Adolescent Mental Health In The Digital Age: A Systematic Review Of Social Media Impact And Psychosocial Determinants

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ABSTRACT

Background: Adolescent mental health in the digital era has emerged as a global concern due to the increasing influence of social media and psychosocial factors. **Objective :** This study aims to analyze the relationship between social media use, psychosocial conditions, and mental health management strategies for adolescents. **Method :** Using the systematic literature review (SLR) method, this study examined 270 articles from Google Scholar (2019–2024), of which 10 articles met the inclusion criteria: focusing on adolescents aged 12–24 years, discussing mental health and social media, and published in either Indonesian or English. **Results :** The findings reveal that excessive use of social media has a negative impact, contributing to increased anxiety, depression, and lowered self-esteem. Psychosocial factors such as authoritarian parenting, peer pressure, and disharmonious family dynamics were also found to significantly affect adolescents' mental well-being. Female adolescents were identified as more vulnerable to depression due to social communication stress and cyberbullying. The analysis employed Bronfenbrenner's ecological systems theory as a framework, emphasizing the interconnected roles of the microsystem (family, peers), mesosystem (schools), exosystem (digital media), and macrosystem (cultural norms and policies) in shaping adolescent mental health. **Conclusion:** Effective mental health management strategies include family-based interventions, enhanced digital literacy to mitigate the adverse effects of social media, and the development of school- and community-based psychological support programs. The study recommends multisectoral policies such as strengthening counseling services, expanding digital literacy training, and promoting community-based youth development programs. This integrated approach is expected to foster a mentally resilient young generation capable of navigating the challenges of the digital age.

Keywords: Adolescents, Mental Health, Social Media, Psychosocial, Psychological

INTRODUCTION

Mental health is a critical component of overall well-being, significantly influencing the quality of human life. In the context of modern society, mental health issues among adolescents are gaining increasing attention due to their complex and dynamic developmental phase, marked by biological, emotional, and social changes (Ramadhan and Gandha, 2024). Adolescents, defined by the World Health Organization (WHO) as individuals aged 10–24 years, navigate a crucial period of self-identity formation, social role exploration, and environmental pressures from family, academics, and peers (Hikmah, 2019; WHO, 2007). This

stage, categorized into early (10–13 years), middle (14–17 years), and late adolescence (18–21 years), is vital for fostering a healthy, resilient, and productive generation (Steinberg, 2013). However, if unaddressed, mental health challenges can escalate from common symptoms to severe disorders, potentially leading to self-harm or suicide (Ministry of Health of the Republic of Indonesia, 2024).

The prevalence of mental health disorders among adolescents is alarming. According to the 2022 Indonesian National Adolescent Mental Health Survey (S-NAMHS), approximately 34.9% of Indonesian adolescents, or 15.5 million individuals, experience mental health issues, including depression, anxiety, and

behavioral disorders (Khalish *et al.*, 2024). Urban areas report higher rates than rural areas, with key contributing factors including academic pressure, bullying, family conflict, and social media influence. Globally, similar trends underscore the urgency of addressing these challenges early to mitigate their impact on the global disease burden (Organization, 2024).

Social media has emerged as a significant factor influencing adolescent mental well-being, with both positive and negative effects. Nearly all adolescents aged 13–17 (95%) use social media, with over one-third engaging "almost constantly," and nearly 40% of children aged 8–12, part of Generation Alpha, are also active users (Slater *et al.*, 2023). While social media fosters social connections and self-expression, excessive or uncontrolled use is linked to increased depression, anxiety, and stress, as well as apathy in some cases (Trikandini and Kurniasari, 2021); (Pratama and Parmadi, 2019). Psychosocial factors, such as parenting styles, peer pressure, and self-esteem, further exacerbate these risks, with poor family relationships and social pressures increasing the likelihood of mental disorders (Lubis and Mahendika, 2023); (Axelta and Abidin, 2022).

Bronfenbrenner's ecological systems theory provides a comprehensive framework for understanding adolescent mental health, emphasizing the interplay of environmental systems—family, peers, schools, and digital society—in shaping psychological outcomes (Bronfenbrenner, 1979). Effective coping strategies, such as supportive family environments, good digital literacy, and school-based psychological interventions, are critical for mitigating the negative impacts of these factors (Permatasari, 2022); (Thursina, 2023).
Despite the growing body of research on adolescent mental health, significant gaps remain in understanding the interaction between social media, psychosocial factors, and effective management strategies, particularly within the Indonesian context. Previous studies have primarily focused on individual factors or specific disorders, often overlooking the holistic interaction of environmental systems as proposed by Bronfenbrenner's theory. This study aims to address this gap by exploring the dynamics of adolescent mental health, emphasizing the combined influence of social media, psychosocial factors, and culturally relevant management strategies. By integrating ecological perspectives, this research seeks to contribute to the scientific understanding of adolescent mental health and inform comprehensive, multi-system interventions to improve well-being among Indonesia's adolescents.

METHODS

This research is a literature study employing the Systematic Review (SR) method, commonly known as a Literature Systematic Review (SLR). A systematic literature review (SLR) was conducted to explore the relationship between social media use and mental health outcomes among adolescents aged 12 to 24 years, following a structured methodology outlined by (Wahono, 2015). A comprehensive search was performed on Google Scholar from January to February 2025, using the keywords "adolescents," "mental health," and "social media," resulting in 270 articles. The selection process involved multiple stages: initially, 160 articles were excluded during title screening due to irrelevance (e.g., unrelated topics or languages other than Indonesian/English), leaving 110 articles. Abstract review excluded 80 articles that did not meet the inclusion criteria—namely, publication between 2019 and 2024, focus on adolescents (12–24 years), and relevance to social media and mental health—resulting in 30 articles for full-text review. A quality assessment, evaluating clarity of objectives, study design, data collection, bias management, and relevance on a 0–10 scale (threshold ≥6), excluded 20 articles due to methodological weaknesses (e.g., small sample sizes, unclear methods), yielding 10 high-quality studies for the final analysis.
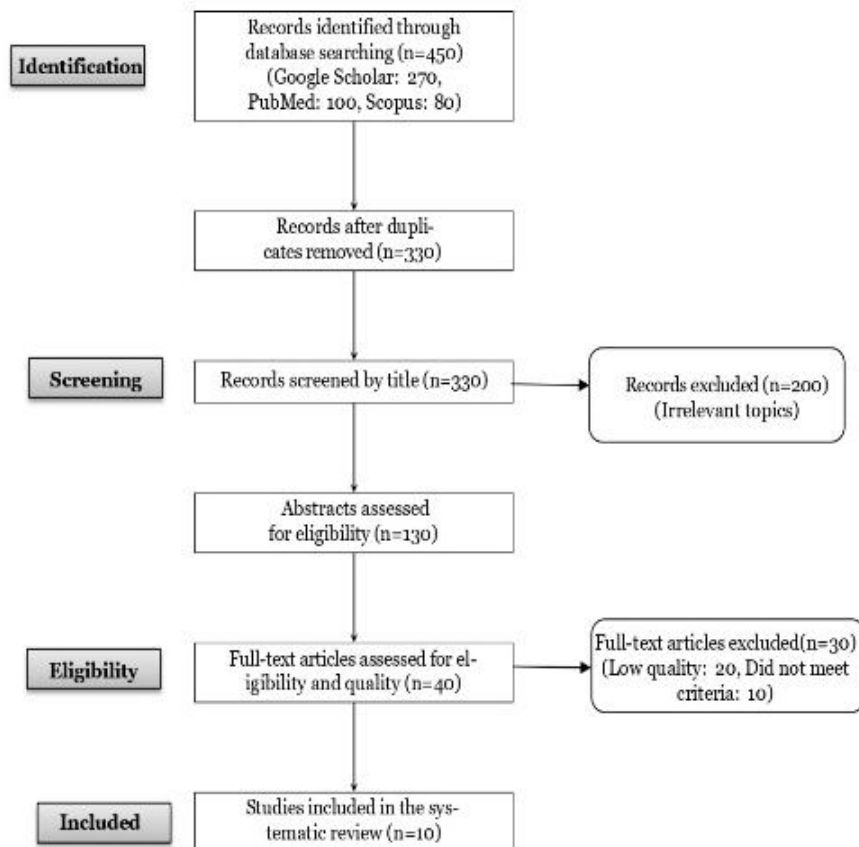
Figure 1. PRISMA 2020 Flowchart

RESULTS AND DISCUSSION

Based on the 10 journal articles that met the inclusion criteria, the following is a description of the research results, as summarized in Table 1 below:

Table 1. Social Media Influence on Adolescent Mental Health and Behavior

No	Author, Year	Title	Method	Results
1.	Liah et al., 2023	The Influence of Social Media on the Moral Degradation of Generation Z	Qualitative (interview)	High intensity of social media use is linked to moral degradation in adolescents.
2.	Syifa & Irwansyah , 2022	The Impact of Social Media Instagram on Teenagers' Self-Confidence	Qualitative (case study)	Self-confidence is influenced by Instagram "likes" and selfie activity.
3.	Izzah, 2023	The Relationship between Self-Esteem and Social Support with Body Image of Instagram Social Media Users	Quantitative correlation	Self-esteem and social support positively correlate with body image and social media use.
4.	Pratama & Sari, 2020	Social Impact of Intensity of Social Media Use on	Cross-sectional	Intensive social media use is associated with apathy in adolescents.

No	Author, Year	Title	Method	Key Findings
		Mental Health in the Form of Apathy		
5.	Sri Yuhana et al., 2023	Social Media Use and Adolescent Mental Health	Cross-sectional	Frequent social media use increases the risk of mental health disorders.
6.	Thursina Fazrian , 2023	The Influence of Social Media on Mental Health of Senior High School Students in Bandung City	Explanatory Research	Excessive social media use causes anxiety, stress, and depression.
7.	Prajaniti et al., 2022	The Relationship Between Social Media Use and Depressive Symptoms in Adolescents	Cross-sectional	Positive relationship between social media use and depressive symptoms.

Results from Table 1, which focuses on the influence of social media on teenagers' mental health and behavior, indicate that intensive use of social media has a negative impact on adolescents' psychological well-being. Specifically, excessive use of social media is associated with increased anxiety, stress, depression, and symptoms of depression, as demonstrated in cross-sectional and explanatory studies. Additionally, high social media usage contributes to feelings of apathy among teenagers. Activities such as the number of "likes" and selfies on Instagram influence teenagers' self-trust and body image, with social support and self-esteem playing a positive role in shaping perceptions of body image. However, high social media engagement is also linked to moral degradation in Generation Z, indicating broader impacts on ethical behavior. Overall, these findings confirm that the intensity and type of social media engagement—such as interaction with platform-specific features—significantly influence teenagers' mental health and behavior, ranging from clinical disturbances to changes in self-perception and moral values.

Table 2. Psychosocial and Parenting Factors

No	Author, Year	Title	Method	Key Findings
1.	Axelta & Abidin , 2022	Depression in Adolescents: Differences Based on Biomedical and Psychosocial Factors	Cross-sectional	Psychosocial factors like relationships with parents and pocket money influence depression, with girls being more susceptible.
2.	Lubis & Mahendika , 2023	The Relationship between Parenting Style, Peer Pressure, Self-Esteem, and Mental Health in Adolescents	Cross-sectional	Parenting and self-esteem positively impact mental health, while peer pressure has a negative impact.

Results from Table 2, which focuses on psychosocial factors and fostering patterns related to adolescent mental health, indicate that family dynamics and social interactions play an important role in teenagers' psychological well-being. A close relationship with parents and a supportive care pattern are associated with reduced levels of depression and increased self-esteem,

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functioning as protective factors against mental health disturbances. Specifically, financial support, such as pocket money, is also identified as a psychosocial factor that influences depression, with teenage girls reported to be more susceptible to its impact. Conversely, peer pressure from friends of the same age has a negative impact on mental health, increasing the risk of psychological disturbances.

Table 3. Cyberbullying and Its Psychological Impact

No	Author, Year	Title	Method	Key Findings
1.	, 2022	Cyberbullying as Online Gender-Based Violence: Its Impact on Adolescents and the Role of the Family	Qualitative descriptive	Cyberbullying impacts adolescent psychology and increases suicidal tendencies.

Results from Table 3, which focuses on cyberbullying and its psychological impact, show that cyberbullying has significant psychological consequences for teenagers, including an increased risk of suicidal thoughts. This study underscores that experiencing cyberbullying can worsen adolescent mental health, leading to serious emotional disturbances. The role of the family is identified as an important factor that can help reduce the negative impact of cyberbullying, although the specific mechanisms of how families provide interventions are not detailed in the study.

DISCUSSION

This synthesis compares findings across ten studies to highlight commonalities, differences, and gaps in understanding the factors influencing adolescent mental health. The discussion is organized under three thematic subheadings: The Role of Family, Social Media and Digital Influence, and Peer and Psychosocial Factors. A detailed analysis of study limitations follows to contextualize the findings.

The Role of Family

The studies consistently underscore the family's protective role, but they differ in focus. (Axelta and Abidin, 2022) found that strong relationships with parents are associated with lower levels of depression, particularly among adolescent girls who are more susceptible to depression. Similarly, (Lubis and Mahendika, 2023) reported that positive parenting styles enhance mental health by fostering self-esteem, suggesting that supportive family environments act as protective factors against mental health issues. Both studies, using cross-sectional methods, highlight the buffering effect of parental support, although (Axelta and Abidin, 2022) uniquely note the role of financial support (pocket money) as a psychosocial factor.

(Permatasari, 2022), through a qualitative descriptive approach, emphasizes the family's role in mitigating the psychological impact of cyberbullying, which can lead to severe outcomes like suicidal tendencies. This finding complements the protective role of the family identified in the other studies, although it lacks specific details on how families intervene, unlike the more concrete mechanisms (Lubis and Mahendika, 2023).

Overall, the studies consistently underscore the family's protective role but differ in their focus. (Axelta and Abidin, 2022) and (Lubis and Mahendika, 2023) provide broader insights into family dynamics, such as relationships and parenting styles, while (Permatasari, 2022) narrows in on the family's response to cyberbullying. The cross-sectional studies offer stronger associative evidence, whereas Permatasari's qualitative approach provides richer, albeit less generalizable, insights into family involvement.

Social Media and Digital Influence

Social media's impact on adolescent mental health and behavior is a prominent theme, with seven studies exploring its effects on mental health disorders, self-

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confidence, body image, and moral degradation. Multiple studies link intensive social media use to negative mental health outcomes. (Pratama and Sari, 2020) found an association with apathy, while (Yuhana, Mariyati and Sugiyanto, 2023), (Thursina, 2023), and (Prajaniti, Swedarma and Manangkot, 2022) identified increased risks of anxiety, stress, depression, and depressive symptoms. These studies, primarily cross-sectional (except for Thursina's explanatory research), converge on the finding that higher social media use correlates with poorer mental health. Specifically, (Thursina, 2023) explicitly notes causality, indicating that excessive use leads to anxiety and depression.

(Syifa and Irwansyah, 2022) along with (Izzah, Elly and Vidiyastutik, 2023), focus on social media's influence on self-perception. Syifa and Irwansyah's qualitative case study found that Instagram "likes" and selfie activities can both boost and undermine teenagers' self-confidence. Meanwhile, (Izzah, Elly and Vidiyastutik, 2023) demonstrated through a quantitative correlation study that self-esteem and social support positively influence body image among Instagram users. These findings suggest that social media's impact extends beyond clinical mental health outcomes to affect psychosocial constructs such as confidence and body image.

(Liah *et al.*, 2023), using qualitative interviews, uniquely highlight social media's role in moral degradation among Generation Z, suggesting that high usage erodes ethical behavior—a distinct outcome not addressed by other studies.

Overall, the studies consistently associate intensive social media use with adverse outcomes, but their scope varies. (Pratama and Sari, 2020), (Yuhana, Mariyati and Sugiyanto, 2023), (Thursina, 2023), and (Prajaniti, Swedarma and Manangkot, 2022) focus on clinical outcomes such as apathy, anxiety, and depression. In contrast, (Syifa and Irwansyah, 2022) and (Izzah, Elly and Vidiyastutik, 2023) explore psychosocial impacts like self-confidence and body image. (Liah *et al.*, 2023) stand out by addressing moral degradation, a less commonly examined outcome. The cross-sectional and explanatory designs provide robust associative data, while the qualitative studies offer deeper insights into mechanisms—such as likes and selfies—though with less generalizability.

Peer and Psychosocial Factors

Peer interactions and broader psychosocial factors also influence adolescent mental health. (Lubis and Mahendika, 2023) found that peer pressure negatively impacts mental health, contrasting with the positive effects of parenting and self-esteem. This cross-sectional study highlights peer pressure as a risk factor—a theme not explicitly addressed in other studies, although (Axelta and Abidin, 2022) indirectly touch on psychosocial factors such as financial constraints.

(Izzah, Elly and Vidiyastutik, 2023) found that social support, alongside self-esteem, positively correlates with body image among Instagram users. This suggests that peers and social networks can have protective effects when supportive. This finding contrasts with (Lubis and Mahendika, 2023) focus on negative peer influence, indicating that peer effects may vary depending on the context—supportive versus pressuring.

(Lubis and Mahendika, 2023) and (Izzah, Elly and Vidiyastutik, 2023) present contrasting views on peer influence: negative pressure versus positive support. (Axelta and Abidin, 2022) complement these findings by noting other psychosocial factors (e.g., pocket money), although their focus is narrower. The quantitative approaches—cross-sectional and correlational—provide stronger evidence for associations, but the lack of qualitative exploration limits understanding of the underlying mechanisms.

Limitations of the Study

The studies provide valuable insights but face several limitations that affect their robustness and generalizability.

Five studies (Axelta and Abidin, 2022); (Pratama and Sari, 2020); (Yuhana, Mariyati and Sugiyanto, 2023); (Lubis and Mahendika, 2023); (Prajaniti, Swedarma and Manangkot, 2022) utilize cross-sectional designs, which capture data at a single point in time and limit their ability to establish causality. For example, while these studies identify associations between social media use and mental health outcomes, they cannot determine whether social media causes these issues or if adolescents with mental health

problems are more likely to engage with social media.

The qualitative studies (Permatasari, 2022); (Liah *et al.*, 2023); (Syifa and Irwansyah, 2022) rely on small, non-representative samples (e.g., interviews or case studies), reducing their generalizability. For instance, Permatasari's findings on cyberbullying are context-specific and may not be broadly applicable, while Syifa and Irwansyah's case study on Instagram is limited to specific user behaviors.

Several studies, particularly (Thursina, 2023) and (Izzah, Elly and Vidiyastutik, 2023), lack detailed information on sample size, sampling methods, or statistical rigor, which could undermine the reliability of their findings. For example, Izzah's correlation study does not specify the strength of the correlations, limiting the assessment of their practical significance.

Most studies tend to report significant findings—such as negative impacts of social media or peer pressure—raising concerns about publication bias, where non-significant or contradictory results might be underreported. This could skew the overall narrative toward negative outcomes.

While none of the studies explicitly mention the use of secondary data, their reliance on self-reported measures—common in cross-sectional and qualitative designs—introduces potential biases such as recall bias or social desirability bias. For example, self-reported social media use in (Pratama and Sari, 2020) may not accurately reflect actual usage patterns.

Lastly, most studies appear to be conducted within specific cultural contexts (e.g., Indonesia, as suggested by authors and locations such as Bandung in (Thursina, 2023), which may limit the applicability of findings to other populations. For example, the role of pocket money in (Axelta and Abidin, 2022) might be more relevant in certain socioeconomic contexts.

CONCLUSION

This study demonstrates that adolescent mental health is influenced by various factors, including social media use and psychosocial aspects. Excessive social media use contributes to increased anxiety, depression, apathy, decreased self-confidence, body image disturbances, and moral degradation. Psychosocial factors such as parenting, peer pressure, and socio-economic stress also play significant roles. Supportive parenting and strong family ties can reduce depression, enhance self-esteem, and help adolescents cope with the impacts of cyberbullying, including suicidal tendencies. Peer support can improve body image, while peer pressure poses risks to mental health.

As a management strategy, the roles of family, digital literacy, and psychological interventions have proven effective. Comprehensive policies—such as family-based interventions, increasing digital literacy, family counseling, awareness campaigns about cyberbullying, and school- or community-based psychological support programs—are necessary. These studies contribute significantly to adolescent mental health promotion policies in the digital era by emphasizing the importance of family dynamics, managing social media impacts, and addressing psychosocial factors to create a supportive environment for mental health.

Further research requires a more comprehensive approach. Longitudinal quantitative studies are needed to confirm causal relationships between factors such as social media, family dynamics, and adolescent mental health. Additionally, the development of digital interventions based on ecological systems theory—integrating family, peer, and social media influences—may provide more holistic solutions. Randomized controlled trials evaluating the effectiveness of school-based programs, mixed-methods studies for in-depth insights, cross-cultural comparisons to understand contextual variations, and objective data collection through app usage analysis to minimize bias are highly recommended to strengthen the evidence base for adolescent mental health policies in the digital age.

ACKNOWLEDGEMENTS

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