

The Relationship Between Internet Addiction and Anxiety Levels in Adolescents at SMA Islam Sabilal Muhtadin Banjarmasin

Najwa Rahmasari¹, M. Syafwani¹, Mohamad Hamsanie¹, Muhammad Anwari²

¹Universitas Muhammadiyah Banjarmasin, Kalimantan Selatan, Indonesia

²Rumah Sakit Jiwa Sambang Lihum, Kalimantan Selatan, Indonesia

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Correspondence

Email: najwarahmasari03@gmail.com

ABSTRACT

Excessive internet use among adolescents may affect mental health, including increasing anxiety. This study aimed to determine the relationship between internet addiction and anxiety levels among adolescents at SMA Islam Sabilal Muhtadin Banjarmasin. This study employed a quantitative correlational design with total sampling, involving all Grade X and XI students who met the criteria, totaling 50 respondents. Research instruments were the Internet Addiction Test (IAT) and the Hamilton Anxiety Rating Scale (HARS). Data were analyzed using Pearson correlation test. The results showed levels of internet addiction: none 6 (12.0%), mild 21 (42.0%), moderate 23 (46.0%); and anxiety levels: none 8 (16.0%), mild 24 (48.0%), moderate 14 (28.0%), severe 4 (8.0%). Pearson correlation yielded $r = 0.665$ with $p < 0.001$, indicating a positive and significant relationship between internet addiction and anxiety levels. Higher internet addiction scores were associated with higher levels of anxiety. It is recommended that schools and parents monitor internet use and implement mental health education programs for adolescents.

INTRODUCTION

In this modern era, technological sophistication makes humans able to interact freely on a global scale. The development of digital technology has brought significant changes in the way humans interact, learn, and entertain

themselves. The presence of information and communication technology has become an important part of daily routines, especially with the advent of computers, smartphones, and the internet which allow instant access to a wide range of information as well as interactions with

people around the world. However, this seamless connectivity also poses challenges, especially for teenagers who are vulnerable to the negative impact of device use. Children and adolescents who are exposed to gadgets from an early age often show symptoms of addiction, characterized by excessive use, decreased social interaction, and irritability when internet use is restricted (Widyastuti, 2022).

This phenomenon is reinforced by the results of international research. Based on the meta-analysis, the highest rate of internet addiction occurred in the Middle East (10.9%), followed by North America (8.0%) and Asia (7.1%). In Asian adolescents, the prevalence of internet addiction varies, such as in China (2.2–9.6%), Japan (3.1–6.2%), the Philippines (4.9–21.1%), and Hong Kong (3.0–16.4%) (Liu, 2023). The Global Digital Report 2019 published by Hootsuite and We Are Social also noted that Indonesians spend an average of 516 minutes online or 8 hours 36 minutes per day (Saifuddin, 2023) Research (Liu, 2023) It further confirms the close relationship between internet addiction and anxiety, and emphasizes the importance of interventions tailored to local cultures.

In Indonesia, the Covid-19 pandemic accelerated the increase in internet use due to social restrictions. The APJII survey in 2020 recorded a significant surge in internet users of 73.7% compared to the previous year, reaching 196.71 million people. Most internet use is aimed at accessing social media, which serves as a facilitator of interaction, promotion of activities, and collaboration (Islamiaty, 2022). However, on the other hand, the increasing intensity of internet use also has an impact on mental health. Excessive use can cause sleep disturbances, reduced physical activity, increased social isolation, and anxiety (Suryani, 2023).

Internet use disorders or internet addiction include various forms of behavior, ranging from the use of social media, online games, to accessing certain

content. Young in his research formulated six criteria for internet addiction, including: dominant attachment to the internet compared to other activities (salience), excessive use, decreased academic performance due to neglecting work, strong urge to come back online (anticipation), lack of control (lack of control), and neglecting social life (neglecting social life (Kiswantomo, 2020).

One of the psychological impacts of excessive internet use is anxiety. Anxiety is an unpleasant emotion characterized by excessive worry and certain bodily responses, such as an increase in heart rate or blood pressure. Hamilton defined anxiety as a subjective condition that creates stress, is not necessarily related to stress, and relates to the autonomic nervous system's response. American Psychological Association APA (Association, 2022) It also explains that anxiety is an emotional state that arises when a person experiences stress, accompanied by worrying thoughts and certain physical symptoms (Mellani, 2021). One of the causes of increased anxiety in adolescents is excessive internet use.

South Kalimantan, especially the city of Banjarmasin, has also experienced a surge in internet use among the younger generation. Several studies have shown a significant link between internet addiction and anxiety in adolescents (Hidayatullah, 2023; Vionie Florensia, 2023; Widyastuti, 2022). A preliminary study at Sabital Muhtadin Islamic High School Banjarmasin revealed that the school allows students to bring mobile phones as a learning medium. However, this policy makes students more exposed to the internet, especially during break hours or free time. Observations and interviews with students show that they spend an average of 3–4 hours per day on social media, and feel anxious when they are not up to date or when their internet connection is interrupted.

Comparison with other schools such as SMK Muhammadiyah 3 and SMK Muhammadiyah 5 shows that SMA Islam Sabilal Muhtadin has a higher level of mobile phone use due to looser regulations. This makes the school relevant as a research location on the relationship between internet addiction and anxiety. Therefore, this study focuses on analyzing the relationship between internet addiction and the anxiety level of students of Sabilal Muhtadin Islamic High School Banjarmasin, as well as providing an overview of the psychological condition of adolescents in the digital era. It is hoped that the results of this research can be used as evaluation material in the development of school counseling guidance programs as well as references for future research.

METHOD

This study uses a quantitative method with a correlation approach, which aims to measure the relationship between variables objectively. The research design used is observational analysis with a cross-sectional approach, so that the measurement of independent and dependent variables is only carried out once at a time. The advantages of this design are that it is faster, cheaper, and less risk of drop-out, but the drawbacks cannot explain causal relationships based on the passage of time. In this study, the independent variable was internet addiction which was measured using the Internet Addiction Test (IAT), while the dependent variable was the level of anxiety measured by the Hamilton Anxiety Rating Scale (HARS).

The research population was all students of SMA Islam Sabilal Muhtadin Banjarmasin totaling 77 people, but only 50 students filled out the questionnaire completely so it was used as a sample with the total sampling method. The research instrument was in the form of two questionnaires, namely IAT to measure the level of internet addiction (non-existent, moderate, severe, and very severe

categories) and HARS to measure the level of anxiety (mild, moderate, and severe categories). The data collection process was carried out after obtaining research permits, ethical approvals, and informed consent from respondents. The filling of the questionnaire takes place in the classroom under the supervision of the researcher to ensure the clarity of the instructions.

The data collected through the questionnaire is then processed through several stages, namely editing, coding, scoring, processing using SPSS version 27, and data cleaning. Data analysis was carried out in a descriptive quantitative manner with two stages. First, a univariate analysis to describe the variable frequency distribution of internet addiction and anxiety levels. Second, bivariate analysis used the Pearson correlation test to determine the relationship between internet addiction and anxiety levels in adolescents at SMA Islam Sabilal Muhtadin Banjarmasin.

RESULTS AND DISCUSSION

Univariate Analysis

Table 1 Internet Addiction Distribution

No.	IAT Score Categories	Frequency (f)	Percentage (%)
1.	No internet addiction	6	12%
2.	Mild addiction	21	42%
3.	Moderate addiction	23	46%
4.	Heavy addiction	0	0%
Total		50	100%

Source : Primary Data (2025)

Based on Table 1, 23 students (46%) were included in the category of moderate internet addiction, followed by 21 students (42%) in the category of mild addiction, and 6 students (12%) in the category of no addiction, and there were no students who experienced severe addiction.

Based on Table 2, the majority of respondents experienced mild anxiety as many as 24 respondents (48%), followed by

moderate anxiety as many as 14 students (28%). Meanwhile, there were 8 students (16%) who did not experience anxiety, and 4 students (8%) experienced severe anxiety.

Table 2 Anxiety Level Distribution (HARS).

No.	HARS Score Categories	Frequency (f)	Percentage (%)
1.	No anxiety	8	16%
2.	Mild anxiety	24	48%
3.	Moderate anxiety	14	28%
4.	Severe anxiety	4	8%
Total		50	100%

Source: Primary Data (2025)

Bivariate Analysis

Bivariate analysis was performed through cross-tabulation and Pearson

correlation test. The tabulation results showed that respondents with moderate internet addiction (46.0%) tended to have higher levels of anxiety, namely moderate (28.0%) and severe (8.0%) anxiety. Meanwhile, the group with mild addiction (42.0%) mostly experienced mild anxiety (38.0%), and respondents without addiction (12.0%) did not experience anxiety at all. No respondents were found in the category of severe addiction. This pattern indicates that the higher the level of internet addiction, the greater the likelihood of moderate to severe anxiety.

The results of the Pearson correlation test reinforced these findings by showing a strong and significant positive relationship between internet addiction scores and anxiety scores ($r = 0.665$; $p < 0.001$).

Table 3 Distribution of Internet Addiction with Anxiety Level at Sabila Muhtadin Islamic High School Banjarmasin.

Internet addiction	Anxiety Level								Sum	
	No Anxiety		Mild Anxiety		Moderate Anxiety		Severe Anxiety			
	F	%	F	%	F	%	F	%	F	%
No addiction	6	12.0	0	0.0	0	0.0	0	0.0	6	12.0
Mild addiction	2	4.0	19	38.0	0	0.0	0	0.0	21	42.0
Moderate addiction	0	0.0	5	10.0	14	28.0	4	8.0	23	46.0
Heavy addiction	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Sum	8	16.0	24	48.0	14	28.0	4	8.0	50	100.0

The value of the coefficient is $r = 0.665$ with $p < 0.001$

Source : Primary Data (2025)

Based on Table 4, the majority of male respondents are in the category of mild internet addiction (72.7%), while women are dominated by the category of moderate internet addiction (82.1%). There were no men in the medium category or women in the non-addiction category.

Table 4 Distribution of Respondents by Gender and Internet Addiction Category at SMA Islam Sabila Muhtadin Banjarmasin.

Gender	No Addiction		Mild Addiction		Moderate Addiction		Sum	
	N	%	N	%	N	%	N	%
Man	6	27,3	16	72,7	0	0,0	22	100
Woman	0	0,0	5	17,9	23	82,1	28	100
Total	6	12,0	21	42,0	23	46,0	50	100

Source : Primary Data (2025)

Table 5 Distribution of Respondents by Gender and Anxiety Level Category at Sabila Muhtadin Islamic High School Banjarmasin.

Gender	No Addiction		Mild Addiction		Moderate Addiction		Sum	
	N	%	N	%	N	%	N	%
Man	8	36,4	14	0,0	0	0,0	22	100
Woman	0	0,0	10	50,0	4	14,3	28	100
Total	8	16,0	24	28,0	4	8,0	50	100

Based on Table 5, the majority of men experienced mild anxiety (63.6%) or no anxiety (36.4%), without any cases of moderate or severe anxiety. On the other hand, the majority of women were in the category of moderate anxiety (50.0%), followed by mild anxiety (35.7%) and severe anxiety (14.3%), and none were without anxiety.

Discussion

Internet addiction

The results showed that the majority of respondents were in the category of moderate internet addiction (46.0%), followed by mild (42.0%), and non-addictive (12.0%), without any being included in the severe category. The characteristics of the respondents were dominated by women (56.0%) and 15 years old (50.0%), which is middle adolescence with a high risk of internet addiction. The IAT questionnaire analysis showed the highest scores on items that indicated compulsive behavior, such as the habit of saying "soon" online and keeping the duration of use secret, while the lowest scores were related to angry reactions when harassed and failure to reduce online time.

According to Young and Spada's theory, internet addiction is characterized by compulsive impulses, difficulty controlling use, and negative impacts on academic and social functioning. Triggering factors in adolescents include high curiosity, entertainment needs, and online social interaction, which are strengthened by easy internet access at school and home. These findings are in line with research (Sharma & Dixit, 2019)

which suggests that internet use of more than three hours per day increases the risk of sleep disturbances and decreased achievement. Therefore, the high proportion of respondents in the medium category illustrates the existence of problematic internet use patterns that need to be controlled so that they do not develop into severe addiction.

Anxiety Levels

The distribution of anxiety levels showed that most respondents experienced mild anxiety (48.0%), followed by moderate (28.0%), non-anxiety (16.0%), and severe (8.0%). The dominant symptoms are psychological tension such as restlessness, difficulty resting, and being easily surprised, while physical symptoms appear less frequently. This is in accordance with Stuart's (2016) theory which states that mild anxiety is characterized by increased alertness but still allows optimal functioning.

Contributing factors include academic pressure, social dynamics, and excessive internet exposure. These findings are in line with Kuss & Griffiths (2015) and The results show a positive and significant relationship between the level of internet addiction and the level of anxiety in students ($r = 0.665$; $p < 0.001$). The higher the internet addiction, the higher the level of anxiety experienced. This is in line with the findings of Smahel et al. (2020) that intensive internet use increases the risk of anxiety through sleep disorders, social isolation, and physiological stress. Although the majority of respondents were in the category of mild anxiety, the presence of students with moderate to severe anxiety signaled the need for special attention. If left unmanaged, this condition has the potential to develop and interfere with adolescents' daily functioning.

The Relationship of Internet Addiction to Anxiety Levels

The results of the Pearson correlation test showed a strong and significant positive relationship between the level of internet addiction and the level of anxiety ($r = 0.665$; $p < 0.001$). This means that the higher the internet addiction, the higher the anxiety experienced by students. Analysis by gender shows that women tend to be more in the category of moderate internet addiction and moderate to severe anxiety, while men are more in the category of mild or no anxiety. These findings are consistent with Young's theory as well as the Compensatory Internet Use and Cognitive-Behavioral Model models which assert that excessive internet use can trigger sleep disorders, social isolation, and increased psychological stress that leads to anxiety. Previous research (Putri & Nuraini, 2021; Hidayat et al., 2020; Elhai et al., 2021) also support these results, showing that adolescents who have a high internet addiction are at greater risk of experiencing anxiety. This condition is exacerbated by the age factor of teenagers who are still in the stage of emotional development, making it difficult to control internet usage behavior. Overall, the results of research at Sabilal Muhtadin Islamic High School Banjarmasin confirm that uncontrolled internet use has a significant impact on mental health, especially anxiety in adolescents. Therefore, interventions directed at controlling internet usage time and strengthening stress management skills are indispensable to maintain students' psychological balance.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the research from data collection, data analysis and discussion, it can be concluded that: a. Internet Addiction Rate A total of 23 students (46%) were included in the category of moderate internet addiction, followed by 21 students (42%) in the category of mild addiction, and 6 students (12%) in the category of no addiction, and

there were no students who experienced severe addiction. b. Anxiety Level The majority of respondents experienced mild anxiety as many as 24 respondents (48%), followed by moderate anxiety as many as 14 students (28%). Meanwhile, there were 8 students (16%) who did not experience anxiety, and 4 students (8%) experienced severe anxiety. c. Internet Addiction and Anxiety Relationships.

Suggestion

- For students, it is recommended to be wiser in using the internet, as well as improve time management skills so that online activities do not interfere with mental health, especially in managing anxiety.
- For the school, it is hoped that it can provide education related to digital literacy and mental health, as well as create an environment that supports healthy supervision of internet use among students.
- For parents, they are expected to be actively involved in monitoring their children's online activities and providing adequate emotional assistance.
- The nursing profession is expected to play an active role in providing education related to the healthy use of the internet, especially in adolescents. Nurses can also detect early signs of anxiety that arise due to addictive behavior to the internet, as well as work with schools and families in developing adolescent mental health promotion programs.
- For the next researcher, it is expected to add another variable that has the potential to affect anxiety or internet addiction, namely social support from family, peers, or teachers. Future research may explore the forms and mechanisms of such social support in lowering anxiety levels in students.

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