Social Media Usage of Higher Secondary School Students - A Pilot Study

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Abstract: In the context of the lock down due to Covid-19, usage of mobile phones has increased among the adolescents. Usage of mobile phones for educational purposes as well as for entertainment makes them more addicted to mobile phones and electronic gadgets. In this scenario, Nomophobia, that is fear towards the situation when there is no phone, has increased among the adolescent. In this study, investigators developed and standardized a Nomophobia rating scale (NPRS) to identify the addiction rate of Higher Secondary school students to mobile phones. NPRS applied to 82 Higher Secondary School students and the study shows that most of the students are prevalent to nomophobia. But the nomophobic rate do not depend on their locality, gender, course stream, but depend on management of school.

Keywords: Nomophobia, Nomophobic rate, mobile phone, higher secondary school students
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1. Introduction

The pandemic situation increased the usage of technology as well as mobile phones in the nook and cranny of life. It had a huge impact on the teaching and learning process too. In the context of COVID-19 teaching learning strategies had changed lot and a predominant role goes to the usage of mobile phones and social media among students as well as teachers. Even before the widespread of COVID -19, adolescent students had high affinity towards modern gadgets like smart phones for the purpose of playing online games and using various social media applications. This affinity towards the smart phones coined a new term among the psychologists, which is known as nomophobia.

The term NOMOPHOBIA or NO Mobile Phone PhoBIA is used to describe a specific psychological condition when people have a fear of being detached from their mobile phone connectivity [1]. Nowadays nomophobia has become a psycho-social condition because the socialization process is carried out through social media and most of the people have access to social media through their smart phone.

In the current study, the investigator has developed a Likert type Nomophobic Rating Scale to establish the nomophobic rate of Higher Secondary level students. It was administrated to 124 students and results analyzed to arrive at conclusions. Among the very first research studies on nomophobia [2] it is considered as a 21st century disorder resulting from new technologies and is defined as discomfort or anxiety when out of mobile phone (MP) or computer contact. The incidence rate of nomophobia among the students was near 73% in a moderate level and Nomophobia had a significant relationship with age group, gender, and level of education[3].

Usage of mobile phones for educational purposes as well as for entertainment makes them more addicted to mobile phones and electronic gadgets. In this scenario, Nomophobia, has increased among the adolescent. Sufficient studies on this field, especially in India were very few. So the study has its own importance in the current situation.

2. Review of Related Literature

During a cross-sectional study among undergraduate students who were using mobile phones for more than one year found that phone dependence among the undergraduate students was common and there was no difference between the male and female students [4]. Shankar, V., Singh, K., & Jangir, M.K. found 40.93 percentages of addiction and the study also showed that females were more addicted to mobile phones than male [5]. A study on perception among College Students in Puducherry about nomophobia found that a sizeable minority of the students showed signs of severe nomophobia, distinct patterns of usage, and misperceptions regarding health and their usage pattern [6].

The study conducted among undergraduate medical students from India in 2019 concluded that 71.4 % of them were prevalent to nomophobia. The study also concluded that male students are more addicted to mobile phones [7]. Another study in 2020 suggested a high prevalence of smartphone addiction among medical students, particularly in male medical students [8]. A study among students pursuing physiotherapy course have been established that there is a relation between nomophobic rate and academic performance [9]. In a study conducted in Kerala, there was high prevalence of nomophobia among the students of the medical college. Nomophobia was not found to be associated with sex, quota of admission, place of origin, and place of stay [10].

The results of the study by Yasan & Yildirim showed that undergraduate students had an average nomophobia level and they used their mobile phones for several educational purposes. The students' level of nomophobia was significantly related to educational activities done by mobile phones [11]. A study in 2020 analyzed the propensity of young adults (18–24 years old) towards nomophobia and lifestyle. A sample of 495 participants showed a positive and moderate correlation between nomophobia and psychopathological symptoms. Interpersonal sensitivity, obsession-compulsion, and the number of hours of smartphone use per day were identified as strong predictors of nomophobia. Results of the study showed that smartphone use, and feelings of personal inadequacy and inferiority are relevant when explaining nomophobia [12]. Another study in 2016 set out to establish the relationship between temperament and personality and the development of nomophobia. They found that cooperation is a characteristic that significantly reduces nomophobic levels, particularly for the two factors of Mobile Phone Addiction and Negative Consequences. Furthermore, Reward Dependence appears to be positively related to two of the factors involved in nomophobia, namely Mobile Phone Addiction and Loss of Control, suggesting a relationship between Nomophobia and personality [13].

Yildirim and Correia [14] developed and validated a Nomophobia Questionnaire in English. Adawi et al [15] conducted an exploratory factor analysis after translation and validation of Nomophobia Questionnaire developed by Yildirim and Correia. Review on related literature made the investigator to reach an idea that most of the study were done among medical and undergraduate students. Most of the study concluded that academic achievement of students affected negatively by nomophobia and such studies on adolescent higher secondary school students were not done effectively, especially in India.

3. Need and Significance of the Study

Review of related literature shows that several studies have been conducted in the field of nomophobia by several researchers at different levels, especially among undergraduate and medical students. But mobile phone usage of secondary or higher secondary school students was not investigated in detail by any of the studies, especially from India. The main reason behind the negligence of that age group is that they didn't possess a mobile phone. But when the pandemic situation necessitated an academic ambience where mobile phone was indispensable, most parents were forced to purchase it for their wards. The study is conducted at the time when one year is over after the first COVID -19 case was reported in the world and so seems significant for the current context. Thus the investigators believe that a study on nomophobic rate of higher secondary school students would be the need of present.

4. Research Questions and Objectives
4.1. Research Questions

The research questions given below were utilized to guide data collection while also structuring the research tools used;
- Do mobile phone usage increased among the Higher secondary school students?
- At what level social and demographic factor affect the mobile phone usage?

4.2. General Objectives

The general objective of this research was to study the nomophobic rate among Higher Secondary school students.

4.3. Specific Objectives

The specific objectives were;
- To develop and standardize a nomophobic rating scale.
- To determine the Nomophobic rate of Higher secondary school students.
- To establish relation between demographic factors and nomophobic rate.

5. Methods
5.1 Research Design

A descriptive research design was followed by the investigators for the current study. This pilot study was conducted in one government and one aided higher secondary schools in the Palakkad district of Kerala. The participants of this study consisted of the students who were enrolled in the second year of higher secondary courses.

5.2 Instrument of the Study

A nomophobic rating scale developed and standardized by the investigators was used for the present study. Nomophobic rating scale for Higher secondary school students (NPRS) was a Likert type 5 point scale developed through three stages. In the pre try-out stage, investigators formulated around 46 statements from the ideas gained from the review of related literature and validated by experts. After that it was tried out to selected sample and finalized to 26 items with 6 negatively polar statements [16].

Javali, Gudaganavar, and Jain (2011) suggests Cronbach's α should not be less than 0.7 [17], and the Cronbach's α value in this study is 0.812, which meets the recommended standard. So established the reliability of the test and Pearson correlation method established the validity of items.

5.3 Data Collection and Data Analysis

NPRS was converted in to a Google form by the investigator and the link shared to Higher Secondary School students who were in different streams of study through WhatsApp groups of their respective schools and 82 responses were collected through Google form as Google sheet. The collected responses were transformed

into scores as per the scoring key. The scoring key was prepared by awarding 5,4,3,2 and 1 scores to the responses Strongly Agree(SA), Agree(A), Undecided(U), Disagree(D) and Strongly Disagree (SD) respectively for a positively polar statements and vice versa for a negatively polar statement. The total score of the scale is the sum of scores of all the items. Students t' test and one way anova were used to compare the means of nomophobic rate with reference to each independent variables, namely, gender, stream of course, management of school and locality of the student.

Table 1 : Significance of difference between Mean Scores of Nomophobic rate of HSS students with respect to their Gender , Locality of student and Management of school.

INDEPENDENT VARIABLE		N	MEAN	S.D.	't' VALUE
LOCALITY	RURAL	18	79.88	8.72	0.448**
	URBAN	74	79.06	6.05	
GENDER	MALE	26	78.85	6.66	0.329**
	FEMALE	66	79.38	7.11	
MANAGEMENT	GOVERNMENT	64	77.56	6.47	3.711 *
	AIDED	28	83.04	6.59	

** Not significant at 0.05 level   * Significant at 0.05 level   df = 90

From table 1, it is clear that the male and female students as well as students from rural and urban area do not have any significant difference with respect to their nomophobic rate. But nomophobic rate is significantly different among government and aided school students.

Table 2 : Significance of difference between Mean Scores of Nomophobic rate of HSS students with respect to their Stream of Course.

DEPENDENT VARIABLE	COURSE STREAM	SUM OF SQUARES	df	MEAN SQUARE	F RATIO
NOMOPHOBIC RATE	BETWEEN GROUPS	17.497	27	0.648	1.509**
	WITHIN GROUP	27.492	64	0.430	
	TOTAL	44.989	91		
** Not significant at 0.05 level					

of course analyzed using one way anova test. Mean value of nomophobic rate of HSS students were 79.23 and have a positive skewness.

One way anova test depicted in table 2 shows that there is no significant difference between science, commerce and humanities students with respect to their nomophobic rate.

6. Results and Discussion

The NPRS was constructed and standardized according to the standard techniques for the standardization of a Likert type scale with five point rating scale. It contains 24 items among 7 of them are negatively polar and the rest were positively polar. The maximum score which can be obtained by a sample is 120 and the minimum score is 24. If the sample is 100% neutral to the statement, the score will be 72.

The data collected and analyzed shows that a mean value of 79.23 for nomophobic rate. This mean value tells that most of the students are prevalent to nomophobia. But the nomophobic rate do not depend on their locality, gender, course stream and management of school.

7. Conclusion

Technology is a boon when it is used productively. In the age of digital natives, the creative usage of mobile phones can never be ruled out. During the contemporary scenario when the entire world faces an unprecedented standstill, the mobile phones play a pivotal role in carrying out academic activities by the teachers and the students throughout the globe. Even after the threat of this pandemic vanishes, the academic community will undoubtedly move forward in tune with the technological advancements in the years to come. Still, this study points out certain serious concerns regarding the necessity of proper monitoring among the adolescents with regard to their usage of mobile phones. It also highlights the necessity of timely interventions from the part of teachers, parents and professionals which will invariably enhance the physical, social and emotional development of the students at higher secondary level.

Conflict of Interest

The authors declare that there is no actual or potential conflict of interest in relation to this article interest.

Author Contributions

Jijish designed and formulated research goals and objectives as a whole. After discussion with Mirunalini, both determined the right method, and designed the study model. Jijish prepared the tool and validated it with the help of Mirunalini. Data for pilot study was collected by Jijish and analyzed under the supervision of Mirunalini. Both critically revised the manuscript and all authors had approved the final version.

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