



Original Research Article

Use of Electronic Gadgets among Medical Students in Western Maharashtra, India

Praveen Ganganahalli¹, Mahesh B. Tondare², P.M Durgawale³

¹Assistant Professor, Dept. of Community Medicine, Shri B.M Patil Medical College, Bijapur-Karnataka

²Assistant Professor, Dept. of Community Medicine, Ashwini Rural Medical College, Kumbhari, Solapur, Maharashtra

³Professor & Head, Dept of Community Medicine, Krishna Institute of Medical Sciences, Karad, Satara-Maharashtra

Corresponding Author: Praveen Ganganahalli

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ABSTRACT

Introduction: Electronic gadget or mobile phone is useful and attractive as a tool for communication and interpersonal interaction, but there exists the risk of its problematic or addictive use. It has been found in various studies that it is difficult to part people from their gadgets even for a second.

Objectives: To find the proportions of students using various electronic gadgets, their socio-demographic profile in general and time, money expenditure & dependency about mobiles in particular.

Methodology: A Cross-sectional study was conducted among medical students by using pre-tested self administered questionnaires about pattern of electronic gadgets using and its dependency.

Results: All 100% students were using mobile & out of them 45% of boys & 55% of girls using electronic gadgets other than mobiles with age ranged from 18-23 yrs and mean age 21 ± 1.1 yrs. Nearly one third had experienced certain side effects of long term mobile use like headache, backache, eye strain etc.

Conclusion: The younger generation is inclined towards possessing more gadgets and becoming gadget dependent. There is need to counsel students and also parents regarding dependency.

Keywords: Electronic gadgets, Mobiles, Dependency, Students

INTRODUCTION

The term "Gadget" refers to the portable electronic devices that belong to either one or more Following Categories i.e. 'mobile phones, Mp3 players and gaming consoles or any other wireless device. These Gadgets can perform a great variety of functions. ^[1] Mobile phone for instance has been transformed in to multi-functional devices with cameras, radio/ Mp3, wireless

technology connecting and more. ^[2] Globally an increasing number of people own more than one gadget. In America, a young adult aged 18 to 29 years old owns four gadgets on average in 2010. The Indian market has emerged as the second largest after China for mobile phone handsets. ^[3]

Although a mobile phone is useful and attractive as a tool for communication and interpersonal interaction, there exists the

risk of its problematic or addictive use. It has been found that it is difficult to part people from their gadgets even for a second. Gadget usage has both pros and cons. An epidemiological study suggested that mobile phone users who use their phones excessively are more prone for health-related symptoms such as headaches, fatigue, impaired concentration, sleeplessness, and hearing problems. [3,4]

METHODOLOGY

A cross-sectional study was conducted in medical college students of Krishna Institute of Medical College, Karad-Satara district situated in western part of Maharashtra state India. College has got the admission capacity of 150 students per year and from all four phases students among them those interested to participate in the study were enrolled for the study. Non-willingness or no interests to participate in study were the reasons for exclusion from the study. The Purpose of the study was explained to all students enrolled & informed verbal consent was taken prior to the study. Institutional Ethics Committee clearance was also taken to conduct the study.

Pre-tested, self-administered and semi-structured questionnaires were prepared under guidance of senior subject experts. The questionnaire included demographic variables such as age, gender, residency and socio-economic status. As currently there is no standard definition for gadget dependency. In the present study it was defined as compulsive usage that affected them psychologically, socially, emotional and physically. The questionnaire focusing on pattern of electronic gadget using & gadget dependency had following components like type of gadget, total duration of use, per day use, purpose of use, per month expenditure, frequent change of models, any problems faced, how frequently

you check your mobile for updates, listening music during various works and feeling while not using mobile. The individual responses thus obtained were compiled and analyzed in terms of proportions & percentages as follows.

RESULTS

Out of all students from all four phases 390 students were enrolled for the study to achieve the objectives of the magnitude of student using various electronic gadgets, their socio-demographic profile in general, whereas expenditure made for it & its dependency about mobiles in particular.

The study participants comprised of 174 males (45%) and 216 females (55%) their age ranged from 18-23 yrs (mean age 21 ± 1.1 yrs). Among all students 300 belonged to urban area and 90 to rural area.

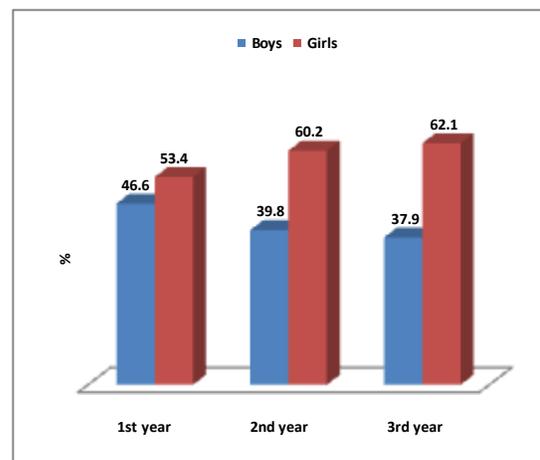


Figure I: Distribution of students according to year & gender.

From I Phase/year M.B.B.S 120 students were involved of which 51 were males and 64 were females, from II Phase/year M.B.B.S 138 students of which 55 were males and 70 were females where as from III Phase/year (III phase part 1 & 2) M.B.B.S 132 students of which 68 were males and 82 were female as shown in Figure I.

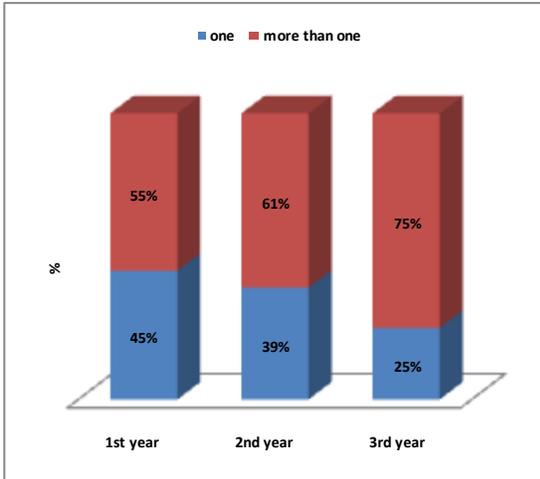


Figure II: Distribution of students according to total number of electronic gadgets using

Figure II shows the percentage of students from all years using number of gadgets according to which, maximum

Table I: Average duration of use & money spent on Mobiles.

		1 st year		2 nd year		3 rd year	
		Boys	Girls	Boys	Girls	Boys	Girls
Duration of mobile use daily (Hrs)	Mean	6.0	5.20	6.40	7.05	6.15	6.30
	S.D	0.9	0.7	0.7	1.0	0.6	0.6
Money spent on mobiles (Rs)	Mean	548	345	440	482	841	584
	S.D	61	45	41	52	70	60

Money expenditure of Electronic Gadgets / Month: On an average, boys of the I phase of M.B.B.S. spend Rs. 548 and girls Rs. 345 on electronic gadgets per month, boys of the II phase spend Rs.440 and girls Rs.482 on gadgets per month whereas boys of III phase spend Rs.841 and girls Rs.584 per month.

Frequency of change of Mobile: Nearly 22% of students of all phases change mobile frequently that is minimum twice yearly due to arrival of new models of mobiles in market.

How frequently you check your mobile for updates: about 40% of 1st year students, 33% of 2nd year students & 48% of 3rd year students responded that they check for mobile updates (SMS, missed calls, updates from social network sites) almost hourly.

proportions of all year students were using more than one electronic gadget.

The above table shows the mean hours spent for/on mobile daily & mean money spent on mobile per month according to which mean duration spent for mobiles was 6.50hrs among all boys and 6.20hrs among all girls. Year & gender wise distribution was shown in table I.

Purpose of use of mobiles by the students: one common purpose found was communications (100%) with dear ones, friends & others among all students using whereas other reasons were Internet browsing to gather information (academic & non-academic), Calculation, listening music, watching videos etc.

Harm faced by chronic use of electronic gadgets: Around 30% among 1st year, 32% among 2nd year and 40% among 3rd year had experienced certain side effects of long term mobile use like headache, backache, eye strain.

Use of gadgets for using music while walking, reading & driving: Around 50% of students found listening music by using mobile earphones while walking, 27% while reading and 68% while driving vehicles (boys > girls).

Feeling after not using gadgets for an entire day: Nearly 90% of student responded that they felt very bad or had a feeling of lost/disconnected from the world while not using mobile for hour's together and this was experienced during examination days. This shows the psychological dependency on mobiles among students.

No mobile day/hour: very few students from all phases (1styr=13%, 2ndyr=14%, 3rdyr=10%) showed positive attitude towards the practice of no mobile day like dry day or at least no mobile for few hours a day (no mobile hour).

DISCUSSION

Present study showed all students were using mobiles whereas 45% boys and 55% girls using electronic gadgets other than mobiles with age ranged from 18-23 yrs and mean age 21±1.1yrs. Maximum proportions were using more than one electronic gadget among both genders. Nearly one third had experienced certain side effects of long term mobile use like headache, backache, eye strain etc.

Gupta N et al [5] conducted study at Delhi showed 485 (50.7%) males and 472 (49.3%) females, aged 17-25 years. Out of all students gadget dependency was seen in Males was 117 (24.1), Females 214 (22.4) & Total 97 (20.6)

Dixit S et al [6] conducted study about psychological dependency of mobiles among medical students Indore, according to which 53% males and 47% females using mobiles of which 18.5% were found to be nomophobic. Nomophobia literally means no mobile phobia that is the fear of being out of mobile phone contact. If a person is in an area of no network, has run out of balance or even worse run out of battery, the person gets anxious, which adversely affects the concentration level of the person. [6,7]

Yang JH [8] et al studied Factors Affecting College Student's Mobile Phone Dependence and Anxiety, according to which, the average mobile phone bill is mostly from 300 to 500 NT dollars (38.9%). Most of the respondents have one mobile phone (61.3%). Some of the respondents have two mobile phone (35.9%). If there is a new type of mobile phone launching into

market, 33.3% of the respondents will change it (66.7%). Most of respondents use mobile phone as a communication tool (84.1%). 79.4% respondents like to use mobile phone to send text message.

Due to sophisticated functionality of electronic gadgets, youngsters are more attracted towards it resulting in its dependency.

CONCLUSION

The results given are indicating that the younger generation is inclined towards possessing more gadgets and becoming gadget dependent. There is a need to counsel students and also parents regarding dependency. Awareness generating sessions/lectures about indiscriminate use of gadgets, their addicting potential and ill-health effects related to it should be conducted. Furthermore research is required focusing on individual electronic gadgets.

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