

Original Research Article

Study of mobile phone usage in medical students of deemed university of Western Maharashtra, India

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ABSTRACT

Background: Mobile phone holds the great importance in everyday life. Mobile phone and internet usage have become universal practice especially among the student community. Mobile Phone usage has both pros and cons.

Methods: This study was planned in medical students of D. Y. Patil University to know the pattern, purpose & impact if any of mobile phone usage among them. The study included 200 undergraduate medical students of first to third year MBBS. All were explained the purpose of study and data was collected using a pre-tested questionnaire in June-August 2015.

Results: There were more pre-paid users 81% than post-paid users. It has been seen that 65% of the participants were using mobile phone >2 hours per day and more than 200 rupees spent monthly by 120 (60%) users. 34 (17%) participants were always using mobiles while driving but men were found to be comparatively less (7.84%) in number with no significant difference. 20 (10%) complained of dry eyes, 11 (5.5%) had diminished hearing and 53 (26.5%) had some other reasons to complain. Headache & diminished hearing found to be more in girls 45 (30.20%) & 10 (6.71%) compared to boys. 21% of participants were always disturbed during sleep due to mobile phones. More than half (56.5%) of the participants were using mobile phones during college hours.

Conclusions: Hence mobile usage during college hours should be restricted, mandatory switching off during lecture hours in campus recommended. There is need to reduce mobile phone usage, switch off / silent mobiles during sleep time, avoid during driving and should be monitored mobile usage in adolescents.

Keywords: Mobile phone, Medical students, Usage

INTRODUCTION

One of the important technological advancements in the last three decades or so has been the advent of the mobile phone also known as cell phone. 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.¹⁻⁴ 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. College students use

the internet nearly as much for social communication as they do for their education. But just as they use the internet to supplement the formal parts of their education, they go online to enhance their social lives.⁵ In addition to telephony, modern-day mobile phones also support a wide range of other services such as text messaging, e-mail, internet access, short-range wireless communications (infrared, Bluetooth), business applications, gaming and photography. 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.⁶ In India too, we note that the scenario is similar with people from both rural and urban areas, educated or illiterate, and belonging to almost all ages; now de-pendent on a cellular phone.

Mobile phones have become an important part of people's lives; probably as important as our body part. People become restless if they don't have their mobile phones even for a few minutes. People are normally seen using mobile phones while walking, driving etc.

There is an enormous impact of the mobile phone on contemporary society from a social scientific perspective. "They have transformed social practices and changed the way we do business, yet surprisingly we have little perception on their effect in our lives."⁷ Some people are replacing face-to-face conversations with cybernetic ones. Clinical psychologist Lisa Merlo says, "Some patients pretend to talk on the phone or fiddle with apps to avoid eye contact or other interactions at a party."⁸

Mobile phone holds the great importance in everyday life. Mobile phone and internet usage have become universal practice especially among the student community. Mobile Phone usage has both pros and cons. There is little evidence supporting the claim that excessive cell phone use can cause or worsen health problems, but it is undeniable that it does affect users in many ways, physical and mental.⁹

Hence this study was planned in medical students of D. Y. Patil University to know the pattern, purpose & impact if any of mobile phone usage among them.

METHODS

The present Cross-Sectional study was conducted at Medical College of D. Y. Patil University, Kolhapur. The study population were the undergraduate medical students from first to third year MBBS. The 200 undergraduate medical students from first to third year had participated in the study. The study subjects were selected randomly and explained the purpose of the study and assured confidentiality. Those who were willing were only included in the study. The data has been collected during the period of June to August 2015. The pre-tested questionnaire was used to collect the data from all participants. The detail information was collected including demographic, mobile usage, purpose, type of plan, amount / time spent, etc. The collected data was tabulated and analysed with percentage & chi-square test.

RESULTS

The 200 medical students were participated in the study. The age distribution shows more number (74%) above 20 years and less (26%) belong to 18-20 years age group. The girls were more (74.5%) as compared to the boys (25.5%). Many of them (65.5%) were residing at hostels or away from homes while only 34.5% stays at their

houses with family members. It has been observed that, many 162 (81%) preferred prepaid billing type while very few 38 (19%) were using post-paid. When monthly expenditure assessed it found to be >200 rupees spent by 120 (60%) users and up to 200/- rupees spent by 80 (40%). Even the time spent on the mobile throughout the day was more than 2 hrs in 132 (65.5%) users while 69 (34.5%) were using the mobiles up to 2 hrs in a day. The mobiles usage in college premises found to be more in students. 113 (56.5%) were using the mobiles regularly during college hours while 87 (43.5%) students had restricted themselves for not using mobiles in academic hours. Many 71 (35.5%) of the students found always & 129 (64.5%) sometimes assessing mobiles during late night. 96 (48%) of users found habit of keeping the mobiles always & 104 (52%) agreed for sometimes keeping mobile beside during sleep time. 42 (21%) complained that they had sleep disturbance many times due to mobile and 158 (79%) also agreed for sometimes sleep disturbance. Majority 166 (83%) of the students were using mobiles sometimes during driving vehicle or walking on road but 34 (17%) of them found regularly using mobiles while driving or walking. 115 (58%) students committed that they never switched off their mobiles in classrooms, while 85 (42%) had mixed opinion sometimes on/off during classes (Table 1).

Table 1: Distribution of mobile phone users according to variables.

Variables	Number (n=200)	Percentage (%)
Age (years)		
18-20	52	26%
>20	148	74%
Sex		
Male	51	25.5%
Female	149	74.5%
Address		
Hostel	131	65.5%
Local	69	34.5%

Now days mobile phones, in addition to telephony, also support services such as text messaging, e-mail, internet access, short-range wireless communications business applications, gaming and photography. Multiple utility of mobiles among students reveals that, 136 (68%) of the students mainly using the mobiles for calling to parents, 94 (47%) of them for accessing Whatsup, 82 (41%) for calling friends, 72 (36%) for facebook, 61 (30.5%) for study purpose or project work and 56 (28%) for online shopping (Table 2).

On enquiry about mobile use affecting health, more than half 116 (58%) told that mobile phone usage not at all affected their health while 20 (10%) complained of dry eyes, 11 (5.5%) complained of diminished hearing and 53 (26.5%) had some reasons to complain about mobile usage affecting health. Headache found to be more in girls

5 (30.20%) as compared to the boys 8 (15.69%) (Table 3).

Table 2: Distribution of mobile phone users according to responses.

Responses	Number (n=200)	Percentage (%)
Type of billing		
Prepaid	162	81%
Post-paid	38	19%
Monthly expenditure for mobile (Rs.)		
<200	80	40%
>200	120	60%
Daily time spent on mobile		
<2hrs	69	34.5%
>2hrs	131	65.5%
Use of mobile phone during college hours		
Yes	113	56.5%
No	87	43.5%
Use of mobile phone late night		
Always	71	35.5%
Sometimes	99	64.5%
Cell phone keeping beside you during sleep		
Always	96	48%
Sometimes	104	52%
Disturbance of sleep due to phone		
Always	42	21%
Sometimes	158	79%
Keeping cell phone on in classroom/cinema hall		
Always	115	58%
Sometimes	85	42%

Table 3: Gender wise distribution of responses of mobile phone users.

Responses	Male (51)		Female (149)	
	N	%	N	%
Use of mobile*				
Calling to friends	19	37.25	63	42.28
Calling to home	28	54.90	108	72.48
Whatsup	30	58.82	64	42.95
Facebook	21	41.18	51	34.23
Online shopping	15	29.41	41	27.52
Study/Project	21	41.18	40	26.84
Mobile use while driving				
Always	4	7.84	30	20.14
Sometimes/often	47	92.16	119	79.86
χ^2 with Yates = 3.24, $p > 0.05$, NS				
Health problems due to mobile phone use				
Headache	8	15.69	45	30.20
Dry eyes	3	5.88	17	11.41
Diminished hearing	1	1.96	10	6.71
None	27	52.94	89	59.73

Data clubbed as health problems & None $\chi^2 = 3.21$, $p > 0.05$, NS; *Multiple responses.

DISCUSSION

In present study, everybody had mobile phones & most of them were latest smart phones. Many of them were having dual sim handsets / two mobiles with more than one contact number. In our study many 162 (81%) preferred prepaid while very few 38 (19%) had post-paid billing. In India Macro Mobile Youth Study it was found that 56% were prepaid users & 44% post-paid users. Teenagers of 15-19 yrs were used prepaid while majority of 25-29 age groups were into post-paid billing.¹⁰

The mobile phones are now days becoming the important part of life and to stay some time without mobile is finding difficult for the most of the users. The tendency to stroll while talking over the mobile phone is one such practice found almost common in our study. Majority 166 (83%) of the students were using mobiles sometimes during driving vehicle or walking on road but 34 (17%) of them found regularly using mobiles while driving. The difference found to be not significant in both groups ($p > 0.05$). In India Macro Mobile Youth Study primarily 67% respondents had this habit which was more in males than females and that to in younger age groups. 'No mobile while driving' was reportedly followed by 76% of those respondents who owned a vehicle.¹⁰ In our study, 115 (58%) students committed that they never switched off their mobiles in classrooms just like cinema halls, while remaining 85 (42%) had mixed opinion sometimes on/off during classes. But nobody strictly switches off the cell phones in classrooms and found to be serious problem about lack of concentration during classes in students.

Multiple utility of mobiles when compared with both gender revealed that majority 108 (72.48%) of girls using mobiles to call home / parents as compared to boys 28 (54.10%). While many 64 (42.95%) of girls using mobile for calling friends as compared to boys 19 (37.25%). Whatsup use found more common in boys 30 (58.82%) as compared to girls 63 (42.28%). Facebook use is more common in boys 51 (34.23%) than girls 21 (14.18%). Boys found to be using mobiles more 21 (41.18%) for study or project purpose than girls 40 (26.84%). The online shopping trend found to be almost same in boys 15 (29.41%) and girls 41 (27.52%).

On enquiry about mobile use affecting health, more than half 116 (58%) told that mobile phone usage not at all affected their health while 20 (10%) complained of dry eyes, 11 (5.5%) complained of diminished hearing and 53 (26.5%) had some reasons to complain about mobile usage affecting health. Headache found to be more in girls 45 (30.20%) as compared to the boys 8 (15.69%). Clubbed data as health problems and no health problems in both groups showed no significant difference ($p > 0.05$).

In our study 42 (21%) complained that they had sleep disturbance many times due to mobile and 158 (79%) also agreed for sometimes sleep disturbance from mobile.

In India Macro Mobile Youth Study majority of respondents 63% did not perceive any medical hazards of using a cellular phone. Remaining 37% admitted their belief that using a mobile phone is harmful to their health.

There is countless research on mobile phone use and its influence on the human psychological mind, indicating support for mobile phones as good and bad. Referring to the possible negative outcomes of mobile phone use, we 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.¹¹

CONCLUSION

The observations in our study drawn from a small group of medical students, which may not reflect the scenario worldwide since millions of cellular mobile subscribers are added every day indicating that full blown monophobia has all possibilities to reach to epidemic scale. In reality these results give an alarming indication that in upcoming era more and more youth may become users and so will be more dependent on mobile phones, which may lead to serious psychiatric and psychological problems among users. To live without cell phone or gadgets will be difficult in new generations. Ultimate dependency, addiction to this may lead to severe problems in users. As double edged sword if utilised in better manner can be very well beneficial or otherwise excess, wrong use may be a public health problem.

Recommendations

Many students use mobile phone during college hours so, mobile usage during college hours should be restricted. Certain steps may be taken such as mandatory switching off of mobile phones in college, school campus. To reduce daily time spent on mobile phones, with essential monitoring the usage of mobile especially in adolescents. Majority of users are disturbed during their sleep should either switch off mobile phones at night or keep on silent mode. Use of mobile during driving increases risk for accidents. Hence it is essential to make people realize that using mobile phones during driving is risky and prone for accidents in life.

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