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INTERNET ADDICTION AMONG STUDENTS OF A MEDICAL COLLEGE

Psychiatry

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ABSTRACT

Internet is man's greatest invention of 20th century. There are 1 billion Internet users in 30 aspiring countries and 120 million Internet users in India. This cross-sectional study was conducted among undergraduate medical students of a medical college in Maharashtra. Young's IAD questionnaire was used. A total of 240 students participated. Which included 194 males (80.8 %) and 46 (19.2%) females. Based on Young's original criteria, the study population were classified into average user (79.2%), moderate addict (7.5%) and severe addict (0.8%). Use of internet less than average use was seen in 12.5% of students. Male predominance was seen with Internet addiction prevalence of 9.2%. Students who felt isolated from family were found to be having more Internet Addiction (X2= 14.2, p=<.001). Sleep disturbance and internet addiction significantly associated (X2= 20.29, p=<.001), frequently getting irritated was significantly associated (X2=31.9, p=<.001).

KEYWORDS:

Introduction

Internet is man's greatest invention of 20th century. There are 1 billion Internet users in 30 aspiring countries and 120 million Internet users in India which makes the India third largest user base in the world.' Dr. Ivan Goldberg coined the term "internet addiction" in 1995 for pathological compulsive internet use.

Internet addiction is defined as excessive time spent on Internet-related activities, an increasing tolerance to the effects of being online, unpleasant feelings when off-line, and denial of associated problematic behaviors. Students remained sleepless, continue restlessness that may cause depression, sickness, weakness due to excessive use of Internet. In extreme cases, students use cigarettes and tea for longer use of Internet that may cause headache, backache and eye problems.

As there are limited studies conducted in India and particularly in students, this study was aimed to study prevalence and associated factors of internet addiction among medical students in the city of Pune.

Materials and Methods

This cross-sectional study was conducted among undergraduate medical students of a medical college in Maharashtra. Total of 240 students were selected from 1st, 2nd and 3rd year MBBS, sample population was selected using random sampling and questionnaire used was Young's IAD questionnaire along with demographic details and information on hours spend on internet every day, mode of access, mobile data plan, disturbance in sleep, feeling lonely, pain in hands. Care was taken not to administer during exams to avoid the bias.

Ethical approval was obtained from Institutional Ethical Committee.

Inclusion Criteria for the study included of Medical students of both sexes and aged between 18 and 23 years with history of using internet either in mobile or personal computers. Exclusion Criteria was any medical student with previous psychiatric conditions or those not willing to give valid consent.

Statistical Test

The Data collected were tabulated using excel sheet. Chi-square test and Fisher's exact test was used for analysis.

Results

A total of 240 medical students completed the questionnaire. Which included 194 males (80.8 %) and 46 (19.2%) females. Age of students ranged from 18 years to 23 years with mean age of 19.9 years (SD .946). (Table-1)

Based on Young's original criteria, the study population were classified into average user (79.2%), moderate addict (7.5%) and severe addict (0.8%). Use of internet less than average use was seen in 12.5% of students.(Table-2)

Duration of daily use of personal computers ranged from 1hour to 4 hours a day with mean usage of 2.10 hours (SD .82) while the duration of daily internet use ranged from 1 hour to 3 hours with mean duration of 1.58 hours (SD .60). Time spent on online games by students raged between 0 to 3 hours with mean hours of 1.10 hours (SD .826). There was a significant relation between Internet Addiction and online gaming of more than 1 hour a day (X2 = 4.32, p=0.38). Students using internet for more than 2 hours a day were found to be significantly addicted (p =0.001).

Students were also assessed for factors which is predisposing them to Internet addiction using dichotomous questions. Students who felt isolated from family were found to be having more Internet Addiction which showed significant association (X2= 14.2, p=<.001). Sleep disturbance and internet addiction was found to be significantly associated with X2 value of 20.29 (p=<.001). Further to this students who were addicted said they were frequently getting irritated which was found to be significantly associated with X2 value of 31.9 (p=<.001). Table 3 summarises association between other factors and Internet Addiction.

Table – 1 Demographic Profile of Students

		Frequency	Percent
Age	<20	186	75.8
	>20	54	24.2
Sex	Male	194	80.8
	Female	46	19.2
Income	>15000	232	96.7
	<15000	8	3.3
Religion	Hindu	216	90.0
	Muslim	8	3.3
	Christian	16	6.7
SES	Upper	114	47.5
	Upper Middle	112	46.7
	Lower Middle	10	4.2
	Lower	4	1.7

Table – 2: Internet Addiction Test score and gender distribution

SEX	Internet Addiction			
	Low average user Number (%)	Average user Number (%)	Moderate Addict Number (%)	Severe Addict Number (%)
Male n=194	14 (7.2%)	162 (83.6%)	16 (8.2%)	2 (1%)
Female n= 46	16 (34.8%)	28 (60.9%)	2 (4.3%)	0 (0%)
Total	30 (12.5%)	190 (79.2%)	18 (7.5%)	2 (0.8%)

Table – 3 Association of Internet addiction with other factors

		Internet Addiction Not Present (%)	Internet Addiction Present (%)	X2 value	p-value
Sex	Male	176 (90.7%)	18 (9.3%)	1.183	.277
	Female	44 (95.6%)	2 (4.4%)		
Age	<20 Yrs	170 (91.3%)	16 (8.7%)	.780	.780
	>20 Yrs	50 (92.5%)	4 (7.5%)		
Native Place	Urban	168 (92.3%)	14 (7.7%)	.405	.524
	Rural	52 (89.6%)	6 (10.4%)		
Average time spent on computer/ mobile per day	<2 hrs	48 (96%)	2 (4%)	1.553	.213
	>2 hrs	172 (90.5%)	18 (9.5%)		
Average time spent on online games per day	<1 hrs	176 (96.7%)	12 (3.3%)	4.321	.038
	>1 hrs	44 (84.6%)	8 (15.4%)		
Average time spent on internet per day	<2 hrs	132 (97%)	4 (3%)	11.94	.001
	>2 hrs	88 (84.6%)	16 (15.4%)		
Mobile with active internet connection	Yes	178(91.7%)	16 (8.3%)	0.010	.921
	No	42 (91.3%)	4 (8.7%)		
Any disturbance in sleep	Yes	38 (76%)	12 (24%)	20.30	<.001
	No	182(95.7%)	8 (4.3%)		
Did you anytime feel isolated from family	Yes	48 (80%)	12 (20%)	14.25	<.001
	No	172 (95.5%)	8 (4.5%)		
Pain n numbness in hands/fingers	Yes	14 (70%)	6 (30%)	13.4	<.001
	No	206 (93.6%)	14 (6.4%)		
Sleepy in class	Yes	132 (88%)	18 (12%)	7.04	.008
	No	88 (97.7%)	2 (2.3%)		
Frequent irritability	Yes	36 (72%)	14 (28%)	31.97	<.001
	No	184 (96.8%)	6 (3.2%)		

Discussion

The current study was under taken among 240 undergraduate medical students.

The prevalence of IAD as 7.5% (Males 9.3% and Females 4.4%). These findings are in consistent with other studies done by Nalwa and Anand, Endreddy, Prabhath e al and in other studies conducted in Greece and Iran which might be due to availability of free internet in college camps and active internet connection in mobiles (80.8%). The studies conducted in US and Europe has also shown prevalence of Internet addiction to vary between 1.5% to 8.2% in Europe and US.

Male predominance was seen with Internet addiction prevalence of 9.2% as compared to 4.3% in females. Same pattern of male predominance of Internet addiction was found in other studies conducted by Ceyhan and Grover.

The current study showed that students who spend more time surfing internet for >2hrs a day were found to be addicted which was found to be statistically significant (p-<0.05) and is consistent with various other studies.

The current study showed that internet addiction to be associated with loneliness or felling of isolated from family which was found statistically significant with X2= 14.24 (p=<.001) which was consistent with other studies conducted in other places.

In current study observed that 70% of addicts admitted of getting frequently irritable which was found statistically significantly with X2 =31.9 (p= <.001) which is consistent with others studies.

People having addiction were found to have disturbance in sleep due to overnight use of internet was found in study done by Nalwa and Anand. The study subjects in current study were found to have sleep disturbance which was found statistically significantly with X2 = 20.29(p=<.001).

Limitations

Study was a cross sectional which limits its conclusion of association between loneliness and sleep disturbances. The current study could not measure the use of internet for academic purpose or social media for students.

Conclusion

The current study has brought out that the prevalence of internet addiction among medical students is similar to other university students in India and in the West. Its association with depression and anxiety disorder has to be further studied to find out which precedes first. Suitable measures need to be taken by parents and Institutions for creating awareness and limiting the use of internet by students for which they get effected easily.

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