

The Relationship Between Social Media Use and Mental Health Among Adolescents at SMP Negeri 11, Kupang

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ABSTRACT

Background & Objectives: The advancement of information and communication technologies, especially social media, has significantly impacted daily life, particularly among adolescents. This age group is particularly vulnerable to mental health disorders such as anxiety, depression, and stress due to excessive social media use. This study aims to investigate the relationship between social media use and mental health among adolescents at SMP Negeri 11 Kupang. **Methods:** This quantitative research adopts a cross-sectional design. The population consists of all students at SMP Negeri 11 Kupang. A sample of 100 students was randomly selected. Data was collected via questionnaires that assessed the frequency and intensity of social media use, as well as mental health indicators (anxiety, depression, stress). Data analysis was performed using descriptive and inferential statistics, specifically Pearson correlation tests. **Results:** There is a significant relationship between the frequency and duration of social media use and levels of anxiety, depression, and stress in students. Sixty percent of students who use social media for more than 4 hours a day show higher levels of mental health symptoms compared to those who use it less than 2 hours per day. **Conclusion:** Excessive social media use has a negative impact on adolescent mental health. Therefore, it is necessary to provide education and supervision from both parents and schools on the healthy and wise use of social media.

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Introduction

The advancement of information and communication technology has transformed the way individuals interact and access information, including among adolescents. One of the most noticeable changes is the increased use of social media in daily life. Platforms such as Instagram, TikTok, Facebook, and WhatsApp have

become integral parts of adolescent lives, not only for socializing but also as sources of entertainment and self-expression (Aritonang et al., 2025). As information and communication technology rapidly advances, the role of social media has become increasingly significant in the lives of adolescents. Amid this progress, many adolescents find themselves caught in excessive social media use without realizing the psychological impacts it can cause. One of the issues that arises is the increased levels of anxiety and depression experienced by adolescents due to unrealistic social comparisons and the pressure to always appear perfect in the virtual world. This is because of beauty standards, lifestyles, and achievements that are often portrayed unrealistically on social media but still significantly affect adolescents' self-perception.

Adolescents who are frequently exposed to images or videos that seem perfect on social media tend to feel dissatisfied with themselves, which in turn can elevate their stress and anxiety levels (Srg, 2024). In addition, the phenomenon of cyberbullying is becoming more prevalent among adolescents, especially on social media platforms. These bullying incidents often occur without adequate supervision, as many adolescents feel more comfortable interacting online than in person. The impact of cyberbullying can be deeply damaging to an adolescent's self-esteem, sense of security, and may even lead to long-term mental health issues such as depression or anxiety disorders (Kumala & Sukmawati, 2020). This phenomenon has raised concerns, as adolescents are a psychologically vulnerable group susceptible to the negative impacts of uncontrolled digital technology use (Adinda Naila Apsari D, 2025; Mulyono, 2021). Several studies have shown that excessive social media use can affect adolescent mental health (Agus Iryadi et al, 2023). Users who spend more than three hours per day on social media tend to experience higher levels of anxiety, depression, and emotional stress compared to those with shorter use durations (Boni et al., 2024).

This is due to factors such as unrealistic social comparisons, exposure to negative content, cyberbullying, and the emergence of the Fear of Missing Out (FOMO) phenomenon, which causes constant psychological pressure (Sachiyati et al., 2023). Moreover, research by (Gunawan et al., 2022) found that frequent social media use is positively associated with an increase in emotional and behavioral disturbances among adolescents. Adolescents are at a stage of psychosocial development marked by identity exploration, the need for social acceptance, and heightened sensitivity to peer opinions. During this phase, they are more susceptible to emotional conflicts, which may be exacerbated by social pressure in the digital environment. Dependency on social media may lead to issues such as difficulty concentrating, feelings of inadequacy, sleep disturbances, and social isolation in the real world (Novita & Dian, 2024). This underscores the significant role that social media plays in shaping adolescents' self-identity and social relationships, which in turn directly affects their mental health. In the educational context, junior high school students, including those at SMP Negeri 11 Kupang, belong to an age group that still requires guidance and supervision regarding technology use. Social media use among students at SMP Negeri 11 Kupang is relatively high, both in daily activities and during school hours,

although there is limited local data on its psychological impact. Given the importance of mental health in supporting adolescents' academic and social success, it is crucial to conduct a comprehensive study on the relationship between social media use and student mental health (Agus Iryadi et al, 2023).

This study aims to explore the relationship between social media use and adolescent mental health, focusing on anxiety, depression, and stress among students at SMP Negeri 11 Kupang. It is expected that this research will contribute to the development of strategies for promoting and preventing mental health issues in school environments through the responsible management of social media use.

Objective

This study aims to:

1. Analyze the relationship between the frequency and intensity of social media use and adolescent mental health, particularly anxiety, depression, and stress.
2. Identify the levels of anxiety, depression, and stress among students at SMP Negeri 11 Kupang who actively use social media.
3. Provide strategic recommendations for healthy social media use through education involving the active roles of schools, parents, and other relevant parties.

Method

This study employs a quantitative approach with a cross-sectional design, aimed at observing the relationship between two variables at a single point in time. The research was conducted among students of SMP Negeri 11 Kupang during the second semester of the 2023/2024 academic year, from January to March 2024. The population of the study includes all active students enrolled at SMP Negeri 11 Kupang, from grades VII to IX. According to school data, the total population comprises approximately 300 students. A sample of 100 students was selected using simple random sampling, which provides equal chances for each member of the population to be chosen as a respondent. Data was collected using a structured questionnaire consisting of two main parts:

- Part I: Social Media Use Questionnaire : This section includes questions regarding the frequency (how often per day) and duration (how many hours per day) of social media use. The social media platforms included are WhatsApp, Instagram, TikTok, and Facebook. The purpose of this section is to measure students' exposure to social media in their daily lives.
- Part II: DASS-42 (Depression Anxiety Stress Scales) This scale is used to measure the levels of anxiety, depression, and stress experienced by respondents. The DASS-42 is a validated psychological instrument widely used in mental health research. It consists of 42 items, with each subscale (depression, anxiety, and stress) containing 14 statements. Respondents are asked to assess their experiences over the past week.

Data Analysis Techniques

The data obtained was analyzed using two statistical approaches:

- Descriptive Statistics, which includes the calculation of frequencies, percentages, mean, and standard deviation to describe the characteristics of respondents, their social media use, and their mental health conditions.
- Inferential Statistics, performed using Pearson correlation tests to examine the relationship between the frequency and duration of social media use and anxiety, depression, and stress levels among students. This test is appropriate as the two analyzed variables are numeric and normally distributed.

Study Duration and Location

The research was conducted at SMP Negeri 11 Kupang, located in Kupang City, East Nusa Tenggara Province. Data collection took place over a three-month period, from January to March 2024. During this period, the researchers coordinated with the school to obtain permission, informed students and teachers about the research objectives, and administered the questionnaire directly in the classroom.

Results

This study involved 100 student respondents from SMP Negeri 11 Kupang, representing a range of ages, genders, and social media usage habits. Data analysis was performed to describe respondents' characteristics, social media usage duration, and the relationship between these factors and anxiety, depression, and stress levels based on DASS-42 scores.

Respondent Characteristics

Table 1 shows the distribution of respondent characteristics based on age, gender, and daily social media use duration:

Table 1. Respondent Characteristics

Variable	N	%
Age (Average: 13.2 ± 0.84 years)		
> Average	52	52.00%
< Average	48	48.00%
Gender		
Male	46	46.00%
Female	54	54.00%
Social Media Usage Duration		
> 4 hours/day	60	60.00%
< 2 hours/day	40	40.00%

Based on the table above, the majority of respondents (60%) use social media for more than 4 hours per day. Most respondents are older than the average age of 13.2 years, with a relatively balanced gender distribution: 46% male and 54% female.

Social Media Usage Duration

Figure 1 presents a visual illustration of the average daily social media usage duration among respondents. The data shows that the highest social media usage is among the group that spends more than 4 hours per day, comprising 60% of the total respondents.

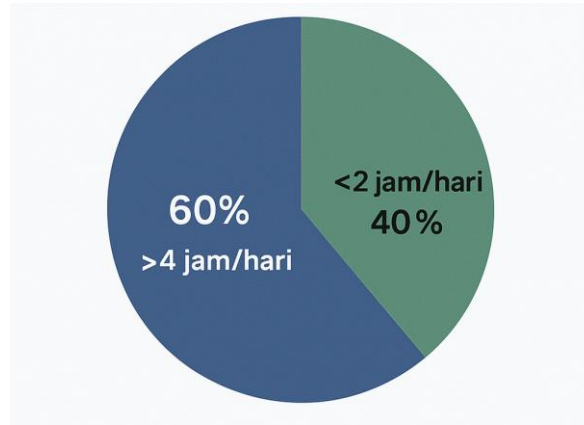


FIGURE 1. Average Daily Social Media Usage Duration

(Description of figure: A pie chart showing the proportion of students based on social media usage duration. The blue section represents users > 4 hours/day (60%), and the green section represents users < 2 hours/day (40%).)

Relationship Between Social Media Use and Mental Health

Pearson's correlation test results show a significant relationship between social media usage duration and the three key indicators of mental health: anxiety, depression, and stress. The correlation coefficient (r) and significance (p) values are as follows:

- Anxiety: $r = 0.56$, $p < 0.05$
- Depression: $r = 0.61$, $p < 0.05$
- Stress: $r = 0.58$, $p < 0.05$

These results indicate that the longer the duration of social media use, the higher the levels of anxiety, depression, and stress experienced by students. The correlation is positive and moderate, meaning that the intensity of social media use significantly influences mental health disturbances among adolescents. In general, 75% of students using social media for more than 4 hours per day scored in the moderate to high range on at least one of the three indicators (anxiety, depression, or stress). In contrast, students using social media for less than 2 hours per day generally had scores in the normal to mild range.

Discussion

The findings of this study indicate a significant relationship between social media usage duration and the level of mental health disturbances among adolescents at SMP Negeri 11 Kupang. The positive correlation between social media usage frequency and scores for anxiety, depression, and stress suggests that excessive social media use can negatively affect adolescents' psychological well-being. These findings are consistent with previous studies (Kumala & Sukmawati, 2020; Simanjuntak, 2023)

which report that high screen time is related to emotional regulation disturbances and increased psychological stress in adolescents. This occurs due to exposure to competitive digital content, unhealthy social comparisons, and the risks of cyberbullying and online social pressure. Social media also often becomes a platform where adolescents explore their identities and seek validation, which, if left unchecked, can trigger feelings of insecurity, low self-esteem, and dissatisfaction with oneself.

This study also identifies that adolescents using social media for more than 4 hours per day tend to have higher DASS-42 scores, particularly in the anxiety and depression dimensions. Conversely, respondents using social media for less than 2 hours per day exhibited lower levels of psychological disturbance. This reinforces the idea that the frequency and duration of social media exposure are significant risk factors for mental health disturbances. Gender analysis reveals that females tend to have higher mental health disturbance scores compared to males. This difference can be attributed to females being more responsive to social pressure and being more influenced by perceptions of physical appearance, social status, and emotionally driven online interactions. This is supported by studies (Nurdiana & Rahman, 2025), which indicate that adolescent females are more likely to experience psychological impacts from interpersonal conflicts and unrealistic social expectations on social media.

Strengths and Limitations

Strengths:

- The use of a quantitative approach with a cross-sectional design allows for a strong statistical identification of correlations between variables.
- The DASS-42 instrument, a valid and reliable tool for identifying conditions such as depression, anxiety, and stress, was employed.
- Simple random sampling provides a good representation of the student population at the school.

Limitations:

- The cross-sectional design does not allow for conclusions about direct causality. While a relationship between social media use and mental health disturbances exists, it cannot be confirmed that social media use is the primary cause of these disturbances.
- There may be response bias in the self-reported questionnaires, as respondents might not answer truthfully or fully understand each question item, especially in the psychological scale section.
- Other factors, such as social support, family conditions, academic pressure, and individual personality traits, were not analyzed in depth in this study but may serve as contributing or moderating factors in the relationship between social media use and mental health.

The findings emphasize the importance of monitoring and educating adolescents on responsible social media use, along with intervention approaches involving teachers, parents, and school counselors to detect and address mental health disturbances early.

Conclusion

The study at SMP Negeri 11 Kupang reveals that excessive social media use is significantly linked to higher levels of anxiety, depression, and stress among adolescents. These findings highlight the urgent need for education, supervision, and early intervention by both schools and parents to promote healthy social media habits and safeguard adolescents' mental well-being.

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