

The Factors Associated with Nomophobia Among Bachelor of Nursing Students at Universitas Muhammadiyah Purwokerto

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ABSTRACT

Background: Mobile phones have become essential tools for students due to their ability to meet various educational demands and provide access to a wealth of information. Excessive use and dependence on smartphones have also led to a new problem known as nomophobia. Nomophobia is a term derived from the phrase "no mobile phone phobia," which is related to the fear or distress experienced by individuals when they lose or cannot use their smartphones. Objective: This study aims to determine the factors associated with nomophobia among Bachelor of Nursing students at Universitas Muhammadiyah Purwokerto. Method: This quantitative research used a cross-sectional approach. The study sample comprised 92 Bachelor of Nursing students aged 18-24, selected using stratified random sampling. Data analysis included univariate and bivariate analyses using the Chi-Square test. Results: The analysis showed an association between nomophobia and the following factors: learning fatigue with a p-value of 0.029 (less than 0.05), self-esteem with a p-value of 0.012 (less than 0.05), loneliness with a p-value of 0.035 (less than 0.05), and smartphone usage intensity with a p-value of 0.001 (less than 0.05). Conclusion: A correlation exists between learning fatigue, self-esteem, loneliness, and smartphone usage intensity with nomophobia among Bachelor of Nursing students at Universitas Muhammadiyah Purwokerto.

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1. INTRODUCTION

In the context of the rapidly evolving digital age, mobile phone use has undergone a significant transformation, emerging as an integral part of individuals' daily lives. Various features and sophistication of smartphones make users feel more pampered and facilitated in communicating. Excessive use of smartphones may be a challenge due to the inherent flexibility and practicality they provide. One notable example is the phenomenon of nomophobia, which has attracted significant global attention. Nomophobia, sometimes referred to as "No Mobile Phone Phobia," is a specific phobia characterized by a person's fear or anxiety of cell phones. This condition can lead to increased concerns about the absence of mobile phones [1].

In a separate study conducted by [2], it was found that 66% of individuals aged between 18-24 years had symptoms of nomophobia. A recent study conducted in Turkey revealed that 42.6% of participants in the sample had symptoms of nomophobia [3]. Similar proportions have been reported from Kerala (23%), Odisha (21%) and 22% prevalence for severe nomophobia among undergraduate students in Saudi Arabia [4].

Yildirim & Correi, found that the most susceptible to nomophobia are at the age of 18-24 years as much as 77%, according to [5], individuals aged between 25 and 34 constitute 68% of the population of nomophobia users, with the age group of 55 years and above ranking third in terms of prevalence. According to Santrock (2012), individuals between the ages of 18 to 25 years are considered to be in the adolescent developmental stage of early adulthood. This age range includes students as well. Therefore, students are prone to a phenomenon known as nomophobia [6].

The use of smartphones with various brands has become a popular culture at the Universitas Muhammadiyah Purwokerto, especially the S-1 Nursing study program. The advanced capabilities of mobile phones contribute to an increased sense of entitlement and dependency among students. Based on the initial study conducted, researchers found that out of 20 college students as many as 35% experienced nomophobia in the high category. On average in smartphone use, respondents access social media in one day, which is at any time with a duration of more than 5 hours. In addition, researchers also observed the environment around the FIKES UMP campus. From the observations of researchers show the findings of many students who are busy with their smartphones. Previous research has been conducted on S-1 nursing students related to nomophobia. But only examining the relationship between self-esteem and self-image with nomophobia. So the researcher wanted to further examine about "Factors related to Nomophobia in S-1 Nursing Students of Universitas Muhammadiyah Purwokerto".

2. RESEARCH METHOD

This research is a quantitative research utilizing a *cross-sectional* approach. This research was conducted in April – May 2023. The research sample was S-1 nursing students aged 18-24 years totaling 92 respondents with the *stratified random sampling method*. The variables to be studied are learning saturation, self-esteem, loneliness, and intensity of smartphone use. The research instrument used in this research consists of questionnaires developed through the use of Google Forms and then distributed through the WhatsApp messaging application. The data analysis used to test the hypothesis in this study was univariate and bivariate analysis with *Chi Square* test.

3. RESULT AND DISCUSSIONS

3.1 Univariate

Table 1. Characteristics of Respondents (n=92)

Characteristic of Respondents	n	(%)
Age		
18 Years	10	10,9
19 Years	22	23,9
20 Years	15	16,3
21 Years	24	26,1
22 Years	17	18,5
23 Years	4	4,3
Gender		
Man	11	12
Woman	81	88
Organization Participation		
HMPS	11	12
BEM	1	1,1
Miscellaneous	18	19,6
None	62	67,4
Residence		
Boarding house	67	72,8
Brother's home/Place	25	27,2
Intensity of Smartphone Use		
More than 5 hours/day	92	100

Based on the table above, it shows that the subjects who participated in this study were 92 people. It can be illustrated that the most respondents are classified at the age of 21 years, namely 24 people (26.1%), most of the respondents are female, which is as many as 81 people (88%). Meanwhile, judging from the participation of organizations, most respondents did not have an organization that was followed, which was 62 people (67.4%). Then based on residence, the most respondents live in boarding houses, which is 67 people (72.8%). For the intensity of smartphone use as many as 92 people (100%) use smartphones more than 5 hours/day.

Table 2. Frequency Distribution of Nomophobia, Learning Saturation, Self-Esteem, Loneliness, and Intensity of Smartphone Use (n=92)

Variable	n	%
Nomophobia		
Low	0	0
Moderate	58	63
High	34	37
Learning Saturation		
Low	0	0
Moderate	80	87
High	12	13
Self-Esteem		
Low	24	26,1
High	68	73,9
Loneliness		
Low	0	0
Moderate	82	89,1
High	10	10,9
Intensity of Smartphone Use		
Low	0	0
Moderate	23	25
High	69	75

Based on table 2, it can be explained that most students experience moderate nomophobia as many as 58 people (63%), experience learning saturation in the moderate category, which is as many as 80 people (87%). Students mostly have high self-esteem as many as 68 people (73.9%), students experience moderate category loneliness as many as 82 people (89.1%). And most students have a high intensity of smartphone use as many as 69 people (75%).

3.2. Bivariate

Table 3. The relationship between learning saturation and nomophobia (n = 92)

Learning saturation	Nomophobia						ρ value	OR 95%CI
	Moderate		High		Total			
	n	%	n	%	n	%		
Moderate	54	67,5	26	32,5	80	100	0,029	4,154
High	4	33,3	8	66,7	12	100		

Based on table 3, it is known from the results of statistical tests using the chi-square test to see the relationship between learning saturation and nomophobia, a ρ -value (0.029) is obtained so that it is interpreted that there is a relationship between learning saturation and nomophobia in S1 nursing students at the Universitas Muhammadiyah Purwokerto. In addition, it was found that the value of the Prevalence odds ratio was 4.154 which means that respondents who experienced learning saturation had a risk of 4.154 times experiencing nomophobia compared to people who did not experience learning saturation.

Excessive pressure is a condition that can make a person experience boredom in learning and trigger stress because they cannot complete existing demands [7]. Saturation is the pressure experienced by a person, everyone who experiences saturation will try to release the pressure they feel [8]. Large academic demands when students are in the classroom can make students distract themselves from the pressure they face by accessing the internet outside the lecture topic [9]. Smartphones are used by students as a coping mechanism to relieve stress, where the use of features on smartphones is used as a distraction from the stress faced [10]. In line with Lestari & Sulian's research which revealed that the situational factor that causes smartphone addiction is the learning saturation factor. Situational factors are factors that cause individuals to depend on smartphones and make smartphones as coping media [11].

Table 4. The relationship between self-esteem and nomophobia (n = 92)

Self-esteem	Nomophobia				Total		p value	OR 95%CI
	Moderate		High		n	%		
	n	%	n	%				
Low	10	41,7	14	58,3	24	100	0,012	0,298
High	48	70,6	20	29,4	68	100		

Based on table 4, it is known from the results of statistical tests using the chi-square test to see the relationship between self-esteem and nomophobia obtained a p -value (0.012). In addition, it was found that the value of the Prevalence odds ratio is 0.298 which means that respondents who have high self-esteem have a risk of 0.298 times experiencing nomophobia compared to people who have low self-esteem.

The results of this study are in line with research conducted by [12] which shows that there is a very significant negative relationship between self-esteem and nomophobia tendencies in students. That is, the higher the self-esteem, the lower the tendency of nomophobia in students. Conversely, the lower the self-esteem, the higher the tendency towards nomophobia. Based on research conducted by [13] that college students with low self-esteem report their mobile phone use in all daily activities at a higher rate compared to those with normal/high self-esteem. A person with low self-esteem uses their smartphone for hours per day. Individuals at this level are more at ease when smartphones are nearby and these individuals prefer to spend time with smartphones rather than social environments. Students who have high self-esteem have good social relationships and are able to deal with a variety of situations. Thus, the individual does not depend on smartphones.

Table 5. The relationship between loneliness and nomophobia (n = 92)

Loneliness	Nomophobia				Total		p value	OR 95%CI
	Moderate		High		n	%		
	n	%	n	%				
Moderate	55	67,1	27	32,9	82	100	0,035	4,753
High	3	30	7	70	10	100		

Based on table 5, it is known from the results of statistical tests using the chi-square test to see the relationship between loneliness and nomophobia obtained a p -value (0.035). In addition, it was found that the value of the Prevalence odds ratio was 4.753 which means that lonely respondents had a risk of 4.753 times experiencing nomophobia compared to people who were not lonely.

The results of this study are in line with research conducted by [14] which states that there is a relationship between loneliness and nomophobia in students with a p value of 0.001. Research conducted by [15], also found a significant relationship between loneliness and nomophobia. The results showed that the higher the level of loneliness, the more nomophobic behavior will tend to appear. Students who live far from the people closest to them really need smartphones to be able to contact them. With smartphones, students living in boarding houses can connect and communicate quickly with other individuals even though they are in different places. Santrock (2005) states that early adulthood is in the developmental stage of *intimacy vs. isolation*. In early adulthood, close social relationships are important. At this stage of *intimacy vs. isolation* development individuals begin to seek intimate relationships, but when social relationships are not as desired it will lead to feelings of loss, stress, and dissatisfaction. This subjective feeling raises feelings of loneliness for students, especially students who live in boarding houses. If smartphones are used to being an escape for individuals to divert loneliness, then these individuals will become anxious when not using smartphones [14].

Table 6. The relationship between the intensity of smartphone use and nomophobia (n = 92)

Intensity of smartphone use	Nomophobia				Total		p value	OR 95%CI
	Moderate		High		n	%		
	N	%	n	%				
Moderate	21	91,3	2	8,7	23	100	0,001	9,081
High	37	53,6	32	46,4	69	100		

Based on table 6, it is known from the results of statistical tests using the chi-square test to see the relationship between the intensity of smartphone use and nomophobia, a p -value (0.001) is obtained. In addition, it was found that the value of the Prevalence odds Ratio was 9.081 which means that respondents with an intensity of

smartphone use of more than 5 hours / day had a risk of 9.081 times experiencing nomophobia compared to people who had an intensity of smartphone use of less than 5 hours.

The results of this study are in line with research [16] which states that there is a relationship between the intensity of smartphone use and nomophobia. This result is also corroborated by [17] that there is a significant relationship between the intensity of smartphone use and the presence of nomophobia. The high use of smartphones in modern times is one of the causes of the emergence of nomophobia, this is a trigger for dependence on someone because users are not limited in time limits to smartphones [18]. The intensity shown by students in using smartphones tends to reach more than 5 hours per day in using smartphones. This indicates symptoms of addiction. According to [11] states that one of the factors causing nomophobia is external factors. The existence of various lecture demands and information needs experienced by students make smartphones always in their hands, so that this causes students to be dependent on smartphones. So, researchers concluded that the high intensity of smartphone use is a factor causing nomophobia.

4. CONCLUSION AND RECOMMENDATION

Based on the results of statistical tests on factors related to nomophobia in S-1 nursing students of Universitas Muhammadiyah Purwokerto, it can be concluded that there is a relationship between learning saturation, self-esteem, loneliness, and intensity of smartphone use with nomophobia.

The results of the research obtained are expected for students to be able to control themselves to minimize the intensity of smartphone use. Especially for mental nursing, it can provide a counselor to overcome problems or phenomena that are happening at this time, namely nomophobia. For future researchers who want to conduct similar research, it is better to use other factors such as neuroticism, sensation seeking, leisure boredom and others that affect nomophobia and use a different method or mix method.

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