

# A Survey on the Role of Demographic Factors and University Students' Level of Nomophobia

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## ABSTRACT

The popularity of smartphones among university students is associated with the numerous features and functionalities they provide. A smartphone is the best example in this study since it is a much close gadget to people. It is an essential part to be tackled by everyone to sustain a better and more harmonious interaction among students especially. As a consequence, nomophobia is one of the symptoms of a bad disease that is happening around the world since technology has become a vital thing in our daily life. This study examined the level of nomophobia in one of the public universities located in Selangor, Malaysia. A cross-sectional survey among undergraduate and postgraduate students was approached for this study. Among 300 questionnaires distributed and employed, only 271 were useable. Results found that most of the students had a moderate level of nomophobia. Gender, age, and current academic undertaking were tested to observe whether they played a significant difference in their level of nomophobia. Surprisingly, only their current academic undertaking had a significant difference. This study is very crucial for the university authorities to intervene and find a solution to overcome the growing trends of nomophobia among students when they depend too much on the usage of smartphones.

**Keywords:** *Nomophobia, age, gender & education*

## 1.0 INTRODUCTION

Nomophobia is a global phenomenon explaining a growing fear in today's world where the fear of being disconnected from a mobile device. Nomophobia or also known by the acronym "No Mobile Phone Phobia" is a disease when an individual is unable to be far away from mobile phone dependence suffered by an individual on his or her mobile phone, so they can bring concerns that excessive if his or her mobile phone is not with them. Most people who are addicted to their cell phones are not even conscious of what

they are doing to their lives, especially their loved ones, friends, and children. Usually, individuals who are diagnosed with nomophobia will consume more time with mobile phones rather than interacting with people surrounding them (Yildirim, 2014). This has become a worrying issue among today's high school and college students worldwide. A report by Kleiner Perkins Caufield & Byers showed that an average person would check his mobile phone 150 times a day (Aljomaa et al., 2016).

Nomophobia is a new phenomenon and a rising global issue where some researchers are reluctant to agree to consider that as a new category in the literature and this problem may cause due to the lack of adequate studies. Furthermore, findings from a range of countries and cultures proved that nomophobia is a prevalent issue in the world and an up-to-date topic (Chóliz, 2010; King & et al., 2013; Oksman & Turtiainen, 2004; Sharma & et al., 2015; Tivolacci & et al. 2015; Toda & et al., 2006). There are current studies examining that the prevalence of nomophobia has been increasing. In a study conducted in England, among 1,000 participants, 66 percent of them are nomophobic as the results showed that they feel anxious and fearful of being away from mobile phones (SecurEnvoy, 2012). Another study carried out with 200 medical students in Bangalore, India, resulted in 39.5 percent of the students being nomophobia (Pavithra & Madhukumar, 2015). Furthermore, a study by the Medical College and Associated Hospital of Central India by Dixit (2010) revealed that 20 percent responded that they were unable to concentrate and become stressed out when they get disconnected from their devices or when it has run out of battery. Moreover, in a study of 1600 professionals and managers by Perlow (2012), the Konsuke Matsushita Professor of Leadership at Harvard Business School revealed 70 percent said that they checked their mobile phones for an hour before getting up, 26 percent revealed to sleeping with their mobile phones and 56 percent checked their phones for an hour before going to sleep. Meanwhile, a study by Smith (2012), revealed 44 percent said that they have slept with their phones next to their bed meanwhile 90 percent of individuals aged 18 to 29 year-old slept with their phones.

As smartphone penetrations spread across the globe, so does nomophobia. The seriousness of nomophobia or the fear of being out of mobile phone contact is on the rise across the globe. For this reason, it has triggered more and more people's fear of being without or losing their mobile devices (Gezgin, 2017). Simply put, some people get panic attacks when they are not on their phones. It is viewed by Yildirim (2014) in his study that people who are diagnosed with nomophobia will spend more time with mobile phones rather than interacting with the people around them. This concern is not without prior evidence. An earlier study conducted in the UK in 2008 revealed that 66 percent of the teenagers and younger population are troubled by the idea of losing their mobile phones (Pavithra et al., 2015).

It is observed by Gezgin (2016) where they have found that individuals, especially young people, who are exposed to nomophobia express few incidents. For instance, they experience anxiety about not being able to communicate or access information when they forget to take their mobile phones with them, when the phone's battery charge is depleted, or when they are out of physical range for signal coverage. Hence, it leads to the conclusion whereby anxiety symptoms from nomophobia such as fear, dizziness, difficulty in breathing, stomach cramps, etc. have negative effects (Thomé et al., 2011). Further to that, it is also emphasized that as time progresses, this situation causes users to continually check their phones, even when the devices are right next to them (Adnan & Gezgin, 2016; Algül, 2014; Dixit et al., 2010; Gezgin & Cakir, 2016; Pavithra et al. 2015; Sharma et al, 2015; Yildirim et al., 2016). This scenario worsens whereby the individual should switch off the phone, especially while driving as they become very anxious and make all endeavors to locate the mobile phone.

In addition to that, it is also possible to find studies that emphasize the negative effects of nomophobia on young people's academic achievement (Erdem et al., 2016). Moreover, Alijoma et al., (2016) have revealed that bachelor's degree students have the highest degree of addiction. A more recent finding has shown no significant association between nomophobia and gender, however, the number of nomophobes was certainly higher among males compared to females (Emanuel & Richard, 2015). Moreover, a study has found that the level of nomophobia is increasing as the technologies of mobile phones expand (Adnan & Gezgin, 2016; Emanuel & Richard (2015). This means that when technology is increasing and expanding, the level of nomophobia is worsened for all. Similarly, another scholar mentioned that the prevalence of nomophobia is generally observed among the young generation (Kaur & Sharma, 2015; Pavithra & Madhukumar, 2015). This has shown that the negative impacts of using smartphones are critically bad and

may cause nomophobia. To some extent, nomophobia would make the individual start feeling anxious in several scenes such as forgetting it at home, running out of battery, or when the mobile phone loses its signal. These demotivate individuals to focus on their daily routines (Dixit et al., 2010). Apart from that, frequencies of checking the phone for messages, emails, or calls in an hour were assessed, for which 49 percent responded that they would check the phone 2-3 times in an hour (Pavithra et al., 2017). This means that the number of respondents towards playing phones are regularly used for the same purpose as stated by the researcher.

Essentially, the objectives of this study are based on the following: 1) to examine the level of nomophobia among university students; 2) to identify the differences in terms of the level of nomophobia among students across age, gender and education level. The methodology, results, discussion, and conclusion at the end of this study are also discussed.

## **2.0 LITERATURE REVIEW**

### **2.1 Nomophobia Phenomenon and Students**

There are many different views and studies related to nomophobia that aims to understand what people perceive about this phenomenon. The concept of nomophobia is a phobia of the current time and is termed, no mobile phobia or, no mobile phone phobia and is defined as the fear of deprivation of a mobile phone (Gezgin, 2017). Another finding also defined nomophobia as a disconnection to mobile phones and standing off from them or the fear of being disconnected from the Internet (King et al., 2010). It is viewed that based on the discussion, the definition of nomophobia can be defined as people who are also known better as nomophobic, they cannot be separated from their smartphones. This indicates that individuals who are diagnosed with nomophobia will consume more time with mobile phones rather than interacting with people surrounding them (Yildirim, 2014). One of the studies shows that nomophobia can be categorized as a disorder for people who experienced this symptom (Pavithra et al., 2015).

In other words, nomophobia can also cause negative impacts on the user as people who are addicted to mobile phones are unable to be disconnected from their smartphones. Given that the technology revolution is rampantly rising in this new era, invention and innovation towards new technology can cause both good and bad impacts on using the smartphone these days (Ahmed et al., 2011). Based on the findings obtained by Young (1998), when the use of the Internet or smartphones becomes addictive, this can result in negative effects on the financial, physical, psychological, and social aspects of life. In other words, people who are addicted to smartphones will become uncomfortable and anxious if the smartphone is not with them.

There are several studies showing the use of smartphones among people nowadays which causes addiction in using them. There have been a few studies that have focused on the addiction to smartphones and mobile phones (Bian & Leung, 2015; Chiu, 2014; Chóliz, 2012), they are problematic use Pavithra et al., (2015), or their excessive use (Ha et al., 2008; Lee et al., 2014). Another contrary issue about using smartphones is that despite many advantages, overuse uncontrolled, and problematic usage of mobile technologies causes psychological disorders or an increase in such symptoms (Chóliz, 2012).

It is shown that people will tend to be close to smartphones or touch their phone when it is near them which caused them to check their smartphone regularly and continually (Adnan & Gezgin, 2016; Algül, 2014; Dixit et al., 2010; Gezgin & Cakir, 2016; Pavithra et al., 2015; Sharma & Wavare, 2015; Yildirim et al., 2016). In other words, nomophobia negatively affects individuals' routines both psychologically and physically. There has been an increasing number of studies regarding nomophobia handled by technology research organizations and in the literature. On the other hand, there is a debate in the literature that said nomophobia is a new phenomenon.

In addition, it is observed that from another study as indicated by Homée et al., (2011) anxiety symptoms such as fear, dizziness, difficulty in breathing, stomach cramps, etc. have negative effects. Also, as discussed in a previous study, they have found that in nomophobia, individuals start to feel anxious in a variety of situations: forgetting it at home, running out of battery, or when mobile phones lose their signal. This anxiety demotivates individuals to focus more on their daily routines (Dixit et al., 2010). This means

that for people who are always with their smartphones regardless of time and place, the tendency for them to have nomophobia symptoms is quite high rather to people who are less attached to their devices.

From a different perspective, South Korea has found that smartphone addiction has genuine consequences affecting students' success (Kaur et al., (2015). It implied that they are unable to do something that is not related to their smartphone for instance not going to school, interpersonal relationships suffered, and feeling anxiety and loneliness without their smartphones. In research on undergraduate students in the US, it is found that one-fifth of respondents were classed as totally dependent on their smartphones and about one-half were overly dependent (Emanuel et al., 2015). It can be retrieved the studies showed that nomophobia levels of individuals place an amount of concern with the excessive use of smartphones (Dixit et al., 2010; Gezgin et al., 2016; Gezgin et al., 2017; Gupta et al., 2016; Krajewska-Kułak et al., 2012; Lee et al., 2014; Park, 2005; Pavithra et al., 2011; Szapkow et al., 2011; Yildirim et al., 2016).

Besides, in the previous study, it is also shown how common and broad nomophobia is with its findings shown by the studies conducted in various cases across countries and different cultures (Chóliz, 2010; King et al. 2013; Oksman & Turtiainen, 2004; Tavolacci, et al., 2015). This means that different sampling sizes and different countries are increasing especially among the younger generation (Dixit et al. 2010).

Nomophobia can cause some symptoms and problems such as feeling restless without a phone, feeling obsessive about their smartphones, feeling worried if the battery is about to die and fear of forgetting to put the phone somewhere else (Deniz et al., 2017). Furthermore, when the studies on nomophobia are examined, it can be determined that almost half of university students (Erdem et al., 2016; Yildirim et al., 2016) display nomophobic behaviors above that of a moderate level (Adnan & Gezgin, 2016; Akilli & Gezgin, 2016; Gezgin et al., 2017; Uysal et al., 2016).

Moreover, studies have shown that the duration of mobile internet ownership is more influential on nomophobia than the period of having a smartphone (Gezgin & Cakir, 2016; Gezgin et al., 2017). Another study shows that 67 percent of the students said they purchased mobile phones to keep in touch with family members, 26 percent for calling and texting friends, and 7 percent for other reasons (Pavithra et al., 2015). Moreover, in terms of duration use among the students, it is shown that the total duration of time spent on using a mobile phone per day majority of 48 percent responded that they use mobile phones for a duration of 1-3 hours per day followed by 31 percent who used it for only half an hour to one hour, whereas 16 percent used it for 3-5hours and 5 percent used a mobile phone for more than 5 hours in a day (Pavithra et al., 2015). For online learning among students, a recent study by Kaur et al., (2021) reported that due to the growing trends of use of technology in daily routines during COVID-19 pandemic, the virtual world has forced parents to expose their young children to smartphones at earlier ages which may inflate the prevalence and hazardous outcomes of nomophobia among them.

### **2.3 Demographic Factors**

There were plenty of studies that associated nomophobia with demographic factors. The first is gender, it was stated that females are more likely to be more nomophobic than males (Gezgin & Cakir, 2016; SecurEnvoy, 2012; Tavolacci et al., 2015; Yildirim et al., 2015). On the other hand, some different studies and reports that claimed that there was no significant difference in terms of gender (Adnan & Gezgin, 2016; Dixit et al., 2010; Uysal et al., 2016) nor stated that males are more affected by nomophobia than females (Mail Online, 2008). Another study conducted by Yildirim et al., (2015) showed that the response of students towards the attitude and associated anxiety with mobile phones in terms of mean scores based on their gender, and it was found that there was a statistically significant difference among males and females in questions related to worry when running out of battery and if they could not stay up to date with social media, women have more sleep loss when using the phone at night as compared to males, also females hardly use a mobile phone to download educational material and used their phone mostly not to feel lonely in public places as compared to males ( $p < 0.05$ ). According to Pavithra et al., (2015) in their research, it is shown that among the nomophobic students, 59.5 percent were males and 40.5 percent were females, 36.7 percent were residing in hostels and 63.3 percent were day scholars and 31.6 percent were postgraduate students whereas 68.4 percent students were interns and undergraduates.

Secondly is in terms of age. A previous study found by Pavithra et al, (2015), which investigated the differences between 1,420 adults' Internet and mobile phone addiction in South Korea, reported that the

factors that caused Internet and mobile phone dependencies were similar and related. Next, in Turkey, Gezgin et al., (2016) conducted a study with the participation of 929 high school students and showed a moderately positive relationship between nomophobia prevalence and Internet addiction among the adolescent participants. Furthermore, in one study, nomophobia levels of the participants were investigated and it is claimed that nomophobia levels of 18 – 24-year-old participants' (77 percent) are higher than the 25 – 34-year-old group (68 percent) (Secur Envoy, 2012).

On the other hand, Yildirim et al., (2015) have found that there is no significant difference between those aged below 20-year-old group and above those aged 20-year-old group in terms of nomophobia level. Similarly, Adnan and Gezgin (2016) also found no significant differences in nomophobia levels of 433 higher education students concerning their ages. As reported by Aparna, et al., (2017) in their study found that the data was collected using a questionnaire which also included a test on mobile phone addiction. 1/10th of the students had the symptoms of addiction. 68.11 percent belonged to the age group of 18-20 years, and 1/3rd of them had two mobile phones. Nearly half (43.16 percent) of the sample knew about mobile phone addiction and only 28.8 percent were familiar with the term Nomophobia. Hence, it was concluded that the majority of youngsters are addicted to mobile phones and were unaware of Nomophobia.

Lastly is in terms of academic attainment. A past report by Pavithra & Madhukumar (2015) showed that the population of 200 students comprised 31.5 percent of postgraduate students and 68.5 percent of undergraduates were analyzed in terms of their nomophobia level. Based on the findings, this study tried to analyze the level of nomophobia between undergraduate and postgraduate levels to indicate their significant differences. Furthermore, a previous study conducted by Szpakow et al., (2011) reported that most university students had a mobile phone regardless of their current academic attainment of which, 109 (68.1 percent). Almost 1/3 of the students had two mobile phones. Significantly more respondents owned mobile phones from 2 to five years 111 (69.4 percent), from 6 to 10 years 46 (28.8 percent), and above 10 years only 3 (1.8 percent) students.

### 3.0 METHODOLOGY

This is a quantitative nature with a cross-sectional study. The study was carried out to examine the level of nomophobia among university students. The use of questionnaires through a self-administered and online survey was used to gather data from undergraduate and postgraduate students at one of the public universities in the central region over the course of two weeks. For this study, the total population refers to all students in the university, which consisted of 10,134 students as recorded on the Official Website of the university. As suggested by Saunders et al., (2016) for a population over 10,000, thus the sample size consists of 300 respondents who are students at this university. Thus, 300 questionnaires were distributed to the students in the university and only 271 were useable to fulfil this study's objectives. The constructs in this study were measured by using 7 points Likert scale.

Essentially, levels of nomophobia were adapted from Yildirim's (2014) study. The students were asked to evaluate their level of nomophobia based on the statements such as Twenty items were measured to assess the strength of nomophobia levels. "I would feel uncomfortable without constant access to information through my smartphone" 1 strongly disagree to 7 strongly agree, "I would be annoyed if I could not look information up on my smartphone when I wanted to do so." 1 strongly disagree to 7 strongly agree, "Being unable to get the news (e.g., happenings, weather, etc.) on my smartphone would make me nervous" 1 strongly disagree to 7 strongly agree, "I would be annoyed if I could not use my smartphone and/or its capabilities when I wanted to do so" 1 strongly disagree to 7 strongly agree, "Running out of battery in my smartphone would scare me" 1 strongly disagree to 7 strongly agree, "If I were to run out of credits or hit my monthly data limit, I would panic" 1 strongly disagree to 7 strongly agree, "If I did not have a data signal or could not connect to Wi-Fi, then I would constantly check to see if I had a signal or could find a Wi-Fi network" 1 strongly disagree to 7 strongly agree, "If I could not use my smartphone, I would be afraid of getting stranded somewhere" 1 strongly disagree to 7 strongly agree, "If I could not check my smartphone for a while, I would feel a desire to check it" 1 strongly disagree to 7 strongly agree, "I would feel anxious because I could not instantly communicate with my family and/or friends" 1 strongly disagree to 7 strongly agree, "I would be worried because my family and/or friends could not reach me." 1 strongly

disagree to 7 strongly agree, “I would feel nervous because I would not be able to receive text messages and calls.” 1 strongly disagree to 7 strongly agree, “I would be anxious because I could not keep in touch with my family and/or friends.” 1 strongly disagree to 7 strongly agree, “I would be nervous because I could not know if someone had tried to get a hold of me” 1 strongly disagree to 7 strongly agree, “I would feel anxious because my constant connection to my family and friends would be broken.” 1 strongly disagree to 7 strongly agree, “I would be nervous because I would be disconnected from my online identity.” 1 strongly disagree to 7 strongly agree, “I would be uncomfortable because I could not stay up-to-date with social media and online networks” 1 strongly disagree to 7 strongly agree, “I would feel awkward because I could not check my notifications for updates from my connections and online networks” 1 strongly disagree to 7 strongly agree, “I would feel anxious because I could not check my email messages” 1 strongly disagree to 7 strongly agree, “I would feel weird because I would not know what to do.” 1 strongly disagree to 7 strongly agree. All these items were adapted from Yildirim (2014). As for data analysis, descriptive analysis was carried out by looking at percentages, frequencies, means, and standard deviations to investigate the profile and level of nomophobia among students. This was followed by inferential statistics to look at the differences using Independent Samples T-Test Analysis. The data were run and analysed using Statistical Package for Social Sciences (SPSS) version 22.

## 4.0 RESULT AND DISCUSSION

### 4.1 Demographic Profile

Table 1 presents the summary of the respondents’ backgrounds. Based on the reported result, most of the respondents were female 60.9 percent respondents. While there were only 39.1 percent of respondents were represented as male. In terms of the respondents’ age, most of the respondent’s 93.7 percent were represented by young respondents. Meanwhile, the majority of students 95.2 percent were undergraduate level and there was only 4.8 percent represented the postgraduate category.

**Table 1: Profile of Respondents**

Demographic Profile	Frequency	Percentage
<b>Gender</b>		
Male	106	39.1
Female	165	60.9
<b>Age</b>		
Young (18 – 24 years old)	254	93.7
Adult (25 – 30 years old and above)	17	6.3
<b>Current academic undertaking</b>		
Undergraduate (Foundation, Diploma & Degree)	258	95.2
Postgraduate (Masters & PhD)	13	4.8

### 4.2 Descriptive Analysis

Table 2 explains the summary of the descriptive analysis respectively. Based on the result in Table 2, the item ‘I would be worried because my family and/or friends could not reach me.’ has recorded the first highest mean value of 5.35 and a standard deviation of 1.18. It is followed by the second highest ‘I would be anxious because I could not keep in touch with my family and/or friends in which the mean value is 5.27 and the standard deviation of 1.24. However, item ‘I would be nervous because I would be disconnected from my online identity has recorded the lowest mean value of 4.49 and standard deviation of 1.51 followed by the second lowest on item ‘Being unable to get the news (e.g., happenings, weather, etc.) on my smartphone would make me nervous’ the mean is 4.51 and the standard deviation is 1.46. The

overall level of nomophobia among university students was reported to be moderate ( $M= 4.89$ ,  $SD= 0.94$ ). Thus, it shows that majority of the respondents had a moderate level of nomophobia.

This present finding is consistent with a past study that revealed the usage of smartphones among people nowadays causes addiction to use smartphones for instance excessive use and problematic use. Furthermore, a study by the Medical College and Associated Hospital of Central India by Dixit (2010) discovered that 20 percent responded that they were unable to concentrate and become stressed out when they get disconnected from their devices or when it has run out of battery. In addition to that, one of the studies shows that nomophobia can be categorized as a disorder for people who experienced this symptom (Pavithra et al., 2015). In other words, nomophobia also can harm the user or so-called nomophobia which person who is addicted to a phone and cannot be distanced from their Smartphone. There have been several studies that have focused on the addiction to smartphones and mobile phones (Bian & Leung, 2015; Chiu, 2014; Kwon et al., 2013), their problematic use (Takao et al., 2009; Wang et al., 2015), or their excessive use (Ha et al., 2008; Lee et al., 2014).

Another finding from a previous study also claimed that people tend to be close to smartphones or touch their phone is when the smartphone is near to them which can cause them to check on their smartphones regularly and continually (Adnan & Gezgin, 2016; Algül, 2014; Dixit et al., 2010; Gezgin & Cakir, 2016; Pavithra et al., 2015; Sharma & Wavare, 2015; Yildirim et al., 2016). In other words, nomophobia negatively affects individuals' routine lives both psychologically and physically. There has been an increasing number of studies regarding nomophobia handled by technology research organizations and in the literature. On the other hand, there is a debate in the literature due to nomophobia being a new phenomenon.

**Table 2: Summary of Mean(M), Standard Deviation (SD)**

Items	Mean	Std. Deviation
I would feel uncomfortable without constant access to information through my smartphone.	4.87	1.35
I would be annoyed if I could not look information up on my smartphone when I wanted to do so.	5.19	1.36
Being unable to get the news (e.g., happenings, weather, etc.) on my smartphone would make me nervous.	4.51	1.46
I would be annoyed if I could not use my smartphone and/or its capabilities when I wanted to do so.	5.12	1.23
Running out of battery in my smartphone would scare me.	5.07	1.46
If I were to run out of credits or hit my monthly data limit, I would panic	4.59	1.44
If I did not have a data signal or could not connect to Wi-Fi, then I would constantly check to see if I had a signal or could find a Wi-Fi network.	4.84	1.51
If I could not use my smartphone, I would be afraid of getting stranded somewhere.	4.64	1.39
If I could not check my smartphone for a while, I would feel a desire to check it	4.87	1.51
I would feel anxious because I could not instantly communicate with my family and/or friends	5.09	1.35
I would be worried because my family and/or friends could not reach me.	5.35	1.18
I would feel nervous because I would not be able to receive text messages and calls.	5.15	1.28
I would be anxious because I could not keep in touch with my family and/or friends.	5.27	1.24
I would be nervous because I could not know if someone had tried to get a hold of me	5.03	1.35
I would feel anxious because my constant connection to my family and friends would be broken	4.91	1.29
	4.49	1.51

I would be nervous because I would be disconnected from my online identity.	4.54	1.41
I would be uncomfortable because I could not stay up-to-date with social media and online networks	4.67	1.44
I would feel awkward because I could not check my notifications for updates from my connections and online networks	4.53	1.45
I would feel anxious because I could not check my email messages	4.89	1.42
I would feel nervous because I would not be able to receive text messages and calls.		

Scale for the items were from Strongly disagree (1) to Strongly Agree (7)

### 4.3 Differences in the level of nomophobia among university students across gender, age, and education level

The demographic factors of gender, age and academic undertaking were selected to observe the differences across the level of nomophobia among university students. Table 3 shows the test of equality variances (Levene Test) that variances in the total overall level of nomophobia across gender (male and female) are equal,  $\rho > 0.05$ . Based on the reported result, it can be implied that there are no significant differences in the level of nomophobia across gender (male and female) respondents which have shown by  $\rho$ -value  $> 0.05$ . Therefore, there is no significant difference in the level of nomophobia across gender. This can be implied being either a male or a female will not impact the level of nomophobia a person has.

Similarly, this result is in line with the finding indicated by Pavithra et al., (2015) where there was no significant result found in nomophobia levels across gender. The result of the current research is also consistent with the findings of a few different studies and reports which claimed that there are no significant differences in terms of gender (Adnan & Gezgin, 2016; Dixit et al., 2010; Uysal et al., 2016). Previously, it was indicated by Bianchi and Phillips (2005) in their study where they also found that there was no difference between females and males regarding mobile phone addiction. In contrast, the present finding is not similar to few studies conducted by Arpacı et al., (2017), Erdem et al., (2017), SecurEnvoy (2012), Tavolacci et al., (2015), Yildirim et al., (2016) and Pavithra and Madhukumar (2015) found that women had a higher rate of nomophobia than men in their study. The most probable explanation for the current result showed that mobile phone use is universal and also equally distributed among male and female students in universities.

**Table 3: Summary of Differences in terms Level of Nomophobia across Gender (Male and Female)**

Variable	Mean	t-value	df	p-value	Decision
<b>Gender</b>		1.587	269	0.114	No Significant Difference
Male	99.877				
Female	96.170				

Table 4 shows the test of equality variances (Levene Test) that variances in the total overall level of intention across ages are equal.  $\rho > 0.05$ . Based on the reported result, it can be implied that there is no significant differences in the level of nomophobia across age (young and adult) respondents which has shown  $\rho$ -value  $> 0.05$ . Therefore, there is no significant difference in the level of nomophobia across ages.

This can be implied that the level of nomophobia did not associate with both young and adults. This current study is parallel with the previous study in which Yildirim et al., (2015) found no significant difference was found between those aged below 20-year-old group and those aged above 20-year-old group in terms of nomophobia levels. Similarly, Adnan and Gezgin (2016) also found no significant differences in nomophobia levels of 433 higher education students concerning their ages. Moreover, these findings are congruent with a study conducted by Beranuy, et al., (2009) on college students. They reported no significant association of nomophobia with the age of participants.



**Table 4: Summary of Differences in terms of Level of Nomophobia across Age (Young and Adult)**

Variables	Mean	t-value	df	p-value	Decision
Age		-1.165	269	0.245	No Significant Difference
Young (18-23 years old)	97.276				
Adult (24-30 years old)	102.765				

As shown in Table 5, Levene's test has a probability greater than 0.05. It is assumed that the variances in the total overall level of nomophobia across levels of education attainment (undergraduate and postgraduate) are equal. Based on the reported result, it can be implied that there is a significant difference in the level of nomophobia across levels of education attainment (undergraduate and postgraduate) respondents which have shown  $p$ -value  $< 0.05$ . Therefore, there is a significant difference in the level of nomophobia across levels of education attainment (undergraduate and postgraduate). This present finding is in line with where apparently, this has become a worrying issue among today's high school and college students worldwide. A report by Kleiner Perkins Caufield & Byers showed that an average person would check his mobile phone 150 times a day (ABC News, 2015). In addition to that, it is also possible to find studies that emphasize the negative effects of nomophobia on young people's academic achievement (Erdem et al., 2016). Moreover, Alijoma et al., (2016) have revealed that bachelor's degree students have the highest degree of addiction.

However, the present findings are in contrast with the findings by Pavithra et al., (2015). In their research, it was found that no significant difference in nomophobia levels between undergraduates and postgraduates. The difference between the current findings with the previous study could happen due to the different backgrounds of respondents, socio-cultural differences, and changes in the condition of the research. For instance, the previous study was conducted among students in particular faculty which might result in an insignificant association between current academic undertaking and level of nomophobia.

**Table 5: Summary of Differences in terms of Level of Nomophobia across Education Level**

Variables	Mean	t-value	df	p-value	Decision
Level of Education Attainment		-2.019	269	0.045	Significant Difference
Undergraduate	97.10				
Postgraduate	107.85				

## 5.0 CONCLUSION

Firstly, the study was conducted in one of the public universities with 271 respondents. Based on the results, it showed that most of the university's students had a moderate level of nomophobia. Interestingly, in this study, it was found that only educational attainment had been significant difference across the level of nomophobia among students. However, results showed that age and gender did not play a significant difference in the level of nomophobia among students. There are a few limitations in this study that limit its generalizability. In this present study, firstly, the study population was limited to a small number of students from a single university only; therefore, the findings of the study cannot be generalized to other settings. The second limitation was the study's sample was mainly comprised of undergraduate students using cross-sectional study. Further cross-sectional studies involving all the undergraduates and postgraduates' group of students throughout the country are required to understand the broader trends in this particular issue. Lastly, the study variables only employed a few variables and further study that includes more variables such as attitudes, and social interaction anxiety should be recommended to enrich better findings. Moreover, future studies can also be conducted to determine the prevalence of nomophobia, and its correlates also.

Therefore, the researchers believe that there should be strong support provided by the university especially to continue the effort in promoting awareness of nomophobia issue among students. The university should provide relevant information on the growing trends of nomophobia. This is to ensure the problem would

not worse and cause a harmful health outcome for the students soon. To some extent, the university authorities must devise mechanisms for restrictions on mobile phone usage among students.

Academics should remember that they are role model for the students and should know that they cannot teach efficiently and cannot motivate themselves to deliver lessons due to anxiety and fears caused by nomophobia. Hence, first, they should be made aware of the trends of nomophobia and the university authorities must devise mechanisms for restrictions on mobile phone usage among students.

It is thought that some technology usage rules should be enforced in the classroom, and finally, it should not be forgotten that there is a real world out there; that there is life other than virtual reality. Real-time social relations, sportive activities, listening to peaceful music, and reading beautiful books should be regarded as valuable for students in terms of their spiritual well-being. Moreover, family and friends as well as community surroundings, also need to play a major part in reducing the upcoming ill effects of excess mobile phone usage.

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