

# EFFECTS OF MOBILE PHONE USE ON THE SOCIAL AND ACADEMIC PERFORMANCE OF STUDENTS OF A PUBLIC SECTOR MEDICAL COLLEGE IN KHYBER PAKHTUNKHWA PAKISTAN

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## ABSTRACT

**Background:** Mobile phones were initially marketed as a source of communication but technology took such leaps that now Mobile phone doesn't mean a mere gadget to us anymore; it means the world to us. Although we can't deny the benefits of mobile phones but at the same time we have to admit that this technology has silently crept into our personal and social life. Inventions are planned for the benefit of mankind. However, their unforeseen side effects are inevitable which are unveiled only with their use and more so with their overuse.

Considering overuse, Pakistan is ranking 7<sup>th</sup> among the top mobile phone using countries according to World Fact book. Most of the subscribers comprise youth. Especially considering the demanding academic life of medical students, we planned a research to know if the use of mobile phones has affected their personal and social life, health and academics.

**Objectives:** The objectives were to know the effects of mobile phone use on personal lifestyle, academics and psychosocial aspects of student's life according to their point of view.

**Methodology:** This cross sectional study was conducted over a period of four months (Feb 2014-May 2014) on a sample of 308 female medical students of a public sector female medical college of Khyber Pakhtunkhwa. Students of all professionals were included. A structured self-administered questionnaire was used. Chi sq test was applied on selective variables. Data entry and analysis was done through SPSS-20.

**Results:** Out of 308 students 97% had cell phones in which 81% students reported a change in their routine after getting a cell phone, 56% stated that their sleeping routine and other activities like games, exercise and other hobbies were affected, academic performance of 53% students was affected, 69% believed that they were distracted from the surroundings and 58% use phones even in company of others due to which their social relations were compromised. 84% repeatedly check their mobile phones to see whether they have received any calls or not.

**Conclusion:** The study showed that excess use of mobile phones causes negative impacts on life. If its use is appropriate and reduced, its unhealthy impacts can also be minimized.

**Key Words:** Mobile phone use pattern, college student, health related lifestyle.

## INTRODUCTION

Mobile phones, as they were initially marketed, were a source of communication but technology took such leaps that in no time we entered into a complete new world - a world of mobile phones. Although we can't deny the benefits of mobile phones but at the same time we have to admit that this technology has silently crept into intricacies of our life, from our personal life to our

family life, friends and social life in general. Inventions are planned for the benefit of mankind. However, their unforeseen side effects are inevitable which are unveiled only with their use and more so with their overuse.

As reported by Pakistan Telecommunication Authority, Pakistan's annual cellular tele density is over 74% of its population, making Pakistan rank 7<sup>th</sup> among the top mobile phone using countries of the world according to World Fact book. Most of the subscribers comprise youth. Amid the speed the world is pacing with, students also are wrestling with a lot of challenges in their everyday life. Especially considering the demanding academic life of medical students, it is even more challenging for them to keep the balance between their personal life especially psychological and physical health, academics and social life. A study conducted in Sweden on 20,000 adults (10,000 women & 10,000 men) 22% men & 24% women were high mobile phone users. Among them 23% men & 34% women indicated sleep disturbances. 25% of men &

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32% women showed symptoms of depression. The prevalence of 1 year follow up for current stress was 10% for male & 19% for female. Sleep disturbances: 15% men & 20% women. Depression: 1 symptom; 24% men, 28% women; 2 symptoms; 12% men & 18% women. It was concluded that nightly disturbance by mobile phone calls or messages is obvious among young adults and their overuse was found to be a risk factor for the mental health of the subjects.<sup>1</sup>

According to Risto J. Moisio (2003), University of Nebraska BLincoln, negative consequences of technology are not properties of technologies themselves but reflection of particular "way of consuming" that embodies a particular definition of technology and conceptualization of its uses<sup>2</sup>. The time and money wastage of young generation is the highly rated negative aspect of mobile phones dependence. On the other hand, it also has negative effect on their social behavior and education<sup>3</sup>.

It was concluded in a study in Sakarya University Turkey (2013) that young people text at least 5 times a day and want to reply immediately. This shows that when frequency of mobile phone use increases, addiction level gets higher. It was also found that when the mobile phone addiction level increases in the students, their sleep quality deteriorates<sup>4</sup>.

The students using cell phone more frequently have poor academic performance (low GPA) as compared to those in whom its use is less. This data is obtained from a study conducted in Kent University, USA on more than 500 undergraduate students. It was also concluded that high frequency mobile users have higher incidence of anxiety and lower satisfaction with their life than less phone users. These findings are found to be very highly significant<sup>5</sup>.

According to a study carried out among medical students in SLIMS, Puducherry, more than 90% of students had a mobile phone and most of them had the new smart phone type and the students are highly dependent on mobile phones<sup>6</sup>.

In Japan 2011 at university of Shimane, it was found that mobile phone usage is associated with depression and there was a strong relationship between mobile phone dependence and health related lifestyle. Health related lifestyle includes poor lifestyle habits such as smoking, alcohol consumption, decreased physical activity, and disturbed sleep<sup>7</sup>.

A study was conducted in Central India in 2010. According to results, 3<sup>rd</sup> professional students were the most frequent users of mobile phones while 1<sup>st</sup> prof were the least. Internship students were minimum. No significant association was found in relation to gender, place of stay and academic sessions in regards to nomophobia (fear of being out of mobile phone contact). Around 73% students kept their mobile phones with them even when they go to sleep, 20% students

responded that they lose their concentration and become stressed when they do not have their mobile around, 44% students spent Rs. 250-500 per month for their mobile recharge, 83% students considered mobile phone a necessary tool to keep them connected with their family, 38.5% students keep checking their mobile phones for messages and calls. In conclusion the study was indicative of mobile phone dependence in students<sup>8</sup>.

About mobile phone usage pattern and ringxiety there was a study conducted at Kasturba medical college Mangalore, South India. It was concluded that about 34.5% students experienced ringxiety and they used their phones at restricted places like classrooms (99%) and libraries (60%). These students complained of hampered study. The use of mobile phones among medical students appeared to be problematic<sup>9</sup>.

In Pakistan, in the last few years, addiction to communication technology is increasingly becoming a problem. Psychiatrists can report dozens of histories of patients who were shattered by an overwhelming compulsion to use the mobile phones. A research project was carried out on "Mental Health Issues Related to the Use of Internet and Mobile Phones in the Developing Countries" which included Pakistan. According to a psychiatrist, the author of this article that in Karachi Pakistan, a dozen of young girls were brought to his clinic by parents for mobile phone addiction. Most of these girls were failing grades, reported to be absent from classes and spending most of their time chatting on mobile phones or sending text messages to their friends (mostly boys). These girls were irritable, rude in their behavior and often spent all night talking on the phones. Antisocial behaviors like stealing money, talking on phones and roaming around with their boyfriends during school and college hours and precocious sexual activities were fairly common in these girls. According to his study they came in emergency in the state of acute distress, anxiety, depression with suicidal thoughts following excessive use of mobile phone (affairs on mobile phones etc.)<sup>10</sup>.

Amna Baig, Quaid-I-Azam University of Islamabad finds that majority of young students showed emotional instability towards mobile phones which leads to anxiety, restlessness, sleeplessness and depression. The excessive users of mobile phone also become prone to various mental, physical and psychological diseases<sup>11</sup>. With mobile phone usage posing a growing concern to us, we devised a research with a rationale to know if medical students have also been affected by its use. If so how has it affected.

## METHODOLOGY

This cross-sectional study was carried out in Khyber Girls Medical College, Peshawar from February to May 2014. All enrolled students of the college were included in the study. A self administered questionnaire

including close ended questions was designed for data collection. Data collection was done at the end of a lecture, making sure that a study participant fills only one questionnaire. Those absent on the day of data collection were given the opportunity when they were on campus. Response rate was 100%. Data entry and analysis was done using MS EXCELL-2007. Ethical approval was granted by the Ethical Committee of the college.

## RESULTS

The results show that out of 308 students of KGMC, 298 (97%) had mobile phones and only 3% didn't have. Out of those 298 students 77% had one phone, 22% had two and 1% more than two individually.

The result also shows that out of 298 students 47% students had no effect on their studies due to mobile phone dependence while 29% had little effect and 17% had effect to some extent although studies of 7% were very much affected. Results showed that parents of 67% students were in favor of using mobile phone by them and those of 33% were not.

## DISCUSSION

In this study 97% students had mobile phone and among them 23% had more than one cell phone

**Table 1: Times of usage of mobile phone**

| Result    | Frequency | Percentage |
|-----------|-----------|------------|
| Morning   | 28        | 9%         |
| Afternoon | 64        | 21%        |
| Evening   | 138       | 47%        |
| Night     | 68        | 23%        |

**Table 2: Use of mobile in company with others**

| Result | Frequency | Percentage |
|--------|-----------|------------|
| Yes    | 174       | 58%        |
| No     | 124       | 42%        |

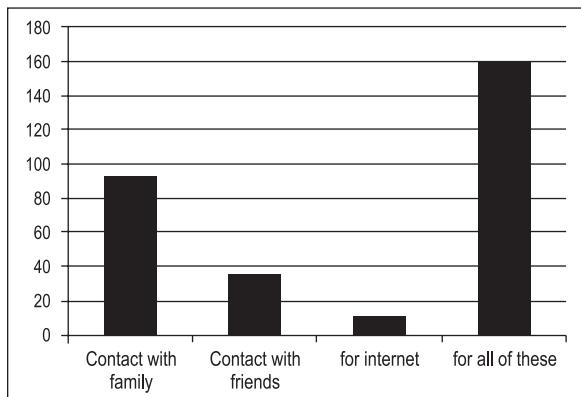


Figure 1: Purpose of mobile phone use in students of KGMC

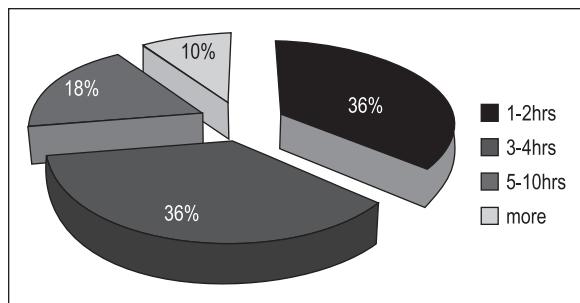


Figure 2: Daily time consumption on mobile phone

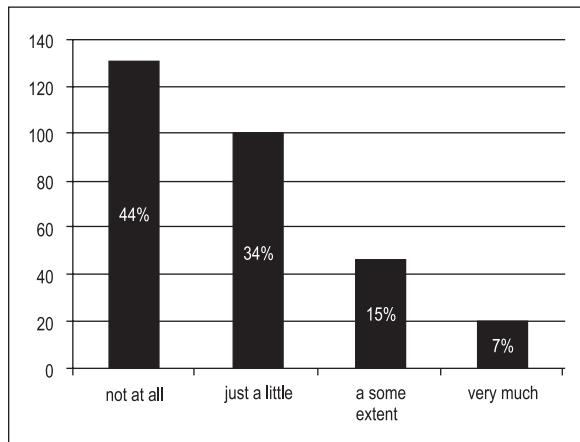


Figure 3: Mobile phone use affecting sleeping habits of students

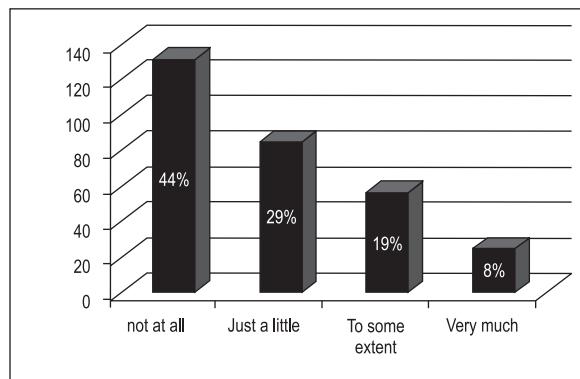


Figure 4: Effect on games, exercise and other hobbies.

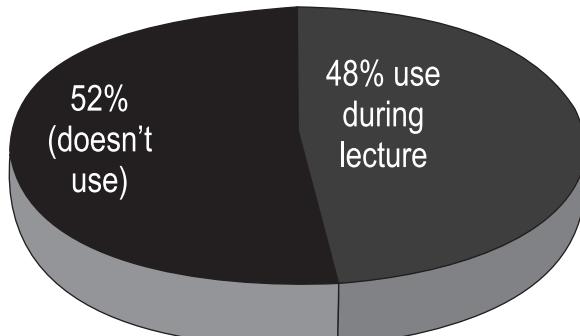


Figure 5: Use of mobile phone during lecture or work/study

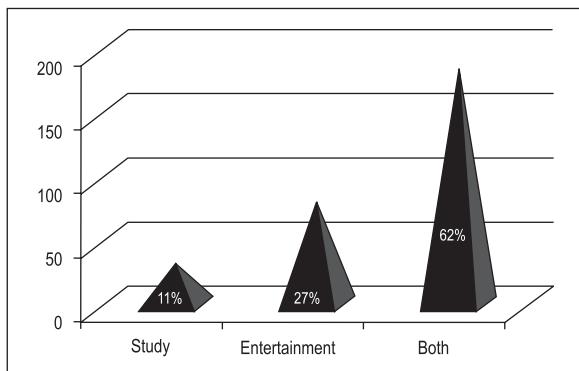


Figure 6: Purpose of internet surfing on mobile phone

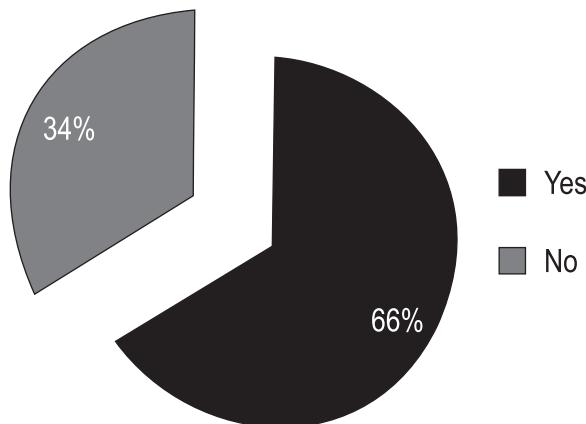


Figure 7: Feeling of embarrassment due to mobile phone ringing at an appropriate time

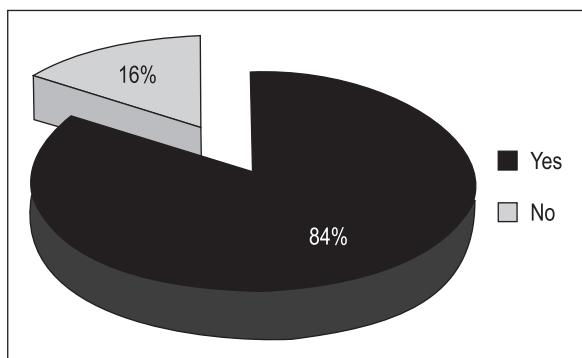


Figure 8: Repeated checking of cell phone for received calls or messages

individually which is in accordance with the study done in Puducherry<sup>6</sup>.

According to most of the students mobile phone was the best way of communication with friends and family. Many students also use it for internet in which 11% students used it for study only while 27% students used it for entertainment like downloading videos, games, pictures etc. Americans spent 46% of their internet time with mobile phone apps compared to roughly 45.1% spent accessing internet from desktop<sup>5</sup>.

Daily time consumption of 10% students on mobile phone was more than 10hrs due to which they may miss other important tasks which is in accordance with research in India<sup>8,9</sup>. Daily routine of 81% students was changed before having a cell phone and after getting it while 19% felt no difference. It was also found that sleeping habits and quality of sleep deteriorated in 56% with excess use. Same results were found in Sweden<sup>1</sup>, Turkey<sup>4</sup>, Japan<sup>7</sup> and Pakistan<sup>10</sup>.

Mobile phone use also affected academic performance, physical activities, and other hobbies of about 56% students. Research from Kent University showed comparable results<sup>5</sup>.

About 74% students felt anxious and disconnected in the absence of their cell phone. A study conducted in South India concluded that 34.5% students experienced ringxiety and they used their phones at restricted places like classrooms and libraries<sup>9</sup>. According to our study, 84% students repeatedly check their cell phones to check whether they get any messages or calls. 55% students feel guilty and anxiety when they are unable to return any call or message either due to less recharge, run out of battery or network problems. A study conducted by Risto J.Moisio also revealed that due to unavailability of phone due to any reason, consumers were faced with continuous anxiety and worry that you will lose something important<sup>2</sup>.

## CONCLUSION

It was concluded that excess mobile phone use disturbs daily routine, physical activities (games, exercises, other hobbies etc.), sleeping habits, and interaction with the society, mental status and academic performances.

These consequences can be minimized, if the excessive use of mobile phone is reduced.

## REFERENCES

1. Sara Thomée, Annika Harenstam and Mats Hagberg. Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults – a prospective cohort study. *BMC Public Health* 2011;11:66. Available on: <http://www.biomedcentral.com/1471-2458/11/66> (accessed on 1st February 2014)
2. Moisio, Risto J. Negative Consequences of Mobile Phone Consumption: Everyday Irritations, Anxieties and Ambiguities in the Experiences of Finnish Mobile Phone Consumers. *Advances in Consumer Research*; 2003, Vol. 30 Issue 1, p340
3. Sheereen N. Zulkefly, Rozumah Baharudin. Mobile Phone use Amongst Students in a University in Malaysia: Its Correlates and Relationship to Psychological Health. *European Journal of Scientific Research* ISSN 1450-216X Vol.37 No.2 (2009), pp.206-218. Available on: <http://www.eurojournals.com/ejsr.htm>

4. Sahin S, Ozdemir K, Unsal A, Temiz N. Evaluation of mobile phone addiction level and sleep quality in university students. *Pak J Med Sci* 2013;29(4):913-918. Available at: <http://dx.doi.org/10.12669/pjms.294.3686>
5. Andrew Lepp, Jacob E Barkley, Aryn C.Karpinski. The relationship Between Cell Phone Use, Academic Performance, Anxiety, and Satisfaction with Life in College Students. *Computers in Human Behaviour*. February 2014; 31; 343-350. Available on: <http://www.sciencedirect.com/science/article/pii/S0747563213003993>
6. S. Vaishali; V. Nithya; D.Thiruselvakumar. Mobile Phone Usage and Dependency among Medical Undergraduates in Puducherry. *New Indian Journal of Surgery*. Jul-Sep2012;3(3):196-197
7. Masahiro Toda, Satoko Ezoe. Multifactorial Study of Mobile phone Dependence in Medical Students: Relationship to Health-Related Lifestyle, Type A Behaviour, and Depressive State. *Open journal of Preventive Medicine*, 3;99-103.
8. 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*. Apr 2010; 35(2): 339-341.
9. Sonu H. Subba, Chetan Mandelia, Vaibhav Pathak, Divya Reddy, Akanksha Goel, Ayushi Tayal et.al. Ringxiety and the Mobile Phone usage Pattern among the Students of a Medical College in South India. *J Clin Diagn Res*. Feb 2013; 7(2): 205-209. Available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592275/>
10. [http://www.academia.edu/5143404/Mobile\\_Phone\\_Addiction\\_Among\\_Youth](http://www.academia.edu/5143404/Mobile_Phone_Addiction_Among_Youth)
11. Aamna Baig. Mobile Phone Addiction Among Youth. [http://www.academia.edu/5143404/Mobile\\_Phone\\_Addiction\\_Among\\_Youth](http://www.academia.edu/5143404/Mobile_Phone_Addiction_Among_Youth)

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