

ASSESSMENT OF THE NOMOPHOBIA LEVEL AMONG STUDENTS AT UNIVERSITY

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Abstract: *Nomophobia (phobia of disconnection from smartphones) has a serious impact on social and mental problems in society, so it is important to measure the high number of nomophobia as an effort to anticipate more serious societal problems. This study aims to determine the level of nomophobia among college students. This research method uses a survey approach conducted on 123 students in West Java. To find out the level of nomophobia among college students, descriptive statistical analysis was applied. The results of the analysis show that most students have a high dependence on smartphones, the level of nomophobia among students, most students are in the moderate and severe categories. The most severe dimension of nomophobia experienced by students is the fear of not being able to communicate and losing connectedness. These findings indicate that the current condition of students is quite apprehensive in terms of their dependence on smartphones. This dependence can have an impact on mental disorders as well as other social problems. Therefore, parents or policy makers need to make regulations or rules that limit smartphone dependency among students (or children in the context of parents).*

Keywords: *Nomophobia; level; nomophobia dimensions; social problems; smartphones.*

INTRODUCTION

The intensity of mobile phone use is getting higher due to the demands of education, work, and to fulfil daily communication needs. The presence of smartphones has a positive impact in facilitating various human activities (Kuncoroputri et al., 2023), but excessive use also has a bad impact. This can certainly have an impact on a person's behaviour both directly and indirectly.

Therefore, overuse of smartphones can interfere with various aspects of daily life. Overuse triggers a series of behaviours that may be inappropriate for the user and those close to them. However, the problem is not with the use of the device itself, but with the time people spend using it. This is the problem that arises when people become dependent on the use of their smartphones, plus part of their lives are now lived virtually (Gezgin, 2017).

One of the impacts that can result from using mobile phones with high intensity is the occurrence of nomophobia or no mobile phone phobia. The term no-mobile-phone phobia is defined as the fear of not being able to use or reach a smartphone (Hernández & Moya, 2022; Yildirim & Uk, 2014). Nomophobia is often characterised by problems related to controlling self-satisfaction with the functions or facilities presented by the mobile phone so that, in the end, an individual experiencing nomophobia loses self-discipline (Farchakh et al., 2021). Various psychological factors are involved when an individual overuses a mobile phone, such as low self-esteem and extroverted personality. The burden of this problem is now increasing globally. Other mental disorders such as, social phobia or social anxiety and panic disorder can also trigger nomophobic symptoms (Bhattacharya et al., 2019). Nomophobia is considered a contemporary digital, virtual and societal disorder that refers to discomfort, nervousness, anxiety and suffering caused by lack of contact with smartphones (Gonçalves et al., 2020).

Nomophobia can promote the development of mental disorders, personality disorders, (Lee et al., 2018), self-esteem issues, loneliness, and people's happiness (Ozdemir et al., 2018), especially in younger populations (Roque Hernández & Guerra Moya, 2022). All of this has a huge impact on health that has a negative impact on other aspects of life, such as studying and working by creating a strong dependence on mobile technology.

The concept of nomophobia concerns at least three things: loss of access to information, loss of connectedness, and loss of communication skills (Fuady et al., 2022; Yildirim & Uk, 2014). Furthermore, nomophobia is a specific condition aroused by situations when the potential unavailability of one's smartphone arises.

(Yildirim & Uk, 2014) revealed that nomophobia consists of four aspects, namely not being able to communicate, losing connectedness, not being able to access information, and giving up convenience. Not being able to communicate relates to feelings of loss or anxiety when unable to communicate via mobile phone; anxiety due to the inability to contact or be contacted. Losing connectivity relates to feelings of loss when unable to connect with services on a mobile phone such as losing internet signal connectivity or Wi-fi networks resulting in not being able to check the latest information or updates on social media. Not being able to access information relates to a sense of discomfort when unable to access or obtain information via a mobile phone. Giving up convenience relates to feeling uncomfortable when not being able to be near a mobile phone.

Many studies on nomophobia have been conducted at this time, for example research (Tanoto et al., 2020) which measures the relationship between nomophobia and student attention, research (Muyana & Widyastuti, 2017; Widyastuti & Muyana, 2018) which analyses nomophobia disease among adolescents. However, research that describes

the level of nomophobia among college students is still very limited.

Based on the above background, it is known that nomophobia has a serious impact on social and mental problems in society so that measuring the high rate of nomophobia is very important as an effort to anticipate more serious community problems. However, the lack of evaluation of validated nomophobia instruments is a major obstacle in identifying the level of nomophobia among university students. This study aims to measure the level of nomophobia among university students.

METHOD

This research is designed as a quantitative research with survey method. The first stage in this research is to adapt the instrument according to the concept of nomophobia (Hernández & Moya, 2022) consisting of four instrument dimensions, namely not being able to communicate, losing connectedness, not being able to access information, and giving up convenience. Furthermore, the instrument was distributed to research respondents. The next stage is to test the validity of the instrument building using confirmatory factor analysis test. Furthermore, to answer the research objectives, the analysis used is descriptive statistical analysis with mean (\bar{x}) standard deviation (μ). To determine the degree of high and low levels of nomophobia, this study adapted from the concept of (Yildirim & Uk, 2014). Meanwhile, in the division of the high and low proportion scale based on the dimensions of nomophobia, this study uses the mean and standard deviation, where;

High category if $X > (\bar{x} + \mu)$;

Medium category if $(\bar{x} - \mu) < X < (\bar{x} + \mu)$; and

Low category if $X < (\bar{x} - \mu)$.

The population of this study were undergraduate students in West Java totalling

871,191 students spread across 597 educational institutions, both in private and public colleges, institutes, and universities in West Java (Education & Culture, 2020). The sampling technique used in this study was convenience sampling technique. The number of samples in this study were 123 students. The research instrument adopted from the nomophobia instrument developed (Fuady et al., 2022; Yildirim & Uk, 2014).

RESULTS

The research results consist of descriptive statistics, assumption test results, and hypothesis test results which are then analyzed critically.

The words "Table" or "Figure" and their numbers are placed on one line by themselves. The table title is written on the left above the table, with 1 space from the table. The table must be in MS Word table format (not in image form such as copy paste from SPSS or Excel). Writing in a "Times New Roman" table with size 7pf. As seen in Table 1.

Student is one of the younger generations who have relatively high accessibility and need for smartphones. This study aims to determine the level of nomophobia among university students. This variable includes 11 question items using a Likert scale calculation of 1 to 5 which is then adjusted to 4 indicators of nomophobia variables: not being able to access information, losing connectedness, not being able to communicate, and giving up convenience. Based on the results of the analysis, it is known that the average (mean) of nomophobia is 52.2 with a standard deviation value of 9.47. The minimum value obtained is 15, while the maximum value is 75. Thus, this shows that the respondents' nomophobia category tends to be high. Respondents have the assumption that they will feel uncomfortable if they are not carrying or with their mobile phones. They also tend to feel anxious if they cannot communicate or get information through their mobile phones. The results of the answers obtained from 75 respondents regarding the category of

nomophobia variables experienced by each respondent can be seen in Table 6.

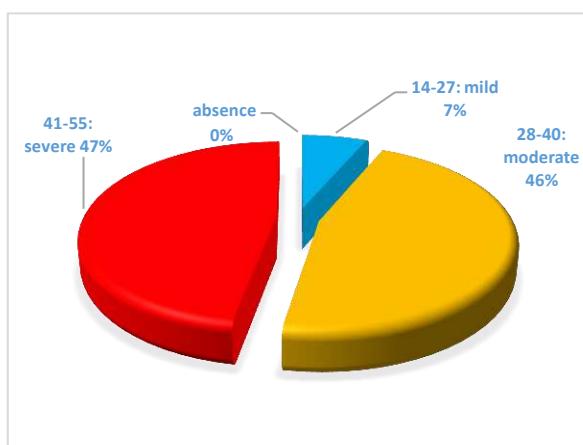
Table 1. Category of Nomophobia Respondent

Kategori	Skor	Percentase
<i>Absence</i>	1-13	0
<i>Mild level</i>	14-27	7
<i>Moderate level</i>	28-40	46
<i>Severe level</i>	41-55	47
Total		100

(Source : The result of research)

Based on table 1 above, it can be seen that the majority of respondents experience nomophobia at moderate and severe levels. This is indicated by the number of scores obtained that 47 per cent of respondents were at the severe level, 46 per cent of respondents were at the moderate level, and 7 per cent of respondents were at the mild/low level. This category classification refers to research conducted by (Gonçalves et al., 2020). Visualisation of the percentage of respondents' nomophobia categories can be seen in Figure 1.

Picture 1. Nomophobia in Student (Source : The result of research)



Based on Figure 1, it is known that the severity of students' dependence on smartphones is very high. This phenomenon is a serious problem among students or teenagers. If this continues to be ignored, nomophobia can have a negative impact, both on individuals and on

social systems. On an individual level, nomophobia can promote the development of mental disorders, personality disorders (Lee et al., 2018), self-esteem issues, loneliness, and people's happiness (Ozdemir et al., 2018), especially in younger populations (Roque Hernández & Guerra Moya, 2022). All of these have a huge impact on health which has a negative impact on other aspects of life such as studying and working as it can create a strong dependence on mobile technology. Meanwhile, the impact of nomophobia on social systems is that it leads to low concern for social systems. This finding is in line with several previous studies that evaluated the level of nomophobia among the younger generation (Muyana & Widayastuti, 2017; Widayastuti & Muyana, 2018).

The concept of nomophobia developed by (Yildirim & Correia, 2015) with four dimensions of nomophobia as many as 20 instruments. The four dimensions consist of (a) not being able to communicate, (b) losing connectedness, (c) not being able to access information, and (d) giving up convenience. The results of descriptive analysis based on the dimensions are described in table 2 below:

Table 2. The average and standard deviation of the dimensions of students' nomophobia.

No	Dimension	N	Min	Max	Mean	SD
1	Loss connection	123	1,67	5	3,9	0,85
2	Loss of comfort	123	1,0	5	3,1	0,81
3	Unable to communicate	123	1,67	5	4,2	0,75
4	Not receiving information	123	1,0	5	2,8	0,96

(Source : The result of research)

Based on table 1 above, it is known that the highest level of nomophobia is in the dimension of "unable to communicate" $\bar{x}=4.2$ ($SD=0.75$), followed by the dimension of "fear of losing connection" $\bar{x}=3.9$ ($SD=0.85$), while

the lowest degree of nomophobia is the dimension of "fear of not getting information" $\bar{x}=2.8$ (SD=0.96). This finding shows that the severity of nomophobia among university students is the fear of not being able to communicate and the fear of losing connectedness. This shows that the problem is quite serious where students experience excessive anxiety and dependence on using smartphones. In another dimension that is the lowest, students do not really experience concerns about not being able to access information when they cannot use smartphones.

Meanwhile, the proportion of respondents' nomophobia level based on the dimensions is illustrated in table 3.

Table 3. Proportion of nomophobia levels based on nomophobia dimensions

No.	Dimension	Category	Frequency (n)	Percentage(%)
1	Loss connection	High(>4,33)	45	36,58
		Moderate (2,6-4,33)	67	54,47
		Low (<2,6)	11	8,94
2	Loss of comfort	High (>4,33)	11	8,94
		Moderate (2,6-4,33)	85	69,10
		Low (<2,6)	27	21,95
3	Unable to communicate	High (>4,33)	70	56,91
		Moderate (2,6-4,33)	52	42,27
		Low (<2,6)	1	0,81
4	Not receiving information	High (>4,33)	9	7,31
		Moderate (2,6-4,33)	55	44,71
		Low (<2,6)	59	47,96

(Source: research data analysis)

In table 3 above, it is known that in the dimension of connectedness most students are categorised as having high and moderate anxiety about losing connectedness. only 8.94 per cent of students in the low category will worry about losing connectedness. Loss of

connectedness or connectivity is a feeling related to feelings of loss when unable to connect to services on a mobile phone such as losing internet signal connectivity or Wi-fi networks resulting in not being able to check or update on social media. This finding represents that students are very afraid and dependent on smartphones and their networks.

In the dimension of loss of comfort, the most dominant proportion is the moderate category, which is 69.1 per cent. The dimension of loss of comfort relates to a sense of discomfort when unable to be near a mobile phone. Most students feel angry, uncomfortable if they do not use a smartphone or are disturbed when using a smartphone.

The dimension of not being able to communicate is the most severe dimension in terms of nomophobia compared to other dimensions. In this dimension, 70 students were categorised as high in terms of anxiety of not being able to communicate. The dimension of not being able to access information is a sense of discomfort when unable to contact or be contacted via mobile phone. Students feel full of worries if they are far away or cannot access their smartphones. The dimension of worry about not being able to get information is a relatively low dimension. This means that most students are not too worried about being away from smartphones in getting information. A total of 47.9 per cent of respondents were categorised as low based on the degree of worry / anxiety of not being able to access information. Meanwhile, only 1 respondent was categorised as high.

DISCUSSION

Nomophobia is one of the problems of individuals today. Nomophobia has a serious impact on social and mental problems in society, so measuring the high rate of nomophobia is very important as an effort to anticipate more serious community problems. Many studies have confirmed that excessive smartphone use has an impact on individuals'

psychological, emotional, social, and physical problems(Notara et al., 2021).

Based on the results of the analysis, it is known that the respondents' nomophobia category tends to be high. Respondents have the assumption that they will feel uncomfortable if they are not carrying or with their mobile phones. They also tend to feel anxious if they cannot communicate or get information through their mobile phones.

The highest dimensions of nomophobia among students are fear of losing connection and fear of not being able to communicate. This finding shows that students have a high dependence on smartphones. Smartphones have become a vital tool for students to interact with each other.

Social cognitive theory emphasises that self-regulation and self-control are the basis of personal behaviour (Bandura 1991). Regarding the smartphone use literature, it is emphasised that individuals with low self-regulation and self-control skills may use their smartphones uncontrollably and create a higher risk of dependence. (Van Deursen et al., 2015). From this point of view, college students who exhibit intense nomophobic behaviour do not show strict self-regulation and seem to be vulnerable to smartphone use disorder (Yildiz Durak, 2019).

This level of nomophobia in students can be caused because students cannot control the use of smartphones and use them for certain purposes such as doing assignments and so on, besides that it is caused because students not only need smartphones for activities such as studying but the desire to mingle and be accepted in their peer groups. This is in line with research conducted (Riyanti et al., 2022; Widyastuti & Muyana, 2018). The existence of these findings has implications for the importance of efforts to manage the use of social media wisely and increase self-control so that nomophobia decreases. Students tend to use smartphones in class and disregard the material presented, by observing patterns when attention begins to wane, educators and students can plan and use appropriate methods to prevent distractions by implementing break

intervals to restore attention. Research shows that viewing some forms of nature (through paintings) may have a positive influence on restoring attention.... Students' nomophobia behaviour in accessing excessive social media has a negative effect that affects individual activities, so with good self-control, it is hoped that individuals can set limits on the use of smartphones so that they are not excessive and can avoid the negative effects that will be caused (Fajri & Karyani, 2021; Safitri & Syahara, 2021).

CONCLUSION

Nomophobia is one of the problems of individuals today. Nomophobia has a serious impact on social and mental problems in society, so measuring the high rate of nomophobia is very important as an effort to anticipate more serious community problems. The study tested nomophobia instruments and assessed the level of nomophobia among university students.

The results of the analysis showed that of the 15 instruments tested, only 11 instruments had the feasibility to be used in measuring nomophobia, while the remaining 4 instruments were not good enough to be used in measuring nomophobia. Based on the overall reliability value of Cronbach's alpha of 0.86, the interaction between person and item instruments as a whole can be concluded to have good quality.

In terms of the level of nomophobia among university students, most students were in the moderate and severe categories. As many as 46 per cent of students are categorised as moderate nomophobia and 47 per cent of students are categorised as severe. This finding shows that the current condition of students is quite alarming in terms of their dependence on smartphones. This dependence can lead to mental disorders and other social problems. Therefore, parents or policy makers need to make regulations or rules that limit smartphone dependence among students (or children in the context of parents).

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