Original Research Article

Assessment on risk of developing nomophobia among adolescents in selected PU colleges

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ABSTRACT

Background: The term Nomophobia (NO MOBILE PHONE PHOBIA) is used to describe a psychological condition when people have a fear of being detached from mobile phone community. It is just like an addiction that harms the person's physical and mental health.

Aim: To know the extent of risk in developing Nomophobia among the adolescents.

Materials and Methods: A descriptive survey approach with non-experimental research design was adopted for the study. Non-probability convenient sampling technique was used to select the 100 adolescents from Narayana PU College at Bangalore. Nomophobia Assessment Likert Scale was used to collect the data from the subjects with 35 items through self administered method. The obtained data were analyzed by using descriptive and inferential statistics.

Results: The level of risk of developing Nomophobia among the adolescents was 74% with moderate level of risk and 26% of the adolescents were at severe level of risk in developing Nomophobia. The study findings also stated that the relationship between the pattern of mobile phone usage and risk of developing Nomophobia was positively correlated r= +0.83 at p<0.05.

Conclusion: The result of the study is indicative in increasing the risk of developing Nomophobia among younger generation. Further research and multi-centric studies are required to investigate more in depth on the psychological aspects and solutions of Nomophobia.

1. Introduction

The term Nomophobia or NO MOBILE PHONE PHOBIA is used to describe a psychological condition when people have a fear of being detached from mobile phone community.[1] Most of the adolescents use mobile phone and tend to be anxious when they lose their mobile phone, run out of battery or have no network coverage which directly affects the concentration level of the person.[2]

There are various psychological factors are informed when a person overuse to mobile phones like a low self-esteem, extrovert personality, nomophobic due to mobile phone addiction or existing anxiety disorders as nomophobic symptom.[1] The common signs and symptoms that are observed in nomophobic cases are anxiety, respiratory alterations, trembling, perspiration, agitation, disorientation, tachycardia and a lot of people with mobile phone have experienced the convulse sensation in their stomach when they realize that they have lost their phone, so Nomophobia is considered a disorder of the contemporary digital and virtual society.[1,2]

2. Need for the Study

World Health Organization (WHO) confirmed that mobile phone use may represent a long term health risk due to radiation effects, after the team of scientist reviewed peer-review studies in mobile phone safety.[3] Smart

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phone addiction leads to variety of impulse control behavioral problems which includes addiction to social networking, compulsive web surfing, playing games, watching videos, chatting, newsfeeds can lead to lower academic performance at school or work which has negative impact on life. [4,5]

The risk of developing Nomophobia among adolescents is a growing fear in today's world with fear of being without a mobile device or beyond mobile phone contact. [6] So during the visits to different schools and colleges for school mental health programme, as a investigator we found that most of the adolescent use mobile phone, and tend to be anxious when they lose their mobile phone.

3. Statement of the Problem

"A descriptive study to assess the risk of developing Nomophobia among adolescents in selected PU colleges at Bangalore, with a view to develop an information booklet on prevention of Nomophobia."

4. Objectives

1. To assess the level of risk of developing Nomophobia among adolescents.
2. To check the pattern of mobile phone usage among adolescents.
3. To correlate between the pattern of mobile phone usage and risk of developing Nomophobia among adolescents.
4. To determine the association between the level of risk of developing Nomophobia and selected socio-demographic variables among adolescents.
5. To develop an information booklet on prevention of Nomophobia.

5. Materials and Methods

A quantitative approach with non-experimental descriptive survey design was used in order to study the risk of developing Nomophobia among adolescents. The study was conducted in the year 2016 in Narayana P.U College, R.T. Nagar at Bangalore. The samples were the adolescents in the age group of 13-19 years from science and commerce group studying in the P.U College with the sample size of 100 adolescents. The samples were selected through non-probability convenient sampling technique that fulfills the selection criteria.

The tools/ instruments used in the study consist of socio-demographic profile and Nomophobic Assessment Scale with 35 items in a five point Likert Scale. The nomophobic assessment scale consists of 12 items which assess on nomophobic, 15 items on mobile phone usage and its problem, and 08 items on dependence towards mobile phone. The score was interpreted for risk level as, if $\leq 20\%$ they are with no risk, if 21-50% with mild risk, 51-75%

moderate risk and if it is >75% they are with severe level of risk in developing Nomophobia.

The tool was validated by various subject experts in the field and the reliability of the tool was determined by split-half method with the value of r=0.81 which states the tool is found to be reliable in order to use among the adolescents.

Formal permission was obtained from the concerned authorities of the school and the investigator explained about the purpose of the study and took informed consent from them and accessed the samples according to the investigator convenient from different classes and collected the data through self-administered method from 100 adolescents. The confidentiality and anonymity of the information was maintained. The data was analyzed by using descriptive and inferential statistics using SPSS 16 software. An information booklet on prevention of Nomophobia which was prepared by the investigator was distributed to all the participants irrespective of their results.

6. Results

6.1. Socio-demographic variables

Regarding socio-demographic variables of adolescents with the age group, 60% of them were in the age of 17-18years, 57% of adolescents were female. Most of the Adolescents 56% of them were studying in the science group in PUC. On religious status 71% of them were Hindu, most of them 80% were from urban area.

Regarding, the information about using smart phone, 25% of the adolescents reported more than 3 years and above. On towards to response of mobile addiction 65% of them said they heard about the term earlier and 35% of them said the information was through their friends and family member, 71% of adolescents were from nuclear family.

6.2. Level of risk of developing nomophobia among the adolescents

On distribution of scores the level of risk of developing Nomophobia among the adolescents were stated that majority 74% of them are at moderate level of risk and 26% of the adolescents were at severe level of risk in developing Nomophobia. Overall the adolescents are completely in major risk stage of developing Nomophobia.

6.3. Assessment on pattern of mobile phone usage among adolescents

Based on the data majority 72% of the adolescents are prone to be Nomophobia where as the remaining 18% are at high risk in exhibiting the characteristics of Nomophobia. In connection to that 68% of adolescents were completely on mobile phone dependence and 65% of them were with mobile phone problem usages. Hence it states that as the mobile phones usage and dependence are more among the

Table 1: Overall mean scores and standard deviation on risk of developing nomophobia among the adolescents. (N=100)

S. No	Variable	Total Items	Range	Over All Mean	Standard Deviation
1.	Risk of developing Nomophobia	35	35-175	118.97	16.2

Table 2: Relationship between the pattern of mobile phone usage /dependence and risk of developing nomophobia. (N=100)

S. No	Study variable	Pattern of Mobile phone usage	Mobile phone usage and its problem	Mobile phone dependence	Risk of developing Nomophobia
1.	Risk of developing Nomophobia among adolescents	0.83	0.690	0.622	1

(*) significant p<0.05

Table 3: Aspect wise mean and sd risk scores on developing nomophobia among adolescent students.(N=100)

S.No.	Aspects wise	Statements	Max. Score	Risk Scores Mean	SD
1.	Nomophobic	12	60	42.89	7.0
2.	Mobile phone, Problem use	15	75	48.81	7.4
3.	Mobile phone dependence	8	40	27.27	4. 5
4.	Combined (overall)	35	175	118.97	16.2

adolescents they are prone to become nomophobic.

The study focused on collecting information towards the risk of developing Nomophobia among the adolescents with 35 items in a Likert scale, where the maximum score was 175 and minimal score was 35. With the data the overall mean score value was 118.97 with standard deviation 16.2 respectively.

The Table 2 exhibits the relationship between risk of developing Nomophobia among adolescents with patterns of mobile phone usage /dependence/and its problem. It is revealed that all the components are positive correlated with the risk of developing Nomophobia at p<0.05. in which the pattern of mobile phone usage and Nomophobia are correlated with r=+0.83, which states as the adolescents use the possible phone more than are at risk of developing Nomophobia. So there by the mobile dependence, its usage and the pattern of usage increases the risk of developing nomophobia also increases simultaneously which is statistically significant at 95% level of confidence.

6.4. Association between the level of risk of developing nomophobia and selected socio-demographic variables of adolescents

The chi-square test was carried out to find out the association between the level of risk of developing Nomophobia and selected socio-demographic variables of adolescents, out of which age in years, gender, group/specialty in which the adolescents are studying, religion and type of family were found to be statistically significant at p<0.05 with the level of risk of developing Nomophobia. Hence it is evident that the risk level of developing Nomophobia is better influenced by some of the socio-demographic variables of adolescents.

7. Discussion

The present study endings revealed that 74% of them are at moderate level of risk and 26% of the adolescents were at the risk of developing nomophobia. This finding is similar to a study conducted by Monika Prasad et.al (2017) which reveals that 24.12% of prevalence of nomophobia and 40.97% of prevalence of having risk of being nomophobia were from preclinical (32.6%)where as the risk of nomophobia was highest among clinical (52.6%) and least among interest (32.6%).[7]

Another study conducted by jilisha.et.al (2000) reveals that out of 774 respondents 161(20.8%) had mild Nomophobia, 422(54.5%) had moderate Nomophobia and 182(23.5%) had severe Nomophobia. Whereas only 09(1.1%) had Nomophobia. Also the findings had stated 52.1% of them using their smart phone for 3-6 hours, 48.6% used to check their phones at least 4-6 times per hour, 55% said that they check their smart phones as soon as they get up in the morning. Out of 774 responses from participants, the highest proportion of perceived ill health effect due to smart phone use was reported for headache (23.6%) followed eye strain (21.8%).[8]

The present study findings also supported the mean score on the mobile phone usage and its problem, where 48.81 and the mobile phone addiction/dependence was 27.21, with the standard deviation of 7.1 and 4.5 respectively.

Thus findings is supported by a study khilnani. AK, Thaddaneer, Khilnani. G(2019) that among males, 48.9%

had moderate nomophobia, 37.5% had mild nomophobia while 12.5% with severe nomophobia, among female 56.3% had moderate, 34.5% had mild and 10% had severe nomophobia how ever there was no significant difference in males and females with respect to the severity of nomophobia (p=0.401). The average nomophobia scores significantly increased with the daily duration spent on mobile phones (p=0.100) similarly, those individual also checked their mobile phones more frequently had significantly higher average nomophobia score (p<0.000) than those who checked their phones less frequently.[9]

On relationship the present study showed a positive correlation between the domains of mobile usage and risk of developing nomophobia, which is supported by a study. Gezgin. M.D Cakir. O Yildirion. S(2018) that a positive significant relationship at a moderate level was formed between to prevalence of nomophobia with the usage of internet and its addiction (r=0.402, p<0.01) the study also stated that true is also a positive significant correlations with the sub-dimension of nomophobia.[10]

Regarding association between the level of risk developing nomophobia and selected socio-demographic variables of adolescents states that age, gender, religion and type of family were found to be statistically significant at p<0.05. This finding was supported to the study by Sethia S et.al (2018) that the proportion of gender was similar and the level of nomophobia was found to be significant indicating the difference was statistically significant at 0.05.[11]

7.1. Implications

1. To create awareness among parents about psychological impact of Nomophobia.
2. Schools/colleges should strictly implement the prohibition of mobile phone usage in campus.
3. The authorities of the school/colleges should appoint counsellor and health team personal for regular mental health services and medical treatment.
4. Appropriate leading/learning materials on Nomophobia/mobile addiction and its impact need to be prepared and made available to the students.

8. Limitations

1. This study was conducted only in one P.U college at Bangalore with less sample size of 100.
2. Due to time constraints, non probability convenient sampling technique was used where randomization was not done.
3. The study was only on assessing the risk factors of developing Nomophobia, its impact on health status was not assessed.
4. The data was collected only from P.U students hence it can be used to generalize the risk of Nomophobia to entire adolescents.

9. Conclusion

Nomophobia is emerging as a threat to our" social, mental as well as physical health".[12] the pattern of mobile phone usage and dependence among the adolescents is found to be very common among the students and adolescents. So there is a need for the medical community and educational institutions to focus on the behavior, perception regarding Nomophobia and their academic progress among the students.

10. Source of Funding

11. Conflict of Interest

The authors declare no conflict of interest.

12. Acknowledgement

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