

A survey based study of impact of smartphone usage on the academic performance among medical students

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Abstract

Introduction: Mobile phone usage has become indispensable, especially among the youngsters. This has brought about psychological dependency towards mobile phones leading to addiction in them. Excessive use of mobile phones is known to be associated with headache, ear ache, warmth sensations and also perceived concentration difficulties. **Materials and methods:** A total sample of 100 undergraduate students were selected randomly, with 58 female participants and 42 male participants. These students came within the age range of 17-25 years. For this study, we developed a structured questionnaire with items included demographic information like age and gender, self-reported mobile phone usage and effect of its use in academic activities. This survey was conducted online. The students of selected batches were approached in the lecture hall and they were informed about the survey and their consent to participate in the study was obtained. The questionnaire link was sent to the students and the researcher explained the procedure to answer the questions. Then the students were asked to submit the filled forms. **Results:** The 64 respondents (64%) were of age between 17-19 years followed by 31 (31%) students from the age group 20-22 years and only 5 (5%) respondents belong to the age group 23-25 years. It was noteworthy to mention that all the 100 respondents (100%) were using smart phones. **Conclusion:** The present study group of medical students felt that overuse of smart phone is the main reason for their poor academic performance. They also realise the ill effect of overuse of mobile phones on health. The present study helped us to create awareness among the participants regarding the impact of overuse of smart phones and how it is influencing their academic activities. Universities and colleges can also create awareness regarding mobile phone use.

Key Words: Mobile phone, headache, earache, questionnaire.

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Introduction

Mobile phone usage has become indispensable, especially among the youngsters. This has brought about psychological dependency towards mobile phones leading to addiction in them[1]. Excessive use of mobile phones is known to be associated with head ache, ear ache, warmth sensations and also perceived concentration difficulties[1]. According to the WHO, uncontrolled use of electronic devices has reached the magnitude of a public health problem in a growing number of countries. In addition, practice of primary care physicians can be adversely affected by the excessive use of mobile phones[2]. For students, numerous studies suggest that smart phone addiction might have a negative impact on academic performance. Other studies found students' sleeping behavior significantly affected by smartphone addiction. However, some others found no association between smart phone addiction and academic performance[3]. There are also various studies which have showed that the majority of mobile users suffer from sleep deprivation and increased stress affecting their cognitive and learning abilities[5,6]. The mobile phone dependent students also become academically stressed out. However, there are very few studies conducted among medical students regarding mobile phone usage and their influence on sleep disturbance, stress and academic performance[4,5]. Hence, this study was attempted with an objective to assess the effect of mobile phone usage on academic performance among under graduate medical students in Andhra Pradesh.

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Materials and methods

Study Design

A randomized survey based study.

Study location

Department of Anatomy, Government Medical College, Kadapa. AP.

Study Participants

100 MBBS Students.

Study Duration

January 2020 to December 2020.

This study was conducted among medical students of Department of Anatomy, Government Medical College, Kadapa, AP.

A total sample of 100 undergraduate students were selected randomly, with 58 female participants and 42 male participants. These students came within the age range of 17-25 years. For this study, we developed a structured questionnaire with items included demographic information like age and gender, self-reported mobile phone usage and effect of its use in academic activities. This survey was conducted online. The students of selected batches were approached in the lecture hall and they were informed about the survey and their consent to participate in the study was obtained. The questionnaire link was sent to the students and the researcher explained the procedure to answer the questions. Then the students were asked to submit the filled forms. A self-administered process was used to collect the data, whereby the respondent himself reads the questions and gives the answers with more information regarding the usage of their cell phone. Each participant was given an identification code to avoid double responding.

Results

Table 1: Demographic characteristics

Characteristics	Total (N=100)	Percentage
Gender		
Male	42	42%
Female	58	58%
Age		
17-19 years	64	64
20-22 years	31	31
23-25 years	5	5

The data was collected, and results were calculated by using simple statistical technique of drawing percentages and depicting graphs. As shown in Table 1, out of 100 respondents, 58 (58%) were females and 42 (42%) were males.

The 64 respondents (64%) were of age between 17-19 years followed by 31 (31%) students from the age group 20-22 years and only 5 (5%) respondents belong to the age group 23-25 years. It was noteworthy to mention that all the 100 respondents (100%) were using smart phones.

Table 2: Study Information

S.No	Characteristics	Total (N=100)	Percentage
1	Those who are using mobile phones in the class room	68	68
2	Distracting from studies	44	44
3	Lack of concentration from studies	34	34
4	Affecting study habits and results in exam	40	40
5	Academic performance is decreased because of frequent use of mobile phone.	29	29

A total of 33% (33) students are using mobile phone for about more than 3 years. 21% (21) respondents use their cell phone daily for about 5-10 hrs and 20 % (20) students use it more at late night. 39% (39) students keep their mobile phone on the bed while sleeping. Among these 100 respondents, 61% (61) of the students mostly use their phone to contact their parents and relatives and only 12% (12) are using it for academic purpose. 63% (63) of students reported that they feel tempted to use their mobile phone if his/her friend is using nearby them, when they were studying. 31% (31) students accepted that they felt addicted to their phone. 30% (30) students are having a feel of urge to answer a call or text immediately. The common health effect in this study was eye strain reported by 21% (21) students. 60% (60) of students agreed that their mobile phone has more of the entertainment materials stored when compared to study materials. 71% (71) participants informed that they use mobile internet most commonly for entertainment purpose. 61% (61) students, it's more than half of our participants accepted that their academic performance can be increased without mobile phone usage. We also found some of the positive perceptions of mobile phone use by students in our study such as 46.5% students says that mobile phone is assisting them in learning new things and 41% students accepted that their mobile phone has increased their searching and learning skills. Shows the how the mobile phone is influencing them academically.

Table 3: Space occupying in phone

S.No	Space occupying in phone	Percentage
1	Study materials	40%
2	Entertainment materials	60%

Table 4: Common type of internet use

S.No	Common type of internet use	Percentage
1	chatting	7%
2	Entertainment	71%
3	Searching for information	22%

Table 5: Do You Think Your Academic Performance can be Increased without Mobile Phone Usage

S.No	Academic Performance can be Increased without Mobile Phone Usage	Percentage
1	Always	16%
2	Sometimes	61%
3	Never	23%

Discussion

“Smart phone dependency, Hedonism and Purchase behaviour: Implications for digital India initiatives” a study conducted by Aligarh Muslim University and funded by Indian council for social science research, found that only 26% respondents indicate the primary use of smart phone for calling purpose, remaining respondents use it for other purposes. The study also finds out that 23% of people log in more than 8 hours/day[6].

The findings of the study by Haruna et al revealed that using of mobile phone significantly influence the academic performance of both gender of secondary school students of Nigeria and also the study finds out that age difference and gender was not a significant factor in mobile phone usage, it affects equally all the students[7].

In a study by Mahboub among the middle eastern youth, he points out that 67%-70% of students claimed that new information technology is distracting them from studies. An exploratory study of college students in Taiwan by Yi Fen Chen, indicates that the frequent usage of smart phone affects the academic learning and he also noted that Taiwanese female students were heavy mobile users when compared to their male peers. In an attempt to study the effect of smart phone usage on the university students of UK by Fowler, he noted that participants experience a sense of compulsion with the use of mobile phone, they are constantly checking their emails and texts. He also mentioned one comment by a participant that “Nothing happened in the last 5 minutes but I still check it”. This clearly shows that how mobile phones are distracting the students[8].

90% or more of students agreed that smart phone is really helps them to achieve their educational objectives and also more or less same number of students complained the disturbance in the studies because of the smart phone. According to students, the positive effects of mobile phone use is more on their study habits and social relationships than the negative effects, but for the teachers and parents the mobile phone use has more negative impact on students. Almost half of the internet users are between 18 and 25 years of age [9]. To these youth while this advanced technology is building bridges between them and distant from others, at the same time it is also building even stronger walls between them and their families and friends. Rodney suggests that the college administrators and faculties can utilize different teaching methods that do not involve the modern technology so that, the students are forced to spend less time from the technology [10].

Conclusion

The present study group consisted of medical students. They felt that overuse of smart phone is the main reason for their poor academic performance. They also realise the ill effect of overuse of mobile phones on health. The present study helped us to create awareness among the participants regarding the impact of overuse of smart phones and how it is influencing their academic activities. Universities and colleges can also create awareness regarding mobile phone use.

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