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Original Research Article

A study to assess the degree of nomophobia among the undergraduate students of a medical college in Bhopal

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ABSTRACT

Background: Nomophobia is no mobile phobia that is the fear of being out of contact with one's own mobile phone. In today's world, cell phone technology introduces new senses of speed and connectivity to social life. Since the younger generation is the latest consumer of the mobile phones, and the under 25 year age group in professional colleges like medical colleges use mobile phones quite frequently. This study was conducted to find out the prevalence of nomophobia in Gandhi Medical College, Bhopal.
Methods: The study was a cross sectional study conducted for a period of 3 months (June to September) in 2016 on students of first proff, second proff junior, second proff senior, junior final proff and senior final proff of Gandhi Medical College, Bhopal. A total of 473 students were selected by purposive sampling. The data was collected using a questionnaire Scoring was calculated as per NMP Q.
Results: The study was conducted on a total of 473 students undergraduate MBBS students. The percentage of female participants was 51.6%. Majority (56.1%) of participants belonged to age group of 20-22 years. More than 57% participants started using smart mobile phones before attaining age of 18 years. 291 (61.5%) were having moderate, 6.1% having severe nomophobia and only one participant was not suffering from nomophobia.
Conclusions: The introduction of mobile phones and new technologies has shaped our daily life, with both positive and negative aspects.

Keywords: Nomophobia, Smart phone addiction, Phobia

INTRODUCTION

"Humanity is acquiring all the right technology for wrong reasons" *- R Buckminster Fuller.*

Nomophobia is no mobile phobia that is the fear of being out of contact with owns mobile phone (situational phobia).[1] The word "nomophobia" originated in England and is derived from the expression "No Mobile Phobia", that is, the phobia of being without a mobile phone.[2] Nomophobia refers to discomfort, anxiety, nervousness or anguish caused by being out of contact with a mobile phone or computer. Generally speaking, it is the pathological fear of remaining out of touch with technology.[3]

With significant technological improvements and decreasing cost of smart phones, mobile dependence is increasing worldwide.[4] Nowadays, cell phones have become a principal part of our lifestyle, a means of communication and a basic requirement as the mobile phone provides innumerable benefits like internet, social

networking, personal diary, e-mail dispatcher, calculator, calendar, video game player, camera and music player.[5] In today's world, cell phone technology introduces new senses of speed and connectivity to social life.[6] Smart phone have many attributes which makes them very attractive to both young and old. Indian market has become the second largest consumer market after China for mobile phone handsets.[7] Data has now started emerging with respect to the negative physical and psychological consequences of excessive use of mobile phones. New research has shown excessive use of mobile phones leading to development of symptoms suggestive of dependence syndrome.[8]

Since research has shown that the younger generation is the latest consumer of the mobile phones, and a majority of college students from varied socioeconomic background use mobile phones more frequently. This study was conducted to find out the prevalence of nomophobia in Gandhi Medical College, Bhopal.

Objectives

- To find out the proportion of undergraduate students having nomophobia.
- To assess the degree of nomophobia among the phobic students.

METHODS

A cross-sectional study was conducted for a period of 3 months, from 12th June 2016 to 10th September 2016. Study participants were all undergraduate medical students using smart phone from all academic years of Gandhi Medical College, Bhopal. Ethical approval was obtained from the Institutional Ethical committee. Informed consent was obtained from all the study participants. A total of 480 students were interviewed, of them 7 students were not using smart phones hence were excluded and 473 students were included in the study.

A self-administered 20 item tested nomophobia questionnaire (NMP-Q) was used. The NMP-Q is a validated questionnaire, specifically developed by Yildirim and Correia in 2015, to measure the nomophobic behaviors of college students.[9] It consists of twenty items addressing four factors of nomophobia: (1) Not being able to communicate, (2) losing connectedness, (3) not being able to access information, and (4) giving up convenience. All items are rated using 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Total score was used to classify the study participants into severe, moderate, mild or no nomophobia.

All students were approached personally after their respective classes. The objectives and purpose of the study was clearly communicated to the participants. The participants were asked to fill up the questionnaire in the class and encouraged to submit completed questionnaires. Any queries regarding the questionnaire were clarified by researchers. The filled up questionnaires were collected after ensuring its completeness. The individual responses thus obtained were then compiled using MS Excel and analyzed using Epi Info 7. Scoring was calculated as per NMP Q. Participants having score of <20 were categorized as no nomophobia, 21-60– mild nomophobia, 61-100 moderate nomophobia and 101-140– severe nomophobia.

RESULTS

The study was conducted on a total of 473 students of M.B.B.S. of various professional years. The percentage of female participants was 51.6%, Maximum (23.6%) participants were of first professional year. Majority (56.1%) of participants belonged to age group of 20-22 years.

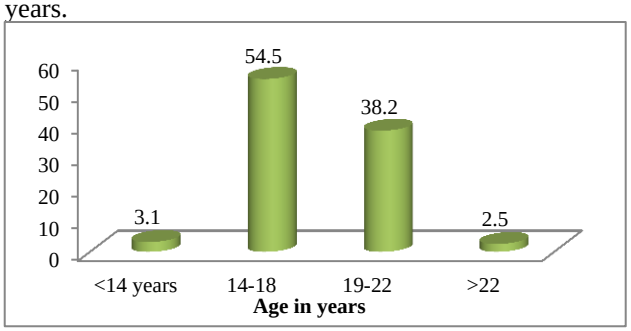

Figure 1: Age at which started using smart phone.

Figure 1 shows that about 54.5% of participants started using mobile phone in the age between 14-18 years and 3.1% participants started using mobile phones before 14 years age. More than 57% participants started using smart mobile phones before attaining age of 18 years.

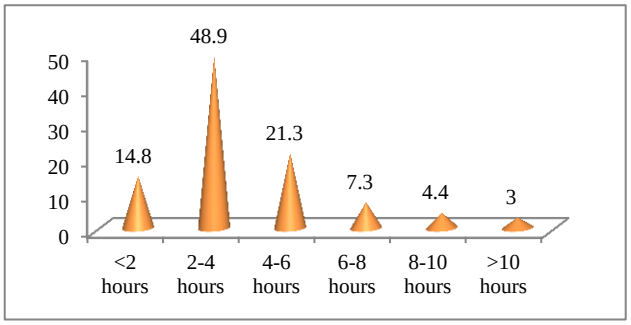

Figure 2: Mobile phone used (hours per day).

Figure 2 shows 48.9% were using their phones for 2-4 hours per day, 21.3% used phones for 4-6 hours and 3% used mobile phones for more than 10 hours.

Table 1 shows that out of the 473 participants 291 (61.5%) were having moderate, 6.1% having severe nomophobia and only one participant was not suffering from nomophobia. All the prof students were having moderate nomophobia. Chi square test was applied and p value was calculated, which came out to be significant indicating the difference was statistically significant.

Table 1: Distribution of study participants according to degree of nomophobia.

Study participants	Severe nomophobia (%)	Moderate nomophobia (%)	Mild nomophobia (%)	P value
1st proff	7 (24.1)	59 (20.2)	46 (30.2)	Chi-square=17.7666 P value=0.023046
2nd proff juniors	5 (17.2)	65 (22.3)	21 (13.8)	
2nd proff seniors	5 (17.2)	59 (20.2)	30 (19.7)	
Junior final	2 (6.8)	62 (21.3)	28 (18.4)	
Senior final	10 (34.4)	41 (14.1)	26 (17.1)	
Total	29 (6.1)	291(61.5)	152 (32.1)	

Table 2: Distribution of study participants according to age group.

Age group	Severe nomophobia	Moderate nomophobia	Mild nomophobia	Total	P value
16-19	9 (31.3)	90 (30.9)	45 (29.6)	144 (30.4)	Chi-square=2.9839 P value=0.56052.
20-22	13 (44.8)	167 (57.5)	84 (55.3)	265 (56.0)	
23-25	6 (20.6)	34 (11.7)	23 (15.1)	63 (13.3)	
Total	29 (6.1)	291 (61.5)	152 (32.1)	473	

Table 2 shows that the participants in age group of 20-22 years were having maximum proportion of mild and moderate nomophobia out of all participants. P value was calculated which came out to be not significant. Those using mobile for 2-4 and 4-6 hours per day were having maximum proportion of mild and moderate nomophobia out of all participants.

DISCUSSION

In this era of technological advancement, technology dependence have increased, "nomophobia" is one such example. Dependence on mobile phone has increased to an extent that mobile phone have become a form of addiction. It is being proposed to consider the inclusion of nomophobia in the DSM-V (*Diagnostic and Statistical Manual of Mental Disorders*). The DSM is considered to be the gold standard manual for assessing the psychiatric diseases[9]. Not much is known about nomophobia. Our study aimed to detect the mobile dependence amongst the undergraduate students of selected medical college of Bhopal. Our study constituted 51.6% of female participants while rest were males, and majority of students were in age group of 20-22 years. In a similar study conducted by Dixit et al among 200 students of Medical College in Indore, 53% were males and 47% were females; of these 92 (46%) were day scholars and 108 (54%) were residents of hostels. The majority of students were of the age group 17-28 year, of which 80 (40%) were of 20 year of age.[1] This may be due to the comparative availability of leisure time, lesser responsibility, curiosity of exploring technology and extensive usage for educational or research purposes.

Our study found out that nomophobia was more in females as compared to males, which was similar with the findings of study conducted by Prasad et al amongst 554 dental students.[5] However the gender difference was not statistically significant in our study.

According to our study, 32.15%, 61.5% and 6.15% participants had mild, moderate and severe nomophobia respectively while 0.2% participants had no nomophobia i.e. 99.8% participants in our study had some degree of nomophobia. This could be due to majority of participants in our study were hostellers and being away from their family or fear of being alone make them more dependent on the mobile phone. Without smartphones, majority of people are worried that their family or friends cannot reach them. According to a similar study conducted by Kanmani et al on 1500 smart phone users, 41.6% participants had mild nomophobia, 42% participants had moderate nomophobia, 15.2% participants had severe nomophobia and 2% participants had no nomophobia.[10]

CONCLUSION

The study results showed that out of 473 only one was not suffering from nomophobia. The study shows the presence of moderate degree nomophobia among the 291 (61.4%) participants out of a total of 473. Moderate degree of nomophobia was in almost equal proportion in all proff students. Those started using smart at the age between 15-18 years are having a high proportion in moderate nomophobia group. Smart phones use if not correctly controlled may become a very critical problem in our society.

Recommendations

Since in present era smart phone is a necessity we cannot ignore its use completely. The use of smart phone should be discouraged during college hours. The campus giving free wifi (internet) should block the social network

website/apps. The starting age for using smart phone being 15-18, that being crucial for studies, parents should monitor the usage of the smart devices. Those who already got some degree of nomophobia should use smart phones more judicially.

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