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Original Research Article

Pattern of mobile use among medical students and its impact on health in GMC Jalaun

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ABSTRACT

Background: Mobile phone because of the ever availability and its mobility application has created a dramatic interest for youth in comparison with other communication technologies. Unfortunately, communication technology has some negative effects also. Constant usage and addiction to cell phones has affected the people physically, psychologically, and socially. Aims and objective were to assess the pattern and impact on health of mobile phone use among students of Government Medical College, Jalaun.
Methods: A descriptive cross-sectional study was conducted on GMC Jalaun from October to December (3 months). All students of MBBS final year part 1 were selected as sample, so total 98 students were selected in the study. Students were requested to complete a pre-tested self-administered questionnaire. The data were analyzed by using appropriate statistical test.
Results: Our study shows that mobile phone use was very high among the medical students and 54.1% of them spending 4-6 hours per day. Most of the students were frequently using mobile phone for taking pictures, videos, playing games, listening to music and internet surfing other than for calling and messaging purpose. Majority of the students used mobile phones at night (62.2%). Majority were suffered from sleep disturbance (52.1%) followed by lack of concentration (47.9%) and behavioural disorder (36.8). Out of total students, 31.6% were having refracting error.
Conclusions: Our study showed pattern of mobile phone use among the medical students and it was found that mobile phone use was very high among the medical students.

Keywords: Internet, Mobile phone, Social media and health

INTRODUCTION

Mobile phone because of the ever availability and its mobility application has created a dramatic interest for youth in comparison with other communication technologies.[1] Initially, mobile phones were used only as a communication tool but these days, mobile phones function as mobile computers that serve us with music player, games, internet, video camera, calculator, alarm clock, and many more other perceived benefits as increased accessibility and social connectivity, reduced loneliness, and security in emergency situations.[2] Unfortunately, communication technology has some negative effects also. Constant usage and addiction to cell phones has affected the people physically, psychologically, and socially.[3] Self-reported symptoms associated with using mobile phones most commonly included headaches, earache, warmth sensations, concentration difficulties and fatigue.[4] Moreover intensive mobile phone use has been associated with dependency on the mobile phone.[5] Many of the college students were extremely depend on smart phones. The impacts of mobile phone users are highly increasing day by day. Now a days, mobile is the symbol of status for

young people. Mobile phones are spoiling the college students learning environment and worried with chatting in the social media.[6]

Like other college students, medical students are also very much exposed to mobile phone in day-to-day life and facing many health problems, so against this background in mind, this study was planned among students of Government medical college, Jalaun to assess the pattern of mobile phone use and its impact on health among medical students.

Aims and objective

To assess the pattern of mobile phone use among medical students of Government Medical college, Jalaun. To find out the impact of mobile phone use on health of the medical students.

METHODS

It was a descriptive cross-sectional study that was conducted on department of community medicine in GMC Jalaun from October 2023 to December 2023 (3 months).

Study population

All students of MBBS final year part-1 attending the community medicine department were selected for the study.

Sample size and sampling technique

Complete enumeration was done and all students of MBBS final year part-1 batch attending the community medicine department were selected as a sample size. So out of 100 students' batch, 98 students were selected in the study after following inclusion and exclusion criteria. After explaining the aim and objectives of the study, verbal consent was taken from each study participants and confidentiality was maintained till completion of the study.

Inclusion criteria

Medical students who were using mobile phones on a regular basis for more than 6 months and willing to participate in the study.

Exclusion criteria

Medical students who did not have mobile phone or using less than 6 months and not willing to participate in the study.

Study tool

Students were requested to complete a pre-tested self-administered questionnaire which comprised their socio-demographic characteristics and pattern of mobile phone usage and health problem associated with their usage.

Data collection and analysis

The data was compiled and tabulated and analyzed by using appropriate statistical test by mean and percentages.

RESULTS

Table 1 shows pattern of mobile phone use among the medical students. It was found that mobile phone use was very high among the medical students and 54.1% of them spending 4-6 hours per day on their mobile phone. Most of the students were frequently using mobile phone for taking pictures, videos, playing games, listening to music and internet surfing other than for calling and messaging purpose. Majority of the students used mobile phones at night 62.2% and 30.6% of them used in the evening.

Table 1: Use of mobile phone pattern among students (n=98).

Characteristics	Category	N (%)
Time spent per day (in hours)	1-2	4 (4.1)
	2-4	35 (35.7)
	4-6	53 (54.1)
	>6	6 (6.1)
Time of maximum use	Morning	5 (5.1)
	Afternoon	3 (3.1)
	Evening	30 (30.6)
	Night	61 (62.2)
Reason for use	Messaging	57 (58.2)
	Internet use	90 (91.8)
	Playing games	7 (57.1)
	Listening to music	75 (74.5)
	Takingphotos/videos	62 (63.3)
	Study purpose	57 (58.2)
Calls per day	1-5	23 (23.5)
	6-10	56 (57.1)
	>10	19 (19.4)

Table 2: Socio demographic variables of the respondents.

Characteristics		N (%)
Mean age (years)		21.5
Sex	Male	61 (62.2)
	Female	37 (37.8)
Type of family	Joint	28 (28.6)
	Nuclear	70 (71.4)
Family income status	Low middle class	9 (9.1)
	Middle class	2 (63.3)
	Upper class	27 (27.6)

Table 2 depicts the association of pattern of mobile phone use with selected socio demographic variables. Majority of the participants were in the mean age 0f 21.5 years.

62.2% students were male and 37.8% were female. Majority of them belonged to middle class 62.3%. Majority of them belonged to nuclear family 71.4%. In this study family income status did not influence the student's mobile phone pattern.

Table 3 shows effect of mobile phone on health of the study population. Out of 98 students, majority suffered from sleep disturbance (52.1%) followed by lack of concentration (47.9%) and behavioral disorder (36.8). Out of total students, 31.6% were having refracting error.

Table 3: Impact of mobile phone on health.

Effect on health	N (%)
Refracting error	31 (31.6)
Sleep disturbance	51 (52.1)
Lack of concentration	47 (47.9)
Behaviour disorder	36 (36.8)

DISCUSSION

our study showed pattern of mobile phone use among the medical students and It was found that mobile phone use was very high among the medical students and 54.1% of them spending 4-6 hours per day on their mobile phone frequently using mobile phone for taking pictures, videos, playing games, listening to music and internet surfing other than for calling and messaging purpose and they used mobile phones at night 62.2% and 30.6% of them used in the evening, mean age of students were 21.5 years. 62.2% students were male and 37.8% were female. Majority of them belongs to middle class 62.3%. Majority of them belongs to nuclear family 71.4%. Students were suffered from sleep disturbance (52.1%) followed by lack of concentration (47.9%) and behavioural disorder (36.8). Out of total students, 31.6% were having refracting error. Our findings were supported by many other studies which showing impact of health problems on students due to mobile use. A study by Awasthi et al, stated that smart phone addiction is high among medical students and it has a significant negative impact on QOL of medical students.[7] Another study Goel et al done on 264 undergraduate medical students in Government Doon Medical College, Dehradun using sleep questionnaire, found that smartphone use, particularly at night, has been shown to provoke various circadian sleep-wake rhythm disorders such as insomnia and excessive daytime tiredness.[8] Krishnan et al, reported in her study that exposure to light from viewing devices at night disturbs the circadian rhythm, especially sleep among 450 medical undergraduate students.[9] Jose et al, included 402 nursing students with an average age of 20.47 years, revealing a 39% prevalence of severe problematic mobile phone usage. Positive correlations were observed between mobile phone problematic use and age, depression and insomnia.[10] Similar study by Sharma et al, found that Almost 100% of respondents had smartphones. Nearly 48% of students had downloaded medical apps on their mobile phones. The most common age group of starting internet use among the respondents was 11-20 years. Daily use of the internet was 3-6 hours/day by most of the medical students. Most of the students used mobile phones for the purpose of social networking (n=76) followed by online shopping (n=56). About 32.92% of students used mobile for academic purpose.[11]

There are some limitations of study. The study cannot be generalized due to less sample size; the study should involve more students. Mobile phone addiction among medical students were not established. Relationship among QOL and mobile phone usage were not taken in consideration.

CONCLUSION

Mobile phone was frequently used among medical students of both sexes and mostly in night and evening time and it was found to be necessary tool for teaching also. Mobile use was found to be associated with some health issues like behavioral disorder and sleep disturbance and lack of concentration.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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