Original Research Article

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Prevalence and pattern of internet addiction among medical students, Bengaluru

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ABSTRACT

Background: Currently internet has become an important tool for education, entertainment and communication. Increased internet usage may lead to point of habituation, addiction, adverse academic, mental, physical and social effects. Medical students are also among the vulnerable group on account of time they spend on internet, hence this study was undertaken among medical students. The objective of the study was to estimate the prevalence and pattern of internet addiction among first year medical students.

Methods: A Cross sectional study was conducted among the first year medical students of Rajarajeswari Medical College and Hospital, Bengaluru. The sample size calculated was 125 as per the prevalence of internet addiction among medical students as 58.87% found in the study by Chaudhari et al. A total of 140 students present in the class at the time of data collection, who consented were considered for the study. Semi structured questionnaire with Young's 8-item questionnaire and 20-item internet addiction scale was administered to the students. The data was analyzed using SPSS version 21.0. Pearson's chi-square test was applied to know the association between two variables.

Results: Out of 140 study subjects, majority (73.57%) were 18 yrs of age, 62.14% were females. 81 (57.86%) were hostelites. 77 (55%) of students were using internet for 4-6 hrs per day. 80 (57.14%) students have been using internet for more than 5 yrs. The prevalence of internet addiction according to Young's 8-item questionnaire was 66 (47.14%) out of 140. Out of the 66, most common gadget used was mobile and most common purpose was social networking. The most common pattern of internet addiction according to Young's 20-item scale was possible addict (49.29%). Internet addiction among localites was observed to be more than hostelites, this association was found to be statistically significant.

Conclusions: Internet addiction was found to be substantial among medical students and most common purpose of internet usage was for social networking.

Keywords: Internet addiction, Medical students, Mobile phones, Prevalence

INTRODUCTION

The term Internet Addiction was proposed by Dr. Ivan Goldberg in 1995 for pathological compulsive internet use.1 Internet addiction commonly refers to an individual's inability to control his or her use of the internet, which eventually causes one's marked distress

and functional impairment in daily life.2 Currently internet has become the source of entertainment, education, communication etc. and also for both legal and illegal activities. In the past five years use of social media has increased tremendously more so among the young. Currently (2016), there are 462 million active internet users in India. India stood second on the ranking of internet users just behind China. In 462 million, 371 million peoples are using mobile internet in India with 262 million in urban and 109 million in rural areas.³ Internet has brought people from across the world together by enabling various forms of interpersonal communication, notably e-mail, instant messaging, video-conferencing, file sharing and social networking. Younger internet users(ie between 18 and 24 yrs old) were more at risk of becoming internet addicts than older users.⁴

Medical students are a particularly vulnerable group on account of the time they spend on the internet. There are limited studies carried out in India on this emerging public health issue. Hence, this study was designed to assess the prevalence and pattern of internet addiction among medical students.

Objective

To estimate the prevalence and pattern of internet addiction among first year medical students.

METHODS

Study setting: RajaRajeswari Medical College and Hospital, Bengaluru.

Study population: First year medical students.

Study design: Descriptive study.

Study duration: Two months (December 2016 to January 2017).

Study tools

Pretested, semi-structured Questionnaires and Young's 8item questionnaires and 20- item scale for internet addiction.

Sample size

$$n = \frac{4pq}{L^2}$$

p=Prevalence=5 8.87% (According to study conducted in Maharashtra by Chaudhari, Menon, Saldanha, Tewari and Bhattacharya, 2015).⁷

$$q = 1-p = 41.13\%$$

L = Allowable error = 15% of p=8.83

$$n = \frac{4x58.87x41.13}{(8.83)^2}$$
₌₁₂₅

Inclusion criteria

The students who were present during data collection.

Exclusion criteria

Those who are not willing to give consent and students who have not used internet.

Method of data collection

Written informed consent was obtained. Data was collected from 140 students, who were available on the day of the study. Semi structured questionnaires was administered to the students with the study variables like socio-demographic profile, questions on gadgets, purpose and duration of internet use, Young's 8-item questionnaires and Young's internet addiction scale.

Young's internet addiction scale consisting of 20-items and based on the response, subjects were classified into--

- Less than average (score 0-19)
- Average online user (score 20-49)
- Possible addict (score 50-79)
- Addict (score 80-100) to internet

Statistical analysis

The data was analyzed using SPSS (Statistical Package for Social sciences) version 21.0 and Pearson's chisquare test was applied to know the association between variables.

RESULTS

Table 1: Sociodemographic profile of the study subjects (n=140).

Sociodemographic profile		Frequency (%)
Gender	Female	87 (62)
	Male	53 (38)
Age in years	18 yrs	103 (74)
	19 yrs	37 (26)
Religion	Hindu	115 (82)
	Muslim	15 (11)
	Christian	10 (07)
Place of stay	Hostel	81 (58)
	Home	59 (42)

With respect to the socio-demographic factors, majority (73.57%) were 18 yrs of age, 62.14% were females, 82% were hindu by religion and 57.86% were hostelites.

All 140 students were using internet. In that 66 (47.14%) students were addicted to internet (Figure 1).

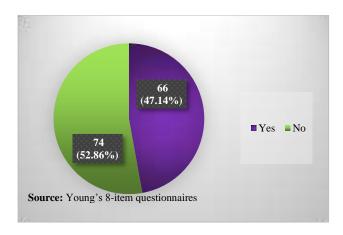


Figure 1: Pie chart showing the study subjects with internet addiction (n=140).

Table 2: Distribution of internet addicted subjects according to pattern of internet usage (n=66).

Pattern	Frequency (%)	
Less than average	13 (19.69)	
Average online users	21 (31.81)	
Possible addict	30 (45.45)	
Addict	02 (03.05)	

Source: Young's 20-item Internet Addiction Scale.

Among internet addicted students, the pattern of internet addiction was possible addict (45.45%).

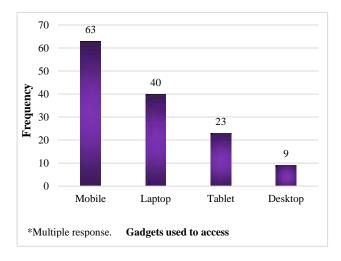


Figure 2: Bar diagram showing gadgets used for internet access among internet addicted subjects (n=66)*.

Among internet addicted students the most common gadget used to access internet was mobile (63) followed by laptop (40) and least was desktop (9) (Figure 2).

The most common purpose of internet usage was social networking (65) followed by education (53) and least was online games (26) among the internet addicted students (Figure 3).

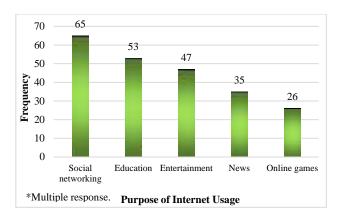


Figure 3: Bar diagram showing purpose for internet usage among internet addicted subjects (n=66)*.

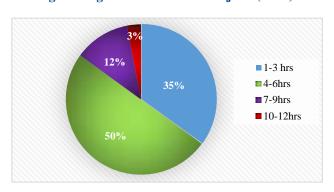


Figure 4: Pie chart showing the hours per day use of internet among internet addicted subjects (n=66).

Out of 66 internet addicted students, majority (50%) of students were using internet for 4-6 hours and 3% of students were using for 10-12 hours per day (Figure 4).

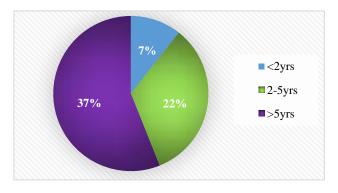


Figure 5: Pie chart showing the years of internet use among internet addicted subjects (n=66).

Out of 66 internet addicted students, majority (37%) of students have been using internet for more than 5 years and 7% of students have been using less than 2 years (Figure 5).

Internet addiction among localites (52%) was observed to be more than hostelites (48%), this association was found to be statistically significant (p is <0.05) (Table 3).

Table 3: Table showing the association between place of stay and internet addiction (n=140).

Dlaga of stay	Internet addiction		Total (9/)
Place of stay	Yes (%)	No (%)	Total (%)
Home	34 (52)	25 (34)	59 (42)
Hostel	32 (48)	49 (66)	81 (58)
Total	66 (100)	74 (100)	140 (100)

Chi square=4.57, df=1, p=0.03.

Table 4: Table showing the association between gender and internet addiction (n=140).

Condon	Internet A	Internet Addiction	
Gender	Yes (%)	No (%)	Total (%)
Male	30 (45)	23 (31)	53 (38)
Female	36 (55)	51 (69)	87 (62)
Total	66 (100)	74 (100)	140 (100)

Chi-square=3.06, df=1, p=0.08

There is no difference in internet addiction among male and female, this association was found to be statistically not significant (p is >0.05).

DISCUSSION

Currently internet has become an important tool for education, entertainment and communication. Increased internet usage may lead to point of habituation, addiction, adverse academic, mental, physical and social effects. Medical students are also among the vulnerable group on account of time they spend on internet, hence this study was undertaken among medical students.

In present study, the prevalence of internet addiction was 47.14% whereas in a study by Chaudhari et al was about 58.87%.⁷ It was observed that, the pattern of internet addiction was possible addict (45.45%) where as in a study by Srijampana et al was average online user (73.3%).⁵

In present study, the most common gadget used to access internet was mobile and purpose of internet usage was social networking whereas similar findings were observed in a study done by Srijampana et al.⁵

It was observed that, 35% of students were using internet for 4-6 hours per day and 37% of students have been using internet for more than 5 years whereas in a study by Srijampana et al was 81.99% of students were using internet for 1-3 hours per day and 70.61% of students have been using internet for 2-5 years.⁵

In present study, internet addiction among localites (52%) was observed to be more than hostalites (48%), this association was found to be statistically significant (p=0.03) whereas in a study by Chaudhari et al was students staying in private accommodation are more prone to internet addiction.⁷

In present study, it was observed that there is no association between gender and internet addiction whereas similar findings observed in a study by Setty et al.¹

CONCLUSION

The Prevalence of Internet Addiction was 47.14%. The most common pattern of internet addiction was possible addict(45.45%). The most common gadget used was mobile and most common purpose was social networking.

Recommendations

The internet addiction among students should be given more attention and a comprehensive program for students should be prepared to increase awareness of the internet addiction among students, to detect students at risk before it becomes problematic.

Limitation

The study was carried out only among first year medical students, hence caution needs to be applied before generalizing the results to entire population.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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