Frequency of Nomophobia among Medical Students of Rawalpindi Medical University

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Abstract

Background: Nomophobia is defined as “The discomfort or anxiety felt when out of mobile phone (MP) or computer contact. It is the fear of becoming technologically incommunicable, distant from the mobile phone or not connected to the web”. The frequency of nomophobia has increased over the past years and this condition has many negative consequences. The objective of our study is to find the frequency of nomophobia among medical students of Rawalpindi Medical University (RMU).

Material and Methods: This cross-sectional study was carried out at Rawalpindi Medical University (RMU) over the course of one year. The inclusion criteria were medical students of all five years of MBBS studying at RMU. Students who do not own or use a smart phone were excluded from the study. Our sample size was 350 students, who were recruited by convenience sampling. For this study, The Nomophobia Questionnaire (NMP-Q) has been used which has 20 items. Each item is scored on a 7 point Likert scale. The total score ranges from 20 to 140.

Results: The mean NMP-Q score of the male students was 82.96 (±21.06) and that of the female students was 78.52 (±23.69), with a p-value of 0.065, which is insignificant. Out of the total 350 students, the number of students with mild level of nomophobia was 61(17.4%), with moderate level of nomophobia was 216(61.7%), and with severe nomophobia was 73(20.9%).

Conclusion: Measures are needed to be taken on both public and personal level to counter this issue of nomophobia, which is becoming highly prevalent in our society.

Keywords: Nomophobia, anxiety, fear, medical students, male, female.
Introduction

Negative impact and consequences of technology are not the characteristics of the technology itself, rather it reflects the particular way in which they are used that can render a very useful device as harmful.1 Over a period of almost a decade, mobile phone has developed from a device that was very seldom used to being the most used one.

The term nomophobia is a portmanteau for “No mobile phobia”. It is defined as “The discomfort or anxiety felt when out of mobile phone (MP) or computer contact. It is the fear of becoming technologically incommunicable, distant from the mobile phone or not connected to the Web”.2 A more detailed definition of nomophobia has been provided by Bragazzi and Puente. According to them, nomophobia consists of multiple attributes like regularly using your mobile phone and spending considerable time on it, anxiety at the thought of losing one’s own handset or when the mobile phone is not available nearby or when it cannot be used, frequently looking at your phone’s screen to see whether messages or calls have been received, keeping your mobile phone switched on for 24 hours a day, preferring the new technologies for communication rather than face to face communication.3

Nomophobia is yet to be officially recognized as a psychiatric condition. Researches have been done on it and there have been calls to include it in the Diagnostic and Statistical Manual of Mental Disorders-5th Edition (DSM-V).3 On average, a person’s smartphone is checked by him 20-30 times a day, according to a research on a sample of Malaysian adults.4 Many studies done in different countries and cultures – from the USA to India and from Europe to Japan have confirmed these findings and have shown that nomophobia is universally widespread and present.5,8 A study conducted in Finland has shown that smartphones may cause compulsive checking habits.9 Similarly, a study conducted in Taiwan showed that smartphones may lead to compulsive usage and increased distress.10

Apart from the studies showing frequency of nomophobia in the general population, researches have particularly been carried out to show its frequency among students. According to a study done in France, 31.3% of college students suffered from anxiety due to non-availability of phone.11 A research done on college students in Turkey revealed that 42.6% students suffered from nomophobia.12 In another study conducted in a medical college of Pune, India, mild nomophobia was found in 17.9% students whereas 60% had moderate and 22.1% had severe nomophobia.13 A study was done to compare nomophobic behaviour of Pakistani and Turkish university students in which the results revealed that Turkish students were more nomophobic as compared to Pakistani students.14 In a research conducted on students of a medical college in Khyber Pakhtunkhwa, Pakistan, it was found that 74% students suffered from anxiety in case of non-availability of their mobile phones and 84% repeatedly checked their phones to see if they received any call or message, a phenomenon known as ringxiety.15

Nomophobia is a little-known phobia and very little research has been done on it in Pakistan. The objective of this study is to find the frequency of nomophobia among the students of our university and to provide results in the form of percentages, which can be used to spread awareness, among the university students and among the public in general, about the addiction of mobile phones and the detrimental effects of this addiction.

Materials and Methods

This cross-sectional study was conducted to determine the frequency of nomophobia among medical students of Rawalpindi Medical University (RMU). The data were collected from the MBBS students of RMU during the year 2019. The inclusion criteria were the medical students of first year to final year MBBS at RMU. Students who did not own or use a smart phone were excluded from the study. Sample size was calculated using WHO sample size calculator and it came out to be 350. Equal number of students (70) was taken from each of the five years of MBBS for questionnaire filling. Male and female students were not necessarily taken in equal numbers. The value of anticipated population proportion was 0.45. Non-random convenience sampling was used for the selection of students for data collection.

The instrument employed for this study was The Nomophobia Questionnaire (NMP-Q). This scale has previously been used in such studies of nomophobia. This scale is easy to apply and understand, and consumes less time. It is a 20 item questionnaire in which each item is scored on a 7 point Likert scale, with score 0 depicting “strongly disagree” and score 7 depicting “strongly agree”. The total score on NMP-Q ranges from 20 to 140. A score of 20 shows absence of
nomophobia, 21-59 shows mild level of nomophobia, 60-99 shows moderate level of nomophobia, and 100-140 depicts severe nomophobia. A written informed consent was signed by the respondents at the beginning of the questionnaire filling. The demographic information included age, gender and year of study. Students who did not own or use a smart phone were excluded from the study. The data were analysed using the Statistical Package for the Social Sciences (SPSS) version 22. For continuous variables, mean along with standard deviation was calculated. t-test at 5% level of significance was applied to determine any statistically significant difference between the NMP-Q scores of male and female students. p-value less than 0.05 was considered statistically significant. Frequencies and percentages of students with different levels of nomophobia were also calculated.

**Results**

70 students were taken from each of the five years of MBBS. Total number of male students was 176(50.3%) and female students was 174(49.7%). The mean NMP-Q score of the male students was 82.96 (±21.06) and that of the female students was 78.52 (±23.69). The difference between the mean NMP-Q scores of the male and female students was statistically insignificant as the p-value came out to be greater than 0.05 (Table 1).

| Gender | n (%)  | Mean (SD) | 95% CI     | P-value |
|--------|--------|-----------|------------|---------|
| Male   | 176(50.3) | 82.96 (21.06) | 0.269-9.155 | 0.065   |
| Female | 174(49.7) | 78.52 (23.69) | 0.273-9.159 |         |

Table 1: Mean NMP-Q scores according to gender

Table 2: Frequency and percentage of students with different levels of nomophobia

| Levels of nomophobia                  | Frequency (%) |
|---------------------------------------|---------------|
| Mild level of nomophobia               | 61 (17.4%)    |
| Moderate level of nomophobia           | 216 (61.7%)   |
| Severe nomophobia                      | 73 (20.9%)    |
| Total                                 | 350 (100%)    |

**Discussion**

The results of our study show that all of the students at Rawalpindi Medical University (RMU) are suffering from nomophobia, whether it be mild, moderate or severe. No student is found nomophobia free. At RMU, 17.4% of the students are suffering from mild nomophobia, 61.7% from moderate nomophobia and 20.9% from severe nomophobia, so the highest number of students are found to be having moderate level of nomophobia. When comparing the nomophobia levels between the male and female students, insignificant difference was found. The high levels of nomophobia encountered in our students might be because students consider mobile phone an easily accessible and convenient means of entertainment which they can have even during their study time, without the need to go out. The results of our research are in accordance with many other researches that have been carried out previously to assess nomophobia or the effect of mobile phone usage on personal and social life, health and academics of students.

A study carried out in Pune, India on 1st year MBBS students showed results that are exactly in accordance with our study. This study showed mild nomophobia in 17.9% students, moderate nomophobia in 60% of students and severe nomophobia in 22.1% of students. The resemblance between the findings of these two studies is striking. Similarly, studies carried out in a medical college in Central India and another in West Bengal in 2019, which used different scales than our study, showed 18.5% and 19.4% of students to be nomophobic respectively. However, these values were lower as compared to the levels of nomophobia found in our study. Similarly, there was insignificant difference between the male and female students based on levels of nomophobia. A study carried out in a public sector female medical college of Khyber Pakhtunkhwa also showed high dependence on mobile phones among students.

Nomophobia is a serious issue and it has been proven that it affects the mental and physical health, social and personal life, sleeping habits and academic performances. Therefore, measures need to be taken on both public and personal levels in order to address it. On a public level, awareness needs to be created that mobile phone dependence can have serious implications on health. This should be followed by emphasis on measures taken on personal level to save...
oneself from the harm of excessive mobile usage. Limited mobile phone usage should be encouraged.

**Conclusion**

From our study, we conclude that nomophobia has high prevalence in students of Rawalpindi Medical University, with no statistically significant difference between the male and female students.

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