



A DESCRIPTIVE STUDY TO ASSESS THE IMPACT OF MOBILE PHONE USAGE ON HUMAN BEHAVIOUR AMONG UNDERGRADUATE STUDENTS OF LUCKNOW

Nidhi Rao¹, Amardeep Paul², Aradhana Verma², Dolly Prajapati², Kanchan Chauhan², Manju Yadav², Netoo Sachan², Sunita Yadav

¹Assistant Professor, St. Mary's College of Nursing, Lucknow

²BSc Nursing Interns, St. Mary's College of Nursing, Lucknow

<https://doi.org/10.53926/YNJR/0008>

<https://ynjr.in/>

Abstract

Background of the study: Students were found to use mobile phone excessively. The pattern of mobile phone use among the students may signal the evolution of mobile phone use from a habit to an addiction.[5] Usage of mobile phones adversely affect student concentration, psychosocial wellbeing and their physiological health which are areas that need attention. The problem is that the use of mobile phone among students has become a habit.[3] Research shows that there is a difference between students' performance and commitment to academics in lecture rooms from those who use mobile phones during lecture, inattentiveness, and non- participation in academic assignments or field work.[7] Findings of a study indicates that mobile phones play a large part in the daily life of medical student. Therefore, its impact on psychological and health should be discussed among the students to prevent the harmful effects of mobile phones use.[8] Objective of this study is to assess the impact of mobile phone usage on behavior change among undergraduate students and to find out the association between the impact of mobile phone usage on behavior change among undergraduate students with the selected demographic variable.

Materials and Methods: Descriptive research design was utilized in this study. Through non discriminative snow ball sampling technique 100 undergraduate students of different disciplines like medical, engineering, agricultural and other science were selected for this study. Self-administered online questionnaire was used to gather the data from the participants. Descriptive and inferential statistics was used to analyze the data. **Results:** impact of mobile phones among 1% of undergraduate students is mild, 94% of undergraduate students had moderate impact and remaining 5% of them reported that the impact of mobile phone on their human behavior is severe. The overall mean impact score was 91.21 and obtained SD was 22.34. **Conclusion:** Results of this study shows that the usage of mobile phone has moderate to severe impact among the behavior of the undergraduate students. Though the need of mobile phone is inevitable there needs have to be balanced between time spent with these devices, and without them. Without a set balance, people will continue to become more obsessed and consumed by technology, and there is a concern that humans will lose all closeness and affection that can come from personalized conversations.

Keywords: Human Behavior, Impact, Mobile Phone, Undergraduate Students

Introduction The Smartphone, today's mobile phone, is actually a small portable computer that, in addition to phone conversations, enables an enormous range of applications, some in the device itself such as an appointments diary, photographs, and a phone book and in most of them, through the cellular network, Internet surfing, messaging and transmission of photographs. Cell phones are an integral part of our lives. We use them to stay in constant contact with

family, work and friends. We swap text messages in traffic. We send tweets from the street. We even surf the Internet in the bathroom. That's why our cell phones are so painful to give up when we travel to places where they don't work. In the past it could be very difficult or at least very expensive to use your cell phone outside of your home network. But the times are changing. [1] The number of mobile phone users in the world is expected to pass the five billion mark by 2019.

In 2016, an estimated 62.9 percent of the population worldwide already owned a mobile phone. The mobile phone penetration is forecasted to continue to grow, rounding up to 67 percent by 2019. China was predicted to have just over 1.4 billion mobile connections in 2017, while India was forecast to reach over one billion. By 2019, China is expected to reach almost 1.5 billion mobile connections and India almost 1.1 billion.[2]

According to the U.N. Telecom agency, there were almost 6 billion cell phone users in the world, with almost 86 gadgets for every 100 people. There is nothing strange in this fact, as modern people need phones in all spheres of their lives professional and personal. But we do not notice how much we depend on cell phones and what effects their excessive use might bring.[3] Cell phones are constantly being improved by expanding upon their functionalities, which in turn increases the likelihood of over use and addiction. According to the PEW research center, 67% of Smartphone owners have admitted to checking their phone for call or message when their phone did not vibrate or ring. This is one major sign of cell phones dependence and should serve as a warning to the cell phones owners.[4] Over usage of mobile phones leads to physiological health hazards like headaches, ear aches, warmth sensation, fatigue and musculoskeletal symptoms. Apart from the various benefits of cell phone, its over usage leads to mobile phone addiction. It is one of the biggest non drug addictions in the world.[5] The use of Smartphone among university students in the 21st century is seen as an important part of their life because of its advanced features. Students use their Smartphone to accomplish their various daily tasks. Reviews from various studies revealed those students utilize Smartphone for various objectives. Most of the students utilize Smartphone for entertainment, social and education.[6]

Students were found to use mobile phone excessively. The pattern of mobile phone use among the students may signal the evolution of mobile phones use from a habit to an addiction.[5] Usage of mobile phones adversely affect student concentration, psychosocial wellbeing and their physiological health which are areas that need attention. The problem is that the use mobile phone among students has become a habit.[3]

Research shows that there is a difference between students' performance and commitment to academics in lecture rooms from those who use mobile phones during lecture, inattentiveness, and non- participation in academic assignments or field work.[7] Findings of a study indicates that mobile phones play a large part in the daily life of medical student. Therefore, its impact on psychological and health should be discussed among the students to prevent the harmful effects of mobile phones use.[8]

As far as the behavioral pattern associated with mobile usage was concerned about 90% (192) undergrad keep the mobile under the pillow or near the bed, 45% (96) of them frequently (at least once or twice) check the mobile for any missed calls or messages at midnight (in between sleep), 48.8% (104) of them were checking the mobile as soon they get up from the bed, 19.2% (41) were using during class hours, 25.4% (54) rest room usage, 35.7% (76) usage while driving and 56.3% (120) were using the mobile while it is in charging mode. Majority 137 (64.3%) have experienced health problems like headache, sleep disturbance, ear pain, irritability and (111) 52% of the students replied that they were addicted to mobile phones. young students have become addictive towards the mobile phone usage in spite of development of health problems and poor academic performance. [9] Studies confirm that the younger generation, who were the most frequent cell phone users, needs to be aware about the adverse health effects of cell phone usage especially the mental aspects and take preventive measures to minimize and control the same. Less dependence on the device, a curtailing time period spent on talking, communicating more by texting, etc. are some of the practical measures suggested.[10] Objective of this study is to assess the impact of mobile phone usage on behavior change among undergraduate students and to find out the association between the impact of mobile phone usage on behavior change among undergraduate students with the selected demographic variable.

Materials & Methods

Descriptive research design was utilized in this study. Through non discriminative snow ball sampling

technique 100 undergraduate students of different disciplines like medical, engineering, agricultural and other science were selected for this study. Self-administered online questionnaire was used to gather the data from the participants. Tool consists of two sections. Section A consists of 12 items related to demographic data, which includes the variables like age, gender, marital status, religion, previous

knowledge regarding mobile phone addiction, average screen time per day, educational status, number of sim cards, internet accessibility, source of internet facility, time spend for study purpose on mobile per day. Section – B consists of 30 questions, about the impact of mobile phone usage on human behavior. Descriptive and inferential statistics was used to analyze the data.

Table – 1 Frequency, percentage of socio-demographic variables (n = 100)

Demographic Variables		Frequency	Percentage
Age (in Years)	18 – 20	40	40%
	21 –24	51	51%
	More than 25	09	9%
Gender	Male	57	57%
	Female	43	43%
Marital Status	Married	04	4%
	Unmarried	94	94%
	Separated	02	02%
Religion	Hindu	98	98%
	Muslim	01	01%
	Christian	01	01%
	Other	00	00%
Previous Knowledge	Book	45	45%
	Media	38	38%
	Magazine	06	06%
	Advertisement	11	11%
Average screen time per day	Less than 1 Hour	11	11%
	1 – 2 Hour	24	24%
	2 – 3 Hours	29	29%
	More than 3 Hours	36	36%
Educational Status	Medical	42	42%
	Engineering	20	20%
	Agriculture	04	04%
	Other Disciplines	34	34%
Number of Sim Card Usage	01	51	51%
	02	43	43%
	03	03	03%
	More than 3	03	03%
Own Mobile Phone	Yes	91	91%
	No	09	09%
Internet Accessibility	Yes	97	97%
	No	03	03%
If yes, the source of internet accessibility	Hotspot	46	46%
	Mobile Data	54	54%
Time spends for study purpose on mobile phone per day	1 Hour	28	28%
	2 Hours	24	24 %
	3 Hours	20	20 %
	More than 3 Hours	28	28%

Results

The result indicates that out of 100 samples, about 51% belongs to the age group of 21-24 years, 40% belongs to the age group of 18-20 years, and 9% of samples age was more than 25 years. Based on gender 57% of respondents were male and 43% of respondents were female. Based on marital status 94% of respondents were unmarried, 4% of respondents were married and 2% of respondents were separated. According to the religion 98% of respondents were Hindu, 1% of respondents were Muslim, 1% respondents were Christian. Based on previous knowledge, 45% of respondents had previous knowledge regarding the impact of mobile phones on human behavior from books, 38% of them from media, 11% of respondents had previous knowledge from advertisement and 6% of respondents had received information from magazines.

Based on educational status 42% of respondents were medical students, 34% of them belongs to science stream, 20% of them were engineering students and 4% of respondents were pursuing degree course agriculture stream. Regarding number of SIM card, 51% of respondents were using 1 SIM card, 43% of

respondents were using 2 SIM cards, 3% of respondents were using 3 SIM cards and 3% of respondents were using more than 3 SIM cards. 91% of the participants reported they were using their own mobiles and remaining 9% were using family members mobile. Majority of the participants 54% were using mobile data, remaining 46% were using hotspot as the source of internet connection.

36% of the participants reported that their average screen time per day more than 3 hours, 29% of participants average screen time was in between 2 to 3 hours, 24% of participants average screen time was 1 – 2 hours and 11% of the participants screen time is less than 1 hour.

About time spend for study purpose on mobile phone per day 28% of respondents were spending more than 3 hours on mobile phones for study purpose, 28% of respondents were spending approximately 1 hour, 24% of respondents were spending approximately 2 hours and 20% of respondents were spending approximately 3 hours on mobile phones for study purpose.

Table – 2 Level of impact of mobile phone usage on human behavior's among UG students. n=100

Level of Impact	Frequency	Percentage	Mean	Standard Deviation
Mild Impact	01	01%	91.21	22.34
Moderate Impact	94	94%		
Severe Impact	05	5%		

The table - 2 depicts that impact of mobile phones among 1% of undergraduate students is mild, 94% of undergraduate students had moderate impact and remaining 5% of them reported that the impact of mobile phone on their human behavior is severe. The overall mean impact score was 91.21 and obtained SD was 22.34.

Discussion

Cell phones or mobile phones have become a very important part of our daily lives. It is very difficult to imagine our live without a cell phone as most of our

work is done using cell phones. Everything has its pros and cons and mobile phones too has its positives and negatives. Aim of this study is to assess the impact of mobile phone usage on behavior change among UG students. Findings of this study revealed that among 94% of undergraduate students the impact of mobile phone on their human behavior is moderate and in another 5% of the samples the impact of mobile phones on their behavior is severe. From these results it is evident that whether it is useful or harmful, usage of mobile phone has made a huge impact among the behavior of the undergraduate students. Sophisticated

and advanced technologies of the mobile phones, easy and economical availability of internet facility, entices the young generation to depend completely on it as a part and parcel of their daily life.

In a study on effects of mobile phone usage on human behaviors the researcher states that mobile phone has a serious effect on human behavior generally in the developing and underdeveloped countries all over the world. Technology, in general, mobile phone or mobile technologies have a serious impact to change the human nature or human behavior because most of the people of developing and underdeveloped countries have an easy access to mobile technology or mobile phone.[11]

Studies stated that smartphones despite used for communication, gaining knowledge and for the learning process, they had several drawbacks on the peoples especially student's life, such as wastage of time and money, gossiping on useless topics, etc. Researcher James has studied that, students use two hours on their smartphones on average daily, and also reveals that smartphone usage is dependency forming, habitual and compulsive and they concluded that it is a non-drug addiction of the 21 century. The normal common observation is that smartphone usage has reached to such a maximum level where people start neglecting their main prioritized works and affects their daily work routine.[12]

Findings of the similar study revealed that despite the benefits and supporting features of smartphones in the learning process, students mostly used smartphones for using the social media tools and applications like Facebook, Twitter, and Instagram for socializing with their friends and family rather using it for educational purpose. Due to excessive use of smartphone socializing, it negatively affected the education and learning process of students by receiving continuous notifications from different sources.

Another study reported that, excessively usage of the smartphone was related to college failure and also leads to other undesirable behaviors such as alcohol and smoking usage. Modern smartphones enable access to a variety of social and electronic media to students at almost anywhere anytime. This will cause a huge loss of precious time and money resources by these students. Popular activities like playing games, watching series, surfing the internet, and roaming

around in social media sites will be accomplished by most smartphone users especially students because they are the main market segment and huge consumers of smartphones. [13]

Findings of the study conducted to evaluate the use of mobile phones by South African university students indicate that the main reason South African university students use a mobile phone is for socializing, as well as for safety and privacy purposes. The respondents showed some signs of addiction to their mobile phones.[14] The author conducted field observations to examine Elon students' behaviour while walking around campus, along with an online survey. Findings suggest that students seem to be addicted to their cell phones, with 64 per cent of students observed on campus interacting with their device one way or another. Nevertheless, a survey of students found that they believe that the need of self-gratification achieved through excessive cell phone use has negative psychological effects on them.[15]

Results of this study revealed that the demographic variables such as marital status, educational status, number of SIM card they use, and internet accessibility were found to be statistically significant at 0.05 level with the impact of mobile phone usage among undergraduate students. Other demographic variables such as age, gender, religion, previous knowledge regarding impact of mobile phone, average screen time per day, own mobile phone, source of internet facility, time spend for study purpose on mobile phone per day do not have significant association with the impact of mobile phone usage among undergraduate students.

Conclusion

Cell phone plays an essential role in communications throughout the world. Undergraduate students were depending on their mobile phones excessively and it has become the part and parcel of their day today life. Results of this study shows that the usage of mobile phone has moderate to severe impact among the behavior of the undergraduate students. Though the need of mobile phone is inevitable there needs have to be a balanced between time spent with these devices, and without them. Without a set balance, people will continue to become more obsessed and consumed by technology, and there is a concern that humans will lose all closeness and affection that can come from personalized conversations.

References

1. M. Sindhuja Rajesh; "A analytical study the impact of smart phone usage among college students"; IJSR publication;2017; Page no. (588-590); Available at [\[View Site\]](#)
2. Jeffrey H. Kwznezoff; "The impact of mobile phone usage on student learning; online publication"; Page no. (233-243): 2013; Available at [\[View Site\]](#).
3. Bianchi.A.Phillips J; "Psychological predictor of problem mobile phone use"; (ed.8); Cyber psychological and behaviour publications; 2005;Page no.(39-50); Available at [\[View Site\] https://www.statista.com](https://www.statista.com).
4. Nuffez. D; "The Internet safety group survey of teenage mobile phone use"; Doc library publication; 2015; Page no. (654-679): Available at [\[View Site\]](#).
5. White AG; "Mobile phone use and sleep quality and length in college students" ;(ed. 18); International journal human social science; 2011; (51-58): Available at [\[View Site\]](#).
6. Kaur Manvin, Singh Kuldeep; "Impact of smartphone. A review of positive and negative effect on students"; (ed.5); Asian social science publication; 2018; Page no. (500-510).
7. M. K. Fati ;2014; "Mobile learning: How students use mobile device with teaching and learning" ;(ed. 15); Journal of literacy and technology; Page no (58-78).
8. Gupta Naveenta; "Pattern of mobile phone use and its effect on psychological health, sleep and academic performance in student of medical University"; ;2015; Page no. (31-138): Available at [\[View Site\] http://www.researchgate.net](http://www.researchgate.net)
9. Stollak. M. "The impact of social networking uses on college students" ;(ed-10); Doc. Library publications ;2013; Page no. (859-865).
10. Acharya P Jayanti "A study on some of the common health effects of cell phone among college students";2014; Page no. (120-145);
11. Rahaman M. The Effects of Mobile Phone Use on Human Behaviors: A Study of Developing Country Like Bangladesh. International Journal of Information Technology and Computer Science [Internet]. MECS Publisher; 2017 Nov 8;9(11):48–56. Available from: [\[Crossref\]](#)
12. Nayak JK. Relationship among smartphone usage, addiction, academic performance and the moderating role of gender: A study of higher education students in India. Computers & Education [Internet]. Elsevier BV; 2018 Aug; 123:164–73. Available from: [\[Crossref\]](#)
13. Shakoor, F., Fakhra, A., & Abbas, J. (2021). Impact of Smartphones Usage on the Learning Behaviour and Academic Performance of Students: Empirical Evidence from Pakistan. International Journal of Academic Research in Business and Social Sciences, 11(2), 862–881
14. North D, A. Johnston K, Ophoff J. The Use of Mobile Phones by South African University Students. Issues in Informing Science and Information Technology [Internet]. Informing Science Institute; 2014;11:115–38. Available from: [\[Crossref\]](#)
15. Jones T. Students' Cell Phone Addiction and Their Opinions [Internet]. Elon.edu. 2014 5(1): 74-80. Available from: [\[View Site\]](#)

This work is licensed under [Attribution-NonCommercial-NoDerivatives 4.0 International](#)

