

Research Article

A Study on Prevalence and Severity of Internet Addiction Among Students of a Degree College of Etawah City Uttar Pradesh

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A B S T R A C T

Background: The rapid expansion and proliferation of the internet has provided better opportunities for communication, information and social interaction. However, the excessive undisciplined use by some individuals has led to the emergence of the concept of internet addiction. This study aims to determine the prevalence and pattern of Internet addiction among degree college students by using Internet Addiction Test in Etawah City.

Methods: A cross-sectional study was conducted among 235-degree college students during year 2019. Data was collected by using structured proforma including socio-demographic variables and Young's 20-item Internet Addiction Test (IAT) questionnaire. Data was coded on Microsoft excel and Statistical analysis done by SPSS version 25.

Results: Prevalence of internet addiction by using Young's original criteria was 4.68%. Internet addiction was significantly more common in males than females ($p < 0.05$). This study reveals that according to IAT score, 40.43% were average users, 54.89% were possible addicts and 4.68% were addicts. Chi square test was applied to determine association, gender and internet addiction which, was found to be statistically significant ($p = 0.03$).

Conclusion: Prevalence of internet addiction was 4.68% with male predominance indicating that internet addiction is a growing problem. Prevalence of possible addict was also alarming which was 54.89%. Early recognition of internet addiction and appropriate preventive measures should be taken and awareness campaign should be regularly conducted regarding use of internet and its addiction among the students.

Keywords: Prevalence, Internet Addiction Test, Pattern, Degree College Students

Introduction

Internet is undoubtedly the fourth industrial revolution evolving at an exponential pace forming a communication, social and economic transformation. The internet has many uses including access to knowledge, research, communication, entertainment, shopping, social platforms and so on. India is the second largest online market in the world with more than 500 million internet users and when it comes to ranking, only china is above India. It is estimated that by 2023, there will be over 650 million internet users in India. Despite the large user base of internet, the internet penetration rate in the country stood at around 50 percent in 2020. This meant that around half of the 1.37 billion Indians have access to internet that year.¹ There has been a consistent increase in internet accessibility compared to just five years ago, when the internet penetration rate was around 27 percent. However, internet accessibility and use in the country largely varies based on factors like gender and socio-economic status. It was estimated that in 2019, there were 290 million internet users in rural India compared to 337 million urban internet users. But it is worth mentioning that the majority of Indian internet users are between 20 and 29 years of age, and a slightly higher proportion of these users are from rural parts.¹

The rapid expansion and proliferation of the internet has provided better opportunities for communication, information and social interaction. However, the excessive undisciplined use by some individuals has led to the emergence of the concept of internet addiction.²⁻⁴ The term "addiction" has generally been associated with substance use. However, with internet access becoming widespread, problematic internet use is increasingly being reported. Internet addiction has been described in terms of a loss of control in internet use, lack of time management and craving for the internet and the cause of social problems.⁵⁻⁷ It has been suggested that excessive internet use could represent addictive behaviour with mental health implications.⁸⁻¹⁰ Internet addiction is a compulsive behaviour that completely dominates the addict's life. Internet addicts make the Internet a priority more important than family, friends, and work. In fact, younger internet users are more at risk of becoming internet addicts than older users.¹¹ Psychological and environmental factors in the lives of college students may leave them disproportionately vulnerable to internet addiction.^{12,13}

This study was conducted with the aim to determine the prevalence and severity of internet addiction and to assess the pattern of internet use among degree college students of Etawah city.

Material and Methods

A cross-sectional study was conducted among degree

college students in Etawah City. The study duration was from September 2019 to October 2019. Degree college students of all age group, both male and female, and those using internet for last 6 months were included in this study. Written informed consent of each participant was taken. Those who not give valid consent and those who could not be contacted during study period were excluded from this study.

The sample size was calculated by assuming prevalence of Internet addiction as 19.85 with absolute error 5% at 95% confidence interval.¹⁴ The sample size of study was calculated which came out to be 235 students and they were enrolled by simple random sampling.

Data collection was done after approval from principal of the college. Data collection was done during free periods of the scheduled time table of degree colleges by using predesigned and pretested questionnaire. It included details of socio-demographic variables such as age, sex, year of study, socioeconomic status, pattern of internet use and internet addiction test (IAT; Young 1998) questionnaire, which is a 20-item 5-point Likert scale ranging from 1 to 5 that measures the severity of self-reported compulsive use of the internet. Total internet addiction scores were calculated with possible scores for the sum of 20 items ranging from 20 to 100. The scale showed very good internal consistency, with an alpha coefficient of 0.889 in the present study.

According to Young's criteria, total IAT scores of 20-49 represent average users with complete control of their internet use, scores between 50-79 represent over-users with frequent problems caused by their internet use and scores of 80-100 represent internet addicts with significant problems caused by their internet use.

Data was coded in Microsoft excel and statistical analysis was done by using IBM SPSS version 25. Descriptive statistics were used to describe socio-demographic variables. Chi square test was used to determine the association between average users with possible addicts' group and with addict group.

Results

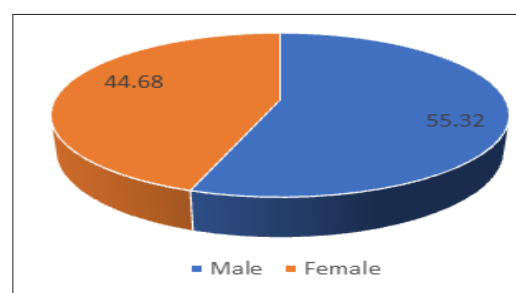


Figure 1. Gender-Wise Distribution of Participants

The study questionnaire was administered during free periods and responses were obtained from 235-degree college students.

The mean age of the students was 19.4±1.6 years. Among these students 130 (55.32%) were males and 105 (44.68%) were females (Figure 1). The participants belonged to first, second and third year in degree college. Most of the students were from third year 90 (38.29%) followed by second year 76 (32.34%) and first year 69 (29.47%). Socioeconomic status was classified and assessed according to modified BG Prasad Scale. Majority of participants belonged to upper class 134 (57.02%) followed by upper middle class 76 (32.34%), lower middle class 16 (4.74%) and least were from upper lower class 9 (6.80%) (Table 1).

In the present study out of 235 study subjects, 216 (91.92%) were having smartphone with internet, 95.72% males as compare to 98.92% females. More than three fourth study subjects 183(77.87%) were using internet daily. 75.38% males and 80.95% females used internet daily. Most of the

user 84 (35.74%) spend 1 to 2 hours daily on internet surfing. Study subjects used internet mostly on mobile 146 (62.12%) followed by computer/ laptop 60 (25.53%) and cybercafé 21 (05.71%). Out of 235 respondents, 142 (60.42%) accesses material related to academic requirement, 119(50.63%) accessed social sites, and 20 (8.51%) accessed pornographic material on internet. More females 80 (76.19%) accessed academic sites compared to males (46.15%) (Table 2).

IAT score was calculated using Young's internet addiction criteria. According to the IAT score, the internet users were divided into groups namely, average users 95 (40.43%), possible addicts 72 (54.89%) and addicts 11(4.68%). Prevalence of internet addiction was found to be significantly more among male student 9 (6.92%) as compared to female students 2 (1.90%). ($p = 0.036$). The prevalence of possible addict was also noticeably more in males 66 (62.86%) as compared to females 63 (48.46%). Average users were considered as baseline and compared with possible addicts and addicts by applying Chi square test, and p value was found to be statistically significant ($p = 0.036$) (Table 3).

Table 1. Distribution of Study Subjects according to Sociodemographic Characteristics

		Number (N = 235)	Percentage (%)
Gender	Male	130	55.32
	Female	105	44.68
Year of Study	First year	69	29.47
	Second year	76	32.34
	Third year	90	38.29
Socioeconomic Status (Modified BG Prasad Classification)	Upper	134	57.02
	Upper middle	76	32.34
	Lower middle	16	4.74
	Upper lower	9	6.80
	Lower	0	0.00

Table 2. Gender-Wise Association with Pattern of Internet use

Characteristic		Male (%)	Female (%)	Total (%)	Chi Square	p Value
Having Smartphone with Internet	Yes	119 (91.53)	97 (98.92)	216 (91.92)	0.05	0.81
	No	11 (0.04)	8 (0.01)	19 (8.08)		
Frequency of Internet Use	Daily	98 (75.38)	85 (80.95)	183 (77.87)	6.98	0.07
	More than one day a week	20 (15.38)	09 (8.57)	29 (12.34)		
	Weekly	12 (9.23)	6 (5.71)	18 (7.65)		
	Monthly	0	5 (4.76)	5 (2.12)		
Time Spent on Internet (hours)	<1	41 (31.53)	19 (18.09)	60(25.53)	4.46	0.21
	1-2	53(40.76)	31(29.52)	84(35.74)		
	3-4	39(30.00)	37(35.23)	76(32.34)		
	>4	14(10.76)	9(8.57)	23(9.78)		

Place of Internet Access	Mobile	66(50.76)	80(81.72)	146(62.12)	5.70	0.12
	PC/ Laptop	34(26.15)	26(23.65)	60(25.53)		
	Cyber café	14(10.76)	7(3.22)	21(8.93)		
	College library	6(4.61)	10(6.45)	16(6.80)		
Use of Internet Access	Academic	62(46.15)	80(76.19)	142(60.42)	11.54	0.02
	Social site	73(56.15)	46(43.80)	119(50.63)		
	Entertainment	96(73.84)	72(68.57)	168(71.78)		
	Chatting	65(50.00)	59(56.19)	124(52.76)		
	Pornography	14(10.76)	6(3.80)	20(8.51)		
	Online shopping	10(6.15)	22(19.04)	32(13.61)		

Table 3. Gender-Wise Distribution of Internet Addiction according to IAT Score

Pattern	Male (%)	Female (%)	Total (%)	Chi Square Value	p Value
Average Online User	58 (44.62)	37 (35.24)	95 (40.43)	4.413	.036
Possible Addicts	66 (62.86)	63 (48.46)	129 (54.89)		
Addicts	9 (6.92)	2 (1.90)	11 (4.68)		
Total	130 (100)	105 (100)	235 (100)		

Discussion

India is a developing country and due to availability of cheap internet plans, smartphones and various government initiatives under the Digital India campaign the use of internet growing exponentially specially in younger age group.

Mean age of students in our study was 19.4 ± 1.6 years. A study conducted in professional students by Sharma et al 2014 reported mean age was 19.02¹⁵, which is almost similar to the findings of our study. Goel et al in 2016 reported the mean age of adolescents was 16.82, which was lesser than our study.¹⁶

In today's world excessive use of internet is one of the major problems. Therefore, several studies have been conducted in different age groups to determine the prevalence of internet addiction. The rapid expansion and proliferation of the internet has provided better opportunities for communication, information and social interaction. However, the excessive undisciplined use by some individuals has led to the emergence of the concept of internet addiction.²

The findings of this study suggest that there was a statistically significant difference between gender and internet addiction which affirms with the previous studies stating that addiction was more common in males than in females.¹⁵⁻¹⁷

The prevalence of internet addiction in our study was 4.68%. A study conducted by Salehi et al in 2014 reported the prevalence of internet addiction to be 5.2%, which is similar to our findings.¹⁷ Study conducted by Salam et al. in

2019 on students of Jouf university Saudi Arabia showed less prevalence of internet addiction 1.9%.¹⁸ While study of Gadem et al in 2015 showed very less prevalence of internet addiction 0.4%.¹⁹

Using Young's original internet addiction criteria, the internet users were divided into three groups. 40.43% were average online users, 54.89% were possible addicts and 4.68% were addicts. In a study by Sharma et al., the internet addiction test scoring revealed 57.3% as normal users, 35.0% as case of mild, 7.4% as moderate and 0.3% as severely addicted to internet. Goel et al., used Young's original internet addiction criteria and reported that 74.5% internet users were moderate users, 24.8% were possible addicts and 0.7% were addicts, while in study conducted by Salehi et al, it was found that 2.1% of the studied population were at risk and 5.2% were internet addicts. Abdel-Salam et al, study results showed that by using YIAT scale of Internet addiction, 48.6% of the students were scored to be average Internet users. However, 49.5% of the students had moderate and 1.9% of the students had severe addictions.¹⁵⁻¹⁸ The reasons for these variations in prevalence and severity of internet addiction might be due to the heterogeneity in the subject population of different studies, the influence of confounding factors such as stress and psychological co-morbidity, social, cultural differences and technological factors such as the Internet access in a specific country, the requirement of internet use in academic activities etc.

Conclusion

The results of this study imply that Internet addiction is an emerging public health problem. Prevalence of Internet

addiction showed male predominance and prevalence of possible addict was almost one third of total study participants which was also alarming. At present, the diagnostic and statistical manual of mental disorder-5th edition has not acknowledged criteria to diagnose or label Internet addiction. By studying the involvement of Internet usage and its effects on human activities, we can make interventions like setting limitations to internet usage and detecting early possible caution signs of underlying psychopathology at the earliest.

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