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Original Research Article

A study on nomophobia and its correlation with sleeping difficulty and anxiety among medical students in a medical college, Telangana

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ABSTRACT

Background: Social media and digital communication have become a part of life. Many things were made easy through online connectivity. The mobile phones not only connects people at anytime, anywhere and with anybody, but also movable and portable. Mobile phones when used extensively may cause a number of physical and psychological problems. Nomophobia (NO-MObile phone-PHOBIA) is one of the psychological problems related to exclusive use of mobile phone. It is the fear/anxiety of being away from mobile phone contact. The objectives are to study grading of nomophobia and to find out any correlation exits between nomophobia and sleeping difficulty and anxiety among medical students.
Methods: A cross sectional study is conducted for duration of 6 months among medical students using semi-structured questionnaire. Nomophobia questionnaire (NMP-Q) is used to assess nomophobia, Athens insomnia scale is used to assess sleeping difficulty and general anxiety disorder- 7 Item scale is used to assess general anxiety.
Results: The study showed that out of 364 students, 62 (17%) have mild, 234 (64.3%) have moderate and 68 (18.7%) have severe nomophobia. There is a weak positive correlation between nomophobia and sleeping difficult and anxiety.
Conclusions: There problem of nomophobia is alarming; there is a need to reduce nomophobia, and to evolve effective strategies to enhance human interaction.

Keywords: Social media, Nomophobia, Psychological problems, Sleeping difficulty, General anxiety

INTRODUCTION

Social media and digital communication have become a part of life. Many things were made easy through online connectivity like contacting and chatting with friends, organizing meetings, buying things and many daily activities.[1]

The advances in hardware and software made the penetration of mobile phones into the markets, and there was increased usage especially among the youth. This trend accompanied by the faster growth of online social networking services. Thus the utility of the mobile phone have evolved rapidly and used in every part of individuals' lives.[2]

Usages of mobile phones have both advantages and disadvantages. The mobile phone not only connects people and at anytime, anywhere and with anybody but also movable and portable.[3] Mobile phones when used extensively may cause a number of physical and psychological problems.[4]

Nomophobia (NO-MObile phone-PHOBIA) is one of the psychological problems related to exclusive use of mobile phone. It is the fear/anxiety of being away from mobile phone contact.[5] Several studies showed a positive relationship between mobile phone usage and sleep deprivation and anxiety.[4-6] The objectives are to study grading of nomophobia and to find out any correlation exits between nomophobia and sleeping difficulty and anxiety among medical students.

METHODS

A cross sectional study is conducted among medical students in a medical college in Khammam, Telangana for 6 months duration from March 2018 to August 2018. All undergraduate medical students present at the time of study are included in the study; students who are not willing to participate and not willing to give informed consent are excluded from the study. Partially filled Questionnaires are not included in the analysis.

Study tool

The study tool is a semi structured self administered questionnaire consisting of five sections. Section1 includes socio-demographic variables. Section 2 and 3 consists of questions regarding usage of mobile phone and Nomophobia questionnaire (NMP-Q).[7] Section 4 includes questions to assess sleeping difficult and assessed by Athens insomnia scale.[8] Section 5 consists of anxiety questions and assessed by general anxiety disorder- 7 Item scale.[9]

Nomophobia questionnaire (NMP-Q) designed by Yildrim et al.[7] It has 20 items. All the items fall into four dimensions. These are 1) Not able to communicate, 2) Losing connectedness, 3) Not able to access information, 4) Giving up convenience. Each item was measured on a 7 point Likert Scale. Total score ranges from 20-140. The total score 20 indicates no nomophobia. NMP-Q scores greater than 20 and less than 60 corresponds to mild, more than 60 and less than 100 corresponds to moderate, equal to or more than 100 corresponds to severe nomophobia. The NMP-Q questionnaire have good validity and reliability (Cronbach's alpha = 0.945).[7]

Athens insomnia scale (AIS) has 8 items. Each item of the AIS can be rated from 0 to 3, with 0 corresponding to no problem at all and 3 corresponds to very serious problem. Total score ranges from 0 to 24. The greater the total score the greater is the sleeping difficulty. The 8 items of the scale consists of sleep induction, awakening from sleep during night, final awakening earlier than desired, total sleep duration, quality of sleep, sense of well-being during the day, functioning (physical and mental) during the day, and sleepiness during the day.[8]

General anxiety disorder scale has 7 items. Each item rated from 0 to 3, with 0 corresponding to no problem at all and 3 corresponds to severe problem. Total score ranges from 0-12. The more the total score more is the problem of general anxiety. The 7 items are feeling anxious, not able to stop worrying, worrying too much, trouble relaxing, being restless, becoming easily annoyed, feeling afraid as if something bad might happen.[9]

Analysis of the data

A total of 364 samples are analyzed by using IBM SPSS software version 21. Statistical Analysis is done by using means, percentages and scores. Correlation test is applied to find the relationship between the variables. Ethical clearance is obtained from Institutional Ethics committee.

RESULTS

Out of 364 medical students, 145 Students were from 2nd year MBBS, and 121 from final year part I and 98 students from final year part II (Table 1). There are 136 males and 228 female students (Table 2). Mean age of the study participants was 20.58±1. The study showed almost all have nomophobia; 62 (17%) have mild, 234 (64.3%) have moderate and 68 (18.7%) have severe nomophobia (Table 2).

Female gender, year of study are not significantly associated with nomophobia (Chi-square test, $p \leq 0.05$). There is a weak positive correlation between nomophobia and hours of usage of mobile phone, sleeping difficulty, General anxiety (Person correlation coefficient r=0.32, 0.25, 0.26 respectively). The year of study, number of years of usage of mobile phone, and number of times checking of mobile phone have no any correlation.

Table 1: Medical students participated in the study according to the year of study.

Year of study	Number of medical students (%)
2nd year MBBS	145 (39.8)
Final Year MBBS Part I	121 (33.2)
Final Year MBBS part II	98 (27)
Total	364 (100)

No. – Number; % - Percentage.

Table 2: Grading of nomophobia according to gender among medical students.

Gender	Mild nomophobia (%)	Moderate nomophobia (%)	Severe nomophobia (%)	Total (%)
Males	29 (8)	87 (24)	20 (5.5)	136 (37.5)
Females	33 (9)	147 (40.3)	48 (13.2)	228 (62.5)
Total	62 (17)	234 (64.3)	68 (18.7%)	364 (100)

% - Percentage.

DISCUSSION

In the present study, all the undergraduate medical students have some or other degree of nomophobia. In 2016, a similar study conducted among undergraduate medical students in Bhopal, 99.8% had some or the other degree of nomophobia; 32.15% had mild, 61.5% had moderate and 6.15% had severe nomophobia.[10] A similar study was conducted by Kanmani among the undergraduate students 98.7% had some or the other degree of nomophobia; 41.5% had mild, 40.4% had moderate and 16.8% had severe nomophobia.[11] On comparing with these previous studies, the severities of nomophobia have increased among the undergraduate students.[10,11]

In the present study, female gender is not significantly associated with nomophobia. In a study conducted among Turkish high school students, female gender was significantly associated with nomophobia.[12] In another study conducted among French students, female gender was significantly associated with nomophobia.[13]

The study found weak positive correlation between nomophobia and sleeping difficulty and anxiety. In a study conducted among Japanese adolescents, the hours of usage of mobile phone was significantly associated with Insomnia.[4] Previous study conducted in Malaysia on addiction to mobile phone among undergraduate, there was a positive correlation between usage of mobile phone and anxiety.[6]

CONCLUSION

The problem of nomophobia is alarming. So, there is a need to evolve effective strategies to reduce nomophobia, and to enhance human interaction.

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