

Internet Addiction Among Medical Undergraduates In A Tertiary Care Center Of Gorakhpur- A Cross Sectional Study.

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ABSTRACT

Background: Internet has become an essential part of our daily life, especially among adolescents and youth. In India, there were about 560 million internet users in June 2019, as compared to only 5 million in Dec 2000. Medical students are prone to internet addiction due to their isolated life style, as well as their academic needs.

Aims & objectives: To estimate the prevalence of internet addiction among the medical undergraduate students and its associated factors.

Material and methods: A cross sectional study was conducted among undergraduate medical students of a Medical College. Sample size calculated was 332 on the basis of considering prevalence of addiction as 70.6% and 5% allowable error. Predesigned & pretested questionnaire was used for data collection. This google form was sent to about 450 medical students. Among these 354 students responded to it completely.

Results: Prevalence of internet addiction among medical students was found to be 64.1 %. Among medical students mild, moderate & severe internet addiction was found to be 44.1%, 17.2%, 2.8% respectively. Significantly higher proportion of internet addiction was found in males (68.9%) as compared to females (55.6%). Internet addiction was found higher among medical students whose mothers were professional. Internet addiction was observed more among medical students who use internet for more than 6 hours per day and for purpose of online chatting, online gaming and watching online movies/web series.

Keywords: Internet Addiction, medical students, Young's internet addiction scale.

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I. INTRODUCTION

Internet has become an essential part of our daily life, most affected population are adolescents and youths, especially college students. In India, there were about 560 million internet users in June 2019, as compared to only 5 million in Dec 2000¹. Internet is used for education, entertainment, social networking, and information sharing. Its problematic use is associated with various psychological symptoms^{2,3}. It is a mental illness affecting many individuals surfing online. Main cause of this is extreme use of internet. This leads to internet addiction further leading to lots of adverse reactions⁴. Young individuals (i.e., between 18 and 24 years old) were more vulnerable to become internet addicts than old individuals⁵. Medical students are prone to internet addiction due to their isolated life style, as well as their academic needs. A meta-analysis on prevalence of Internet addiction in medical students found that it is 5 times more than that of the general population⁶. Reports from China, Korea, and Taiwan indicated that interactive online gaming has reached addictive proportions and those medical students who spend their time intensively and inappropriately on internet are prone to get addicted to it^{7,8}. Excessive Internet use is considered as addiction since symptoms of Internet addiction are comparable to symptoms of addiction to nicotine, alcohol or drugs.⁹

It is seen that an excessive and improper use of Internet has a negative psychosocial impact on the youth especially college students which if not controlled can promote as an important health-related problem in their future life. Understanding the gravity of problem and lack of substantial data in this regard. We planned this study with an aim to assess the pattern of Internet use, to classify levels of Internet addiction according to Young's IAT, and to find out factors, if any, associated with Internet addiction among undergraduate medical students studying in B.R.D. Medical College, Gorakhpur.

II. AIMS & OBJECTIVES

To estimate the prevalence of internet addiction among the medical under graduate (MBBS) students and its associated factors.

III. MATERIAL AND METHODS

A cross sectional study was conducted among MBBS students (first year to third year) of BRD Medical College, Gorakhpur from 1st March 2022 to 30th September 2022. Those Medical students who were using internet and who were willing to participate in the study were enrolled in the study. Sample size calculated was 332 on the basis of considering prevalence of addiction as 70.6%¹⁰ and 5% allowable error. Predesigned & pretested questionnaire was used. It had two parts. Part 1 had information pertaining to respondents general profile & their internet use. Part 2 was Young's internet addiction scale-which is a 20-item scale.

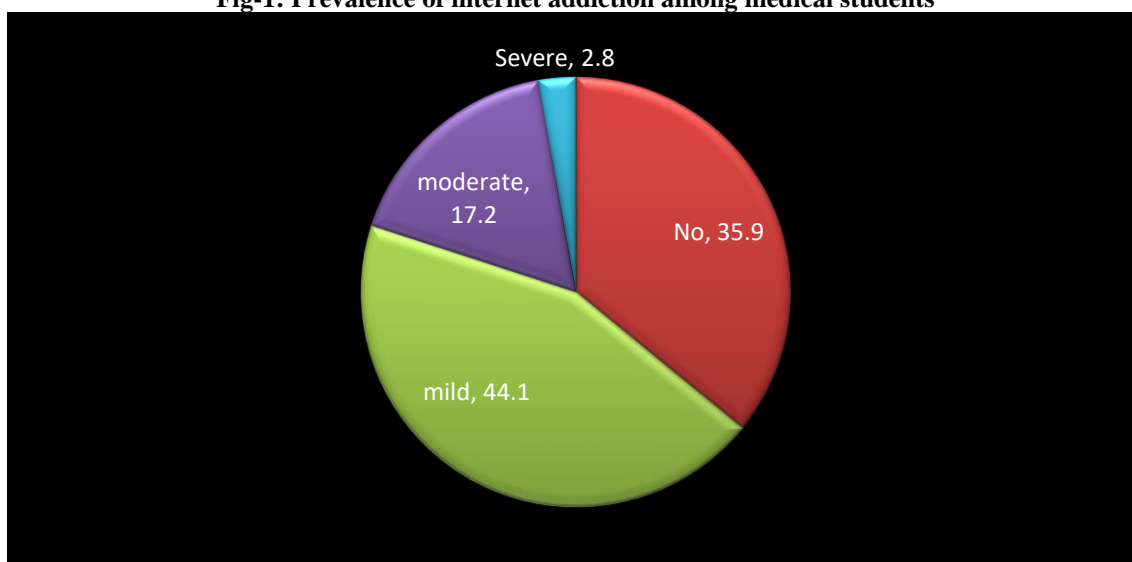
Young's Internet Addiction Test Scale (Young's IAT Scale)

It was used to measure the presence and severity of Internet dependency. The 20-item questionnaire measures characteristics and behaviors associated with compulsive use of the Internet that includes compulsivity, escapism, and dependency¹¹. The IAT total score is the sum of the ratings given by the examinee for the 20 item responses. Each item is rated on a 5-point Likert- scale ranging from 0 to 5. The maximum score is 100 points. The higher the score is, the higher is the severity of your problem. Total scores that range from 0 to 30 points are considered to reflect a normal level of Internet usage; scores of 31 to 49 indicate the presence of a mild level of Internet addiction; 50 to 79 reflect the presence of a moderate level; and scores of 80 to 100 indicate a severe dependence upon the Internet¹². This questionnaire was sent as google form to 450 medical students. Among these 354 students responded to it completely. Data was entered in to the Microsoft office excel sheet. Data was analyzed and appropriate statistical test was applied. Ethical clearance from the ethical committee, BRD Medical College, Gorakhpur has been taken.

IV. RESULTS

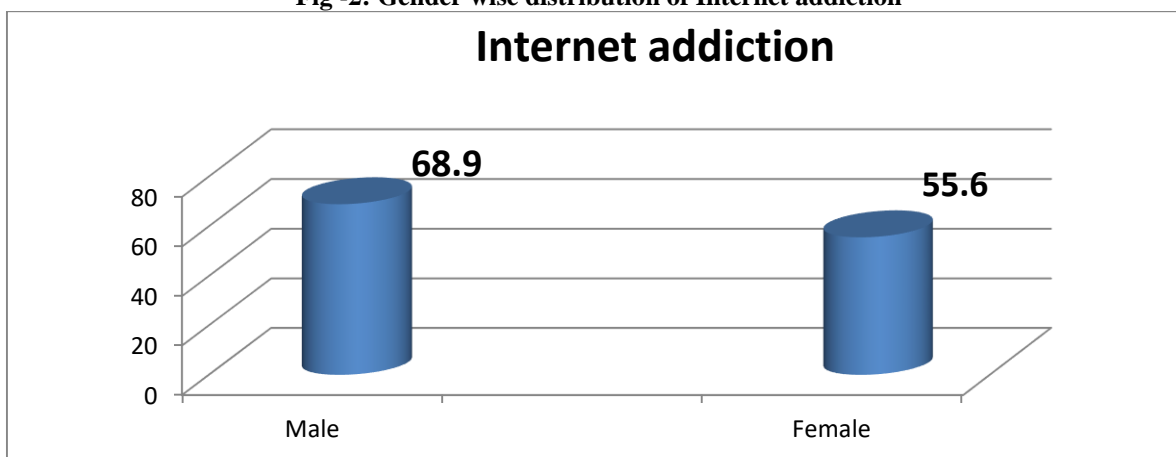
A total of 354 students participated in this study. Among them males were 228(64.4%) and females were 126(35.6%). Majority of them stayed at hostel and used internet for their both academic and entertainment activities

Fig-1: Prevalence of internet addiction among medical students



As shown in fig-1, prevalence of internet addiction among medical students was found to be 64.1%. Among medical students mild, moderate & severe internet addiction was found to be 44.1%, 17.2%, 2.8% respectively.

Fig -2: Gender wise distribution of Internet addiction



As shown in figure-2, internet addiction was found to be significantly higher i.e. 68.9% among male students as compared to 55.6% among female students.

Table 1: Gender wise distribution of severity scale of Internet addiction (N=354)

		Gender		Total	p-value
		Female	Male		
Category of internet addiction	None	56 (44.1%)	71 (55.9%)	127 (100.0%)	0.032
	Mild	52 (33.3%)	104 (66.7%)	156 (100.0%)	
	Moderate	17 (27.9%)	44 (72.1%)	61 (100.0%)	
	Severe	1 (10.0%)	9 (90.0%)	10 (100.0%)	
Total		126 (35.6%)	228 (64.4%)	354 (100.0%)	

As shown in table-1, according to severity scale of internet addiction, male students were found to be significantly more severely addicted than female students. Among male students mild, moderate and severe internet addiction was found to be 66.7%, 72.1% and 90% and among female students mild, moderate and severe internet addiction was found to be 33.3%, 27.9%, and 10% respectively.

Table-2: Association of internet addiction with place of current stay, duration and purpose of Internet use among medical students

Variable		Internet addiction		p-value
		Yes N (%)	No(%)	
Place of current stay	Hostel	212(63.7%)	121(36.3%)	0.547
	home	12(57.1%)	9(42.9%)	
Internet use per day	Up to 1 hour	8(57.1%)	6(42.9%)	0.020
	2 hour to 5 hour	149(60.1%)	99(39.9%)	
	>6 hour	70(76.1%)	22(23.9%)	
Prefer online chat	Yes	111(68.5%)	51(31.5%)	0.113
	No	116(60.4%)	76(39.6%)	
Online games	Yes	73(76.8%)	22(23.2%)	0.003
	No	154(59.5%)	105(40.5%)	
Online movies/web series	Yes	173(70.0%)	74(30.0%)	0.004
	No	54(50.5%)	53(49.5%)	

As shown in Table 2, the factors significantly associated with Internet uses among students were duration of internet use >6 hour per day, online games, online movie/ web series. However, place of current stay, prefer online chat were not found statistically significant.

V. DISCUSSION

The present study investigated the problem of Internet addiction among undergraduate medical students. It was observed that 64.1% students had varying degree of Internet addiction which is lower to the prevalence reported by Jain Seema *et al.* (70.6%)¹⁰ in medical students in North India and Ade *et al.* (89.0%)¹³ in medical students in Pune. However, some studies have also shown lower prevalence like Athulya G Asokan *et al.* (61.4%)¹⁴ in medical students in South India and Chaudhari *et al.* (58.7%)¹⁵ in undergraduate medical students Western Maharashtra. In the present study, 44.1% were mild addict, 17.2% moderate, and 2.8% severe addicts which is much lower to findings of Ade *et al.*¹³ being 64.0%, 22.0%, and 6.0%, respectively.

VI. CONCLUSION

We found a high prevalence of Internet addiction. About 2/3rd of medical students were found to be suffering with internet addiction. Significantly higher proportion of internet addiction was found in males as compared to females. Internet addiction was observed more among medical students who use internet for more than 6 hours per day. Internet addiction was observed more among medical students who use internet for purpose of, online gaming and watching online movies/web series.

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