



The Relationship Between Social Media Use and Mental Health Levels Among 10th and 11th Grade Students at SMAN 2 Majalengka

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Abstract

The rapid growth of internet penetration in Indonesia has positioned social media as a central platform in adolescents' daily lives, raising concerns about its potential impact on psychological well-being. This study examines the relationship between social media use and mental health among 10th and 11th grade students at SMAN 2 Majalengka. Using a quantitative descriptive–correlational design with a cross-sectional approach, data were collected from 88 students selected through cluster random sampling based on the Slovin formula. Social media use was measured using a 17-item, while mental health was assessed with the Self-Rating Questionnaire (SRQ). Univariate analysis showed that most students reported moderate social media use (75%) and demonstrated healthy mental health levels (93.18%). Bivariate analysis using the Spearman Rank test revealed a statistically significant yet very weak correlation between social media use and mental health ($p < 0.05$; $r = 0.245$). These findings suggest that although social media use is associated with mental health status, it plays only a minimal role in explaining psychological outcomes, which are likely influenced by broader personal and environmental factors. The results highlight the importance of promoting balanced digital engagement, strengthening digital literacy, and enhancing emotional resilience programs in schools to support adolescent well-being.

Keywords: Adolescent, mental health, social media use, student.

1. Introduction

The rapid expansion of internet use in Indonesia has positioned social media as a primary platform for social interaction among adolescents (Allsop, 2024; Ma'ruf, Pattiasina, Setiawati, Camerling, & Tuasela, 2024; Muhammad, 2025). According to the 2024 report by the Indonesian Internet Service Providers Association (APJII), the majority of internet users are members of Generation Z (34.40%) (Riyanto, Roswiyani, & Satiadarma, 2025; Sholihah & Nisa, 2025), a group currently in the developmental stage of adolescence. The accessibility of information and the need for social engagement have encouraged adolescents to use social media intensively for both social connection and identity development purposes (Nagata et al., 2025). However, the developmental characteristics of adolescents, who remain vulnerable to external

influences, increase their susceptibility to various risks associated with digital environments.

Previous studies have shown that excessive social media use may heighten adolescents' vulnerability to digital addiction (Amirthalingam & Khera, 2024), cyberbullying (Craig et al., 2020; Husna, Nito, Fetriyah, & Ariani, 2024), and behavioral changes that potentially disrupt psychological well-being (Fumagalli, Shrum, & Lowrey, 2024). This issue is particularly relevant for high school students, especially those in grades X and XI, who often experience elevated smartphone and social media use due to the increasing integration of Information and Communication Technology (ICT) in learning activities. Insufficient self-regulation in media use may trigger symptoms of anxiety, academic pressure, and even depression (Chen et al., 2025).

The urgency of addressing adolescent mental health is strengthened by the findings of the Indonesia National Adolescent Mental Health Survey (I-NAMHS), which reported that one in three Indonesian adolescents experiences mental health problems (Witdiawati, Rahma, & Purnama, 2025), while only 2.6% access professional mental health services (Kaligis et al., 2025). This significant gap between need and service utilization highlights an important public health concern (Islam et al., 2022). In addition, research examining the direct relationship between social media use and mental health among high school adolescents – particularly within public schools in regional contexts – remains limited.

This research gap underscores the need to explore the specific relationship between social media usage patterns and mental health conditions among high school adolescents. SMAN 2 Majalengka, with its large student population and high daily engagement with social media, provides a relevant setting to examine how media usage correlates with psychological conditions such as anxiety, academic stress, and social interaction patterns.

Based on this background, the present study aims to assess and analyze the relationship between the level of social media use and the mental health status of students in grades X and XI at SMAN 2 Majalengka. The findings are expected to provide empirical insights into how social media influences adolescents' mental well-being and to serve as a foundation for schools, health professionals, and parents in designing more effective support and intervention strategies to promote students' psychological welfare.

2. Method

This study employed a quantitative method with a descriptive-correlational design using a cross-sectional approach, in which all variables were measured

simultaneously to examine the relationship between social media use (independent variable) and adolescent mental health (dependent variable). The study population consisted of 732 students in grades X and XI at SMAN 2 Majalengka in the 2024/2025 academic year, who also served as the sample. The sample size was determined using the Slovin formula, and participants were selected through probability sampling with a cluster random sampling technique based on the division of 21 classes as clusters.

Data were collected using standardized questionnaires. The social media use scale was adapted from Yuhana (2022), consisting of 17 items measured on a four-point Likert scale, including both favorable and unfavorable statements. Mental health was assessed using the Self-Rating Questionnaire (SRQ), comprising 20 favorable items with response options “Yes” (1) and “No” (0). Primary data were obtained through online questionnaire distribution via Google Forms, while secondary data were collected from school records.

The research procedures included instrument preparation, data collection, and data analysis. The data were analyzed using univariate analysis to describe each variable and bivariate analysis to examine the relationship between social media use and mental health. The study was conducted at SMAN 2 Majalengka in January 2025.

3. Results and Discussion

3.1 Univariate Analysis of Social Media Use

Table 1. Frequency Distribution of Social Media Use among Tenth- and Eleventh-Grade Adolescents at SMAN 2 Majalengka

Social Media Use	Frequency (n)	Percentage (%)
High	19	21.6
Moderate	66	75.0
Low	3	3.4
Total	88	100

Based on Table 1, the majority of students reported a moderate level of social media use, with 66 students (75%). Additionally, 19 students (21.6%) reported high social media use, while 3 students (3.4%) reported low levels of use.

3.2 Frequency Distribution of Mental Health Levels

Table 2. Frequency Distribution of Mental Health Levels among Tenth- and Eleventh-Grade Adolescents at SMAN 2 Majalengka

Mental Health Level	Frequency (n)	Percentage (%)
Healthy (High)	82	93.18
Disturbed (Low)	6	6.82
Total	88	100

Referring to Table 2, the findings indicate that most students exhibit a healthy level of mental health, with 82 students (93.18%) classified within the high category.

However, a small proportion of students – 6 individuals (6.82%) – were identified as having disturbed or problematic mental health levels.

3.3 The Bivariate Analysis Results

The bivariate analysis was conducted to examine the relationship or correlation between the independent variable and the dependent variable, namely the association between the level of social media use and the level of mental health among Grade X and XI adolescents at SMAN 2 Majalengka, Majalengka Regency, using the Spearman Rank correlation test performed through SPSS for Windows.

Table 3. Relationship Between the Level of Social Media Use and Mental Health Among Grade X and XI Adolescents at SMAN 2 Majalengka, Majalengka Regency

Social Media Use	Mental Health Level				Total		p-Value	Correlation
	High		Low		N	%		
	N	%	N	%				
High	13	15,85	6	100	19	21,6	0,000	0,245
	66	80,49	0	0	66	75,0		
Moderate	3	3,66	0	0	3	3,4		
Low	82	100	6	100	88	100		
Total	13	15,85	6	100	19	21,6		

Based on Table 5.3, the Spearman Rank test yielded a significance value of $p = 0.000$, which is smaller than 0.05 ($p < 0.05$), with a correlation coefficient of 0.245 . These results indicate that among 19 respondents (21.6%) categorized as heavy social media users, 13 respondents (15.85%) exhibited high mental health levels, while 6 respondents (100%) showed low mental health levels. Furthermore, among 66 respondents (75%) categorized as moderate social media users, all 66 were classified as having high mental health. Lastly, among 3 respondents (3.4%) with low levels of social media use, all 3 (3.66%) were categorized as having high mental health. These findings indicate the presence of a very weak but statistically significant relationship between social media use and mental health among Grade X and XI adolescents at SMAN 2 Majalengka, Majalengka Regency.

3.4 Discussion

The findings of this study provide important insights into the relationship between social media use and mental health levels among tenth- and eleventh-grade students at SMAN 2 Majalengka. The univariate analysis revealed that most students reported moderate use of social media, suggesting that digital engagement has become a routine part of daily adolescent life. This pattern is consistent with broader trends in adolescent digital behavior, where moderate use often reflects functional engagement for communication, entertainment, and academic purposes. At the same time, the mental health distribution showed that the majority of students demonstrated a healthy level of mental well-being. Such a pattern may indicate that, within this

population, social media use does not automatically translate into adverse psychological outcomes, the contextual and individual factors play a significant moderating role in shaping the impact of social media exposure.

The bivariate results, however, provide a more nuanced picture of the relationship between the two variables. The Spearman Rank correlation test showed a statistically significant association between social media use and mental health ($p = 0.000$), though the strength of the correlation was very weak ($r = 0.245$). This indicates that while a relationship exists, social media use explains only a small proportion of the variance in students' mental health. The weak correlation suggests that social media behaviors are likely intertwined with other contributing factors such as family environment, peer relationships, academic stress, and individual coping mechanisms. Therefore, social media use alone cannot be considered a primary predictor of mental health outcomes among adolescents in this context.

Interestingly, the descriptive breakdown showed that students categorized as heavy social media users included both those with high mental health levels (15.85%) and those with lower mental health levels (100% of the low category). This duality reflects the ambivalent role of social media: while some adolescents may benefit from online social interaction, self-expression, and informational access, others may experience adverse psychological effects such as anxiety, social comparison, or emotional fatigue. This finding supports current theoretical perspectives that emphasize the complex bidirectional nature of social media influences (Youssef, 2025)—its impact can be either protective or detrimental depending on usage patterns, emotional regulation skills, online experiences, and personal vulnerabilities.

Meanwhile, nearly all students who reported moderate or low usage of social media were categorized as having healthy mental health levels. This suggests that limited or controlled social media interaction may be associated with more stable mental well-being (Plackett, Blyth, & Schartau, 2023), possibly due to reduced exposure to online stressors such as cyberbullying, misinformation, or social pressure. However, this does not imply causality; rather, it highlights the importance of balanced digital engagement and healthy online habits.

Overall, the results demonstrate that although social media use is significantly related to mental health, the relationship is weak and should not be interpreted as deterministic. These findings reinforce the need for educational institutions and parents to promote responsible social media use (Bogale & Kibret, 2023), encourage digital literacy, and support emotional resilience programs for adolescents. Given the complex interplay of factors influencing mental health, future research should explore multivariate models that incorporate psychological, social, and environmental variables to gain a more comprehensive understanding of adolescent mental well-being in the digital era.

4. Conclusion

The results of this study indicate that most tenth- and eleventh-grade students at SMAN 2 Majalengka exhibit moderate levels of social media use and generally maintain healthy mental well-being. Although the Spearman Rank analysis revealed a statistically significant association between social media use and mental health ($p < 0.05$), the correlation coefficient ($r = 0.245$) demonstrates that the relationship is very weak. This suggests that social media use alone is not a strong predictor of mental health outcomes among adolescents and that psychological well-being is likely shaped by a broader constellation of factors, including family dynamics, peer interactions, academic demands, and individual coping capacities. The presence of both healthy and disturbed mental health levels among heavy social media users further underscores the multidimensional nature of digital engagement and its varying psychological impacts.

Based on these findings, it is recommended that schools, parents, and policymakers focus on promoting balanced and mindful social media use rather than imposing restrictive measures. Educational institutions should integrate digital literacy and emotional resilience programs into the curriculum to equip adolescents with the skills needed to navigate online environments safely and constructively. Parents are encouraged to maintain open communication with adolescents regarding their digital activities and provide supportive guidance to mitigate potential online stressors. Future research should employ multivariate or longitudinal approaches to better capture the complex interactions between digital behavior, psychosocial variables, and mental health trajectories in adolescents, thereby offering a more comprehensive evidence base for developing targeted interventions.

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