

To Study the Prevalence of Internet Addiction in Students of Medical Colleges of Northern India

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Abstract – Internet is a growing pandemic in today's digitally dependent lifestyle. The most affected are students of all age groups.[2] Students use them for various reasons like searching study materials, watching videos[7], connecting socially. This dependence affects the mental wellbeing of the students[9,10]. The present Covid era has also increased this internet dependence amongst the younger generation.

Material & Methods – 307 medical students were enrolled for this study. Informed consent was obtained & ethical clearance was also taken. Young's Internet Addiction questionnaire was created in Google form & mailed to the students. Responses was analysed on excel sheet & Student t-test was applied.

Result – 32 % were mild users, 19% moderate internet users & 3.9% students were severely addicted to internet. 44% students were normal users of internet. Statistical significance was found between gender and internet addiction score. (P value < 0.05). However, no significance was found in severe addiction among male & female students.

Conclusion – Internet addiction is a growing problem among the students which cannot be completely abolished. But we can surely guide them regarding limited usage, other remedial measures so that they are not addicted to internet.

Key Words – Internet Addiction, Medical Students

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INTRODUCTION

All aspects of the society are progressively having more impact of internet and has become an essential part of the daily lives of people¹ and this impact is more in younger generation.[2]

The term "internet addiction" (IA) also known as internet addiction disorder since it is now recognized as a psychiatric disorder[3] & is also a concerning social problem arising out of excessive internet use.[4]

College students are predisposed to develop dependence on the Internet, more than other segments of the society.[5] Globally internet addiction among medical students is rising and its mounting negative influence on physical, psycho social and academic performance is troublesome

The students search study materials, videos of related academic topics on internet & recent advances in medical fields. Due to the expanding use of telemedicine and evidenced based medicine, use of internet by medical students has increased[7,8] It has been suggested that unwarranted internet use could represent addictive behaviour with mental health implications.[9,10,11]

Many studies have suggested that, similar to other researched addictive behaviors, Internet addiction also has an effect on academic/work performance, relationships, and physical and mental health.[12] In a study conducted by Chatoth VM et. al., it was found that prevalence of internet addiction (moderate and severe) among undergraduate medical students was 18.9%, thereby revealing

medical students as a particularly vulnerable group.[1]

The present scenario of COVID has also compelled students to use internet more. As they are confined to their homes, they use internet for communicating with their friends, for studying, watching videos, movies and accessing the social networking sites. Also computers & mobile have become a part of academic curriculum in this pandemic. Students are more dependent on the mobiles, laptops or tablets more than required for the online lectures which are being conducted in many medical colleges.

Therefore, the present study was taken up to assess the prevalence of internet usage in medical students.

MATERIALS & METHODS

A descriptive, cross- sectional study was conducted on undergraduate medical students of two medical colleges of northern India. Responses of 307 students were collected on Google forms. The students were briefed about the study in an online session and then Google forms were circulated to the students via e-mails.

Consent was taken by the students before circulating the test and they were assured of keeping the results confidential

Young’s internet addiction test (IAT) is the first validated testing instrument for addictive use of the Internet. The test was developed by Dr. Kimberly Young[13]

The questionnaire has 20-items that measures mild, moderate, and severe levels of addiction. It uses the 5-point Likert scale of 1 to 5, where 1 is rare and 5 always.[14]

Total internet addiction scores are calculated and the scores would range from 20 to 100. According to Young’s criteria ,0 to 30 points are considered to be normal level of Internet usage; scores of 31 to 49 indicate the presence of a mild level of Internet addiction; 50 to 79 indicated moderate level; and scores of 80 to 100 suggested a severe obsession on the Internet.

Ethical clearance was taken from both the institutions.

Data were tabulated by using Microsoft office — Excel sheet. Data were presented in percentages, mean with standard deviation. The difference in the patterns of internet usage among males and females was analyzed by using t-test and a p<0.05 was considered as significant.

RESULTS:

Out of 307 medical students, 172 (56.02%) were males & 135 (43.97 %) were females in age range of 19-21 years.

As shown in Fig-1, prevalence of severe internet addiction was among 3.9 % of students. The internet addiction test showed that 32 % were mild users, 19% moderate internet users. 44% students were normal users of internet.

Table -1 show that - 136 (44.2%) students were not addicted to internet whereas 171 students were addicted to internet (55.7%).

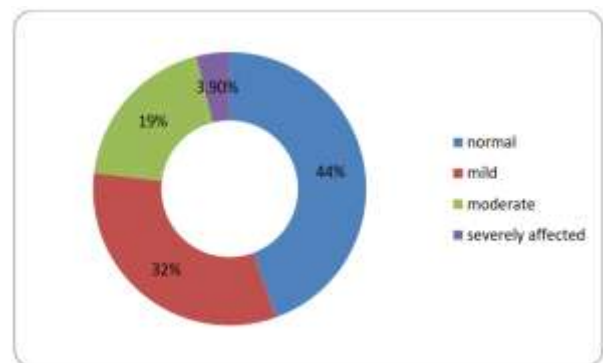


Fig-1 : Prevalence of Internet use in students.

Table-1 Distribution of all the students according to level of internet addiction

Level of internet addiction	Total (n)
Severe (80- 100)	12 (3.9%)
Moderate (50-79 points)	60 (19%)
Mild (20-49 points)	99 (32%)
No addiction (< 20)	136 (44%)

Internet addiction score was found to be more in male students as compared to female students. When the internet addiction score by IAT was compared between male & female students, statistical significance was observed.(Table- 2)

Table -2: Association between mean internet addiction score and gender of the study subjects

Gender	N()	%	Mean	SD	P value	T value
Male	172	56.02	39.27	19.9	< 0.05	t = 3.4947
Female	135	43.97	31.91	16.07		

Out of 172 male students, 9 (5.2%) had severe internet addiction while among 135 female participants only 3 (2.2%) were severely internet

addicted. The difference was not statistically significant by unpaired t- test.(Table-3)

Table-3: Association of severe internet addiction in male & female students.

Gender	N	Mean	SD	SEM	P-value
Male	9	88.67	5.59	1.86	0.37
Female	3	85.33	4.16	2.40	

DISCUSSION:

The present study was conducted to assess the severity of internet addiction on medical students with the help of Young's IAT. Total of 307 responses were collected and analysed.

The analysis showed that 171 students were addicted to internet and 3.9% students were severely addicted to internet. The study conducted by Sharma et al in central India on MBBS, Nursing, Physiotherapy & engineering students reported a prevalence of 0.3% students to be severely addicted to internet[15] A study on medical students by Pramanik et al in Nepal revealed that 3.07% of the medical students were severely addicted to internet.[16] Similarly, Ghamari et al in Iran reported that students with severe addiction constituted 2.8% of the subjects.[17] Malviya et al in Indore reported the prevalence to be 9.55%.[18] Chathoth Vidya Mavila et al, reported prevalence of internet addiction (representing moderate and severe addiction) as 18.88% in undergraduate Medical students in Mangalore¹ which is in consonance with our study where it is 23.4%.

In contrast, studies conducted at Mangalore by Chathoth et al and at Nagpur by Surwase et al showed that the prevalence of severe Internet addiction was found to be zero.[1,19]

In the present study, the male students were found to be more addicted to internet as compared to female students. Many studies reported similar result.[1,15,17,20-22]

In contrast, study conducted by Raju et al on medical students did not show any variation of internet usage between male & female students.[23] Also a study conducted in Nepal revealed that however males were more addicted to internet but they could not find any statistical significance which is opposed to our findings.[24]

The severity of internet addiction in both the male & female students did not show any significance. Thus, the males are more addicted to internet but it may not be necessary that severity of internet usage may be higher in male students.

Repercussions of excessive internet use include suicide, depression, psychological distress (depressive symptoms), anxiety, aggression, poor academic performance, cognitive impairment, poor dietary habits, lack of sleep, visual and hearing impairment, social isolation, and substance abuse such as cigarette smoking and alcohol use. [24-26]

Therefore, Students should be apprised for controlled use of internet as it may lead to many negative effects on their career, social and physical health.

CONCLUSION:

Internet addiction is a rising problem around the world that is running parallel with the advancement of technology. Many of the students in our study were addicted to internet although severe addiction was quite low but remedial measures should be initiated timely.

Further scope of this study includes research on the sleep pattern, behavioral disturbances & other ill effects on health, social interactions & academic performance of the students who are addicted to the internet. Also the relation between the times spent on internet with the addiction can also be studied

Conflict Of Interest: None.

Funding: NO

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