

A Study On Internet Addiction Among Professional College Students Of Southern Rajasthan

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Abstract:

Background: Internet has become an integral part of our daily life, especially among adolescents and youth and it is mainly used for education, entertainment and social networking. Excessive use of internet in students is becoming an emerging public health issue and affects their physical, mental and as well as social health.

Materials and Methods: A cross-sectional study was conducted from July to September, 2020 among 300 undergraduate students selected by stratified random sampling of RNT Medical College, Udaipur, Rajasthan. A 20 item Young's Internet Addiction test which is a Likert scale based interview schedule was used to measure the prevalence and pattern of internet addiction. Chi-square test was applied and p value < 0.05 considered significant.

Results: The total prevalence of internet addiction was 9%, with moderate and severe internet addiction being 7.7% and 1.3%, respectively. The mean age of the students was 21.91 (\pm 1.84) years and out of 300 internet users, 200 (66.7%) were males and 100 (33.3%) were females. The student's gender, their residence status, duration of internet use, total time spent on internet per week, purpose of internet, access to internet and access to porn site had significant association with internet addiction.

Conclusion: Internet addiction is the emerging public health issue among students. Hence, it is necessary to develop health policies for the prevention of internet addiction and therapeutic interventions as well as to create awareness among the public and to promote other researchers for further research in this field.

Keywords: Internet addiction, Medical students

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I. Introduction

In modern era, internet has a revolutionary influence in our daily life and also become a double edged sword as it is beneficial in communication, gaining and updating of knowledge and on other hand it may lead to habituation, addiction with adverse academic, mental, physical and social effects.¹ Over the years, ever increasing use of internet for work and leisure activities has led to its omnipresent presence across all activities of the day and this has disguised the boundaries between functional and dysfunctional internet use. This manifold uses of internet such as establishing risk-free social connections with strangers, free expression of thoughts, possibility to access prohibited content, involvement in unique games, and use of numerous other functions in privacy has led to exponential rise in the use of internet.²⁻⁴

The term "internet addiction" was proposed by Dr. Ivan Goldberg in 1995 for pathological compulsive internet use.⁵ It is known by different terms such as pathological internet use, problematic internet use, compulsive internet use and internet overuse in the literature.⁶ As of 2023, the estimated number of internet users worldwide was 5.4 billion, accounts 67% of global population. The growing internet penetration in India surpassed a new milestone of 800 million as total active internet users reached 820 million in 2023.⁷ Internet is the preserve for youngsters, with Students and youngsters accounting for around 55% of all internet users in India.⁸ Research suggests that problematic internet use (PIU) is associated with decline in the size of social circle, depression, loneliness, lower self-esteem and life satisfaction, sensation seeking, poor mental health, and low family function. PIU is also associated with anxiety and stress.⁹ It has been found that paranoid ideation, hostility, anxiety, depression, interpersonal sensitivity and obsessive compulsive average scores are higher in people with high internet addiction scores than those without internet addiction.¹⁰ Studies also showed a negative impact of internet addiction on psychological well-being of students.¹¹ As the college students are more

vulnerable to addiction that may cause psychological problems and that in turn may lead to academic failures, the study was undertaken among the professional course students.

II. Material And Methods

Study Design: Cross sectional descriptive study

Study Location: RNT Medical College, Udaipur, Rajasthan

Study Duration: July to September 2020

Sample size: 300 participants

Sample size calculation: Mashaei N et al reported a prevalence of mild internet addiction of 51.30% in their study.¹² A sample size was calculated by considering the prevalence of mild internet addiction of 51.30% (p) with an allowable error of 5% of p (I) and $Z = 1.96$ (95% level of confidence). Sample size thus yielded was 278 which was rounded off to 300.

Inclusion criteria:

1. MBBS students of RNT Medical College
2. Either sex
3. Students who have used internet
4. Those who gave consent for this study

Exclusion criteria:

1. Students who had not used internet
2. Students who were absent on the day of data collection

Procedure methodology: The study was carried out among medical students from first year to final year MBBS students obtaining Institutional ethical clearance approval. Written informed consent were obtained for all students who participated. All participants were administered semi structured proforma to find the information regarding Internet use. Interviews were done after their classes or at hostel. The subjects were given Young's Internet Addiction Scale to find the prevalence of Internet Addiction Disorder. This scale is a validated instrument to assess internet addiction among adolescent and adult populations.¹³

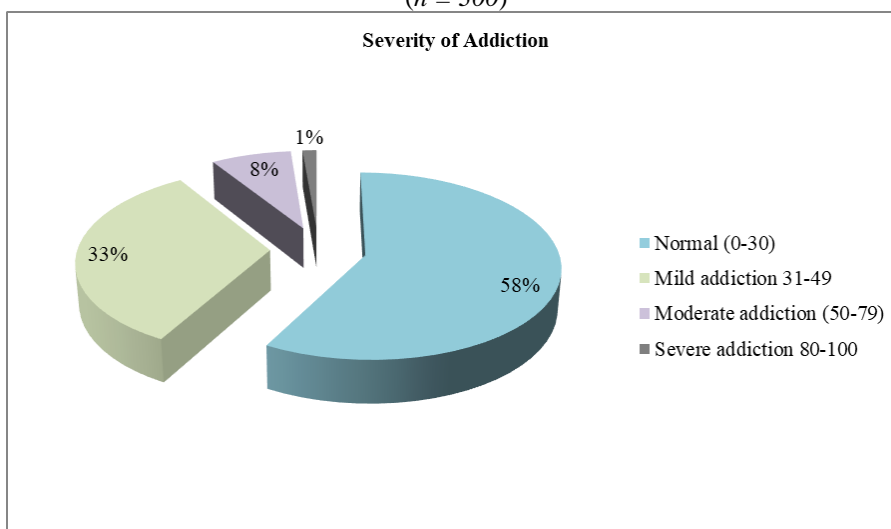
It is a 20 item, 6 point Likert scale with scores ranging from 0 to 5 for each item, which measures the severity of self-reported compulsive use of the internet which include compulsivity, escapism and dependency. After all the questions have been answered, numbers for each response were added to obtain a final score. Total internet addiction scores were calculated, with possible scores for the sum of 20 items ranging from 0 to 100. Higher the score representing the higher level of severity of internet addiction and compulsivity. A score of 0-30 are considered as no addiction/normal internet usage, 31-49 points reflect as mild addiction, 50-79 indicate moderate addiction and 80-100 reflect as severe dependence upon the internet.¹⁴

Statistical analysis: Data were entered into MS excel 2007 and subjected to descriptive and inferential statistical analysis. Chi-square test of significance was used to find out the association between pattern of internet usage and internet addiction. p value < 0.05 was considered statistically significant.

III. Result

In our study, the total prevalence of internet addiction was 9% with moderate and severe internet addiction being 7.7% and 1.3%, respectively. Among the study population, 273 (91%) had a low risk (score ≤ 49 points) while only 27 (9%) had a higher risk (score ≥ 50 points) for internet addiction. (Figure 1)

Figure 1: Proportion of study participants with internet addiction on Young’s IAT
(n = 300)



The mean age of the participants was 21.91 (± 1.84) years, and out of 300 internet users, 200 (66.7%) were males and 100 (33.3%) were females. Majority of the participants were belongs to urban area. Among participating students 60 (20%), 120 (40%), 60 (20%) and 60 (20%) were studying in 1st, 2nd, pre-final and final year, respectively. Most of the students (53%) were using internet for 2 – 4 years and during night time. More than 50% participants (57.7%) spent 11 – 20 hours time on internet in a week. Nearly 50% of participants use internet use in night. 85.3% participants used smart phones for internet usage and purpose of internet use was academics (73.7%), social networking (94.3%), entertainment (72.3%), shopping (64.7%), emailing (48%) and online gaming (18%). Less than one fourth of the total respondents (21.7%) using the internet for pornography. (Table 1)

Table No 1: Demographic variable and pattern of internet use of the study participants (n=300)

Particulars	Number (n)	Percentage (%)
Mean age (years)	21.91 (± 1.84)	
Gender		
Male	200	66.7
Female	100	33.3
Residence Status		
Urban	184	61.3
Rural	116	38.7
Class of participants		
I st year	60	20
II nd year	120	40
Pre-final year	60	20
Final year	60	20
Duration of internet use		
< 2 years	35	11.7
2 – 4 years	159	53
4 – 6 years	83	27.7
>6 years	23	7.6
Preferred time of internet use		
Morning	39	13
Afternoon	24	8
Evening	93	31
Night	144	48
Time spent on internet in a week		
< 10 hours	18	6
11 – 20 hours	173	57.7
21 – 30 hours	93	31
>30 hours	16	5.3
Activities on internet		
Academics	221	73.7
Social networking	283	94.3
Email	144	48
Entertainment	217	72.3

Games	54	18
Shopping	194	64.7
Access to internet		
Smart phone	256	85.3
Laptop	41	13.7
Cyber café	3	1
Access to porn site		
Yes	65	21.7
No	235	78.3

Table 2 shows the relationship between demographic variables and internet addiction and also shows the correlation between pattern of internet usage and internet addiction. Males were more addicted to internet than females. Residence status of respondents had significant association with internet addiction. So it can be said that gender and residence status of participants play a role in internet addiction. Using smart phone for internet access was more associated with internet addiction as compared to other methods. Preferred time of internet use and time spent weekly on the internet were also found to be significantly associate with internet addiction. Internet access to porn site was also significantly associate with internet addiction. The student's gender, their residence status, duration of internet use, total time spent on internet per week, purpose of internet, access to internet and access to porn site had significant association with internet addiction.

Table No 2: Association of pattern of internet use with internet addiction in the study population

Internet use variable	Normal	Mild	Moderate	Severe	p value
Gender					
Male	121 (60.5%)	56 (28%)	19 (9.5%)	4 (2%)	< 0.05
Female	53 (53%)	43 (43%)	4 (4%)	0 (0%)	
Residence Status					
Urban	99 (53.8%)	61 (33.2%)	21 (11.4%)	3 (1.6%)	< 0.05
Rural	75 (64.7%)	38 (32.7%)	2 (1.7%)	1 (0.9%)	
Class of participants					
I st year	36 (60%)	70 (58.3%)	36 (60%)	32 (53.3%)	> 0.05
II nd year	22 (36.7%)	40 (33.3%)	18 (30%)	19 (31.7%)	
Pre-final year	2 (3.3%)	9 (7.6%)	5 (8.3%)	7 (11.7%)	
Final year	0 (0%)	1 (0.8%)	1 (1.7%)	2 (3.3%)	
Duration of internet use					
< 2 years	25 (14.4%)	8 (8.1%)	2 (8.7%)	0 (0%)	< 0.05
2 – 4 years	97 (55.7%)	58 (58.6%)	3 (13%)	1 (25%)	
4 – 6 years	43 (24.7%)	27 (27.3%)	10 (43.5%)	3 (75%)	
>6 years	9 (5.2%)	6 (6%)	8 (34.8%)	0 (0%)	
Time spent on internet in a week					
< 10 hours	3 (1.7%)	14 (14.1%)	1 (4.3%)	0 (0%)	< 0.05
11 – 20 hours	103 (59.2%)	58 (58.6%)	10 (43.6%)	2 (50%)	
21 – 30 hours	61 (35.1%)	22 (22.2%)	9 (39.1%)	1 (25%)	
>30 hours	7 (4%)	5 (5.1%)	3 (13%)	1 (25%)	
Access to internet					
Smart phone	145 (83.3%)	93 (93.9%)	18 (78.3%)	0 (0%)	< 0.05
Laptop	29 (16.7%)	6 (6.1%)	4 (17.4%)	2 (50%)	
Cyber café	0 (0%)	0 (0%)	1 (4.3%)	2 (50%)	
Access to porn site					
Yes	38 (21.8%)	14 (14.1%)	12 (52.2%)	1 (25%)	< 0.05
No	136 (78.2%)	85 (85.9%)	11 (47.8%)	3 (75%)	

IV. Discussion

Excessive Internet use has emerged as a significant negative outcome of internet use, particularly among adolescent and young adults, who are at maximum risk in terms of developing problematic internet use. Most of the college students use the internet for social interaction and communication as well as for their education.¹⁵ Among the study subjects, 33% subjects reported mild addiction, 7.67% had moderate addiction and 1.33% reported severe addiction. Similar studies showed that the magnitude of internet addiction ranges between 20% to 40%.¹⁶⁻¹⁹ In this study, it was depicted that the male students were more addicted to internet than the female students and it was found to be statistically significant. In a study by Arvind Sharma *et al*²⁰ and Duraimurugan *et al*²¹ also found that male students were more addicted to internet than the female students. Morahan-Martin and Schumacker²² revealed about this gender difference with a reason that males involve more in online activities such as gaming, pornography, and gambling which can lead to pathological internet use. It also seems that male students are more likely to become Internet dependent because they are more experienced in using the Internet, receive less parental supervision and use the Internet for entertainment purposes more than females do.²³

In present study, internet addiction found in those students who spend significantly time on internet as compared to non-addicts students. Similar finding correlates with the study by Salehiet *al.*²⁴ We also found in our study that usage of smartphone for internet access was associated with internet addiction. Saldanha D et al also found similar result about the relation between usage of smartphone and internet addiction. It is because, available smartphones may provide individual with an opportunity to have easy and continuous access to internet which may lead to excess and unintended use of internet.²⁵ Using internet for academics, social networking, entertainment, shopping, gaming with sexual content were significantly associated with internet addiction. Similar findings have been reported by Duraimuruganet *al* and Morahan-Martin *et al*. Social networking has become new age fad. Anonymous nature of online interactions, achieving altered sense of personal identity online, and need for developing intimate relationships can be the reasons for excess internet use for social networking. Watching adults only material online for sexual fulfilment can also lead to pathological internet use. The risk factors for Internet addiction, identified through this study range from personal, social, and behaviour specific factors, highlight the multifactorial model of development of Internet addiction. Further research is warranted to study each risk factor in detail.²⁶

The participants were selected from only one institute for our study, hence generalising the results among the general population is equivocal. The responses may have been biased due to discussion as participants were appraised in groups in the classroom. Hence further research required with involving sample of the most of the professional courses.

V. Conclusion

Internet use plays an inevitable part in everyone's daily lives, especially in the lives of youth as they use Internet for education, social interaction and entertainment. The present study reveals that internet addiction in the majority of the medical students is a dark reality. Internet use is an emerging public health issue among adolescent. Internet addiction is also affecting study habit and face to face interaction among students due to wasting time on online chatting. Hence, it is necessary to develop health policies for the prevention of internet addiction and therapeutic interventions as well as to create awareness among the public and to promote other researchers for further research in this field.

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