Nomophobia and Self-Esteem: A Study of Migrant Students' Psychological Well-Being

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ABSTRACT

The transition from high school to higher education represents a significant milestone for adolescents, often accompanied by migration to access better educational opportunities, known as "merantau." This phenomenon, prevalent among students aged 18-24, is associated with a high prevalence of nomophobia, characterized by anxiety and discomfort when separated from smartphones. This study aims to explore the relationship between self-esteem and nomophobia tendencies among migrant students, given the mixed findings in existing literature. Employing a correlational quantitative research design, data were collected from 153 migrant students using the Nomophobia Questionnaire (NMP-Q) and the State Self-Esteem Scale (SSES). Descriptive analysis revealed that 74.5% of students exhibited moderate nomophobia tendencies, while 62.7% had high self-esteem. Pearson's correlation analysis indicated a significant negative relationship between self-esteem and nomophobia tendencies (r = -0.222, p = 0.006), suggesting that higher self-esteem is associated with lower nomophobia tendencies. This finding underscores the importance of enhancing self-esteem to mitigate nomophobia, highlighting the role of positive self-perception and real-life social interactions. Despite limitations such as the online data collection method, this study provides valuable insights into the psychological dynamics between self-esteem and nomophobia among migrant students, advocating for targeted interventions to address these issues.

Keywords: nomophobia, self-esteem, migrant students, higher education, smartphone use

INTRODUCTION

The transition from high school to higher education is a significant milestone for adolescents, driven by various motivations such as the desire to pursue advanced education, obtain degrees, increase knowledge, and foster personal development (Sharma, 2012). Higher education institutions are crucial in meeting these aspirations, reflecting the fundamental nature of higher education levels (Salam, 2004). In 2020, Indonesia had 4,593 higher education institutions, a slight decrease of 0.01% from the previous year, primarily due to data updates and quality improvements, with a total student population of 8,483,213 distributed across the country (Kementerian Pendidikan dan Kebudayaan, 2020). Students often migrate to different regions to access higher-quality education unavailable in their hometowns (Ridha, 2018). This migration phenomenon, commonly referred to as "merantau," is prevalent among students aged 18-24, who are notably prone to no-mobile-phone-phobia (nomophobia), with a prevalence rate of 77% (Maryani et al., 2021). These students spend substantial time using smartphones, often feeling discomfort when separated from these devices, a characteristic of nomophobia (Bragazzi & Del Puente, 2014). According to Yildirim & Correia (2015), the high smartphone usage among students makes them

more susceptible to nomophobia, causing constant anxiety and worry when away from their phones (Sudarji, 2017).

Interviews conducted on March 16 and 17, 2023, with ten migrant students revealed that all of them experienced nomophobia, primarily due to the need to keep in touch with their distant families via smartphones. Seven out of ten admitted to reduced social interactions in real life, leading to loneliness, which they counteracted by using smartphones. Three of the ten students were part of various social media groups, requiring them to stay updated and communicate within those groups. Two students were addicted to online games, making it hard for them to be without their phones, even when offline. This aligns with Syahputra & Erwinda (2020), who found that excessive smartphone use can lead to dependency issues, such as checking phones immediately upon waking or before sleeping, adversely affecting sleep quality. Thus, excessive smartphone use can lead to psychological issues known as nomophobia (Adawi et al., 2018), characterized by anxiety and fear when away from smartphones, often resulting in mental health issues like anxiety and depression (Aguilera Manrique et al., 2018). Nomophobia symptoms include smartphone addiction, constantly carrying chargers, and anxiety when phones are not connected to the internet (Ramaita et al., 2019). This condition results from social interaction deficits, impulsivity control issues, and anxiety when facing problems, impacting individuals' lives (Muyana & Widyastuti, 2017). Bhattacharya et al. (2019) identify low self-esteem as a psychological factor in excessive smartphone use or nomophobia. Self-esteem involves self-evaluation based on personal beliefs, skills, and social relationships (Heatherton & Polivy, 1991). Individuals with high self-esteem have positive perceptions about themselves (Azizah & Rahayu, 2016), whereas those with low self-esteem view interpersonal relationships as threats and are more vulnerable to criticism (Delamater & Myers, 2011). Low self-esteem can predict problematic smartphone use (Bianchi & Philips, 2005), as smartphones provide comfort and social support, helping individuals with low self-esteem escape from the real world (Zhiqi et al., 2019). Excessive smartphone use can negatively impact life quality and health, known as nomophobia (Ramaita et al., 2019).

Research by Farhan & Rosyidah (2021) and Maryani et al. (2021) found significant negative correlations between self-esteem and nomophobia among students, whereas Dalimunthe (2021) reported no such relationship, indicating varying results across studies. Given the serious nature of nomophobia among migrant students, which hampers daily activities, and the mixed findings regarding the relationship between self-esteem and nomophobia, this study aims to explore the relationship between self-esteem and nomophobia among migrant students. This research is crucial for understanding whether these variables are interrelated among this specific student group. Therefore, the research question posed is whether there is a relationship between self-esteem and nomophobia tendencies among migrant students. The objective is to determine the nature of this relationship, contributing to the theoretical understanding of psychology, particularly concerning self-esteem and nomophobia among migrant students, and providing practical insights for researchers, students, and readers on the impact of these variables on migrant students.

METHOD

This study employs a correlational quantitative research design to investigate the relationship between variables through numerical data analysis. The quantitative data is analyzed using descriptive analysis to gain a comprehensive understanding of the phenomena affecting the research subjects. The independent variable (X) is self-esteem, while the dependent variable (Y) is nomophobia tendencies. Nomophobia tendencies are defined as the fear or anxiety experienced by individuals when they are away from their smartphones, considered a modern disorder resulting from human interaction with information and communication technology, particularly smartphones (Yildirim & Correia, 2015). This variable is measured using the Nomophobia Questionnaire (NMP-Q) developed by Yildirim & Correia (2015). The scale is based on four aspects: not being able to communicate, losing connectivity, not being able to access information, and giving up on convenience. Scores on this scale indicate the level of nomophobia, with higher scores reflecting greater nomophobia tendencies. Self-esteem is defined as self-evaluation behavior reflecting personal beliefs, skills, and social relationships (Heatherton & Polivy, 1991). This variable is measured using the State Self-Esteem Scale (SSES) developed by Heatherton & Polivy (1991), encompassing three aspects: performance, social, and physical appearance. Higher scores on this scale indicate higher self-esteem levels.

The population of this study consists of migrant students. The sample is selected using purposive sampling, which involves selecting participants based on specific criteria (Sugiyono, 2017). The criteria include students aged 18-24, who are in this age range are more likely to exhibit nomophobia tendencies (Maryani et al., 2021); students who live far from their families, as 60% of migrant students experience high levels of loneliness, triggering nomophobia tendencies (Saputri et al., 2018); and students who spend more than 8 hours daily on their smartphones, a characteristic of nomophobia (Ramaita et al., 2019). Data collection involves two scales. Nomophobia tendencies are measured using the Nomophobia Questionnaire (NMP-Q) based on Yildirim & Correia (2015), adapted by Farhan & Rosyidah (2021). The scale comprises 48 items divided into four aspects: not being able to communicate, losing connectivity, not being able to access information, and giving up on convenience. Responses are measured using a Likert scale with options ranging from "Strongly Agree" to "Strongly Disagree" scored from 1 to 4. The blueprint of the Nomophobia Questionnaire is as follows:

Table 1. Blueprint of Nomophobia Tendencies

No	Aspect	Indicator	Item Number	
			Favourable	Unfavourable
1.	Not being able to communicate	Anxiety about not being able to use communication services on the smartphone	1, 17, 33	9, 25, 41

No	Aspect	Indicator	Item Number	
			Favourable	Unfavourable
		Fear of being unable to communicate with others	2, 18, 34	10, 26, 42
2.	Losing connectivity	Anxiety when there is no signal/network	3, 19, 35	11, 27, 43
		Anxiety about not being able to update on social media	4, 20, 36	12, 28, 44
3.	Not being able to access information	Anxiety about not being able to open apps on the smartphone	5, 21, 37	13, 29, 45
		Anxiety about not being able to access information	6, 22, 38	14, 30, 46
4.	Giving up on convenience	Discomfort when not using the smartphone	7, 23, 39	15, 31, 47
		High dependency on the smartphone	8, 24, 40	16, 32, 48

Self-esteem is measured using the State Self-Esteem Scale (SSES) by Heatherton & Polivy (1991), translated by Nurrahmah et al. (2021). The scale includes 20 items divided into three aspects: performance, social, and physical appearance, with responses measured using a Likert scale ranging from "Strongly Agree" to "Strongly Disagree" scored from 1 to 4. The blueprint of the Self-Esteem Scale is as follows:

Table 2. Blueprint of Self-Esteem

No	Aspect	Indicator	Item Number	
			Favourable	Unfavourable
1.	Performance	Confidence in one's abilities	1, 9, 14	4, 5, 18, 19
2.	Social	Feeling valued by others	-	2, 8, 10, 13, 15, 17, 20
3.	Physical appearance	Acceptance of one's physical condition	3, 6, 11, 12	7, 16

The measurement instruments were tested for validity and reliability through item analysis. For the nomophobia scale, three rounds of testing were conducted. In the first round, 48 items were tested on 153 subjects, yielding an alpha Cronbach's score of 0.889. Eleven items were eliminated due to low correlation. In the second round, 37 items were tested, yielding an alpha Cronbach's score of 0.903, with one item eliminated. The third round confirmed the reliability with an alpha Cronbach's score of 0.903 for 36 items. The reliability test results are as follows:

Table 3. Reliability Test for Nomophobia Scale

Cronbach's Alpha	Number of Items
0.903	36

For the self-esteem scale, three rounds of testing were conducted. In the first round, 20 items were tested on 153 subjects, yielding an alpha Cronbach's score of 0.842. Two items were eliminated due to low correlation. The second round confirmed the reliability with an alpha Cronbach's score of 0.852 for 18 items. The reliability test results are as follows:

Table 4. Reliability Test for Self-Esteem Scale

Cronbach's Alpha	Number of Items
0.852	18

Data analysis was conducted using Pearson's product-moment correlation technique with the assistance of SPSS (Statistical Product and Service Solutions) 24 for Windows to test the research hypotheses. Normality and linearity tests were also conducted to determine the linear relationship between the two variables in this study.

RESULT AND DISCUSSION
Research Orientation and Data Collection

The data collection process in this study was carried out by distributing questionnaires via Google Forms to migrant students, allowing participants to fill them out at their respective locations. The researcher made the necessary preparations before starting the research, including determining the psychological variables to focus on, conducting a literature review related to the variables and research topics, preparing measurement instruments, and establishing the location and timing for data collection. Once all the preparatory stages were completed, the research was conducted by distributing the scales through Google Forms to migrant students. Data collection began on October 2, 2023, and concluded on October 20, 2023.

Research Participants

The study involved 153 migrant students who met the criteria established by the researcher.

Table 5. Demographic Data of Respondents

Category	Number	Percentage
Age		
18 years	5	3.3%
19 years	9	5.9%
20 years	37	24.2%

Category	Number	Percentage
21 years	72	47.1%
22 years	20	13.1%
23 years	9	5.9%
24 years	1	0.7%
Origin Region		
Central Java	103	67.3%
Yogyakarta	2	1.3%
Jakarta	1	0.7%
Banten	3	1.9%
West Java	9	5.9%
East Java	4	2.6%
Lampung	2	1.3%
Jambi	1	0.7%
Riau	1	0.7%
North Sumatra	3	1.9%
West Sumatra	1	0.7%
South Sumatra	1	0.7%
West Kalimantan	1	0.7%
Central Kalimantan	5	3.3%
East Kalimantan	3	1.9%
North Kalimantan	1	0.7%
Central Sulawesi	2	1.3%
North Sulawesi	2	1.3%
South Sulawesi	1	0.7%
Maluku	1	0.7%
East Nusa Tenggara	2	1.3%
Papua	3	1.9%
West Papua	1	0.7%

Descriptive Analysis

The aim of the descriptive statistical test is to provide an overview of the self-esteem and nomophobia tendencies scales data. The categorization results of the self-esteem and nomophobia tendencies scales are as follows:

Table 6. Categorization of Nomophobia Tendencies Scale

Category	Interval	Number	Percentage
Low	< 44	1	0.7%

Category	Interval	Number	Percentage
Medium	45 – 85	114	74.5%
High	86 – 120	38	24.8%
Total		153	100%

It is observed that migrant students predominantly have moderate nomophobia tendencies, with 114 students (74.5%) falling into this category. Additionally, 1 student (0.7%) falls into the low category, and 38 students (24.8%) fall into the high category.

Table 7. Categorization of Self-Esteem Scale

Category	Interval	Number	Percentage
Low	< 22	1	0.7%
Medium	23 – 40	56	36.6%
High	41 – 62	96	62.7%
Total		153	100%

It is observed that migrant students predominantly have high self-esteem, with 96 students (62.7%) falling into this category. Additionally, 1 student (0.7%) falls into the low category, and 56 students (36.6%) fall into the medium category.

Normality Test

The Kolmogorov-Smirnov test is used to assess the normality of the data. If the significance value is greater than 0.05 ($p > 0.05$), the data is considered normally distributed. The significance values for the self-esteem variable is 0.858 and for the nomophobia tendencies variable is 0.317. Since both values are greater than 0.05 ($p > 0.05$), the data is normally distributed.

Table 8. Normality Test

	Self-Esteem	Nomophobia Tendencies
N	153	153
Normal Parameters		
Mean	43.39	77.05
Std. Deviation	8.036	14.935
Most Extreme Differences		
Absolute	0.049	0.078
Positive	0.049	0.078
Negative	-0.046	-0.049
Test Statistic	0.605	0.959
Asymp Sig. (2-tailed)	0.858	0.317

Linearity Test

The linearity test uses ANOVA, and the data for variables X and Y is considered linear if the deviation from linearity is significant ($p > 0.05$). Based on the table above, the significance of the deviation from linearity is greater than 0.05 ($p > 0.05$), indicating that the two variables in this study have a significant linear relationship.

Table 9. Linearity Test

		Sum of Squares	df	Mean Square	F	Sig.
Nomophobia Tendencies	Between Groups					
(Combined)		7646.249	35	218.464	0.973	0.520
Linearity		1668.232	1	1668.232	7.433	0.007
Deviation from Linearity		5978.018	34	175.824	0.783	0.792
Self-Esteem	Within Groups	26258.431	117	224.431		
Total		33904.680	152			

Hypothesis Test

The hypothesis test examines the significant relationship between the independent and dependent variables. The relationship between the two variables is expressed in the correlation coefficient. The result of $r = -0.222$ indicates a negative correlation between self-esteem and nomophobia tendencies. The Sig. 2-tailed value is 0.006, which is significant ($p < 0.05$), thus supporting the hypothesis.

Table 10. Hypothesis Test Correlations

		Self-Esteem	Nomophobia Tendencies
Self-Esteem	Pearson Correlation	1	
	Sig. (2-tailed)		
	N		153
Nomophobia Tendencies	Pearson Correlation		-0.222 **
	Sig. (2-tailed)		0.006
	N		153

In the hypothesis analysis, the researcher used Pearson Correlation with SPSS version 16 software. The correlation test results between self-esteem and nomophobia tendencies showed a correlation coefficient of -0.222 and a significance value (p) of 0.006 ($p < 0.05$). These results indicate that the hypothesis is accepted, showing a significant negative relationship between self-esteem and nomophobia tendencies among migrant students. This implies that lower self-esteem correlates with higher nomophobia tendencies, while higher self-esteem correlates with lower nomophobia tendencies. This is supported by a study by Farhan & Rosyidah (2021), which found

a significant negative relationship between self-esteem and nomophobia tendencies in female students in Surabaya. Additionally, other research suggests that self-esteem can influence individuals' behavior in using smartphones, with uncontrolled and excessive smartphone use leading to nomophobia (Prautami & Halimah, 2021).

This study found that 0.7% of respondents have low nomophobia tendencies, 74.5% have moderate tendencies, and 24.8% have high tendencies, indicating that migrant students generally exhibit moderate nomophobia tendencies. This aligns with Maryani et al. (2021), who found that students aged 18-24 are more likely to exhibit nomophobia tendencies (77%). Farhan & Rosyidah (2021) also noted that individuals aged 18-24 are in the emerging adulthood phase, characterized by instability in interpersonal relationships and emotional and cognitive development. This study confirms that this age group experiences the highest nomophobia tendencies, with 24.8% of respondents in the high category and 74.5% in the moderate category. Thus, the high intensity of smartphone use among migrant students is a significant factor in increased nomophobia tendencies. Bhattacharya et al. (2019) state that one psychological factor in excessive smartphone use or nomophobia tendencies is self-esteem. Self-esteem can influence individuals' behavior in using smartphones, leading to nomophobia if usage is uncontrolled and excessive (Prautami & Halimah, 2021). Rosenberg (in Srisayekti & Setiady, 2015) posits that individuals with low self-esteem often prioritize themselves, avoid mistakes, are overly disappointed by failures, exaggerate negative experiences, and feel awkward, shy, and less confident in social interactions. This study indicates that among 153 migrant students, 62.7% have high self-esteem, 36.6% have medium self-esteem, and 0.7% have low self-esteem. This suggests that most migrant students have high self-esteem. This study demonstrates that migrant students with high self-esteem are less likely to develop nomophobia. According to Farhan & Rosyidah (2021), individuals with low self-esteem struggle to interact with others in their environment and tend to express themselves through smartphone features, leading to excessive use and nomophobia.

The implications of this study are that migrant students should maintain their self-esteem by boosting their confidence, being more open about themselves, expanding their social networks, and engaging in real-life social interactions. Migrant students should also strive to think positively and manage their emotions to prevent high levels of nomophobia. This study has some limitations, including the extended time and broader reach needed for respondents to complete the questionnaires (Google Forms) because data collection was not limited to a single university or region but spanned multiple universities and regions. Additionally, the researcher could not ascertain whether respondents answered the questionnaires accurately, as data collection was conducted online.

Implications for Counseling and Guidance

The significant negative relationship between self-esteem and nomophobia tendencies among migrant students has crucial implications for counseling and guidance services in educational settings. Recognizing that lower self-esteem is associated with higher nomophobia

tendencies, counseling programs can be developed to specifically address and enhance self-esteem among students to mitigate the risk of nomophobia. Firstly, counselors should implement self-esteem building workshops and sessions. These can include activities and exercises that focus on self-acceptance, positive self-talk, and recognizing personal strengths. By fostering a positive self-image and confidence, counselors can help students reduce their reliance on smartphones as a coping mechanism for low self-esteem. Secondly, it is important to create awareness about nomophobia and its impact on students' mental health and academic performance. Counseling services can organize seminars and informational sessions to educate students on the signs of nomophobia, its consequences, and strategies to manage and prevent excessive smartphone use. Providing practical tips and tools for healthy smartphone habits can empower students to control their usage better. Thirdly, social support and real-life interactions should be encouraged. Counselors can facilitate group activities and peer support groups where students can share their experiences and support each other in building self-esteem and reducing smartphone dependency. Encouraging students to engage in campus activities, clubs, and social events can help them form meaningful connections and reduce the need to rely on their smartphones for social interaction. Additionally, integrating mindfulness and stress management techniques into counseling programs can help students manage the underlying anxiety and stress that contribute to both low self-esteem and nomophobia. Mindfulness practices such as meditation, deep breathing exercises, and guided imagery can help students stay present and reduce their anxiety about social interactions and smartphone use. Counselors should also provide personalized guidance and support. Each student's needs and experiences are unique, so personalized counseling sessions can address specific issues related to self-esteem and smartphone use. By understanding the individual challenges faced by students, counselors can develop tailored intervention plans that effectively address both self-esteem and nomophobia tendencies. Finally, continuous evaluation and feedback are essential for the success of these programs. Regularly assessing the effectiveness of self-esteem and nomophobia interventions through surveys and feedback sessions can help counselors refine their strategies and ensure they meet the students' needs. By implementing these strategies, counseling and guidance services can play a pivotal role in enhancing self-esteem and reducing nomophobia tendencies among migrant students, leading to better mental health, improved academic performance, and healthier social interactions.

CONCLUSION

This study concludes that there is a significant negative relationship between self-esteem and nomophobia tendencies among migrant students, indicating that lower self-esteem is associated with higher nomophobia tendencies and vice versa. The research highlights that the majority of migrant students exhibit moderate nomophobia tendencies, and a significant portion shows high self-esteem levels. It underscores the importance of self-esteem in mitigating nomophobia, suggesting that boosting self-esteem can help reduce excessive smartphone use and its associated anxieties. This study's findings are consistent with previous research, reinforcing the need for

interventions that enhance self-esteem to address nomophobia. The study also emphasizes the importance of positive thinking and real-life social interactions to manage emotions and prevent nomophobia. Despite limitations, including the online data collection method and its potential impact on response accuracy, the study provides valuable insights into the psychological dynamics between self-esteem and nomophobia among migrant students.

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