Original Research Paper

Volume - 11 | Issue - 11 | November - 2021 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Medical Education

AN EVALUATION OF INTERNET ADDICTION AMONG UNDERGRADUATE MEDICAL STUDENTS IN INDIA

Dr. Amit Kumar Pal — MBBS, MD Anatomy Assistant Professor in Department of Anatomy ESIC Medical College and Hospital, ESI-PGIMSR, Joka, West Bengal.

Dr. Sagarika Ray* — MBBS, MD Psychiatry Institute of Psychiatry - Centre of Excellence, IPGME&R, Kolkata. *Corresponding Author

ABSTRACT

BACKGROUND: In recent years, the excessive usage of the internet has led to internet addiction among population of various socio-demographic profiles. Students are particularly vulnerable due to their specific personal, social, and intellectual requirements.

OBJECTIVES: The purpose of the study was to assess the prevalence of internet addiction and its severity among undergraduate medical students in India.

MATERIALS AND METHODS: An online survey was conducted on 280 undergraduate medical students in West Bengal, India, using Young's Internet Addiction Test and a semi-structured questionnaire pertaining to their social demographic profile.

CONCLUSION: Medical students are highly susceptible to internet addiction, prevalence of the problem being 58.57% in this study. Thus efforts should be made to raise awareness and prevent the problem.

KEYWORDS : internet, internet addiction, medical students

INTRODUCTION:

In the recent years India has witnessed an unprecedented internet usage throughout the country. Ever since the nationwide lockdown due to COVID 19 first came into effect in March 2020, the internet has literally become an indispensable part in our day to day lives. The influence of internet is all pervasive including the fields of communication, education, entertainment, business, research, healthcare and so on and so forth. In 2020 India registered an active user base of nearly 600 million. By the next 5 years the numbers are projected to jump at a rate of 45% and is likely to reach around 900 million.[1]

The entry of certain tele communication companies has revolutionized the way Indians are able to access and use internet. Affordability of mobile internet packs resulted in easy and unrestricted access to internet for people of even the lower socio economic strata. Pathological use of internet has been recognized as internet addiction. DSM 5 has mentioned internet gaming disorder as a condition requiring further study.[2]

Internet addiction is a phenomenon that is prevalent worldwide, with its prevalence ranging from 3% to 38% in various studies across the globe.[3] College going population has been shown to be more vulnerable to internet addiction.[4,5] This is because of a number of factors, like they have a lot of free time in between and after the classes to explore the internet. Secondly most of the colleges and universities provide unlimited Wi-Fi which is often misused. Lack of parental control and personal ownership of gadgets like mobile and laptop is also a precipitating factor. Above all internet serves as a mode of virtual interaction and networking with friends and peers.

Medical students have been heavily dependent on online classes for the last one and half years of pandemic. The vast syllabus and difficult concepts are often best learnt via multimedia platforms. But the detrimental effect of internet addiction has been counterproductive in the online teaching endeavor. Internet addiction can lead to a variety of psychological, physical and social problems.[6-8]

Materials And Methods:

A cross-sectional study was conducted on undergraduate medical students pursuing MBBS in a medical College in West Bengal, after obtaining required approval. Questionnaires were circulated in the online mode using links of google forms. Non probability purposive sampling was done and only the first 70 responses from each academic year was taken for the study, so that the sample would be representative of all the academic years. Students who gave informed consent and have been accessing internet for the last 6 months were included in the study. Strict confidentiality and anonymity were maintained.

Questionnaires used in the study:

1. Semi structured Questionnaire about socio demographic profile of the participants
2. Young's Internet Addiction Test: This is a 20 item self rated questionnaire, with a score of 0 to 5 for each item. Total score is used to assess the severity of internet addiction. Scores upto 30 are considered normal. Scores of 31 to 49 indicate mild internet addiction, 50 to 79 indicate moderate addiction and 80 to 100 imply severe internet addiction.

Data so obtained was entered into a Microsoft Excel data sheet and statistical analysis was done using Stat Calc, Graphpad softwares and statistical functions of MS Excel. Comparison of means was done using t-test, with 95% confidence intervals and significance set at p value < 0.05.

RESULTS:

A total of 280 students participated in the study, comprising of 70 students from each academic year. There were 217 males and 63 female students. 182 students hailed from rural background and 98 were from urban background.

It was found that 116 students were not addicted to the internet, while 164, that is, 58.57% of the students were suffering from internet addiction. The good news was that none of the students reported severe internet addiction. 51.43% students suffered from mild internet addiction, while 7.14% suffered from moderate addiction. Further details are provided in Tables 1 and 2.

Table 1: Distribution Of Students Of Various Academic Years Addicted To The Internet (expressed As Percentage Of Students In A Particular Year)

Academic year	Total percentage of addicted students	Moderate addiction	Mild addiction
First year	58.57	8.57	50
Second year	74.29	10	64.29
Third year	51.43	7.14	44.29
Final year	50	2.86	47.14

Table 2: Distribution Of Internet Addiction Among Students Of Different Genders (expressed As Percentage Of Students Of A Particular Gender)

Gender	Not addicted	Moderate addiction	Mild addiction
Male (n = 217)	50.69	5.53	43.78
Female(n = 63)	9.52	12.7	77.78

Second year students contributed to the highest percentage of students with internet addiction, while the least was reported among final year students. A substantially higher percentage of female students (90.48%) reported being addicted to the internet as compared to the percentage of male students (49.31%) with internet addiction. Female

students also reported a higher mean score on the Young's Internet Addiction Test as compared to their male counterparts, the difference being statistically significant. This implies a greater severity of the problem in female students in the present study. (Refer Table 3)

Table 3: Comparison Of Mean Score On The Young's Internet Addiction Test Between Males And Females

Gender	Mean score	Minimum score	Maximum score	Standard Deviation	p- value
Male	27.45	0	76	9.67	<0.0001 statistically significant
Female	40.32	2	79	12.97	

History of substance use (viz. alcohol, nicotine, cannabis, opioids or prescription drugs) was reported by 131 students (46.79%) students. 69 students reported comorbid substance use alongwith internet addiction. Of them, 67 were males and 2 females. Thus 42.07% of students suffering from internet addiction also reported associated substance use.

DISCUSSION:

The purpose of this study was to look at the issue of internet addiction among medical students. We observed that 58.57% of medical students were addicted to the internet. 51.43% of the students registered a mild addiction to the internet, while 7.14% suffered from moderate addiction. This finding is similar to a study by Duraimurugan et al., who reported a 56.6% prevalence of internet addiction among South Indian College students. They reported that 41.3% were mildly addicted whereas 15.2% were having moderate addiction.[9] Chaudhuri et al reported that 58.87% medical students suffered from internet addiction, with 51.42% and 7.45% reporting mild and moderate addiction respectively.[10] Sharma et al. found that 42.7% of professional college students in India had internet addiction, with 35% suffering from mild addiction, 7.4% having moderate addiction, and 0.3% suffering from severe addiction.[11] Some studies, however, have found a lower frequency of internet addiction. A study involving Turkish college students found a 9.7% incidence of internet addiction,[12] whereas a survey of Iranian medical students found a 10.8% prevalence of internet addiction.[13]

In the present study, female students reported a higher mean score of 40.32 ± 12.97 on the Young's internet addiction test as compared to male students who reported a mean score of 27.45 ± 9.67. Also a greater percentage of female students participating in the study reported as suffering from internet addiction as compared to the percentage of participating male students. Thus the problem of internet addiction appears to be of greater severity in females as compared to males. This is in contrast to findings of previous studies where males were reported to suffer from a greater severity of internet addiction.[9-11],[14]

A substantial number of students have been reported as suffering from substance use and 42.07% of students suffering from internet addiction also have history of associated substance use. Substance use and internet addiction are areas of concern among the medical students and primary and secondary preventive strategies should be implemented to help students combat these problems and improve their overall quality of life.[15]

Limitations Of The Study:

The data for the study was obtained on the basis of reporting by the students themselves. No objective interview was conducted by a trained professional to diagnose internet addiction. Thus there could have been chances of under reporting or over reporting the problem. Further, purposive sampling was done, so the study population may not be truly representative of the entire undergraduate medical student community. Number of female participants was considerably less than their male counterparts which may have led to over estimation of the problem in females. Further the results might have been confounded due to a general tendency of greater study participation from only those students who are avid users of the internet and suffering from internet addiction. The sample size was also small and more studies on larger population set are needed to clearly establish the results.

CONCLUSION:

Internet addiction is fairly common among medical students. Early detection and timely intervention are necessary to prevent the far fetched adverse effects of this apparently benign problem. A comprehensive programme should be designed to raise awareness among medical students and faculty, to screen at risk groups and to initiate remedial measures.

Funding: Self

Conflict Of Interest: None

REFERENCES:

1. https://economictimes.indiatimes.com/tech/technology/india-to-have-900-million-active-internet-users-by-2025-says-report/articleshow/83200683.cms
2. 5th ed. Arlington, VA: American Psychiatric Publishing; 2013. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders; p. 795
3. Chakraborty K, Basu D, Vijaya Kumar KG. Internet addiction: Consensus, controversies, and the way ahead. East Asian Arch Psychiatry. 2010;20:123–32.
4. Young KS, Rogers RC. The relationship between depression and internet addiction. Cyberpsychol Behav. 1998;1:25–8.
5. Sharma A, Sahu R, Kasar PK, Sharma R. Internet addiction among professional courses students: A study from Central India. Int J Med Sci Public Health. 2014;3:1069–73.
6. Guan SS, Subrahmanyam K. Youth internet use: Risks and opportunities. Curr Opin Psychiatry. 2009;22:351–6.
7. Young KS. Internet addiction: The emergence of a new clinical disorder. Cyberpsychol Behav. 1998;1:237–44.
8. Ho RC, Zhang MW, Tsang TY, Toh AH, Pan F, Lu Y, et al. The association between internet addiction and psychiatric co-morbidity: A meta-analysis. BMC Psychiatry. 2014;14:183
9. Paul AVR, Ganapthi CK, Duraimurugan M, Abirami V, Reji E. Internet Addiction and Associated Factors: A Study among College Students in South India. DOI: http://dx.doi.org/10.15520/ijmhs.2015.vol5.iss3.72.121-125
10. Chaudhuri B, Menon P, Saldanha D, Tewari A, Bhattacharya L. Internet addiction and its determinants among medical students. Ind Psychiatry J. 2015 Jul-Dec; 24(2): 158–162. doi: 10.4103/0972-6748.181729
11. `Sharma A, Sahu R, Kasar PK, Sharma R. Internet addiction among professional courses students: A study from Central India. Int J Med Sci Public Health. 2014;3:1069–73
12. Canan F, Ataoglu A, Ozcetin A, Icmeli C. The association between internet addiction and dissociation among Turkish college students. Compr Psychiatry. 2012;53:422–6.
13. Ghamari F, Mohammadbeigi A, Mohammadsalehi N, Hashiani AA. Internet addiction and modeling its risk factors in medical students, Iran. Indian J Psychol Med. 2011;33:158–62.
14. Morahan-Martin JM, Schumacker P. Incidence and correlates of pathological internet use. Comput Human Behav. 2000;16:13–29.
15. Singh S, Dhawan A. Problematic substance and internet use among medical students. Indian J Soc Psychiatry 2021; 37;172-7