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Original Research Article

A study on the mobile phone usage pattern and its dependence among medical students of a college in Kerala, India

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ABSTRACT

Background: Mobile phones have become an essential part of life. It has become an important accessory carried by everybody not only because they make it easy to keep in touch with people but because of the various facilities they offer especially the internet. The charm of mobile phone is more among young generation and the increasing use may result in dependence. Aim was to study the usage pattern and dependence of mobile phones among medical students.
Methods: A cross sectional study conducted among 200 medical students and studied the pattern of usage of mobile phones, common problems encountered and its dependence using a questionnaire. Statistical analysis done using chi square test and a p value of <0.05 is taken as significant.
Results: In the present study 35% of the students were frequent users that is they used for >30 minutes per day. Female students were talking more to their parents and male students to their friends followed by their lovers. 49 of them never used to attend the call while driving and 58 of them used to stop the vehicle and attend the call. (p=0.002) Mobile phone dependence was also found to be increased which is evident from ringxiety experienced by 68 students (34%) and waking up from sleep to check the mobile for call or message by 62 students(p=0.000). Out of 68 students with ringxiety, 69% were males and 37% were females (p=0.040). 82 participants (41%) commented that life without mobile will be boring and 50 (25%) said that they will feel alone or unsafe (p=0.001).
Conclusions: As dependence is increasing with the excessive use of mobile phones, some interventions are required to motivate the youth against it.

Keywords: Dependence, Mobile phone, Ringxiety

INTRODUCTION

Mobile phones have become an indispensable tool as communication plays a key role in all the aspects of life. Today, mobile phones are equipped with features other than voice call that allow further communications and entertainments such as the Short message service (SMS), MP3 player, games, internet and videos which attracted people across all walks of life and consequently led to the increase in the number of mobile phone users across the world.[1]

There are about 3.3 billion mobile phone users when compared to 500 million in the year 2000.[2] Indians are increasingly using the mobile phones rather than the land line telephones and Indian market has emerged as the second-largest market for mobile phone handsets next to China. In India, use of internet is enormous, especially in

the young population. Mobile Internet usage is growing at the rate of nearly 85% per annum.[3]

Mobile phone dependence can be considered as a new diagnostic entity as it has properties of excessive use, withdrawal, tolerance and negative repercussions.[4] Nomophobia is a term which is related to mobile phones usage.[5] It literally means no- mobile phobia that is the fear of being out of mobile phone contact. The person becomes anxious when there is no network or no balance or when run out of battery. Studies from United Kingdom revealed that 53% tend to be anxious and a study from Mumbai reports 58% could not manage without a mobile phone even for a day.[5,6]

As mobile phone usage is increasing in our population and the younger generation is more likely to become dependent on mobile phones, we decided to conduct a study on the usage pattern and the dependence of mobile phones among our students.

Objectives

- To assess the usage pattern of mobile phones among medical students of college
- To evaluate the mobile phone dependence among medical students of college.

To find out the gender differences in the usage of mobile phones and its dependence among medical students of college.

METHODS

A cross sectional study was conducted among 200 MBBS students from Azeezia institute of medical sciences and research, Kollam, Kerala, India. Students from each batch were selected by systematic random sampling technique. A pre-designed questionnaire was used to study the pattern of mobile phone usage and its dependence among the study subjects. Every question was compulsory to answer and consists of assorted options. Study was conducted after getting ethical clearance from the Institutional ethics committee. Those who were not willing to take part in the study and those who did not filled the questionnaire completely were exempted from the study. The data was analyzed using SPSS software and a P value of < 0.05 was taken as statistically significant.

RESULTS

The present study was conducted among 200 MBBS students of age group 18 years to 27 years, out of which 104 (52%) were males and 96 (48%) were females. Regarding the persons with whom they talked to mostly on their mobiles, parents were quoted by 75 (38 %) students, followed by friends by 57 (29%) students. Out of the 75 students who talked to their parents, 53 were females. Similarly, out of 57 who talked to their friends the most, 40 were males. 39 of them were talking mostly to their lovers out of which 28 were males. Statistically this was found to be very significant (p=0.000). Type of mobile phone usage was divided into occasional user (<15 min), regular user (15-30 min), frequent user (>30-120 min) and very frequent user (>120min). In the present study 70 were frequent users out of which 39 were males and 31 were females. 49 were regular users and 56 were very frequent users. Statistically it was not significant (p=0.329) (Table 1).

Table 1: Different types of users of mobile phones in both sexes.

Gender	Type of users				Total	P value
	Occasional	Regular	Frequent	Very frequent		
Males	13	20	39	32	104	0.329
Females	12	29	31	24	96	
Total	25	49	70	56	200	

Majority of them were using mobile phone to relax (80) followed by sharing information (44) and gossiping (39) (p=0.031). 28% told there was misunderstanding with friends while talking on mobile phone. Most common problems faced during its use were battery going down (41%) followed by unable to contact the desired person (18%)(p=0.000) (Table 2).

Majority of the students who bring their mobile phones to the classroom kept it in the silent mode (119) or it is switched off (36). Only 25 of them kept in the ringing mode. This was found to be significant (p=0.000). Out of 155 students who used to drive, 48 used to attend the call while driving. 49 of them never used to attend the call while driving and 58 of them used to stop the vehicle and attend the call (p=0.002).

A good proportion of them who used to attend the call while driving told that they had problems like accidents or lack of concentration when they do that, but it was not significant statistically (p=0.158). 68 participants experienced false perception of ring out of which 43 were

males and 25 were females and it was significant (p=0.04) (Table 4). 62 of them used to wake up from their sleep often to check whether they have a call or a message (p=0.000) (Table 5).

Table 2: Common problems faced during the use of mobile phones.

Common problems faced	Gender		
	Male	Female	Total
Battery down (1)	41	40	81
Unable to contact desired person (2)	14	21	35
Unable to buy desired handset (3)	17	3	20
Better option launched after purchase (4)	14	4	18
Person in front talks continuously over the phone (5)	2	8	10
Forget to bring cell phone (6)	5	15	20
2 and 3	0	1	1
2 and 4	2	0	2
1 and 2	2	3	5
1,2,3	0	1	1
1 and 3	2	0	2
1,3,4,6	1	0	1
1,3,6	1	0	1
1 and 4	2	0	2
Total	103	97	200

Table 3: Responses of students about life without mobile phones.

Life without mobile	Males	Females	Total
Alone/unsafe	26	24	50
Bored	48	34	82
Normal	11	33	44
Calm	8	2	10
Happy	4	2	6
Alone and bored	0	1	1
Bored but normal	0	1	1

Table 4: False perception of ring.

False perception of ring	Males	Females
Yes	43	25
No	60	70

Table 5: Number of times you wake up from your sleep to look for a message or a call.

No. of times of wake up from sleep to see messages/call	Males	Females
Does not wake up	38	62
Once	18	19
Often	24	8
Very often	22	8

82 participants (41%) commented that life without mobile will be boring and 50 (25%) said that they will feel alone or unsafe which was statistically significant (p=0.001). Out of 82 who said to feel bored without cell phone 48 were boys whereas out of 50 who think that they will be alone or unsafe, half of them were males and half females (Table 3).

DISCUSSION

Mobile phones have become an indispensable part of modern human life. Apart from being a communication tool, it also plays a key role as a source of entertainment, information, calculation and many others. Because of these features the number of mobile phone users have increased tremendously all over the world.[7-9] The use of mobile phones among young children and adolescents is also increasing dramatically. But because of the overuse of mobile phones many adverse effects are getting reported nowadays. One such problem is mobile phone dependence. As the young population is more vulnerable and prone to have such problems, this study was conducted among the medical students of a college in Kerala, India.

In the present study, we found that majority of the students were talking to their parents. A study on Malaysian college students also showed comparable results in which 51% of the students were talking to their parent.[10] Significant gender difference was also noted in this study with female students talking more to their parents and male students to their friends followed by their lovers.

In the present study 35% of the students were frequent users that is they used for >30 minutes per day (Table 1). Most common problems faced during its use were battery going down (41%) followed by unable to contact the desired person (18%) (Table 2). Out of 155 students who used to drive, 48 used to attend the call while driving. A good proportion of them had problems like accidents or lack of concentration when they do that, even though it was not significant statistically (p=0.158).

False perception of ring (ringxiety) is an indicator of mobile phone addiction/dependence. 68 participants (34%) experienced false perception of ring out of which 69% were males and 37% were females and it was significant (p=0.04) (Table 4). This figure is more than that was reported from India in the year 2007.[11] 62 of them used to wake up from their sleep often to check whether they have a call or a message (p=0.000) (Table 5). This was again showing mobile phone dependence.

In present study, male students were showing more dependence on mobile phones compared to females. This was similar to finding reported by several studies.[7,12,13] However, many studies have documented that the association between mobile phone use and gender is not conclusive.[14,15] A study conducted by market analysis and consumer research organization (MACRO) in Mumbai, India to study the various patterns and association of mobile phone usage reported that 58% of the respondents could not manage without a mobile phone even for a day.[6] In studies conducted in Indian adult population, Nehra et al, found 33.5% participants while Aggarwal et al, found 39.6% participants had mobile phone dependence.[16]

CONCLUSION

The present study shows increased use of mobile phones among medical students. Ringxiety and frequent checking of mobile phones even by waking up from sleep indicates that students are developing mobile phone dependence which is a bad sign. The increasing use of mobile phones may result in problems. It is not a problem of medical students alone. If we can identify it early by multicentric studies, health education strategies can be initiated targeting the young and make them aware of using the mobile phones only for necessity and for limited time. They can be motivated to use them for educational purposes by enlightening them with the possibilities of mobile learning (M-learning).

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REFERENCES

1. Sanjay D, Harish S, Bhagwat AK, Arpita B, Abhilasha G, Alia KZ, et al. A study to evaluate mobile phone dependence among students of a medical college and associated hospital of central India. Ind J Comm Med. 2010;35(2):339-41.
2. Emerging aspect of mobile phone use. Available at http://www.ehtforum. org/ehtj/journal/v2/pdf/ehtj09005a.pdf.
3. Chandra G, Anu M, Noshir K, James M. Online and upcoming: The Internet's impact on India. Bangalore: McKinsey and Company; 2012:1-3.
4. Singh BM. Cell phone dependence-a new diagnostic entity. Delhi Psychiatry J. 2008;11:123-4.
5. Katharine B. Phone-reliant Britons in the grip of Nomo-phobia, The independent. March 31, 2008. Available at http://www. independent.co.uk/news/uk/home-news/ phonereliant-britonsin-the-grip-of-nomophobia-802722.html.
6. Macro - market analysis and consumer research organization, A report on study of mobile phone usage among the teenagers and youth in Mumbai, April-May-2004. Available at https://www.itu.int/osg/spu/ni/futuremobile/socialaspects/IndiaMacroMobileYouthStudy04.pdf.
7. Dixit S, Shukla H, Bhagwat AK, Bindal A, Goyal A, Zaidi AK, et al. A study to evaluate mobile phone dependence among students of a medical college and associated hospital of Central India. Indian J Community Med. 2010;35(2):339-41.
8. Arumugam B, Sachi S, Nagalingam S. A descriptive study on behaviour associated with mobile phone usage and its effect on health among medical students in Chennai. J Evolution Med Dental Sci. 2014;3(7):1590-5.
9. Gupta N, Krishnamurthy V, Gupta J. Gadget dependency among medical college students in Delhi. In J Community Health. 2013;25(4):362-6.
10. Zulkefly SN, Baharudin R. Mobile phone use amongst students in a university in Malaysia: its correlates and relationship to psychological health. Eu J Scientific Res. 2009;37(2):206=-18.
11. Sinha K. Govt plans study on cell phone hazards (India) Available at http://findarticles.com/p/news-articles/times-of-india-the/mi_8012/is_20071006/ govt-plans-study-cellphone-hazards/ai_n39464451/ Times_of_India The, Oct. 6, 2007 (Cited on 19 Mar 2011).
12. Aggarwal M, Grover S, Basu D. Mobile phone use by resident doctors: tendency to addiction-like behaviour. German J Psychiatry. 2012;15(2):50-5.
13. Beranuy M, Oberst U, Carbonell X, Chamarro A. Problematic internet and mobile phone use and clinical symptoms in college students: the role of emotional intelligence. Comput Hum Behav. 2009;25:1182-7.
14. Szpakow A, Stryzhak A, Prokopowicz W. Evaluation of threat of mobile phone-addition among Belarusian university students. Prog Health Sci. 2011;1(2):96-101.
15. Tasdemir M, Hidiroglu S, Gurun H, Ozer HD, Cicek M, Cetinkaya MZ, et al. The knowledge, attitude

and behaviours of Marmara university students about the usage of mobile phones. Marmara Med J. 2012;25:18.
16. Nehra R, Kate N, Grover S, Khehra N, Basu D. Does the excessive use of mobile phones in young adults reflect an emerging behavioural addiction? J Postgrad Med Edu Res. 2012;46(4):177-82.

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