

Nomophobia among undergraduate students Faculty of Health Sciences UiTM Selangor Puncak Alam Campus.

Nurul Faiqah Saleh^a, Norhidayu Zakaria^a, Roswati Nordin*^a

^aCentre for Nursing Studies, Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), UiTM Kampus Puncak Alam, 42300 Bandar Puncak Alam, Selangor, Malaysia

Abstract:

Nomophobia refers to the feeling of fear to be without a mobile phone. It was a new term and serious problem of smartphone addiction but this problem was still unknown globally. This study aimed to determine nomophobia among undergraduate students in the Faculty of Health Sciences UiTM Selangor Puncak Alam Campus. A cross-sectional study was performed on 326 undergraduate students from all programmes which were selected using simple random sampling. The instruments used in this study were adapted and adopted from Nomophobia Questionnaire (NMP-Q) and Mobile Phone Involvement Questionnaire (MPIQ). 204 (62.6%) out of 326 of the respondents had a moderate level of nomophobia while 75 (23.0%) had a severe level of nomophobia. While 46 (14.1%) of the respondent having a mild level of nomophobia and 1 (0.3%) shown no symptoms of nomophobia. There is no statistically significant difference of prevalence of nomophobia between female and male with mean 3.09 (0.62) and 3.07 (0.58) respectively. Besides, a strong positive correlation was seen between the prevalence of nomophobia and psychosocial interaction. As a conclusion, the majority of the students have a moderate level of nomophobia. Besides, the result shows that students who have nomophobia are inter society. Further, another study would be conducted to find the prevalence of nomophobia using different sample.

Keywords: nomophobia; psychosocial interaction; mobile phone usage; mobile phone addiction

Corresponding Author

Roswati Nordin
roswati2809@uitm.edu.my

1. INTRODUCTION

Nomophobia is a term that most people in the world did not know. It was a severe problem of smartphone addiction, but this problem was still unknown to the world. It is a new term defined as the fear or anxiety of being without a mobile phone [1]. Nomophobia can be divided into four categorical which are absent of nomophobia, mild, moderate and severe level of nomophobia [2]. This problem usually affect young adults especially teenagers and student as they are more prone to use mobile phone. Moreover, nomophobia is caused by using too much mobile phone or addiction to mobile phone. Addict to mobile phone can cause health problem especially to mental health such as insomnia, anxiety, irritability and others [3]. These day smartphones are widely and globally used in people's daily lives and provide them with the right to communicate on any occasion. Smartphone allows people to benefit its function such as connect to other compatible devices, internet surfing, listen to music, play games and capture precious moments [4].

Smartphone addiction or specifically called nomophobia was one of the major problems that faced by people especially among teenagers where they more tend to play smartphones rather than studying [1]. In Malaysia, *Malay Mail's* recent

social experiment in 2015 showed that from teenagers to adults, were unable to switch off their mobile phones. They were both put to test and found that it was burdensome to go through without their gadgets for more than 24 hours. In America, 50% of the teens felt addicted to their mobile phones, as stated by Common News Network (CNN) reported [5]. Moreover, in Malaysia, there was less study to prove the prevalence of nomophobia.

There were results from some study that showed the prevalence of nomophobia in men was higher than female. A recent study showed that 19% of males and 18% females were found to be nomophobic [4]. In contrast, there was another study indicated that the prevalence of nomophobia was favourable among females who are 28.66% compared to males who were 20.68% [5].

Nomophobia may affect one's psychosocial interactions. According to past study, people who have low self-esteem and poor social relationship were people who addicted to the mobile phone, as they need to keep constant contact with others. Smartphone addiction also cause psychology problems as it may reduce social interaction and the loneliness, despair and isolation of a person [6].

A previous study in India report that a total of 24.12% of the students were found to be nomophobic while 40.97% were at risk of being nomophobic [5]. He reported that being away from home could be the factor students have nomophobia thus it making them more dependent on the mobile phone as they were homesick. While a study in UK shows that 19% of males were nomophobic while 18% of females were nomophobic [4].

Another study shows that the prevalence of nomophobia was higher among females (28.66%) compared to males (20.68%) [5]. In Malaysia, there is limited study regarding nomophobia but there was a study that relates mobile phone usage factor and nomophobia. The individuals in Malaysia aged 15 years and above using a mobile phone show a percentage of 97.7% compared to 97.7% in 2015 [7].

A study carried out in India with over 2100 people, shows that 53% of mobile phone users were experiencing the nomophobia [2]. While another study reported that 39.5% of the students were nomophobic and another 27% were at risk of developing nomophobia [8]. In Turkey, a study shows that majority of the students were having moderate nomophobia [9].

A study in Turkey also shows that male students had higher scores on nomophobia compare to female students [10]. These studies showed that nomophobia may become a severe problem in the future if no action taken to overcome this problem as can cause many problem such as stress, decrease in academic performance, anti-social and others.

People who were having nomophobia or being unfit to use their mobile phone will experience the intense feelings of anxiety and distress. Nomophobia also made people depends so much on their mobile phone thus will increase the mobile phone use. This is proved as there is study in India shows that 85.9% of the respondent can't stay without their mobile phone for more than a week [5].

A study in Bangalore shows that nomophobes were certainly higher in males (44.8%) compared to females (33.7%) [8]. Similar study in Turkey shows that male students had higher score on nomophobia compared to female students [10].

While there is study that shows female students were nomophobic (28.66%) compared to male students (20.68%) [5]. In contrast, a study in Pune shows that there is no significant different between gender regarding nomophobia [11]. These study shows that mobile phone use is universal and equally distributed between male and female students. Therefore the objective of this study is to determine the prevalence of nomophobia among undergraduate students at Faculty of Health Sciences, UiTM Puncak alam.

2. METHODOLOGY

2.1 Research Design

This study involves a quantitative study and a cross-sectional study design. A self-administered questionnaire

was distributed to the students with the consent form. The respondents were given the time to answer and complete all the questions and submit the questionnaire. The ethical approved was required from the ethics research committee of UiTM.

2.2 Research Population

This study was set in UiTM Selangor Puncak Alam Campus. Faculty of Health Sciences is one of the faculties that available in UiTM Puncak Alam Campus. It consists of eight programmes which are Nursing, Nutritional and Dietetics, Medical Laboratory and Technology, Occupational Therapis, Physiotherapy, Medical Imaging, Optometrist and Environmental Health and Safety. This study focused on undergraduate students.

2.3 Sampling

The participants were selected using simple random sampling. A group of undergraduate students were chosen from the total population of Faculty of Health Sciences in UiTM Puncak Alam Campus which was 2160. The questionnaire was given to the representative of programme and distributed randomly to their consecutive programmes.

2.3.1 Sample Size

Sample size was calculated using guidelines suggested by Krejcie and Morgan (1970). Out of 210 respondents, 326 respondents were chosen for this study.

2.3.2 Inclusion and Exclusion Criteria

As for inclusion criteria, the respondents must be undergraduate students of Faculty of Health Sciences in UiTM Selangor Puncak Alam Campus.

This study will excluded EPJJ students, students who did not have mobile phone and students who refused to participate in the study.

2.4 Research Instrument

2.4.1 Questionnaire

The question used in this study were adapted and adopted from Nomophobia Questionnaire (NMP-Q) by Caglar Yildirim and Ana-Paula Correia (2015) and Mobile Phone Involvement Questionnaire (MPIQ) from Shari P. Walsh [12].

The questionnaire was divided into three main parts in which part A consist of socio-demographic data part B was the NMP-Q and part C was the MPIQ questionnaire. Part A, the socio-demographic section was specifically designed for undergraduate students which include gender, age, programmes having mobile phone and average time of mobile phone usage.

For part B, the nomophobia questionnaire, consists of 20 items and rated using a 7-point Likert scale, with 1 being 'Strongly disagreed' and 7 'Strongly Agree' [2]. Total score were calculated by summing up the responses to each item,

resulting in a nomophobia score ranged from 20 to 140, with higher scores corresponding to greater nomophobia severity. The NMP-Q scores are interpreted as follows: score of 20 indicates absence of nomophobia, scores of 21-59 indicates mild nomophobia, scores between 60-99 indicates moderate nomophobia and scores more than 100 until 140 indicates severe of nomophobia [2].

For part C, the MPIQ question covered mobile phone involvement, and two psychological factors, self-identity and validation from others to explore the effect of these influences on undergraduate student’s mobile phone behavior [12]. The questionnaire explicitly the psychosocial factors impacting on indicators of mobile phone addiction. This questionnaire contained 38 items which included cognitive, behavioural, interpersonal conflict, conflict with others, euphoria, loss of control, withdrawal symptoms and relapse and reinstatement.

2.5 Data Collection

Data was collected using a structured questionnaire with close-ended questions. Data was collected from 25th March 2019 until 1st April 2019 within one week.

2.6 Data Analysis

All of the data collected were converted in SPSS (Statistical Package for Social Science) version 21.0 to carry out descriptive and analytic statistic. The descriptive analysis was used to analyze the first objective which was to determine the prevalence of nomophobia among undergraduate students in the Faculty of Health Sciences UiTM Selangor Puncak Alam Campus.

As for second objective, two different data analysis was used according to the category of socio-demographic data. For age groups and programmes, One-way ANOVA test was used while for gender, independent t-test was used to analyze the data. For the third objective, Spearman’s rank correlation was used as the data was not normally distributed.

2.7 Ethical Consideration

The ethical approval was received from the UiTM Research Ethics Committee on 26th November 2018 with reference number 600-IRMI (5/1/6).

3. RESULT

3.1. Demographic Characteristic

The demographic data was included gender, age and programmes. Most of the respondent was female (n=280, 85.9%) while others were male (n=46, 14.1%). Majority of the respondent were between 21 and 22 years old (n=133, 40.8%). Second most age is between 23 and 24 years old (n=126, 38.7%). The questionnaire were equally distributed (n=41, 12.6%) to students from Nursing programmes, Optometry programmes, Occupational Therapy programmes,

Physiotherapy programmes, Nutrition and Dietetics programmes and Environmental Health and Safety. While others (n=40, 12.3%) to the students of Medical Imaging and Medical Laboratory Technology programmes respectively.

Table 3.1 Socio-demographic characteristics of respondent

		Frequency (n)	Percentage (%)
Gender	Female	280	85.9
	Male	46	14.1
Age	18-20	59	18.1
	21-22	133	40.8
	23-24	126	38.7
	>25	8	2.5
	Nursing	41	12.6
Programme	Optometry	41	12.6
	Occupational Therapy	41	12.6
	Physiotherapy	41	12.6
	Medical Imaging	40	12.3
	Medical Laboratory Technology	40	12.3
	Nutrition and Dietetic	41	12.6
	Environmental Health and Safety	41	12.6

3.2. Prevalence of Nomophobia among Undergraduate Students in the Faculty of Health Sciences UiTM Selangor Puncak Alam Campus.

The result of the study shows that more than half of the respondent were having moderate of nomophobia (n=204, 62.6%), while 75 (23%) of the respondent are having severe nomophobia. 46 (14.1) out of 326 of the respondent were having mild nomophobia while 1 (0.3%) were absence of nomophobia.

Table 3.2 Frequency of prevalence of nomophobia

		Frequency (n)	Percentage (%)
Prevalence of Nomophobia	Absence	1	0.3
	Mild	46	14.1
	Moderate	204	62.6
	Severe	75	23.0

3.3 Comparison on Prevalence of Nomophobia with Socio-demographic Data.

3.3.1 The Comparison of Prevalence of Nomophobia with Programmes

One-way Anova result shows that there is significant difference in the mean prevalence of nomophobia between the programmes. Further, Tukey post hoc test was run and revealed that there is significant different between the prevalence of nomophobia and Medical Imaging programme, nutritional and Dietetic programme and Environmental Health and Safety programme. As shown in the Table 3.3, that Medical Imaging (2.95±0.55, p = 0.013) and Nutritional and Dietetic (2.85±0.62, p = 0.01) is statistically significant

lower compared to Environmental Health and Safety (3.41±0.63).

Table 3.3 The comparison of prevalence of nomophobia with programmes.

Variable	Mean (SD)	t-statistic (df)	*p value
Environmental Health and Safety	3.41 (0.63)		
Medical Imaging	2.95 (0.55)	3.021 (7,318)	<0.05
Nutritional and Dietetic	2.85 (0.62)		

3.3.2 The Comparison of Prevalence of Nomophobia with Gender

Table 3.4 show the Independent t-test result between prevalence of nomophobia and gender of the respondents. As shown in the table, the significant value is 0.36 which is higher than 0.005 therefore, the variances can be assume equal. In test of means, the p-value is 0.083 which is higher than 0.05, means there is no significant between prevalence of nomophobia and gender.

Table 3.4 The comparison prevalence of nomophobia with gender.

Variable	Mean (SD)	t-statistic (df)	*p-value
Male	3.07 (0.58)		
Female	3.09 (0.62)	0.36 (324)	0.83

3.3.3 The Comparison of Prevalence of Nomophobia with Age.

Majority of the respondents were aged between 21 to 22 years old followed by 23 to 24 years old as the second large age group that the respondents had. Next, the third place age group that the respondents had was 18-20 years old and the least age group was above 25 years. As shown in the table 3.5 there is no statistically significant different in the mean of prevalence on nomophobia and age.

Table 3.5 The comparison of prevalence of nomophobia with age

Variables	Mean (SD)	t-statistic (df)	*p-value
18-20	2.98 (0.60)		
21-22	3.03 (0.60)		
23-24	3.20 (0.59)	2.68 (3, 322)	0.07
>25	2.88 (0.99)		

3.4 Correlation the Effect of Nomophobia on the Student's Psychosocial Interaction.

Table 3.6 shows the correlation of prevalence of nomophobia and student's psychosocial interaction. As shown in table, there was a positive and good correlation between prevalence of nomophobia and psychosocial interaction of

students, which was statistically significant p-value = $0.00 < 0.05$. The hypothesis testing was to accept null hypothesis and reject alternative hypothesis.

Table 3.6 Correlation effect of nomophobia on student's psychosocial interaction

	Psychosocial Interaction	
	r	*p-value
Prevalence of Nomophobia	0.604	0.000

4. DISCUSSION

Based on the results, the hypothesis of the first objective was accepted where nomophobia was present among the students and there were also students who were at risk of getting nomophobia. It was the same with the previous study that was done in Bangalore, where students were having nomophobia and were at risk of getting nomophobia [8]. Other than that, according to a recent study in 2015 among nursing students in a college at India revealed that majority of the students were at risk of developing nomophobia while a few of them were nomophobic [13]. The findings of the result showed a majority of the students were having moderate nomophobia, few were having severe nomophobia and one participant that not having nomophobia. These results were significant with the previous study in Bhopal [14]. These results also showed consistency with previous study conducted in Mysore, India which half of the students had moderate nomophobia [1].

People who have nomophobia are people who usually addict to mobile phone. As for this study, researchers could say that these students were developing nomophobia probably due to an academic or educational reason. This is because most of the students will use their mobile phone to look for information. As mention by Yasan (2018) in his study that most of the students use a mobile phone to look up something that they do not know or understanding during class. Besides, students also use a mobile phone as an educational tool as this day they can only download these apps at app store such as an online dictionary. This is consistent with the previous study by Iqbal (2015) which stated that most of the students used their mobile phone for academic purposes such as Medscape.

For comparison of prevalence of nomophobia with socio-demographic data, there is no significant different between gender and age of the respondent. While there is significant different between three programmes in Faculty of Health Sciences UiTM Puncak Alam Campus which is Environmental Health and Safety, Medical Imaging and Nutritional and Dietetic. The result shows that students of Environmental Health and Safety programmes are more nomophobic compared to Medical Imaging and Nutrition and Dietetic programmes. Its shows that probably most of the student in Environmental Health and Safety programme were mobile phone addicted. The students are used the

phone for educational purposes such as for an assignment. They also may use the phone for too long for their assignment or for play mobile games as mentioned by Gezgin (2018) in his study that the longer duration of smartphone use, the higher nomophobia to develop.

The result of this study showed that the correlation between the prevalence of nomophobia and the psychosocial interaction of students were good and positive in which the nomophobia had a great effect on the student's psychosocial interaction. The hypothesis on the third objective can be accepted where the hypothesis stated that nomophobic persons have problems with their psychosocial interactions where it can be seen when the highest mean was seen at the "I feel connected to others when I am using my mobile phone" in the Mobile Phone Involvement Questionnaire (MPIQ) which showed that the students preferred to interact with mobile phones rather than communicating face to face. Psychosocial was defined as a state of mental, emotional, social, and spiritual well-being [18].

Divan (2008) stated in his study that many people who were addicted to mobile phones had low self-esteem and poor social relationships, thus they thought that they should be in constant contact with other people. The author also stated that addiction to mobile phone then may also cause psychological problems as the social relations and the welfare of the individual may be reduced due to loneliness, depression and isolation. This showed that a nomophobic person may have a problem with their social relations as they are constantly on their smartphones rather than communicating with people in their surroundings.

5. CONCLUSION

To conclude, this study had found that there is no students that not having nomophobia. Most of the students were having moderate level of nomophobia. This study also showed that there is no difference between prevalence of nomophobia with gender and age. While there is significant difference between prevalence of nomophobia and programmes in Faculty of Health Sciences UiTM Puncak Alam Campus. This study also showed that there is good positive correlation between the effects of nomophobia on student's psychosocial interaction. Further study should be conducted to find the prevalence of nomophobia using different sample.

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