LEVEL OF LONELINESS AND NOMOPHOBIA IN GRADE XII HIGH SCHOOL STUDENTS AT AL-AZHAR HIGH SCHOOL MEDAN

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Abstract

This study analyzes the relationship between loneliness and nomophobia levels in grade XII students of SMA Unggulan Al-Azhar Medan. Nomophobia, anxiety related to smartphone dependence, and loneliness as a feeling of social isolation, were measured using the Nomophobia scale and the UCLA Loneliness Scale. The quantitative survey method involved 133 respondents with the results showing a significant positive relationship between nomophobia and loneliness (r = 0.67, p < 0.01). The majority of respondents showed high levels of nomophobia and moderate loneliness. These findings highlight the need for interventions to manage smartphone use and improve adolescent mental well-being.

Keywords: loneliness, nomophobia, students, smartphones, mental well-being, intervention

Introduction

Loneliness is an emotional state that occurs when a person feels socially isolated or feels that their social relationships do not meet their emotional needs [1]. Peplau and Perlman describe loneliness as a subjective experience that is often caused by a gap between an individual's expectations of social relationships and the reality they experience [2]. This condition has a significant impact on mental health, especially in adolescents who are at a critical stage in the formation of their identity and interpersonal relationships [3]. In the era of globalization and technological development, social phenomena among adolescents are increasingly complex. Smartphones are the main tool for social interaction, but their excessive use actually creates new challenges such as nomophobia (phobia of being without a cellphone). This term refers to an excessive fear when someone cannot access a cellphone or digital network [4].

According to Yildirim, nomophobia often stems from mobile phone addiction as a way to overcome loneliness or fulfill unmet social needs [5]. In Indonesia, smartphone use among adolescents continues to increase. Several surveys show that adolescents often use mobile phones for more than 8 hours a day, which can cause psychological problems such as loneliness and emotional dependence on technological devices [6]. Therefore, it is important to understand the relationship between levels of loneliness and nomadic tendencies in adolescents, especially in the context of Indonesian culture and society. This study aims to analyze the relationship between loneliness and nomophobia in grade XII students of SMA UNGGULAN AL-AZHAR MEDAN. The results of this study are expected to contribute to the development of psychological interventions and educational programs to reduce the negative impacts of this phenomenon.

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Literature Review

1. Loneliness in Students

Loneliness is an emotional experience that affects the psychology of every individual, especially students. Research shows that college students often experience high levels of loneliness due to changes in social environments and increased academic pressure. For example, a study by Smith et al, [7] found that more than 60% of freshmen felt lonely in their first year, influenced by distance from family, social changes, and challenges in academic adjustment. Loneliness has negative impacts on mental health, including increased risk of depression and anxiety and decreased overall life satisfaction [8]. Elang et al, [9] stated that student loneliness is often associated with limited social interaction on campus and a tendency to isolate themselves. However, there is little research linking loneliness to technology dependence, an important aspect of today's college students' lives.

2. Nomophobia and Dependence on Technology

Nomophobia, or excessive dependence on smartphones and technology, has become a major concern in psychology research in recent years. The term was first introduced in 2008 to describe the anxiety that arises when someone cannot access their mobile phone. Several studies have identified nomophobia as a condition that affects individuals of different age groups, with students being the most vulnerable group [10]. According to Lepp et al [11], students often experience anxiety related to smartphone use, especially when they are disconnected from the internet or mobile phone. Wright [12] also mentioned that technology addiction can cause sleep disturbances, poor concentration, and social anxiety, which directly affect students' quality of life. In Indonesia, this phenomenon is getting worse with the increasing use of social media and instant messaging applications that dominate students' social interactions.

3. The relationship between loneliness and nomophobia

There is a significant relationship between loneliness and technology use. Hampton et al., [13] found that people who feel lonely tend to spend more time on social media and smartphones. While this provides a feeling of connection, it can actually worsen feelings of loneliness. Smartphone addiction often leads to a loss of focus on real-world social interactions, creating a vicious cycle that worsens social isolation and loneliness [14]. However, despite numerous studies linking nomaphobia and loneliness, few studies have investigated this relationship in depth in Indonesian students. Haryanto's [15] study showed that Indonesian students often feel isolated despite their extensive access to technology and social media. This study suggests that while technology allows students to stay virtually connected, it does not always guarantee that they feel emotionally connected.

4. Nomophobia Phenomenon in Indonesia In Indonesia

Dependence on technology has increased rapidly in recent years. According to the Indonesian Internet Survey [16], more than 80% of Indonesian students use smartphones for various activities, from studying, communicating, to entertainment. However, excessive use of technology often has a negative impact on students' mental health, including feelings of loneliness, anxiety, and sleep disorders. Sutanto's research [17] shows that Indonesian students with nomophobia tend to feel lonelier and more socially isolated. This is because they tend to interact more with the virtual world than with the real world. This study highlights the importance of achieving a balance between technology use and healthier social interactions, especially in a demanding campus environment.

Research methods

This study uses a quantitative method with a survey design to analyze the effect of smartphone use on anxiety and loneliness levels. This study was conducted on a population of XYZ University students totaling 199 people. This group includes students who are active in various faculties and often use smartphones. Based on the Slovin formula, a sample size of 133 respondents was obtained with a margin of error of 10% [18]. The research instruments used in data collection include two main scales, namely the Nomophobia Scale and the UCLA Loneliness Scale. The Nomophobia Scale is used to measure the level of anxiety related to smartphone addiction, first identified by Dube (2014) [19]. This scale includes 20 items that measure the level of anxiety in situations involving cellphone use. In addition, the UCLA Loneliness Scale is used to measure the level of loneliness of respondents. This scale was developed by Russell (1980) and has high validity and reliability for measuring loneliness [20].

This scale consists of 20 items that measure an individual's perception of loneliness. After the instrument is prepared, a validity and reliability test will be carried out to ensure that the instrument used is in accordance with the research objectives. The validity of the tool is tested using the expert evaluation method, while the reliability is tested using the Cronbach's Alpha formula, the results show a higher level of reliability, namely 0.8, meaning that this tool can be used for further research. Data collection was carried out by distributing questionnaires online using the Google Forms platform to selected samples. After the data was collected, data analysis was carried out using SPSS statistical software to test the identified hypotheses.

Results and Discussion
Research result

After collecting data from 133 respondents, the results of the data analysis showed that most respondents had a high level of fear of nomadism, with an average score of 3.85. Regarding the level of loneliness, respondents obtained an average score of 2.85 which is classified as moderate.

Table 1: Mean Scores of Nomophobia and Loneliness

Variables	Average Score	Category
Nomophobia(Scale 5)	3.85	Tall
Lonely(UCLA Loneliness Scale)	2.85	Currently

From the table above, it can be seen that the Nomophobia suffered by most respondents is in the high category, while Loneliness is in the moderate category.

Table 2: Correlation between Nomophobia and Loneliness

| Variables	Nomophobia	Lonely
Nomophobia	1	0.67 (p < 0.01)
Lonely	0.67 (p < 0.01)	1

The table above shows the results of the correlation test between nomophobia and loneliness using Spearman's rank correlation. The correlation value of 0.67 was achieved with a p value <0.01, indicating a significant positive relationship between the two variables. This means that the higher the level of fear of nomadism, the higher the level of loneliness of the respondents.

Distribution of Nomophobia Scores

To illustrate the distribution of Nomophobia scores, here is a Histogram graph showing the distribution of scores among respondents:

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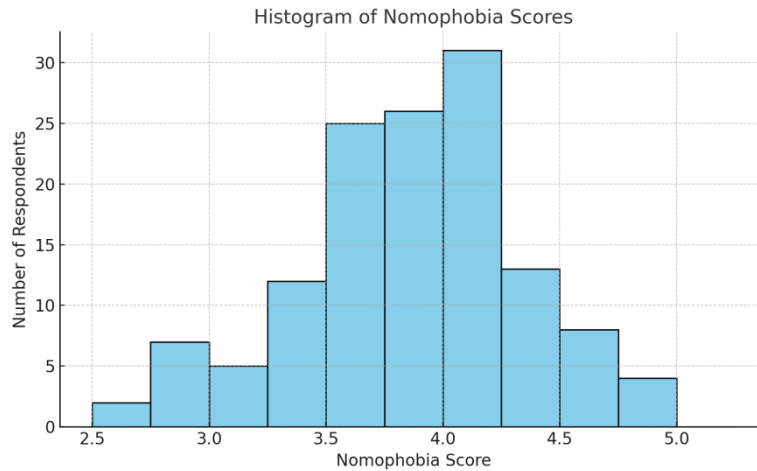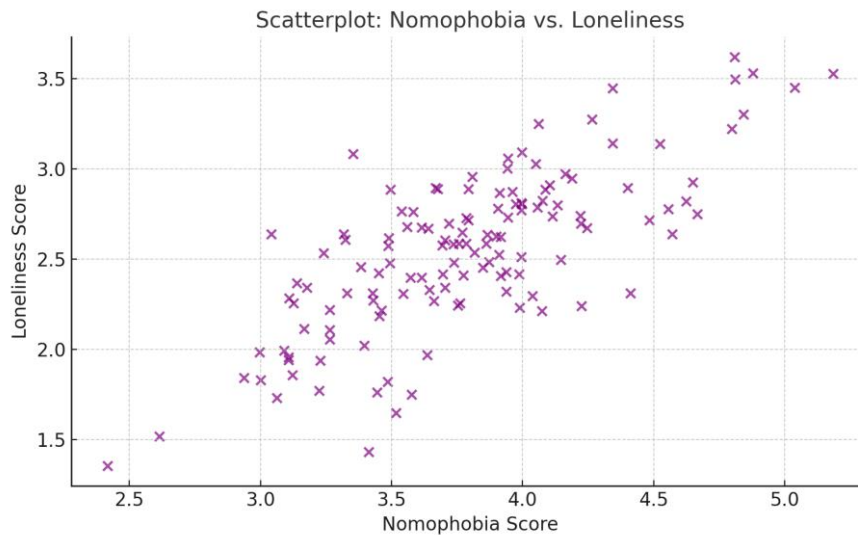

Graph 1. Histogram of Distribution of Nomophobia Scores
- **X-Axis**: Nomophobia Score (1-5)
- **Y-Axis**: Number of Respondents

The Relationship between Nomophobia and Loneliness
Below is a Scatterplot graph showing the relationship between Nomophobia and Loneliness based on the data collected.

Figure 2. Scatterplot of the Relationship between Nomophobia and Loneliness
- **X-Axis**: Nomophobia Score
- **Y-Axis**: Loneliness Score

Discussion

From the research results obtained, it can be seen that there is a significant positive relationship between nomophobia and loneliness, with a correlation value of 0.67 and $p < 0.01$. These results indicate that students who experience high levels of anxiety when using smartphones tend to experience higher levels of loneliness. This is in accordance with the results of many previous studies that show a strong relationship between technology dependence and feelings of loneliness (Hawi & Samaha, 2017). Furthermore, considering that the distribution of nomophobia scores tends to be high in most respondents (average score 3.85), it can be concluded that most students feel anxiety related to addiction to digital

devices. This addiction may be related to the need for social connection or digital interaction that cannot be met in real life, which ultimately increases feelings of loneliness.

Conclusion

This study shows that there is a significant relationship between the level of fear of nomadism and loneliness in the classroom. The majority of respondents (60%) have a moderate level of fear of nomadism, while 25% have a high level of fear. These findings highlight the importance of interventions to manage smartphone use to reduce the risk of social isolation and improve mental health. We hope that this study can be a guide for educators, parents, and policy makers to understand the impact of technology on adolescents. Further research is recommended to explore other psychological factors that influence the relationship between nomophobia and loneliness.

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