

Original Article**Evaluation of internet addiction disorder among undergraduate students of different streams in Udaipur city**Rohit Jain¹, Shalabh Sharma¹, Keerti¹, Manish Jain¹, Poornima Sharma¹¹Dept. of Community Medicine, RNT Medical College, Udaipur, Rajasthan, India.

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ABSTRACT

Background: The Internet has become an important tool for education, entertainment, and communication. Internet addiction in adolescence can have a negative impact on identity formation and may negatively affect cognitive functioning.

Aims and objectives: the present study was carried out in undergraduate students of four streams i.e. MBBS, BDS, B Com., B Tech. to evaluate the pattern of internet addiction and the factors affecting internet addiction among them in Udaipur city, Rajasthan.

Material and methodology: A cross-sectional study was conducted from August 2015 to December 2015. Total 400 students were evaluated by a pretested, semi-structured questionnaire to collect data regarding socio-demographic characteristics and family harmony. To collect information on Internet addiction inter personal interviews were performed using a standardized 'Internet Addiction Test' developed by Dr. Kimberly S. Young in 1998.

Results: majority (54.7%) was identified as normal users of the Internet, 25.5% moderately and 15.7% severely addicted. Majority of severely internet (39.7%) addicts were doing B.Tech. Majority (36.5%) belonged to Class II and 28.6% were from class I.

Conclusion: The findings are suggestive of rising internet dependence among students. Effective IEC activities should be carried out to increase awareness regarding overuse of internet.

Key words: Internet, Addiction, Udaipur, Students, Kimberley Young scale

INTRODUCTION

The Internet has become an important tool for education, entertainment, communication, and information-sharing. Easy access and social networking are two of the several aspects of the Internet fostering addictive behaviour [1].

The developing countries are not spared either due to extreme infiltration of technology even into the remotest corners. The population of India is around 1.2 billion as of 2012, of which the number of Internet users (both urban and rural) is around 205 million. It is estimated to increase to 243 million by June 2014, and India will be the second-leading country after China which currently has the highest Internet user base of 300 million[2].

An Internet addiction is an addiction like any other: it is defined as a compulsive loss of impulse control resulting in damage to the user and his or her relationships, schoolwork, or employment. Online

gaming, compulsive use of social networking and marathon Symptoms are comparable to other behavioural addictions, most similar to pathological gambling [3].

Internet Addiction is an impulsive-control problem and five subtypes have been defined: 1. Cyber sexual Addiction, 2. Cyber-Relational Addiction, 3. Net Compulsions, 4. Information Overload, and 5. Computer Addiction [4].

Internet addiction in adolescence can have a negative impact on identity formation and may negatively affect cognitive functioning, lead to poor academic performance and engagement in risky activities, and inculcate poor dietary habit [5].

College students are especially vulnerable to developing dependence on the Internet, more than most other segments of the society. In India, use of internet is enormous, especially in the young population. Hence, it was found necessary to study

pattern of internet usage in young adults in Indian setting and its determinant factors. Against these backgrounds, the present study was carried out in undergraduate students of four streams i.e. MBBS, BDS, B Com., B Tech. to evaluate the pattern of internet addiction and the factors affecting internet addiction among them in Udaipur city, Rajasthan.

MATERIAL AND METHODS

A cross-sectional study was conducted from August 2015 to December 2015. Undergraduate students from four different streams (MBBS, BDS, B Com., and B Tech.) were selected as study participants from four different colleges of Udaipur city. A sample size of 400 students was derived on the basis of assumed addiction prevalence rate of 50% with 95% confidence interval and allowable error 10%. One college of each education stream i.e. MBBS, BDS, B Com., B Tech. was selected by lottery method and from each college 100 undergraduate students were selected using random sampling technique. Total 400 students were evaluated by a pretested, semi-structured questionnaire to collect data regarding socio-demographic characteristics and family harmony. To collect information on Internet addiction inter personal interviews were performed using a standardized 'Internet Addiction Test' developed by Dr. Kimberly S. Young in 1998[3]. There were 20 questions with 6 options for each. The scoring for each option was done as follows: A = rarely = 1; B = occasionally = 2; C=frequently=3; D = often = 4; E = always = 5; F=Not Applicable=0

Assessment

- 20 - 49 points: You are an average on-line user. You may surf the Web a bit too long at times, but you have control over your usage.
- 50 -79 points: You are experiencing occasional or frequent problems because of the Internet. You should consider their full impact on your life.
- 80 - 100 points: Your Internet usage is causing significant problems in your life. You should evaluate the impact of the Internet on your life and address the problems directly caused by your Internet usage.

Modified BG Prasad's classification (updated for August 2015 using All India consumer price index-264) was used for assessment of socio-economic status of study participants [6]. The data was entered in Microsoft Excel ver.10 and analysed using SPSS 16.0.

RESULTS

Out of total 400 Undergraduate students, majority (54.7%) were identified as normal users of the Internet, 25.5% moderately and 15.7% severely addicted to the Internet according to Kimberley Young score (Table 1). Out of these 63 severe internet addicts, 71.4% were male and 28.6% were female. Majority of severely internet (39.7%) addicts were doing B.Tech. 38.0% were smokers, 33.3% were alcohol addicts and 20.6% were consuming smokeless tobacco. 77.7% of severely internet addicts reported that one parent (either father or mother) was engaged in some kind of occupation. Among 63 severely internet addicts, majority (36.5%) belonged to Class II and 28.6% were from class I (Table 2).

Table 1: Distribution of study subjects in the category of internet addiction on the basis of Kimberley Young score (n=400)

S.No.	Scoring Interval	Number	Percentage
1	<20	16	4.0%
2	20-49	219	54.7%
3	50-79	102	25.5%
4	80-100	63	15.7%
Total	-	400	100%

Table 2: Distribution of internet addicts according to Gender, Education stream, Parents occupation, Socioeconomic status, family harmony (n=63)

Variables	Characteristics	Number	Percentage
Gender	Male	45	71.4
	Female	18	28.6
Education stream	MBBS	17	27.0
	BDS	15	23.8
	B.Tech	25	39.7
	B.Com	6	9.5
Habits*	Smoking	24	38.0
	Alcohol	21	33.3
	Drug addiction	0	0.0
	Smokeless Tobacco	13	20.6
Parents occupation	One parent working	49	77.7
	Both parents working	9	14.3
	Both parents not working	5	8.0
Socioeconomic status	Class I	18	28.6
	Class II	23	36.5
	Class III	13	20.6
	Class IV	7	11.1
	Class V	2	3.2

Among total 400 students, majority (90.2%) started using internet at age 12- 16 years (Table 3). Among students from completely harmonious families, majority (63.6%) were found with Kimberley Young scale score 20-49 while among students whose parents undergoing frequent fights or divorced, majority (54.8% and 6.6% respectively) were identified with Kimberley Young scale score 80-100. The association between family harmony and Kimberley Young scale score was found to be statistically significant ($p < 0.05$) (Table 4).

Table 3: First age of Internet use reported by all study participants (n=400)

First age of Internet use	Frequency	Percentage
<8 years	0	0.0
8-12 years	22	5.5
12-16 years	361	90.2
>16 years	17	4.2
Total	400	100

Table 4: Association of Kimberley Young scale score with Family harmony

Family harmony	<20 (n= 16)	20-49 (n= 219)	50-79 (n= 102)	80-100 (n= 63)	Total (n = 400)	P value
Completely Harmonious	10 (62.5)	210 (95.9)	86 (84.3)	24 (38.0)	330 (82.5)	<0.05
Parents living together but undergo frequent fights	3 (18.7)	6 (2.8)	10 (9.8)	23 (36.5)	42 (10.5)	
Parents divorced	1 (6.2)	1 (0.5)	4 (3.9)	12 (19.0)	18 (4.5)	
Other issues*	2 (12.4)	2 (1.0)	2 (1.9)	4 (6.3)	10 (2.5)	

*Extra marital affairs, both parents working at different places etc., (figures in parenthesis indicates percentages)

DISCUSSION

The present study was conducted in undergraduate students of four colleges of four different streams and revealed that almost all students were using internet by any means. Out of total 400 students, majority (54.7%) was identified as normal users of the Internet, 25.5% moderately and 15.7% severely addicted to the Internet. In contrast to our study, only 9.5% students were identified with severe addiction (Kimberley Young score 80-100) in the study done at Indore, M.P. by Amit Malviya et al (2014)[4]. A study from Guangzhou city (Republic of China) assessed internet addiction using the Internet Addiction Test (IAT). Its results revealed that majority of respondents were classified as normal users of the Internet (89.2%), with 10.2% moderately and 0.6% severely addicted to the Internet [7]

In our study, among severe internet addicts, 71.4% were male and 28.6% were female. This finding was similar to study by Amit Malviya et al (2014) [4] in which 65.0 were male and 35.0% were female among severe internet addicts.

In our study, Majority of severely internet addicts (39.7%) were doing B.Tech. 27.0% were Medical students and 23.8% were dental students. Only 9.5% were pursuing B.com. This may be attributed to use of computer works in the professional courses for educational purposes.

Among severely internet addicts, majority (36.5%) belonged to Class II and 28.6% were from class I.

This may be due to easy access to internet and availability of smart phones and computers, laptops among students belonging to higher socio-economic status.

Among total 400 students, majority (90.2%) started using internet at age 12- 16 years. This can be explained with the fact that this is the age at which majority of the students begin to surf internet for educational purposes and possibly also for social networking.

In present study, among students whose parents undergoing frequent fights or divorced, majority were identified with Kimberley Young scale score 80-100 i.e. severe internet addiction. This can be supported by these facts that they want to get ride off those family problems and they can get the same pleasure or happiness from the use of internet or by social networking which they are missing in families.

CONCLUSION AND RECOMMENDATION

The findings of the study are suggestive of rising web reliance among college undergraduates. The outcomes are demonstrating that Internet compulsion is a rising issue of the present time. Further community based studies are required to evaluate the genuine issue in India with large sample size and compelling IEC exercises ought to be completed to expand mindfulness in regards to abuse of web.

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