinal and intervention-based designs to establish causal relationships and inform evidence-based strategies.

Keywords: social media, adolescents, mental health, cyberbullying, sleep disturbance, body image

1. Introduction

Adolescence is widely recognized as a formative stage of human development during which individuals undergo significant psychological, emotional, and social transformations. This period is characterized by increased sensitivity to social feedback, identity exploration, and evolving interpersonal relationships. In parallel with these developmental processes the rapid expansion of digital technologies has fundamentally transformed adolescents' social environments and peer relationships (Nesi et al., 2018). Social media platforms have emerged as dominant environments for communication, self-expression, and social engagement, embedding themselves deeply into adolescents' daily routines.

The growing integration of social media into adolescents' lives has generated substantial academic interest, particularly concerning its implications for mental health. Existing research indicates that social media engagement is associated with a wide range of psychological outcomes, including depression,

anxiety, and psychological distress (Keles et al., 2020; O'Reilly, 2020; Lin et al., 2020). Problematic or excessive use of digital technologies has been linked to negative mental health outcomes, including emotional distress and behavioral disruptions (Ambat, 2025; Molina-Ruiz et al., 2022). In addition, sleep disruption has emerged as a critical concern, with studies demonstrating that late-night social media use contributes to poor sleep quality and increased psychological vulnerability (van der Schuur et al., 2018; Pirdehghan et al., 2021).

Another significant dimension of this relationship is the role of cyberbullying. Digital platforms have created new avenues for peer aggression, where anonymity and continuous accessibility amplify the impact of negative interactions. Empirical findings consistently show that exposure to cyberbullying is associated with heightened levels of anxiety, depression, and reduced well-being among adolescents (Hamm et al., 2015; Lee et al., 2025). The widespread prevalence of cyberbullying further emphasizes its relevance as a public health issue

(Brochado et al., 2016).

Beyond direct online risks, social media also influences adolescents through more subtle psychological mechanisms. One of the most prominent among these is social comparison. Adolescents are frequently exposed to idealized and curated representations of others, which can shape self-perceptions and expectations. Research suggests that engagement with appearance-focused content is strongly associated with body dissatisfaction and lower self-esteem (Molina-Ruiz et al., 2022; Martinac Dorčić et al., 2023). These effects are often intensified by broader societal and media-driven standards of attractiveness (Lawrie et al., 2006), highlighting the interaction between digital environments and existing cultural norms.

However, the relationship between social media use and mental health cannot be understood solely in terms of risk. Emerging evidence suggests that social media also offers meaningful opportunities for positive engagement. Adolescents use these platforms to maintain social connections, seek emotional support, and explore aspects of their identity (Popat & Tarrant, 2022). Active and purposeful engagement has been associated with increased feelings of belongingness and reduced loneliness (O'Reilly et al., 2022; Schwartz-Lifshitz et al., 2022). Furthermore, social media can function as a resource for accessing mental health information and support networks, particularly in contexts where offline support may be limited (O'Reilly et al., 2018).

Despite the growing body of literature, several limitations remain evident. First, existing studies often present fragmented findings, with some emphasizing negative outcomes while others highlight potential benefits. This has led to inconsistent conclusions and a lack of conceptual clarity regarding the overall impact of social media. Second, much of the current research relies on cross-sectional designs, which restrict the ability to establish causal relationships (Eres et al., 2023). Third, there is limited integration of mediating and moderating mechanisms—such as social support, coping strategies, and usage patterns—that influence how social media affects mental health (Hellfeldt et al., 2019; Su et al., 2020). As a result, the field lacks a comprehensive framework that explains when and how social media becomes harmful or beneficial.

Addressing these gaps is essential for advancing both theoretical understanding and practical application. Therefore, the present study aims to provide a comprehensive and integrative synthesis of existing research on social media use and adolescent mental health. Specifically, it seeks to (1) examine key psychological outcomes associated with social media engagement, (2) identify underlying mechanisms such as social comparison, cyberbullying, and sleep disturbance, and (3) analyze moderating factors that shape these relationships. By adopting a

multidimensional perspective, this study contributes to the literature by offering a more nuanced understanding of the conditions under which social media use may either undermine or enhance adolescent psychological well-being.

2. Theoretical Framework

Understanding the relationship between social media use and adolescent mental health requires a strong theoretical foundation that explains the underlying psychological and behavioral mechanisms. Given the complexity of digital environments, no single theory sufficiently captures the multidimensional effects of social media. Therefore, this study integrates key theoretical perspectives—namely Social Comparison Theory, Self-Presentation Theory, Cultivation Theory, and Mood Management Theory—to provide a comprehensive explanation of how social media engagement influences adolescent psychological outcomes.

Social Comparison Theory offers a fundamental lens for understanding how adolescents evaluate themselves in digitally mediated environments. According to this perspective, individuals assess their abilities, appearance, and social standing by comparing themselves with others. Social media platforms intensify this process by continuously exposing users to curated and often idealized portrayals of peers. Adolescents, who are particularly sensitive to peer feedback and social validation, are more likely to engage in upward comparisons, leading to negative self-evaluation. Empirical research indicates that such comparison processes are associated with increased body dissatisfaction and reduced self-esteem (Molina-Ruiz et al., 2022; Martinac Dorčić et al., 2023). The visual and interactive nature of platforms further amplifies these effects, making social comparison a central mechanism linking social media use to psychological distress.

Complementing this perspective, Self-Presentation Theory explains how adolescents actively construct and manage their identities in online spaces. Social media provides opportunities for users to curate their profiles, selectively share content, and shape how they are perceived by others. While this can facilitate identity exploration and self-expression, it also introduces pressures to maintain socially desirable images. Adolescents may become increasingly dependent on external validation through likes, comments, and follower counts, which can influence their self-worth. Qualitative evidence suggests that discrepancies between online personas and offline identities may contribute to anxiety and emotional strain (Popat & Tarrant, 2022). Thus, self-presentation processes highlight how the pursuit of social approval in digital contexts can affect psychological well-being.

Cultivation Theory further extends this understanding by emphasizing the long-term influence of repeated media exposure on perceptions of reality. Within social media environments, adolescents are frequently exposed to content that portrays idealized lifestyles, physical attractiveness, and social success. Over time, such exposure may shape normative beliefs and expectations, leading individuals to internalize unrealistic standards. Research indicates that this internalization contributes to body image concerns and dissatisfaction, particularly among adolescents who engage heavily with appearance-focused content (Vincente-Benito & Ramírez-Durán, 2023). Unlike traditional media, social media combines peer-generated and algorithmically curated content, potentially intensifying cultivation effects and reinforcing distorted perceptions of reality.

In addition to these cognitive and social mechanisms, Mood Management Theory provides insight into the motivational aspects of social media use. This perspective suggests that individuals selectively engage with media to regulate their emotional states. Adolescents may use social media to cope with boredom, loneliness, or stress, often driven by psychological factors such as fear of missing out (FoMO), which reinforces frequent checking behaviors and emotional dependency (Rozgonjuk et al., 2021). In some cases, such engagement can enhance mood and provide emotional support, particularly when interactions are meaningful and supportive (O'Reilly et al., 2022). However, excessive or maladaptive use may lead to negative outcomes, especially when it interferes with sleep or reinforces negative emotional cycles (Taylor et al., 2023). This highlights the dual role of social media as both a coping mechanism and a potential source of psychological strain.

Importantly, these theoretical perspectives do not operate in isolation but interact to shape adolescent experiences in digital environments. Social comparison may be intensified by self-presentation practices, while repeated exposure to curated content reinforces cultivation effects. At the same time, adolescents' motivations for using social media, as explained by mood management processes, influence how they engage with these platforms. This interaction suggests that the impact of social media is dynamic and context-dependent rather than uniform.

Furthermore, the relationship between social media use and mental health is influenced by mediating and moderating factors. Variables such as social support, coping strategies, and individual differences play a critical role in shaping outcomes. For instance, strong support from family and peers can buffer the negative effects of cyberbullying and online stress (Hellfeldt et al., 2019; Su et al., 2020). Similarly, factors such as sleep quality and loneliness may

mediate the relationship between digital engagement and psychological distress (Lin et al., 2020; Taylor et al., 2023). These interactions underscore the need for a multidimensional theoretical framework that accounts for both risk and protective factors.

3. Conceptual Framework and Proposed Model

To provide a structured understanding of the relationship between social media engagement and adolescent mental health, this study proposes a conceptual framework grounded in the integrated theoretical perspectives discussed earlier. Existing literature highlights that the impact of social media is not direct or uniform but occurs through multiple psychological and behavioral pathways. Therefore, the present framework adopts a multidimensional approach by incorporating key mediating and moderating variables that shape these relationships.

In this model, social media engagement is conceptualized as the primary independent variable. It is operationalized in terms of the nature of use (active versus passive), frequency, and timing of engagement. Prior research suggests that different patterns of usage produce varying psychological outcomes, with passive consumption often associated with negative effects, while active engagement may foster positive experiences such as social connectedness and support (O'Reilly et al., 2022; Taylor et al., 2023).

The dependent variable in the framework is adolescent mental health outcomes, which include indicators such as depression, anxiety, psychological distress, self-esteem, and overall well-being (Lin et al., 2020; Molina-Ruiz et al., 2022). Rather than assuming a direct causal relationship, the model proposes that social media influences these outcomes through several key mediating mechanisms.

Specifically, three primary mediators are identified. First, social comparison acts as a cognitive mechanism through which adolescents evaluate themselves in relation to others. Exposure to idealized and curated content on social media platforms often leads to upward comparisons, resulting in reduced self-esteem and increased body dissatisfaction (Molina-Ruiz et al., 2022; Martinac Dorčić et al., 2023). Second, cyberbullying exposure represents a social mechanism that contributes to emotional distress, anxiety, and decreased well-being (Hamm et al., 2015; Lee et al., 2025). Third, sleep disturbance functions as a behavioral mediator, linking excessive or nighttime social media use to fatigue, emotional dysregulation, and depressive symptoms (van der Schuur et al., 2018; Lin et al., 2020).

To visually represent these relationships, the proposed conceptual framework is presented in Figure 1.

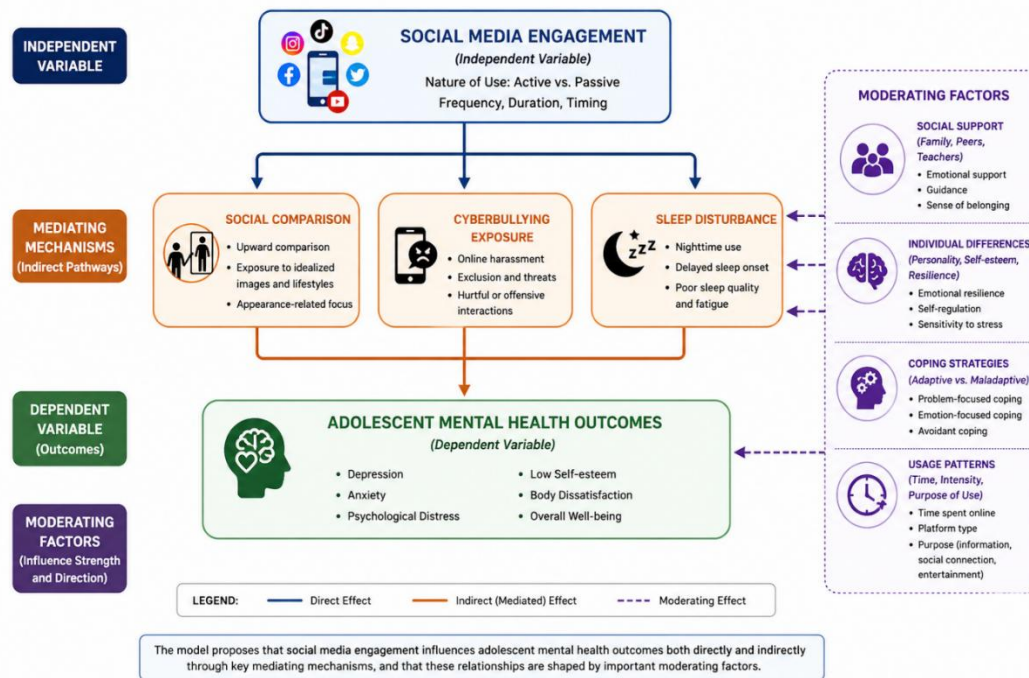


Figure 1. Proposed conceptual framework illustrating the relationship between social media engagement and adolescent mental health

As illustrated in Figure 1, social media engagement influences adolescent mental health outcomes both directly and indirectly through the identified mediating variables. The framework highlights that these effects are not uniform but are shaped by several moderating factors. In particular, social support from family, peers, and teachers plays a protective role by buffering the negative effects of online stressors and cyberbullying (Hellfeldt et al., 2019; Su et al., 2020). Similarly, individual differences, including emotional resilience, personality traits, and coping capacity, influence how adolescents interpret and respond to digital experiences.

In addition, coping strategies determine whether adolescents engage with social media in adaptive or maladaptive ways, thereby influencing psychological outcomes. Usage patterns, including the intensity, purpose, and timing of engagement, further moderate these relationships by shaping exposure to both positive and negative online experiences.

4. Methodology

This study adopts a structured narrative review approach to synthesize existing empirical literature on the relationship between social media engagement and adolescent mental health. Given the diversity of research designs, measurement approaches, and theoretical perspectives in this domain, a narrative synthesis method was considered appropriate to integrate findings across both quantitative and qualitative studies while maintaining conceptual depth.

4.1 Search Strategy

A comprehensive literature search was conducted across major academic databases, including Scopus, Web of Science, PubMed, and PsycINFO. The search focused on peer-reviewed articles published between 2015 and 2024 to ensure the inclusion of recent developments in the rapidly evolving digital landscape.

Relevant studies were identified using combinations of keywords such as “social media,” “social networking sites,” “adolescents,” “teenagers,” “mental health,” “depression,” “anxiety,” “self-esteem,” “body image,” “cyberbullying,” and “sleep disturbance.” Boolean operators (AND, OR) were applied to refine the search and improve the accuracy of retrieved results.

4.2 Inclusion and Exclusion Criteria

To ensure relevance and methodological rigor, the following inclusion and exclusion criteria were applied:

Inclusion Criteria:

- Studies focusing on adolescents aged 10–19 years
- Empirical studies examining social media use as a primary variable
- Research reporting mental health outcomes such as depression, anxiety, self-esteem, body image, cyberbullying, or sleep disturbance
- Peer-reviewed articles published in English

Exclusion Criteria:

- Studies focusing exclusively on adult

populations

- Non-empirical publications (e.g., editorials, commentaries)
- Conference abstracts without full-text availability
- Studies lacking clear methodological descriptions

4.3 Study Selection Process

The study selection process was conducted in multiple stages, including identification, screening,

eligibility assessment, and final inclusion. Initially, all retrieved records were compiled, and duplicate entries were removed. Titles and abstracts were then screened to assess relevance to the research objectives. Subsequently, full-text articles were evaluated based on the predefined inclusion and exclusion criteria.

The overall process ensured that only relevant and methodologically sound studies were included in the final analysis. The flow of study selection is illustrated in Figure 2.

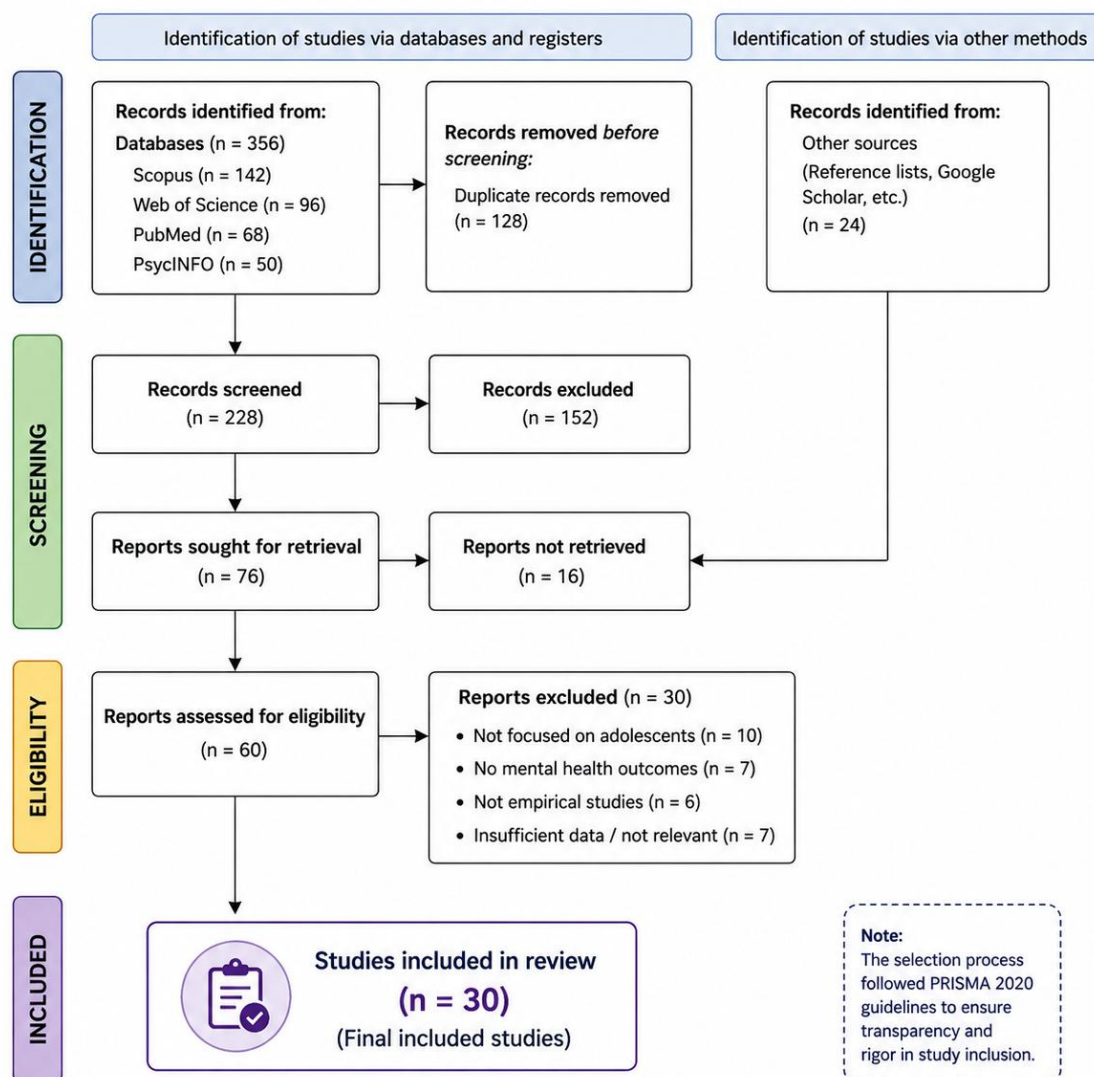


Figure 2. Study selection process for the literature review

As shown in Figure 2, the initial database search yielded a substantial number of studies, which were progressively refined through duplicate removal, screening, and eligibility assessment. After applying the inclusion and exclusion criteria, a total of 30 studies were selected for the final review. This structured process ensured transparency and methodological rigor in study selection.

4.4 Data Extraction and Synthesis

A standardized data extraction framework was

employed to ensure consistency across the selected studies. Key information extracted included author(s), publication year, country, sample characteristics, research design, variables measured, and key findings.

Due to heterogeneity in methodologies and measurement tools, a narrative synthesis approach was adopted instead of a meta-analysis. The findings were categorized into key thematic domains:

1. Psychological distress (depression and anxiety)

- 2.Cyberbullying and victimization
- 3.Body image and self-esteem
- 4.Sleep disturbance
- 5.Protective factors and positive outcomes

This thematic classification enabled a structured comparison of findings while preserving contextual insights.

4.5 Quality Assessment

The methodological quality of the included studies was evaluated based on criteria such as research design, sample size, measurement validity, and analytical rigor. Longitudinal and mixed-method studies were given greater weight due to their stronger ability to capture causal relationships and contextual dynamics.

However, the predominance of cross-sectional

designs limits the ability to establish causality. Additionally, reliance on self-reported data introduces potential biases related to subjectivity and reporting accuracy.

5. Results

A total of 30 studies meeting the inclusion criteria were analyzed and synthesized. The findings were organized into five key thematic domains: (1) psychological distress, (2) cyberbullying and victimization, (3) body image and self-esteem, (4) sleep disturbance, and (5) protective factors and positive outcomes. Due to variations in study design, measurement approaches, and cultural contexts, a narrative synthesis was adopted to ensure a comprehensive interpretation of results.

A summary of the key characteristics and findings of the included studies is presented in Table 1.

Table 1. Summary of selected studies on social media and adolescent mental health

Author(s)	Year	Country	Study Design	Key Focus	Major Findings
Lin et al.	2020	USA	Cross-sectional	Social media & mental health	High usage linked to depression and poor sleep
Molina-Ruiz et al.	2022	Spain	Survey	Self-esteem & body image	Social media reduces self-esteem via comparison
O'Reilly et al.	2018	UK	Longitudinal	Social media & depression	Bidirectional relationship observed
O'Reilly et al.	2022	UK	Mixed-method	Positive engagement	Active use promotes social support
Martinac Dorčić et al.	2023	Croatia	Cross-sectional	Social comparison	Leads to body dissatisfaction
Vincente-Benito & Ramírez-Durán	2023	Spain	Systematic review	Body image	Appearance exposure increases dissatisfaction
Hamm et al.	2015	Canada	Review	Cyberbullying	Strong link with mental distress
Lee et al.	2025	Global	Meta-analysis	Cyberbullying	Victimization linked to anxiety & depression
Hellfeldt et al.	2019	Sweden	Cross-sectional	Social support	Buffers negative effects
van der Schuur et al.	2018	Netherlands	Longitudinal	Sleep	Social media disrupts sleep patterns
Taylor et al.	2023	UK	Cross-sectional	Loneliness	Passive use increases

					distress
Schwartz-Lifshitz et al.	2022	Israel	Clinical study	Social media & loneliness	Online interaction reduces loneliness

As shown in Table 1, the included studies vary in design, geographical context, and research focus. However, a consistent pattern emerges, indicating that social media use is associated with both negative and positive mental health outcomes depending on usage patterns and contextual factors.

5.1 Psychological Distress (Depression and Anxiety)

Psychological distress emerged as one of the most consistently reported outcomes associated with social media use among adolescents. A substantial number of studies indicate that excessive or problematic engagement with social media is positively associated with symptoms of depression and anxiety (Lin et al., 2020; Molina-Ruiz et al., 2022).

In particular, high-frequency usage and compulsive checking behaviors were found to increase emotional vulnerability and negative affect. Adolescents who engage in prolonged social media use are more likely to experience feelings of inadequacy, loneliness, and mood disturbances. Furthermore, longitudinal evidence suggests a bidirectional relationship, whereby adolescents with pre-existing psychological distress are more likely to engage in maladaptive patterns of social media use, which in turn intensifies their symptoms (O'Reilly et al., 2018).

Importantly, the nature of engagement plays a crucial role. Passive consumption—such as mindless scrolling without interaction—has been shown to increase emotional vulnerability and is associated with depressive symptoms among adolescents (O'Reilly et al., 2022). Broader stress-related factors, including academic pressure and resource constraints, also contribute to adolescent psychological outcomes (Mohan et al., 2025). Exposure to different forms of digital media content may also contribute to psychological outcomes, extending beyond traditional social media use (Singhal et al., 2024).

5.2 Cyberbullying and Victimization

Cyberbullying was identified as a significant mediator linking social media use to adverse mental health outcomes. Studies consistently show that adolescents exposed to online harassment experience higher levels of anxiety, depression, and emotional distress (Hamm et al., 2015; Lee et al., 2025). Studies indicate that cyberbullying is strongly associated with increased psychological distress and behavioral issues among adolescents (Liu et al., 2025; Sobkin & Fedotova, 2021).

Unlike traditional bullying, cyberbullying is

characterized by anonymity, persistence, and a wider audience, which amplifies its psychological impact. Victims often report feelings of helplessness, social withdrawal, and reduced self-worth. The prevalence of cyberbullying further underscores its importance as a critical public health concern (Brochado et al., 2016).

However, the negative effects of cyberbullying are not uniform across individuals. Research indicates that social support plays a protective role, with adolescents receiving strong support from family and peers demonstrating lower levels of psychological distress following victimization (Hellfeldt et al., 2019).

5.3 Body Image and Self-Esteem

Body image concerns and diminished self-esteem were strongly associated with social media use, particularly on image-centric platforms. Exposure to idealized and appearance-focused content contributes to unrealistic beauty standards, leading to negative self-evaluation (Vincente-Benito & Ramírez-Durán, 2023). Exposure to appearance-focused social media content has been shown to significantly contribute to body dissatisfaction through intensified social comparison processes (Schreurs & Vandenbosch, 2021).

Social comparison emerged as a key mechanism underlying this relationship. Adolescents frequently compare themselves with curated representations of peers, resulting in body dissatisfaction and reduced self-worth (Molina-Ruiz et al., 2022; Martinac Dorčić et al., 2023). These effects were found to be more pronounced among female adolescents and individuals with pre-existing body image concerns (Lawrie et al., 2006).

Additionally, social validation metrics such as likes, comments, and follower counts were shown to influence self-perception. Adolescents often associate online feedback with personal value, reinforcing validation-seeking behaviors and increasing vulnerability to self-esteem fluctuations (Popat & Tarrant, 2022).

5.4 Sleep Disturbance

Sleep disturbance was identified as a consistent and significant outcome associated with social media use. Nighttime engagement with digital platforms disrupts sleep patterns, leading to delayed sleep onset, reduced sleep duration, and poor sleep quality (van der Schuur et al., 2018; Lin et al., 2020). Problematic media use, particularly during nighttime, has been linked to reduced sleep quality and

increased depressive symptoms among adolescents (Eden et al., 2021)

Several mechanisms contribute to this relationship, including cognitive arousal, emotional stimulation, and exposure to blue light from screens. Sleep deprivation, in turn, exacerbates psychological distress, impairing emotional regulation and increasing susceptibility to anxiety and depressive symptoms.

Furthermore, habitual nighttime checking behaviors were found to be particularly detrimental, as they interfere with restorative sleep and contribute to daytime fatigue and reduced academic performance.

5.5 Protective Factors and Positive Outcomes

Despite the identified risks, several studies highlight the potential positive effects of social media use. Active and meaningful engagement—such as communication with peers and participation in supportive online communities—was associated with increased social connectedness and emotional

support (O'Reilly et al., 2022).

Adolescents also use social media platforms for identity exploration, self-expression, and accessing mental health information (Popat & Tarrant, 2022). In situations of social isolation, digital connectivity was found to reduce loneliness and enhance perceived social support (Schwartz-Lifshitz et al., 2022). Social media and related digital engagement can also support psychological well-being when used mindfully, contributing to improved self-esteem and emotional regulation (Dua et al., 2025).

Importantly, these positive outcomes were more likely when social media use was purposeful and controlled, rather than excessive or compulsive. This finding reinforces the importance of usage patterns in determining psychological outcomes.

To synthesize the key insights derived from the reviewed literature, the major thematic findings are summarized in Table 2, highlighting the primary psychological outcomes associated with social media engagement.

Table 2. Thematic summary of findings

Theme	Key Outcome
Psychological Distress	Increased depression and anxiety
Cyberbullying	Emotional distress and reduced well-being
Body Image	Dissatisfaction and low self-esteem
Sleep Disturbance	Poor sleep quality and fatigue
Positive Outcomes	Social support and connectedness

As presented in Table 2, social media engagement is associated with multiple psychological outcomes that span both risk and protective dimensions. Negative outcomes, such as psychological distress, body dissatisfaction, cyberbullying, and sleep disturbance, are predominantly linked to excessive and passive usage patterns. In contrast, positive outcomes, including social connectedness and emotional support, are more likely to emerge from active and meaningful engagement. These findings reinforce the multidimensional nature of social media effects and highlight the importance of contextual and behavioural factors in shaping adolescent mental health.

This thematic synthesis aligns with the proposed conceptual framework, further validating the role of mediating and moderating mechanisms in influencing outcomes.

6. Discussion

6.1 Interpretation of Key Findings

The present study provides a comprehensive synthesis of existing literature on the relationship between social media engagement and adolescent mental health. The findings reveal that the impact of

social media is neither inherently negative nor universally beneficial but is highly conditional upon patterns of use, individual characteristics, and contextual factors. This supports a growing body of research suggesting that digital engagement functions as a complex psychosocial process rather than a singular risk factor (O'Reilly, 2020).

One of the most consistent findings across the reviewed studies is the association between excessive or problematic social media use and increased psychological distress, including symptoms of depression and anxiety. In particular, passive forms of engagement—such as scrolling without interaction—were more strongly linked to negative emotional outcomes compared to active use. This distinction highlights the importance of how adolescents engage with social media, rather than simply how much time they spend online (O'Reilly et al., 2022; Taylor et al., 2023).

The results also underscore the significant role of cyberbullying as a critical pathway linking social media use to adverse mental health outcomes. Adolescents exposed to online harassment are more likely to experience emotional distress, reduced self-esteem, and social withdrawal. The persistent and often anonymous nature of cyberbullying intensifies its psychological impact, making it a major concern

within digital environments (Hamm et al., 2015; Lee et al., 2025).

Additionally, body image concerns and reduced self-esteem emerged as prominent outcomes, particularly in relation to image-centric platforms. Social comparison processes play a central role in this relationship, as adolescents evaluate themselves against idealized and curated representations of peers. This often results in negative self-perception and dissatisfaction, especially among individuals who are more susceptible to appearance-related pressures (Molina-Ruiz et al., 2022; Martinac Dorčić et al., 2023).

Sleep disturbance was identified as another important mechanism linking social media use to psychological distress. Nighttime engagement with digital platforms disrupts sleep patterns, leading to fatigue, impaired emotional regulation, and increased vulnerability to mental health issues (Lin et al., 2020; van der Schuur et al., 2018). These findings highlight the indirect pathways through which social media can influence well-being.

6.2 Role of Mediating and Moderating Factors

A key contribution of this study lies in its identification of mediating and moderating mechanisms that shape the relationship between social media use and mental health outcomes. The findings demonstrate that the effects of social media are rarely direct but are instead transmitted through cognitive, behavioral, and social processes.

Social comparison, cyberbullying exposure, and sleep disturbance were identified as primary mediators that explain how digital engagement translates into psychological outcomes. These mechanisms operate simultaneously and interactively, reinforcing each other and amplifying their effects. For instance, passive use may increase exposure to comparison-based content, which in turn lowers self-esteem and contributes to emotional distress.

At the same time, several moderating factors influence the strength and direction of these relationships. Social support emerged as a critical protective factor, with adolescents receiving strong support from family and peers showing greater resilience to negative online experiences (Hellfeldt et al., 2019; Su et al., 2020). Similarly, individual differences such as coping strategies and emotional regulation capacity play a significant role in determining how adolescents respond to social media.

Usage patterns also act as an important contextual moderator. Purposeful and controlled engagement is more likely to result in positive outcomes, whereas excessive and compulsive use increases the likelihood of negative effects. These findings reinforce the argument that social media should not be conceptualized as a uniformly harmful influence but rather as a context-dependent phenomenon.

6.3 Comparison with Existing Literature

The findings of this study are consistent with prior research that reports small to moderate associations between social media use and mental health outcomes. However, unlike earlier studies that often emphasize either positive or negative effects, the present study adopts a more integrated perspective by highlighting the coexistence of both risks and benefits.

Previous reviews have frequently treated social media as a singular construct, overlooking the importance of engagement patterns and contextual variables. In contrast, this study emphasizes the distinction between active and passive use, as well as the role of mediating mechanisms such as social comparison and sleep disruption. This approach provides a more nuanced understanding of the relationship and aligns with recent empirical findings in the field.

Furthermore, the study extends existing literature by explicitly integrating theoretical perspectives with empirical findings. By linking Social Comparison Theory, Self-Presentation Theory, and Mood Management Theory with observed outcomes, the study provides a stronger conceptual foundation for understanding adolescent experiences in digital environments.

6.4 Strengths and Limitations

This study offers several strengths, including a comprehensive synthesis of both quantitative and qualitative research, integration of multiple theoretical perspectives, and the development of a multidimensional conceptual framework. These contributions provide a more holistic understanding of the relationship between social media and adolescent mental health.

However, certain limitations must be acknowledged. The reliance on existing literature means that findings are constrained by the methodological limitations of the included studies, particularly the predominance of cross-sectional designs. Additionally, variations in measurement tools and definitions of social media use limit comparability across studies. Cultural differences and rapidly evolving digital platforms further complicate the generalization of findings.

6.5 Future Research Directions

Future research should focus on longitudinal and experimental designs to establish causal relationships between social media use and mental health outcomes. There is also a need for platform-specific studies that examine how different types of social media influence psychological well-being.

Further investigation into mediating and moderating mechanisms is essential to develop targeted interventions. Additionally, research should explore cross-cultural differences and consider the impact of

emerging technologies on adolescent behavior.

The findings indicate that social media's impact is conditional rather than deterministic. Passive and excessive use is associated with negative outcomes, while active and purposeful engagement may be beneficial.

7. Practical Implications

The findings of this study offer important implications for educators, parents, mental health professionals, policymakers, and digital platform developers. Given that the effects of social media are conditional rather than inherently harmful, interventions should focus on promoting healthy patterns of engagement rather than simply restricting usage.

7.1 Implications for Educational Institutions

Educational institutions play a crucial role in shaping adolescents' digital behaviors and awareness. The findings highlight the need to integrate digital literacy programs into school curricula, with a focus on helping students critically evaluate online content and recognize the effects of social comparison. Adolescents should be educated about the curated nature of social media content and trained to develop realistic self-perceptions.

Schools can also implement structured programs addressing cyberbullying prevention and digital empathy, encouraging responsible online behavior and peer support. Additionally, awareness initiatives related to sleep hygiene should be introduced, emphasizing the importance of limiting nighttime social media use to improve sleep quality and overall well-being.

7.2 Implications for Parents and Caregivers

The role of parents and caregivers is central in moderating adolescents' social media experiences. The findings suggest that a supportive and communicative approach is more effective than strict monitoring or restriction. Open discussions about online experiences can foster trust and help adolescents navigate digital challenges more effectively.

Parents should encourage balanced technology use by co-establishing boundaries around screen time, particularly during late hours. Moreover, promoting offline social interactions and modeling healthy digital habits can contribute to more positive outcomes. Importantly, parents should recognize that social media also serves as a space for social connection and identity exploration, and therefore should aim for guided engagement rather than complete restriction.

7.3 Implications for Mental Health Practitioners

Mental health professionals should consider social media use as an integral component of adolescent

well-being. The findings indicate that digital behaviors can both reflect and influence psychological states. Therefore, routine assessments should include questions related to social media usage patterns, exposure to cyberbullying, and sleep habits.

Therapeutic interventions can incorporate strategies to address maladaptive social comparison and validation-seeking behaviors. Cognitive-behavioral approaches may be particularly effective in helping adolescents develop healthier coping mechanisms and reduce dependence on external validation. Additionally, practitioners can guide adolescents toward using social media in ways that enhance support and connectedness.

7.4 Implications for Policymakers and Platform Developers

The study underscores the need for systemic interventions at the policy and platform design levels. Policymakers should prioritize the development of regulations that promote online safety, including stronger mechanisms for reporting and addressing cyberbullying.

At the same time, digital platform developers have a responsibility to create environments that support users' well-being. This includes reducing the amplification of harmful or appearance-focused content, reconsidering visible social validation metrics (such as public like counts), and integrating features that encourage mindful usage, such as screen-time reminders and customizable notifications.

8. Future Research Directions

Despite the growing body of literature examining the relationship between social media use and adolescent mental health, several important gaps remain that warrant further investigation. Addressing these gaps is essential for advancing theoretical understanding and developing evidence-based interventions.

First, there is a clear need for more longitudinal and experimental research designs. A significant proportion of existing studies rely on cross-sectional data, which limits the ability to establish causal relationships between social media use and mental health outcomes. Future studies should employ longitudinal approaches to examine how patterns of social media engagement evolve over time and influence psychological well-being. Experimental designs can further help identify causal mechanisms and isolate the effects of specific types of engagement.

Second, future research should move beyond treating social media as a homogeneous construct and instead focus on platform-specific and behavior-specific analyses. Different platforms (e.g., image-based vs. text-based) and different forms of engagement

(active vs. passive use) may produce distinct psychological outcomes. Examining these differences will provide more nuanced insights into how and why social media affects adolescents.

Third, greater attention should be given to individual differences and contextual factors that moderate the impact of social media. Variables such as gender, personality traits, emotional resilience, and pre-existing mental health conditions may influence susceptibility to both positive and negative outcomes. Additionally, cultural and socio-economic contexts should be explored to understand how social media effects vary across different populations.

Fourth, future research should further investigate mediating mechanisms, including social comparison, cyberbullying, sleep disturbance, and emotional regulation. While existing studies have identified these factors as important pathways, there is a need for integrative models that examine how these mechanisms interact simultaneously. Advanced analytical approaches, such as structural equation modeling, can provide deeper insights into these complex relationships.

Fifth, there is a need for more intervention-based research aimed at promoting healthy social media use. Studies should evaluate the effectiveness of digital literacy programs, mental health interventions, and platform-based design changes in reducing risks and enhancing positive outcomes. Such research will have significant practical implications for educators, clinicians, and policymakers.

Finally, rapid technological advancements and evolving social media trends necessitate continuous and adaptive research efforts. Emerging features, algorithmic changes, and new platforms may alter user behavior and psychological outcomes. Therefore, future research should adopt dynamic methodologies, including real-time data collection and digital tracking, to ensure that findings remain relevant in a rapidly changing digital environment.

9. Conclusion

This study provides a comprehensive synthesis of existing research on the relationship between social media engagement and adolescent mental health. The findings demonstrate that social media is neither inherently harmful nor universally beneficial; rather, its impact is complex, multidimensional, and highly dependent on patterns of use, individual characteristics, and contextual factors.

The review highlights that excessive and passive forms of social media engagement are consistently associated with negative psychological outcomes, including depression, anxiety, body dissatisfaction, cyberbullying exposure, and sleep disturbance. These effects are primarily driven by underlying mechanisms such as social comparison, emotional

vulnerability, and disrupted behavioral patterns. At the same time, the study identifies important positive dimensions of social media use, particularly when engagement is active, purposeful, and socially supportive. In such contexts, social media can enhance social connectedness, facilitate identity exploration, and provide access to mental health resources.

A key contribution of this study lies in its integrated conceptual framework, which explains how social media influences adolescent mental health through mediating mechanisms and moderating factors. By incorporating variables such as social comparison, cyberbullying, sleep disturbance, social support, and coping strategies, the framework offers a more nuanced and comprehensive understanding of digital engagement. This approach moves beyond simplistic narratives and emphasizes the conditional nature of social media effects.

The findings also carry significant practical implications. Promoting digital literacy, fostering supportive environments, and encouraging balanced usage patterns are essential for minimizing risks and enhancing benefits. Stakeholders—including educators, parents, clinicians, policymakers, and platform developers—must adopt a collaborative and evidence-based approach to support adolescents in navigating digital spaces effectively.

Despite its contributions, the study acknowledges the limitations of existing literature, particularly the reliance on cross-sectional designs and self-reported measures. These limitations highlight the need for more rigorous, longitudinal, and intervention-based research to establish causal pathways and inform evidence-based strategies.

Social media represents a powerful and evolving component of adolescents' social and psychological environments. Its influence on mental health is not determined by its presence alone but by how it is used and experienced. By adopting a balanced and multidimensional perspective, this study contributes to a deeper understanding of social media's role in adolescent development and provides a foundation for future research and practice aimed at promoting healthier digital engagement.

Reference

1. Popat, A., & Tarrant, C. (2022). Exploring adolescents' perspectives on social media and mental health and well-being: A qualitative literature review. *Clinical Child Psychology and Psychiatry*, 28(1), 323–337.
2. O'Reilly, M., Levine, D., Donoso, V., Voice, L., Hughes, J., & Dogra, N. (2022). Exploring the potentially positive interaction between social media and mental health: The perspectives of adolescents. *Clinical Child Psychology and Psychiatry*, 28(2),

- 668–682.
3. Pirdehghan, A., Khezme, E., & Panahi, S. (2021). Social media use and sleep disturbance among adolescents: A cross-sectional study. *Iranian Journal of Psychiatry*, 16(2).
 4. O'Reilly, M. (2020). Social media and adolescent mental health: The good, the bad and the ugly. *Journal of Mental Health*, 29(2), 200–206.
 5. Molina-Ruiz, R., Alfonso-Fuertes, I., & Gonzalez Vives, S. (2022). Impact of social media on self-esteem and body image among young adults. *European Psychiatry*, 65(Suppl. 1), S585.
 6. Martinac Dorčić, T., Smojver-Ažić, S., Božić, I., & Malkoč, I. (2023). Effects of social media social comparisons and identity processes on body image satisfaction in late adolescence. *Europe's Journal of Psychology*, 19(2), 220–231.
 7. Hellfeldt, K., Lopez-Romero, L., & Andershed, H. (2019). Cyberbullying and psychological well-being in young adolescence: The potential protective mediation effects of social support from family, friends, and teachers. *International Journal of Environmental Research and Public Health*, 17(1), 45.
 8. Hamm, M. P., et al. (2015). Prevalence and effect of cyberbullying on children and young people. *JAMA Pediatrics*, 169(8), 770.
 9. Su, Y., D'Arcy, C., & Meng, X. (2020). Social support and positive coping skills as mediators buffering the impact of childhood maltreatment on psychological distress and positive mental health in adulthood. *American Journal of Epidemiology*, 189(5), 394–402.
 10. Vincente-Benito, I., & Ramírez-Durán, M. del V. (2023). Influence of social media use on body image and well-being among adolescents and young adults: A systematic review. *Journal of Psychosocial Nursing and Mental Health Services*, 61(12), 11–18.
 11. Lee, J., et al. (2025). Cyberbullying victimization and mental health symptoms among children and adolescents: A meta-analysis of longitudinal studies. *Trauma, Violence, & Abuse*.
 12. O'Reilly, M., et al. (2018). Potential of social media in promoting mental health in adolescents. *Health Promotion International*, 34(5), 981–991.
 13. van der Schuur, W. A., Baumgartner, S. E., & Sumter, S. R. (2018). Social media use, social media stress, and sleep: Examining cross-sectional and longitudinal relationships in adolescents. *Health Communication*, 34(5), 552–559.
 14. Taylor, Z., Yankouskaya, A., & Panourgia, C. (2023). Social media use, loneliness and psychological distress in emerging adults. *Behaviour & Information Technology*, 43(7), 1312–1325.
 15. Lin, C., et al. (2020). Temporal associations between morningness/eveningness, problematic social media use, psychological distress and daytime sleepiness. *Journal of Sleep Research*, 30(1).
 16. Liu, Y., et al. (2025). The chain mediating effect of anxiety and inhibitory control and the moderating effect of physical activity between bullying victimization and internet addiction in Chinese adolescents. *The Journal of Genetic Psychology*, 186(5), 397–412.
 17. Sobkin, V. S., & Fedotova, A. V. (2021). Adolescents on social media: Aggression and cyberbullying. *Psychology in Russia: State of the Art*, 14(4), 186–201.
 18. Lawrie, Z., Sullivan, E. A., Davies, P. S. W., & Hill, R. J. (2006). Media influence on the body image of children and adolescents. *Eating Disorders*, 14(5), 355–364.
 19. Schreurs, L., & Vandenbosch, L. (2021). Different interactions with appearance-focused social media content and adolescents' body dissatisfaction: A within-person perspective. Preprint.
 20. Eden, A., et al. (2021). All night long: Problematic media use is differentially associated with sleep quality and depression by medium. *Communication Research Reports*, 38(3), 143–149.
 21. Eres, R., Lim, M. H., & Bates, G. (2023). Loneliness and social anxiety in young adults: The moderating and mediating roles of emotion dysregulation, depression and social isolation risk. *Psychology and Psychotherapy: Theory, Research and Practice*, 96(3), 793–810.
 22. Schwartz-Lifshitz, M., et al. (2022). Loneliness and social media use among adolescents with psychiatric disorders. *Cyberpsychology, Behavior, and Social Networking*, 25(6), 392–397.
 23. Brochado, S., Soares, S., & Fraga, S. (2016). A scoping review on studies of cyberbullying prevalence among adolescents. *Trauma, Violence, & Abuse*, 18(5), 523–531.

24. 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.
25. Ambat, J. K. (2025). Excessive use of digital devices: A qualitative study on perceived causes and impact (Doctoral dissertation, Bournemouth University). Bournemouth University. Preprint
26. Nesi, J., Choukas-Bradley, S., & Prinstein, M. J. (2018). Transformation of adolescent peer relations in the social media context: Theoretical and empirical challenges. *Clinical Child and Family Psychology Review*, 21(1), 119–144.
27. Rozgonjuk, D., Sindermann, C., Elhai, J. D., & Montag, C. (2021). Fear of missing out (FoMO) and social media's impact on daily life and productivity. *Addictive Behaviors Reports*, 13, 100350.
28. Dua, G., Daipuria, P., & Sharma, S. (2025). Fostering mental well-being, mindfulness, and self-esteem amongst students of higher education. *ES*, 21(02(S)), 45–56.
29. Mohan, M., Jainani, K., Badesra, S., Singh, I., Aryal, D., & Sabharwal, S. (2025). Can students outrun stress? Exploring the interplay of resources, choices, and demands to achieve quality education. *Journal of Information Systems Engineering and Management*, 10(9s).
30. Singhal, G., Bhatia, A. K., & Kumar, S. (2024). Psychological impact of over-the-top (OTT) content consumption: An experimental research analysis. *Library Progress (International)*, 44(July–December), 14008–14022.