

Assessment of Mobile Phone Dependence among Nursing Students

B. Jayabharathi*, Pinkie Lizbeth Thomas**

Abstract

Mobile phone overuse is a dependence syndrome seen among certain mobile phone users. Some mobile phone users exhibit problematic behaviours such as preoccupation with mobile communication, excessive money or time spent on mobile phones, use of mobile phones in socially or physically inappropriate situations such as driving an automobile. The aim of the present study was to assess the level of mobile phone dependence among nursing students. Cross sectional design was adopted for the study. The study was conducted at SRM College of Nursing. The total sample size for the study comprised of 144 nursing students and they were selected by using convenient sampling technique. The Mobile Phone Dependence Questionnaire (MPDQ) was used to assess the level of mobile phone dependence among nursing students. The data was analysed by using descriptive and inferential statistics. The findings of the study showed that, majority 59% of nursing students had mild mobile dependence, 38% of them had moderate mobile phone dependence and only 3% of them had severe mobile dependence. There was no association found between the mobile phone dependence among nursing students with their demographic variables.

Keywords: Mobile Phone Dependence; Nursing Students.

Introduction

A cell phone is a device that can make and receive telephone calls over a radio link whilst moving around a wide geographic area. It does so by connecting to a cellular network provided by a mobile phone operator, allowing access to the public telephone network. In addition to telephony, modern-day mobile phones also support a wide range of other services such as text messaging, email, internet access, short-range wireless communications (infrared, Bluetooth), business applications, gaming and photography. Today, Smart phones with more advanced computing facilities have come into the market. In the last 20 years, worldwide mobile phone subscriptions have grown from 12.4 million to over 5.6 billion, penetrating about 70% of the global

population. Its usage has also become an important public health problem as there have been reports of plenty of health hazards, both mental and physical, in people of all age groups. World Health Organization confirmed that cell phone use indeed represents a health menace, and classified mobile phone radiation as a carcinogenic hazard, possibly carcinogenic to humans. In spite of some knowledge on unfavourable health effects, the usage of cell phones has increased dramatically especially since the time they have become more affordable and available all over the world. Almost 87-90% of the population in an advanced country like the USA, use cell phones, and a sizeable number of these is school and college going students. In India too, it is noted that the scenario is similar with people from both rural and urban areas, educated or illiterate, and belonging to almost all ages; now dependent on a cellular phone. The alarming fact is that many of these devices reach the market without any safety testing on their electromagnetic radiation [1].

Mobile phone overuse is a dependence syndrome seen among certain mobile phone users. Some mobile phone users exhibit problematic behaviours related to substance use disorders. These behaviours can

Author's Affiliation: *Associate Professor, ** Student, SRM College of Nursing, SRM University Kattankulathur, Kancheepuram District - 603203.

Reprint's Request: B. Jayabharathi, Associate Professor, SRM College of Nursing, SRM University, Kattankulathur, Kancheepuram District - 603203 Tamil Nadu India.
E-mail: jayabharathimariyappan23@gmail.com

include preoccupation with mobile communication, excessive money or time spent on mobile phones, use of mobile phones in socially or physically inappropriate situations such as driving an automobile. Increased use can also lead to increased time on mobile communication, adverse effects on relationships, and anxiety if separated from a mobile phone or sufficient signal. Overuse is often defined as a "dependence syndrome," which is the term used by the World Health Organization (WHO Expert Committee, 1964) to replace addiction or habituation. This is categorized either as substance abuse, such as from psychoactive drugs, alcohol and tobacco under ICD-10, or a behavioural addiction, such as a mobile phone addiction. Behaviours associated with mobile-phone addiction differ between genders. Women are more likely to develop addictive mobile phone behaviour than men. Men experience less social stress than women and use their mobile phones less for social purposes. Older people are less likely to develop addictive mobile phone behaviour because of different social usage, stress and greater self-regulation. Over-use of mobile phones can affect social and psychological well-being and health of an individual. There is an enormous impact of the mobile phone on contemporary society from a social scientific perspective [2].

Anuj Mittal, et al conducted a study on cell phone dependence among medical students and its implications - a cross sectional study. A cross-sectional study was planned to evaluate dependence on cell phone among medical under graduate students and its implications. Total of 309 students studying in second to eighth semester had responded on self administered questionnaire. Among 309 participants, 131 were males and 178 were females. There was no significant difference between call patterns of males and females. Students were restless when they were unable to contact desired person (3.9+1.47) and when they forget to bring the cell phone (restlessness observed significantly among very frequent users). Total 54% students were angry with cell phone; the common reasons were software problems (29.3%), unavailability of network (23.4%), annoying messages and calls (22.8%). 25% students attend call while driving. False perception of ring was reported by 64.4% users and it was twice more common among students with emotional bonding score greater than 18. As observed unjustified use of cell phone may result in problems, therefore health education should be targeted to youth to prevent harmful effect of this great invention [3].

There is some evidence supporting the claim that excessive mobile phone use can cause or worsen

health problems. Studies show that users often associate using a mobile phone with headaches, impaired memory and concentration, fatigue, dizziness and disturbed sleep. These are all symptoms of radiation sickness. There are also concerns that some people may develop electro sensitivity from excessive exposure to electromagnetic fields. Using a cell phone before bed can cause insomnia [2].

Mobile phone services were introduced in India about 15 years ago. Prior to it, people were communicating through the land line phones or writing letters. But introduction of mobile phones changed the definition of communication. Due to the other facilities available with mobile, students got attracted most and use of mobile turned to the term "Mobile Addiction" [4].

The present study aims to assess the level of mobile phone dependence among nursing students at SRM college of Nursing.

Methodology

The present study was conducted SRM college of Nursing, Kattankulathur. Cross sectional design [5,6] was adopted for the study. The total sample size for the study comprised of 144 nursing students and they were selected by using convenient sampling technique. The inclusion criteria for sample selection includes a) Students who were studying B.Sc (Nursing), b) Students who were available during data collection. Students those who were not having mobile phone were excluded from the study.

Ethical Consideration

Formal approval was obtained from the Institutional review board and Institutional ethical committee of SRM University, Kattankulathur, Chennai. Informed consent was obtained from the samples after explaining the study objectives, practices, goodness, and time period involved. The students were asked to participate voluntarily in the study.

Data Collection Instruments

Section A pertained information regarding demographic data like age, religion, year of studying, place of stay, order of birth, type of family, residence, network connection, phone is bought by and reason for getting the phone. Section II assessed the level of mobile phone dependence among nursing students

by Mobile Phone Dependence Questionnaire (MPDQ). It has 20 items with the ranges of always, often, sometimes, and hardly ever. The respondents were asked to indicate the level of severity of dependence in the column given. The scores were interpreted as mild mobile phone dependence (0-20), moderate mobile phone dependence (21-40) and severe mobile phone dependence (41-60). The reliability of the tool was obtained by test-retest method and a reliability coefficient of 0.80 was found to be statistically significant.

Results & Discussion

Cell phone plays an essential role in communications throughout the world [7]. Mobile devices have become indispensable in the 21st century. Owing to the convenient mobile services provided, more and more people rely on mobile phone. Consequently, there may produce a problem of dependency on mobile phones as internet addiction. Studies found that people with anxiety

disorders may benefit from a clinical assessment to rule out mobile phone abuse or dependency [8].

There is a large amount of research on mobile phone use, and its positive and negative influence on the human's psychological mind and social communication. Referring to the possible negative outcomes of mobile phone use, users may encounter stress, sleep disturbances and symptoms of depression, especially in young adults. Consistent phone use can cause a chain reaction, affecting one aspect of a user's life and expanding to contaminate the rest. It usually starts with social disorders, which can lead to depression and stress and ultimately affect lifestyle habits such as sleeping right and eating right [2].

In the present study, data analysis was done for 144 participants. Most of the nursing students 75 (52.1%) were in the age group of 18-20, majority 111 (77.8%) of them belonged to Hindu religion, 37 (25.69%) of them were studying B.Sc(N) IV year, most of them 98 (68.05%) were staying in hostel. Majority 89 (61.81%) of them were having net connection (Table 1).

Table 1: Demographic variables of nursing students N=144

| S. no | Demographic variables | n | % | |
|-------|--------------------------|--|-----|-------|
| 1 | Age | a) 18-20 | 75 | 52.08 |
| | | b)21-23 | 69 | 47.91 |
| | | c)>23 | - | - |
| 2 | Religion | a) Hindu | 111 | 77.08 |
| | | b) Christian | 28 | 19.44 |
| | | c) Muslim | 5 | 3.47 |
| 3 | Year of studying | a) First year | 36 | 25 |
| | | b) Second year | 35 | 24.30 |
| | | c) Third year | 36 | 25 |
| | | d) Fourth year | 37 | 25.69 |
| 4 | Place of stay | a) Home | 46 | 31.94 |
| | | b) Hostel | 98 | 68.05 |
| 5 | Order of birth | a) First | 63 | 43.75 |
| | | b) Second | 61 | 42.36 |
| | | c) Third | 16 | 11.11 |
| | | d) Fourth and above | 4 | 2.77 |
| 6 | Type of family | a) Nuclear | 103 | 71.52 |
| | | b) Joint | 41 | 28.47 |
| 7 | Residence | a) Urban | 48 | 33.33 |
| | | b) Rural | 55 | 38.19 |
| | | c) Semi urban | 41 | 28.47 |
| 8 | Network connection | a) Yes | 31 | 21.52 |
| | | b) No | 113 | 78.47 |
| 9 | Phone is bought by | a) Father | 108 | 75 |
| | | b) Mother | 10 | 6.9 |
| | | c) Brother or Sister | 19 | 13.19 |
| | | d) Self | - | - |
| | | e) Others | 7 | 4.86 |
| 10 | Reason for getting phone | a) For convenience | 32 | 22.22 |
| | | b) Easy access to net | 52 | 36.11 |
| | | c)Easy Communication with family and friends | 37 | 25.69 |
| | | d) No landline | - | - |
| | | e) Any other | 23 | 15.97 |

The current study results show that, majority 86(59%) of the nursing students had mild mobile phone dependence 54(38%) had moderate mobile

phone dependence and only 4(3%) had severe mobile phone dependence (Table 2).

Table 2: Assessment of mobile phone dependence among nursing students N=144

| S.No | Category | n | % |
|------|----------------------------------|----|----|
| 1 | Mild mobile phone dependence | 86 | 59 |
| 2 | Moderate mobile phone dependence | 54 | 38 |
| 3 | Severe mobile phone dependence | 4 | 3 |

The results showed that, there was no association found between the mobile phone dependence among nursing students with their demographic variables

The study was supported by the study done by Ishfaq Ahmed et al on Mobile phone to youngsters: Necessity or addiction. For this purpose questionnaires were used to elicit the responses. University students were selected as population and simple random sampling technique was used. Sample was consisting of 500 students out of which 400 students responded back comprising 80% response rate for this research. Findings of this study revealed that majority respondents are able to have definite priorities between their responsibilities and commitments and their cell phone usage. Very few are those who always exhibit the extreme addictive behaviors and rest is the majority who are not frequently involved in addictive usage patterns. Thus, youngsters use their cell phones under reasonable limits and do not tend towards extreme behaviors leading towards addictive cell phone usage [9].

The present study result was supported by the study done by Hui-Jen Yang and Yun-Long Lay conducted a study on Factors Affecting College Student's Mobile Phone Dependence and Anxiety. A valid questionnaire survey of 435 college students in Taiwan found strong support for the research model. In accordance with the research model, usage rate, habit, and dependence have an individually impacted on mobile phone communication anxiety. Usage rate had a direct influence on habit. Usage rate and habit had direct effect on mobile phone dependence, respectively. Implications of these findings are discussed for educators, researchers and telecommunication practitioners [10].

Conclusion

The current study findings showed that, majority 59% of nursing students had mild mobile

dependence, 38% of them had moderate mobile phone dependence and only 3% of them had severe mobile dependence. Mobile phone dependence has been found to be an emerging public health problem. There is need to identify it early so as to generate adequate awareness and plan educational interventions. Precautionary measures are needed to prevent unnecessary excessive exposure to mobile phones.

References

1. Jayanti P Acharya, Indranil Acharya and Divya Waghrey,. Common Health Effects of Cell-Phones amongst College Students. *J Community Med Health Educ.* 2013; 3: 4 <http://dx.doi.org/10.4172/2161-0711.1000214>.
2. Mobile phone overuse. Available from: https://en.wikipedia.org/wiki/Mobile_phone_overuse.
3. Anuj Mittal, Vedapriya Dande Rajasekar, Lavanya Krishnagopal. Cell phone dependence among medical students and its implications. *International Journal of Current Research and Review, India.* 2015; 7(8): 07-13.
4. Archana T. Bhise, Archana A. Ghatule & Arjun P. Ghatule, Mobile addiction among students. *Indian journal of research in management ,business and social sciences.* 2014 March; 2(1A).
5. Denise F Polit and Bernadette P Hungler. *Nursing Research - Principles and methods.* 6th edition. Lippincott: Philadelphia. 1999; pp.288-303.
6. Suresh. K.Sharma. *Nursing research and Statistics.* Elsevier. 2011; pp.150-162.
7. Tessa Jones, Students' Cell Phone Addiction and Their Opinions, *The Elon Journal of Undergraduate Research in Communications.* Spring. 2014; 5(1).
8. Dong her Shih, Ching Chiang Chen, Hsiu-sen Chiang, Ming Hung Shih, Explore dependency syndrome on mobile phone user, *Int. J. of Mobile Communications.* 2012; 10(5): 475-489.
9. Ishfaq Ahmed, Tehmina Fiaz Qazi and Khadija Aijaz

Perji, African Journal of Business Management. 2011
December 14; 5(32): 12512-12519.

the World Congress on Engineering and Computer
Science. San Francisco, USA. 2011; 2: 19-21.

10. Hui-Jen Yang¹ and Yun-Long Lay, Proceedings of

Red Flower Publication Pvt. Ltd.

Presents its Book Publications for sale

- | | |
|--|---------------------|
| 1. Breast Cancer: Biology, Prevention and Treatment | Rs.395/\$100 |
| 2. Child Intelligence | Rs.150/\$50 |
| 3. Pediatric Companion | Rs.250/\$50 |

Order from

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091(India)

Phone: 91-11-45796900, 22754205, 22756995, Fax: 91-11-22754205

E-mail: sales@rfppl.co.in, customer.rfp@gmail.com, Website: www.rfppl.co.in