



International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Operating Publisher
SciFormat Publishing Inc.
ISNI: 0000 0005 1449 8214

2734 17 Avenue SW,
Calgary, Alberta, T3E0A7,
Canada
+15878858911
editorial-office@sciformat.ca

ARTICLE TITLE	SOCIAL MEDIA USE AND ANXIETY IN ADOLESCENTS: MECHANISMS, CONTEXT, AND DIGITAL INTERVENTIONS — A NARRATIVE REVIEW
----------------------	--

DOI	https://doi.org/10.31435/ijitss.2(50).2026.5602
------------	---

RECEIVED	26 March 2026
-----------------	---------------

ACCEPTED	17 June 2026
-----------------	--------------

PUBLISHED	25 June 2026
------------------	--------------

LICENSE



The article is licensed under a **Creative Commons Attribution 4.0 International License**.

© The author(s) 2026.

This article is published as open access under the Creative Commons Attribution 4.0 International License (CC BY 4.0), allowing the author to retain copyright. The CC BY 4.0 License permits the content to be copied, adapted, displayed, distributed, republished, or reused for any purpose, including adaptation and commercial use, as long as proper attribution is provided.

SOCIAL MEDIA USE AND ANXIETY IN ADOLESCENTS: MECHANISMS, CONTEXT, AND DIGITAL INTERVENTIONS — A NARRATIVE REVIEW

Sabina Kubicz Mzabi [SKM] (Corresponding Author, Email: sabinakubicz18@gmail.com)

University Clinical Hospital No. 4 in Lublin, Doktora Kazimierza Jaczewskiego 8, 20-954 Lublin, Poland
ORCID ID: 0009-0008-2788-5538

Justyna Ignarska [JI]

University Clinical Hospital No. 4 in Lublin, Doktora Kazimierza Jaczewskiego 8, 20-954 Lublin, Poland
ORCID ID: 0009-0009-0340-8240

Bartosz Piech [BP]

University Clinical Hospital No. 1 in Lublin (USK1), Lublin, Poland
ORCID ID: 0009-0003-4621-5226

Alicja Judzińska [AJ]

University Clinical Hospital No. 1 in Lublin (USK1), Lublin, Poland
ORCID ID: 0009-0007-7525-4012

Kamila Sobczyńska [KS]

Stefan Cardinal Wyszyński Provincial Specialist Hospital in Lublin, al. Kraśnicka 100, 20-718 Lublin, Poland
ORCID ID: 0009-0002-0938-1711

Magda Terbosh [MT]

University Clinical Hospital No. 1 in Lublin (USK1), Lublin, Poland
ORCID ID: 0009-0006-3756-3394

Emilia Trojanowska [ET]

SP ZOZ MSWiA, Grenadierów 3, 20-331 Lublin, Poland
ORCID ID: 0009-0009-7331-6624

Magdalena Dubaj [MD]

University Clinical Hospital No. 1 in Lublin (USK1), Lublin, Poland
ORCID ID: 0009-0005-4429-2679

Marlena Kwolek [MK]

University Clinical Hospital No. 4 in Lublin, Poland
ORCID ID: 0009-0004-1428-1103

Julia Osipowska [JO]

University Clinical Hospital No. 1 in Lublin (USK1), Lublin, Poland
ORCID ID: 0009-0007-9024-9908

ABSTRACT

The widespread use of social media among adolescents has drawn increasing attention to its potential impact on mental health, particularly anxiety. However, existing findings are heterogeneous and sometimes difficult to interpret due to differences in study design and measurement approaches. The aim of this narrative review was to synthesize current evidence on the relationship between social media use and anxiety in adolescents, with a focus on patterns of use, underlying mechanisms, contextual factors, and digital interventions.

A literature search was conducted across major peer-reviewed databases, including PubMed, ScienceDirect, and other relevant sources. Studies were included if they examined social media use in relation to anxiety or related mental health outcomes in adolescent populations. Both empirical studies and review articles were considered.

Overall, available evidence suggests that social media use is associated with anxiety symptoms, although the strength of this relationship is generally modest and varies across studies. The impact of social media appears to depend less on time spent online and more on patterns of engagement and individual vulnerability. Multiple mechanisms, including social comparison, fear of missing out, sleep disruption, and exposure to negative online experiences, have been proposed to help explain these associations. The relationship also appears to be bidirectional, with adolescents experiencing anxiety potentially engaging differently with social media.

Digital interventions, particularly internet-delivered cognitive behavioral therapy, show promise in reducing anxiety symptoms, although their effectiveness varies depending on user engagement and level of guidance. Current evidence suggests that social media is neither inherently harmful nor universally beneficial, and its impact appears to depend on how, why, and in what context it is used. Further research using longitudinal designs and improved measurement approaches is needed to better understand these relationships.

KEYWORDS

Social Media, Adolescents, Anxiety, Mental Health, Digital Interventions, Online Environments

CITATION

Sabina Kubicz Mzabi, Justyna Ignarska, Bartosz Piech, Alicja Judzińska, Kamila Sobczyńska, Magda Terbosh, Emilia Trojanowska, Magdalena Dubaj, Marlena Kwolek, Julia Osipowska. (2026) Social Media Use and Anxiety in Adolescents: Mechanisms, Context, and Digital Interventions — a Narrative Review. *International Journal of Innovative Technologies in Social Science*. 2(50). doi: 10.31435/ijitss.2(50).2026.5602

COPYRIGHT

© The author(s) 2026. This article is published as open access under the **Creative Commons Attribution 4.0 International License (CC BY 4.0)**, allowing the author to retain copyright. The CC BY 4.0 License permits the content to be copied, adapted, displayed, distributed, republished, or reused for any purpose, including adaptation and commercial use, as long as proper attribution is provided.

1. Introduction

The widespread use of social media among adolescents has drawn increasing attention to its potential impact on mental health, particularly anxiety. However, existing findings are heterogeneous and sometimes difficult to interpret due to differences in study design and measurement approaches. The aim of this narrative review was to synthesize current evidence on the relationship between social media use and anxiety in adolescents, with a focus on patterns of use, underlying mechanisms, contextual factors, and digital interventions.

A literature search was conducted across major peer-reviewed databases, including PubMed, ScienceDirect, and other relevant sources. Studies were included if they examined social media use in relation to anxiety or related mental health outcomes in adolescent populations. Both empirical studies and review articles were considered.

Overall, available evidence suggests that social media use is associated with anxiety symptoms, although the strength of this relationship is generally modest and varies across studies. The impact of social media appears to depend less on time spent online and more on patterns of engagement and individual vulnerability. Multiple mechanisms, including social comparison, fear of missing out, sleep disruption, and exposure to negative online experiences, have been proposed to help explain these associations. The relationship also appears to be bidirectional, with adolescents experiencing anxiety potentially engaging differently with social media.

Digital interventions, particularly internet-delivered cognitive behavioral therapy, show promise in reducing anxiety symptoms, although their effectiveness varies depending on user engagement and level of guidance. Current evidence suggests that social media is neither inherently harmful nor universally beneficial, and its impact appears to depend on how, why, and in what context it is used. Further research using longitudinal designs and improved measurement approaches is needed to better understand these relationships.

2. Methodology

This study was conducted as a narrative review examining the relationship between social media use and anxiety in adolescents. A narrative approach was selected because it allowed the inclusion of evidence from different study designs and supported a structured synthesis of mechanisms, contextual factors, and intervention strategies.

Search Strategy

A literature search was performed using academic databases, including PubMed and ScienceDirect. Additional studies were identified by screening the reference lists of relevant articles. The search focused primarily on recent publications, while earlier studies were included when they were relevant to key concepts.

Search terms included combinations of keywords such as “social media,” “adolescents,” “anxiety,” “mental health,” “digital interventions,” and “online behavior.” These terms were combined in different ways to capture studies relevant to the scope of the review.

Eligibility Criteria

Studies were included if they met the following criteria:

- focused on adolescents or young people
- examined social media use in relation to anxiety or related mental health outcomes
- used empirical designs (e.g., cross-sectional, longitudinal, randomized controlled trials) or were systematic reviews or meta-analyses
- were published in peer-reviewed journals
- Studies were excluded if they met any of the following criteria:
 - did not focus specifically on social media use
 - focused on unrelated clinical populations
 - did not report outcomes relevant to anxiety or internalizing symptoms

Study Selection and Data Extraction

Studies were initially screened based on titles and abstracts, followed by full-text assessment. Selection was guided by relevance to predefined thematic areas of the review, including the measurement of social media use, associations with anxiety, underlying mechanisms, bidirectional relationships, and digital interventions.

Key information extracted from each study included study design, population characteristics, and main findings. No formal standardized extraction protocol was applied; studies were instead evaluated based on their relevance to the predefined thematic areas of the review.

Data Synthesis

Due to variability in study designs, measures, and outcomes, a qualitative synthesis approach was used. Findings were organized into thematic categories that corresponded to the structure of the review.

The synthesis focused on identifying recurring patterns across studies, while also acknowledging differences in findings. Factors that may influence results, including study design, measurement approaches, and potential sources of bias, were considered throughout the synthesis.

3. Results

3.1 Conceptualizing and Measuring Social Media Use in Adolescents

Social media use is a broad and multifaceted construct that cannot be captured by a single definition or metric. Rather than representing a uniform behavior, it encompasses a range of activities and interactions that vary across individuals and contexts [1].

A recurring issue in this literature concerns how social media use is conceptualized and measured. A systematic review of measurement approaches in adolescent populations has highlighted considerable variability in definitions, with many studies relying primarily on time-based indicators. Such measures may not adequately capture qualitative aspects of engagement, including the nature of interactions and the context in which use occurs [2].

More recent work has emphasized distinctions between different types of social media use. A commonly used distinction separates active use, which involves direct interaction with others (e.g., messaging, commenting), from passive use, which refers to browsing content without direct engagement. These forms of use represent qualitatively different patterns of behavior and may be associated with different psychological outcomes [3].

Emerging evidence suggests that patterns of social media use may be more heterogeneous than a simple active–passive distinction implies. Person-centered approaches indicate that adolescents can be grouped into distinct user profiles based on how they engage with social media, reflecting variability in digital behavior [4].

Overall, social media use can be understood as a multidimensional construct that includes type of engagement, intensity, and context of use. These conceptual and methodological differences are summarized in Table 1.

Table 1. Conceptual approaches to measuring social media use in adolescents

Approach	Description	Strengths	Limitations	Example studies
Time-based measures	Duration or frequency of social media use	Easy to quantify; widely used	Does not capture quality or context	[2,1]
Active vs passive use	Interactive use vs browsing	Reflects engagement differences	May oversimplify behavior	[3]
User profiles (person-centered)	Patterns of use across users	Captures heterogeneity	Requires advanced methods	[4]
Contextual/qualitative approaches	Focus on user experience	Captures subjective meaning	Hard to standardize	[14]

Caption: Differences in measurement approaches may contribute to variability in findings across studies.

Differences in how this construct is defined and measured may contribute to variability in findings across studies.

3.2 Association Between Social Media Use and Anxiety in Adolescents

A growing body of research suggests that social media use may be associated with increased anxiety symptoms among adolescents. The strength of this association, however, appears to be relatively modest. Large-scale reviews and meta-analyses have identified statistically significant relationships, although effect sizes are typically small [5,6].

Other systematic reviews report similar patterns, with many studies showing a positive association between social media use and mental health outcomes, including anxiety. At the same time, findings are not entirely consistent, and variability appears to depend on demographic factors. Some studies report stronger associations among female adolescents [7]. Evidence also suggests that more intensive or problematic patterns of use may be more consistently associated with anxiety symptoms, although these relationships vary across studies [8].

Longitudinal studies provide additional context. Some findings indicate that greater engagement with social media may be associated with subsequent changes in psychological distress, including anxiety-related symptoms. However, these effects are generally small and should be interpreted with caution [9]. Umbrella reviews further indicate that the overall evidence base remains heterogeneous, with many studies reporting weak or inconsistent associations [10].

Broader reviews focusing on children and adolescents also identify anxiety, depression, and behavioral addiction as commonly reported concerns. These findings suggest that social media use often co-occurs with other risk factors, such as sleep disturbances and exposure to cyberbullying, which may contribute to observed associations [11].

Overall, current evidence suggests that the relationship between social media use and anxiety is likely to be multifactorial and context-dependent rather than strictly causal [5,6,10].

3.3 Mechanisms Linking Social Media Use and Anxiety in Adolescents

The relationship between social media use and anxiety in adolescents appears to involve multiple interacting mechanisms rather than a single causal pathway [12,13,14]. Review studies support the view that cognitive, emotional, and behavioral processes may all contribute to observed associations [15].

One pathway discussed in the literature involves body image-related processes. Exposure to appearance-focused content has been associated with increased body dissatisfaction and self-consciousness, which may relate to higher levels of social anxiety [13].

Fear of missing out (FoMO) has also been linked to patterns of social media use in adolescents [16,17]. Higher levels of FoMO are associated with more frequent and intensive engagement [16]. FoMO may also influence the strength of the association between social media use and anxiety, suggesting a potential moderating role [17].

Behavioral patterns may also play a role, particularly in the context of problematic or excessive use. Evidence indicates that higher levels of engagement are associated with increased symptoms of anxiety and psychological distress, although these relationships are not necessarily causal [15].

Sleep-related pathways provide another possible mechanism. Social media use, particularly during nighttime, has been associated with poorer sleep quality, while sleep disturbances are in turn associated with increased anxiety symptoms in adolescents [18,19]. Longitudinal findings suggest that sleep may act as a mediating factor in some cases [19].

Exposure to negative online experiences, such as cyberbullying victimization, represents another pathway associated with anxiety and other internalizing problems in youth [20].

Qualitative findings indicate that adolescents often perceive social media as a source of stress, including pressure related to peer evaluation and maintaining an online presence [14].

Taken together, these findings suggest that the association between social media use and anxiety is shaped by multiple interacting processes.

The main mechanisms discussed in the literature are summarized in Table 2.

Table 2. Mechanisms linking social media use and anxiety in adolescents.

Mechanism	Description	Type of evidence	Example studies
Social comparison	Exposure to idealized content affects self-evaluation	Review/observational	[12,13]
Fear of missing out (FoMo)	Concern about missing experiences	Observational	[16,17]
Sleep disturbance	Nighttime use linked to poorer sleep	Observational/longitudinal	[18,19]
Cyberbullying	Exposure to negative interactions	Observational	[32,20]
Emotional sensitivity	Stronger response to feedback	Longitudinal	[21,22]
Problematic use	Intensive or dysregulated use	Review	[37,15]

Caption: Proposed mechanisms are not mutually exclusive and may interact.

3.4 Bidirectional and Contextual Factors in the Relationship Between Social Media Use and Anxiety

The relationship between social media use and anxiety in adolescents does not appear to be unidirectional. Evidence suggests that increased social media use may be associated with higher levels of anxiety, while adolescents experiencing anxiety may also engage more frequently or more intensively with social media [5,7].

Observational and longitudinal studies indicate that adolescents with higher levels of anxiety or psychological distress may display different patterns of engagement, including greater sensitivity to online interactions such as feedback or social evaluation [21,22]. These associations appear to be modest and may vary depending on individual characteristics and patterns of use.

Gender is one of the most frequently discussed moderating factors. Some studies suggest stronger associations between social media use and mental health outcomes among female adolescents [7]. Differences in patterns of engagement, including greater involvement in socially evaluative or appearance-related content, have been proposed as possible explanations [12].

Baseline mental health status also appears to play a role. Adolescents with pre-existing symptoms of anxiety or depression may be more vulnerable to negative online experiences, which may be associated with higher levels of distress [5]. Evidence also suggests that associations may differ depending on the type of engagement, such as more interactive versus more passive forms of use [23].

Contextual factors related to digital environments may further contribute to variability in outcomes. Individual characteristics, such as self-concept and sensitivity to social evaluation, as well as platform-specific dynamics, may influence how adolescents engage with social media and respond emotionally to online experiences [24].

Overall, the association between social media use and anxiety appears to be context-dependent and influenced by individual differences [5,7].

3.5 Digital Interventions for Anxiety in Adolescents

Digital technologies have been explored as tools for supporting the prevention and treatment of anxiety in adolescents. Evidence suggests that technology-based interventions may offer accessible and scalable alternatives to traditional care, although their effectiveness varies depending on the type of intervention and level of guidance.

Internet-delivered cognitive behavioral therapy (CBT) is among the most studied approaches. Randomized controlled trials indicate that both guided and self-guided programs can reduce anxiety symptoms, with some studies reporting effects comparable to face-to-face therapy [25,26].

Interventions embedded within digital environments have also been examined. For example, moderated online communities designed for adolescents with anxiety or depression have shown that structured moderation may support engagement and peer interaction, although evidence regarding clinical outcomes remains limited [27].

Emerging approaches include the integration of digital behavioral data into clinical care. Dashboard-based tools incorporating social media activity have been proposed to support clinical decision-making; however, current evidence suggests that their impact on symptom outcomes remains uncertain [28,29].

Systematic reviews indicate that digital mental health interventions may have modest positive effects on anxiety symptoms in young populations [30]. Overall, these findings suggest that digital interventions may serve as complementary tools rather than standalone solutions.

3.6 Ethical, Societal, and Policy Implications of Social Media Use in Adolescents

The widespread use of social media among adolescents raises a range of ethical, societal, and policy-related considerations. While digital platforms can support communication and access to information, concerns remain regarding data privacy, exposure to harmful content, and broader effects on well-being.

Platform design may play a role in shaping user experiences. Some evidence suggests that algorithm-driven content delivery may influence exposure to emotionally salient material, which could affect mental health outcomes [31].

Adolescents may also be exposed to online risks such as cyberbullying and misinformation. Population-level data indicate that these experiences are associated with poorer mental health outcomes, including increased anxiety [32].

Policy discussions increasingly focus on the need for regulatory approaches that enhance platform accountability and transparency, as well as the implementation of safety-by-design principles [33]. At the same time, there is growing recognition of the importance of addressing patterns of problematic or excessive use [34].

Educational and clinical strategies may also be relevant. Strengthening digital literacy and supporting communication between clinicians and adolescents have been proposed as ways to promote safer engagement with digital environments [35].

Overall, addressing these challenges likely requires a combination of individual, platform-level, and policy-level approaches.

4. Discussion

The present review synthesizes current evidence on the relationship between social media use and anxiety in adolescents, highlighting a complex and multifactorial pattern of associations. Although a substantial body of research suggests a positive relationship between social media use and anxiety, the overall strength of this association appears to be relatively modest and heterogeneous across studies, as indicated by recent umbrella reviews [36].

One of the key observations emerging from this review is that the impact of social media on adolescent mental health may depend less on the quantity of use and more on the nature and quality of engagement. Evidence suggests that problematic or intensive patterns of use may be more consistently associated with negative outcomes, including anxiety and depression symptoms [37].

Importantly, the relationship between social media use and anxiety appears to be bidirectional. Available evidence suggests that adolescents with pre-existing mental health conditions may engage more intensively with social media, show greater sensitivity to online feedback, and may be more likely to engage in social comparison processes, which could contribute to the maintenance of anxiety symptoms [38].

At the same time, it is important to acknowledge that not all research supports a strong or consistent negative effect of social media use on mental health. Some meta-analytic findings suggest that the association may be limited in magnitude and not always clinically significant, particularly when confounding factors are taken into account [36].

In terms of intervention, digital approaches show considerable promise but also important limitations. Internet-delivered cognitive behavioral therapy has demonstrated effectiveness in reducing anxiety symptoms, whereas other approaches, such as integrating social media data into clinical care, have not consistently translated into improved outcomes. This suggests that effectiveness may depend on factors such as the level of guidance and user engagement.

Beyond individual-level effects, broader ethical and societal considerations should also be taken into account. Social media platforms are not neutral environments, and their design—particularly algorithm-driven content delivery—may influence exposure to emotionally salient or potentially harmful content, which may in turn be associated with differences in mental health outcomes [39].

Despite the growing body of research, several limitations should be acknowledged. A large proportion of studies rely on cross-sectional designs, which limits causal interpretation. Additionally, self-reported measures of social media use may introduce bias, and the rapidly evolving nature of digital environments means that findings may quickly become outdated. Findings from individual studies suggest that the relationship between social media use and psychological outcomes may differ depending on study context and population; however, these observations should be interpreted with caution due to potential limitations in generalizability [40].

Taken together, the available evidence suggests that social media is neither inherently harmful nor universally beneficial. Its impact appears to depend on how, why, and in what context it is used. Future research should prioritize longitudinal designs, more precise measurement of digital behaviors, and the identification of vulnerable subgroups, as well as the development of targeted interventions that reflect real-world usage patterns.

5. Conclusions

This narrative review examined current evidence on the relationship between social media use and anxiety in adolescents, integrating findings from studies addressing measurement approaches, associations, underlying mechanisms, contextual factors, and digital interventions. Overall, the available evidence suggests that this relationship is complex, context-dependent, and generally modest in magnitude.

Across studies, a general pattern can be observed in which social media use is associated with anxiety symptoms; however, the strength and direction of this association vary considerably. This variability may reflect differences in how social media use is defined and measured, as well as individual and contextual factors. In particular, distinctions between patterns of engagement, rather than time spent online alone, appear important when interpreting findings.

The findings also point to multiple interacting mechanisms that may contribute to observed associations. Processes related to social comparison, fear of missing out, sleep disruption, and exposure to negative online experiences have been discussed as potential pathways, although the evidence does not support a single explanatory model. In addition, the relationship between social media use and anxiety appears to be bidirectional, with pre-existing psychological vulnerabilities potentially shaping patterns of engagement.

Digital interventions represent a growing area of research. Internet-delivered cognitive behavioral therapy has shown promising results in reducing anxiety symptoms, while other approaches, such as the integration of digital behavioral data into clinical care, remain less clearly supported. Overall, available evidence suggests that such interventions may function best as complements to traditional care, with effectiveness depending on factors such as user engagement and the level of professional guidance.

Several limitations of the current evidence base should be acknowledged. These include the widespread use of cross-sectional designs, variability in measurement approaches, and the rapidly evolving nature of digital environments. Together, these factors contribute to heterogeneity in findings and limit the strength of conclusions that can be drawn.

Future research should focus on improving consistency in the conceptualization and measurement of social media use, as well as on longitudinal designs that better capture temporal relationships. Further work is also needed to identify subgroups of adolescents who may be particularly vulnerable to negative outcomes and to evaluate intervention strategies in real-world settings.

In conclusion, current evidence suggests that social media is neither uniformly harmful nor inherently beneficial in relation to adolescent anxiety. Its impact appears to depend on how, why, and in what context it is used. A nuanced approach that considers patterns of engagement, individual differences, and broader contextual factors is therefore essential when interpreting its role in adolescent mental health.

Funding: This Research received no external funding.

Author contributions:

Conceptualization: [SKM,JI,MD]

Methodology: [SKM,BP,KS]

Writing: [SKM,AJ,ET,MK,JO]

Formal analysis: [SKM,MD]

Investigation: [SKM,MT,JI,BP]

Conflicts of interest: The authors declare no conflict of interest.

All authors have read and agreed to the published version of the manuscript: Declaration of the use of generative AI and AI-assisted technologies in the writing process: In preparing this work, the author(s) used Chat GPT for the purpose of improving readability and text formatting. After using this tool/service, the author(s) have reviewed and edited the content as needed and accept full responsibility for the substantive content of the publication.

REFERENCES

1. Maheux, A. J., Maes, C., Burnell, K., Bauer, D. J., Prinstein, M. J., & Telzer, E. H. (2025). Social media are many things: Addressing the components and patterns of adolescent social media use. *Annals of the New York Academy of Sciences*, 1547(1), 24–32. <https://doi.org/10.1111/nyas.15326>
2. Biscond, M., Revranche, M., & Husky, M. M. (2022). La mesure de l'usage des réseaux sociaux chez les adolescents: Une revue systématique de la littérature [Measuring adolescents' use of social media: A systematic review]. *L'Encéphale*, 48(3), 335–348. <https://doi.org/10.1016/j.encep.2021.08.016>
3. Thorisdottir, I. E., Sigurvinsdottir, R., Asgeirsdottir, B. B., Allegrante, J. P., & Sigfusdottir, I. D. (2019). Active and passive social media use and symptoms of anxiety and depressed mood among Icelandic adolescents. *Cyberpsychology, Behavior, and Social Networking*, 22(8), 535–542. <https://doi.org/10.1089/cyber.2019.0079>
4. Winstone, L., Mars, B., Haworth, C. M. A., Heron, J., & Kidger, J. (2022). Adolescent social media user types and their mental health and well-being: Results from a longitudinal survey of 13-14-year-olds in the United Kingdom. *JCPP Advances*, 2(2), Article e12071. <https://doi.org/10.1002/jcv2.12071>
5. Ahmed, O., Walsh, E. I., Dawel, A., Alateeq, K., Espinoza Oyarce, D. A., & Cherbuin, N. (2024). Social media use, mental health and sleep: A systematic review with meta-analyses. *Journal of Affective Disorders*, 367, 701–712. <https://doi.org/10.1016/j.jad.2024.08.193>
6. Fassi, L., Thomas, K., Parry, D. A., Leyland-Craggs, A., Ford, T. J., & Orben, A. (2024). Social media use and internalizing symptoms in clinical and community adolescent samples: A systematic review and meta-analysis. *JAMA Pediatrics*, 178(8), 814–822. <https://doi.org/10.1001/jamapediatrics.2024.2078>
7. Alfredson, Q. D., Garimella, A., Kerr, B., & Moreno, M. A. (2024). Systematic review of studies measuring social media use and depression, anxiety, and psychological distress in adolescents: 2018–2020. *WMJ: Official Publication of the State Medical Society of Wisconsin*, 123(6), 578–588.
8. Kerr, B., Garimella, A., Pillariseti, L., Charlly, N., Sullivan, K., & Moreno, M. A. (2025). Associations between social media use and anxiety among adolescents: A systematic review study. *The Journal of Adolescent Health: Official Publication of the Society for Adolescent Medicine*, 76(1), 18–28. <https://doi.org/10.1016/j.jadohealth.2024.09.003>
9. Thorisdottir, I. E., Sigurvinsdottir, R., Kristjansson, A. L., Allegrante, J. P., Lilly, C. L., & Sigfusdottir, I. D. (2020). Longitudinal association between social media use and psychological distress among adolescents. *Preventive Medicine*, 141, Article 106270. <https://doi.org/10.1016/j.ypmed.2020.106270>
10. Valkenburg, P. M., Meier, A., & Beyens, I. (2022). Social media use and its impact on adolescent mental health: An umbrella review of the evidence. *Current Opinion in Psychology*, 44, 58–68. <https://doi.org/10.1016/j.copsyc.2021.08.017>
11. Bozzola, E., Spina, G., Agostiniani, R., Barni, S., Russo, R., Scarpato, E., Di Mauro, A., Di Stefano, A. V., Caruso, C., Corsello, G., & Staiano, A. (2022). The use of social media in children and adolescents: Scoping review on the potential risks. *International Journal of Environmental Research and Public Health*, 19(16), Article 9960. <https://doi.org/10.3390/ijerph19169960>
12. Papapanou, T. K., Darviri, C., Kanaka-Gantenbein, C., Tigani, X., Michou, M., Vlachakis, D., Chrousos, G. P., & Bacopoulou, F. (2023). Strong correlations between social appearance anxiety, use of social media, and feelings of loneliness in adolescents and young adults. *International Journal of Environmental Research and Public Health*, 20(5), Article 4296. <https://doi.org/10.3390/ijerph20054296>
13. Charmaraman, L., Richer, A. M., Liu, C., Lynch, A. D., & Moreno, M. A. (2021). Early adolescent social media-related body dissatisfaction: Associations with depressive symptoms, social anxiety, peers, and celebrities. *Journal of Developmental and Behavioral Pediatrics: JDBP*, 42(5), 401–407. <https://doi.org/10.1097/DBP.0000000000000911>
14. O'Reilly, M., Dogra, N., Whiteman, N., Hughes, J., Eruyar, S., & Reilly, P. (2018). Is social media bad for mental health and wellbeing? Exploring the perspectives of adolescents. *Clinical Child Psychology and Psychiatry*, 23(4), 601–613. <https://doi.org/10.1177/1359104518775154>
15. Saleem, N., Young, P., & Yousuf, S. (2024). Exploring the relationship between social media use and symptoms of depression and anxiety among children and adolescents: A systematic narrative review. *Cyberpsychology, Behavior, and Social Networking*, 27(11), 771–797. <https://doi.org/10.1089/cyber.2023.0456>
16. Franchina, V., Vanden Abeele, M., van Rooij, A. J., Lo Coco, G., & De Marez, L. (2018). Fear of missing out as a predictor of problematic social media use and phubbing behavior among Flemish adolescents. *International Journal of Environmental Research and Public Health*, 15(10), Article 2319. <https://doi.org/10.3390/ijerph15102319>
17. Einstein, D. A., Dabb, C., & Fraser, M. (2023). FoMO, but not self-compassion, moderates the link between social media use and anxiety in adolescence. *Australian Journal of Psychology*, 75(1), Article 2217961. <https://doi.org/10.1080/00049530.2023.2217961>
18. Woods, H. C., & Scott, H. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence*, 51, 41–49. <https://doi.org/10.1016/j.adolescence.2016.05.008>

19. Tsomokos, D. I. (2025). Adolescent social media use and psychiatric outcomes: A longitudinal mediation analysis via interpersonal distrust, sleep, and self-image. *Social Psychiatry and Psychiatric Epidemiology*. Advance online publication. <https://doi.org/10.1007/s00127-025-02999-w>
20. Li, Y., Liu, Y., Knoll, M., & Obsuth, I. (2026). Mechanisms linking cyberbullying victimisation to internalising problems in youth: A systematic review and meta-analytic structural equation modelling. *Clinical Psychology Review*, 123, Article 102672. <https://doi.org/10.1016/j.cpr.2025.102672>
21. Gingras, M. P., Brendgen, M., Beauchamp, M. H., Séguin, J. R., Tremblay, R. E., Côté, S. M., & Herba, C. M. (2023). Adolescents and social media: Longitudinal links between types of use, problematic use and internalizing symptoms. *Research on Child and Adolescent Psychopathology*, 51(11), 1641–1655. <https://doi.org/10.1007/s10802-023-01084-7>
22. Plackett, R., Sheringham, J., & Dykxhoorn, J. (2023). The longitudinal impact of social media use on UK adolescents' mental health: Longitudinal observational study. *Journal of Medical Internet Research*, 25, Article e43213. <https://doi.org/10.2196/43213>
23. Tibbs, M., Deschênes, S., van der Velden, P., & Fitzgerald, A. (2025). An investigation of the longitudinal bidirectional associations between interactive versus passive social media behaviors and youth internalizing difficulties: A within-person approach. *Journal of Youth and Adolescence*, 54(4), 849–862. <https://doi.org/10.1007/s10964-024-02093-5>
24. Dodan, D., & Negru-Subtirica, O. (2025). Is using TikTok stressful? Exploring the longitudinal relationships between adolescents' self-concept clarity and digital stress. *Journal of Research on Adolescence: The Official Journal of the Society for Research on Adolescence*, 35(1), Article e70011. <https://doi.org/10.1111/jora.70011>
25. O'Connor, K. A., Bagnell, A., Rosychuk, R. J., Chen, A. A., Lingley-Pottie, P., Radomski, A. D., Ohinmaa, A., Joyce, A., McGrath, P. J., & Newton, A. S. (2022). A randomized controlled trial evaluating the effect of an internet-based cognitive-behavioral program on anxiety symptoms in a community-based sample of adolescents. *Journal of Anxiety Disorders*, 92, Article 102637. <https://doi.org/10.1016/j.janxdis.2022.102637>
26. Nordh, M., Wahlund, T., Jolstedt, M., Sahlin, H., Bjureberg, J., Ahlen, J., Lalouni, M., Salomonsson, S., Vigerland, S., Lavner, M., Öst, L. G., Lenhard, F., Hesser, H., Mataix-Cols, D., Högström, J., & Serlachius, E. (2021). Therapist-guided internet-delivered cognitive behavioral therapy vs internet-delivered supportive therapy for children and adolescents with social anxiety disorder: A randomized clinical trial. *JAMA Psychiatry*, 78(7), 705–713. <https://doi.org/10.1001/jamapsychiatry.2021.0469>
27. Windler, C., Clair, M., Long, C., Boyle, L., & Radovic, A. (2019). Role of moderators on engagement of adolescents with depression or anxiety in a social media intervention: Content analysis of web-based interactions. *JMIR Mental Health*, 6(9), Article e13467. <https://doi.org/10.2196/13467>
28. Nesbitt, B., Virgadamo, D., Aguirre, C., DeCamp, M., Dredze, M., Harrigan, K., Lhaksampa, T., Meuchel, J. M., Meyer, A. M., Walker, A., Zirikly, A., Chisolm, M. S., Zandi, P. P., & Miller, L. (2025). Testing a dashboard intervention for tracking digital social media activity in clinical care of individuals with mood and anxiety disorders: Protocol and design considerations for a pragmatic randomized trial. *JMIR Research Protocols*, 14, Article e63279. <https://doi.org/10.2196/63279>
29. Miller, L., Lhaksampa, T. C., Walker, A., Aguirre, C., DeCamp, M., Harrigan, K., Meuchel, J., Meyer, A. M., Nesbitt, B., Sthapit, S., Straub, J., Virgadamo, D., Zirikly, A., Dredze, M., Chisolm, M. S., & Zandi, P. P. (2025). Dashboard intervention for tracking digital social media activity in the clinical care of individuals with mood and anxiety disorders: Randomized trial. *JMIR Mental Health*, 12, Article e74212. <https://doi.org/10.2196/74212>
30. Walder, N., Frey, A., Berger, T., & Schmidt, S. J. (2025). Digital mental health interventions for the prevention and treatment of social anxiety disorder in children, adolescents, and young adults: Systematic review and meta-analysis of randomized controlled trials. *Journal of Medical Internet Research*, 27, Article e67067. <https://doi.org/10.2196/67067>
31. Sala, A., Porcaro, L., & Gómez, E. (2024). Social media use and adolescents' mental health and well-being: An umbrella review. *Computers in Human Behavior Reports*, 14, Article 100404. <https://doi.org/10.1016/j.chbr.2024.100404>
32. Lahti, H., Kokkonen, M., Hietajärvi, L., Lyyra, N., & Paakkari, L. (2024). Social media threats and health among adolescents: Evidence from the Health Behaviour in School-aged Children study. *Child and Adolescent Psychiatry and Mental Health*, 18(1), Article 62. <https://doi.org/10.1186/s13034-024-00754-8>
33. Chhabra, J., Pilkington, V., Benakovic, R., Wilson, M. J., La Sala, L., & Seidler, Z. (2025). Social media and youth mental health: Scoping review of platform and policy recommendations. *Journal of Medical Internet Research*, 27, Article e72061. <https://doi.org/10.2196/72061>
34. Masri-Zada, T., Martirosyan, S., Abdou, A., Barbar, R., Kades, S., Makki, H., Haley, G., & Agrawal, D. K. (2025). The impact of social media & technology on child and adolescent mental health. *Journal of Psychiatry and Psychiatric Disorders*, 9(2), 111–130.
35. Khalaf, A. M., Alubied, A. A., Khalaf, A. M., & Rifaey, A. A. (2023). The impact of social media on the mental health of adolescents and young adults: A systematic review. *Cureus*, 15(8), Article e42990. <https://doi.org/10.7759/cureus.42990>

36. Tølbøll, K. B. (2026). Review: Social media use and adolescent mental health—An umbrella review and power analysis. *Child and Adolescent Mental Health*. Advance online publication. <https://doi.org/10.1111/camh.70071>
37. Shannon, H., Bush, K., Villeneuve, P. J., Hellemans, K. G., & Guimond, S. (2022). Problematic social media use in adolescents and young adults: Systematic review and meta-analysis. *JMIR Mental Health*, 9(4), Article e33450. <https://doi.org/10.2196/33450>
38. Fassi, L., Ferguson, A. M., Przybylski, A. K., Ford, T. J., & Orben, A. (2025). Social media use in adolescents with and without mental health conditions. *Nature Human Behaviour*, 9, 1283–1299. <https://doi.org/10.1038/s41562-025-02134-4>
39. Agyapong-Opoku, N., Agyapong-Opoku, F., & Greenshaw, A. J. (2025). Effects of social media use on youth and adolescent mental health: A scoping review of reviews. *Behavioral Sciences*, 15(5), Article 574. <https://doi.org/10.3390/bs15050574>
40. Alansari, A. N., Alwawi, A., Salim, A., Tarawah, N., Ksia, A., & Zaazouee, M. S. (2026). A systematic review of social media impact on psychological well-being among children, adolescents, and young adults in Arab countries. *Asian Journal of Psychiatry*, 115, Article 104793. <https://doi.org/10.1016/j.ajp.2025.104793>