

INTERNET ADDICTION AMONGST STUDENTS OF A MEDICAL COLLEGE IN CENTRAL INDIA: A CROSS-SECTIONAL STUDY

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Abstract: Internet addiction is an upcoming problem that has been considered as an important public health problem and the position of India comes after China, US and Japan in terms of highest number of internet users. To assess the usage of internet among students of Medical college and to classify levels of internet addiction. A questionnaire based cross-sectional study was planned. Students of 1st year, 3rd year and interns were selected to participate in study. Young's Addiction Test was used as a tool to assess and classify internet addiction. Data was entered and analysed in Epiinfo7. 49.75% (199) students has mean score between 50-79 which indicates moderate dependence on internet whereas 36.50 (146) students has mean score of 31-49 and 3.75% (15) students show mean score between 81-100 which indicates mild and severe dependency on internet respectively. 10% (40) students has mean score between 0-30 which indicates normal internet usage. the internet usage among medical students is on rise which should be taken care of with care and special program should be taken to create awareness amongst students.

Key words: Internet addiction, addiction, Young's Addiction Test

1. Introduction

Excessive usage of internet can be considered as an addiction came first as a proposal by Kimberly Young and she mentioned in her 1996 seminal paper and she proposed that it should be included in the Diagnostic and Statistical Manual of Mental Disorders Diagnostic (DSM).[1] In the year 1995, Ivan Goldberg, psychiatrist at New York, has first coined the

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term 'Internet Addiction Disorder'. [2] In China and South Korea Internet Addiction has been considered as a significant public health threat. [3] The people who use internet daily are more than three billion people from all over the world and amongst them young people are the most frequent users of internet. [4] the position of India comes after China, US and Japan in terms of highest number of internet users. [5] The range of the prevalence of internet addiction is 0.3 to 38% as reported by various studies and this range depends upon population taken for study, methodology used for the study, and the preferred instrument used for diagnosis in the the study. Studies have also shown that the most affected population amongst all is the youth and amongst youth, students of college are most commonly affected. [6] The Internet Addiction Disorder is a compulsive-impulsive spectrum disorder which comprises of three subtypes: excessive gaming, preoccupations by sexual content, and e-mail/text messaging. Internet addiction if not controlled in time may land up creating havoc on one's health in form of excessive weight gain, depression, headache, sleep disturbances and headache. [7] To designate Internet Addiction as a mental disorder under DSM-V is an ongoing debate [8,9] and on the other hand it is also true that there are people who seek treatment for internet addiction. As there is lack of substantial data available on internet addiction amongst students of medical college especially in central India the following study was planned to assess the usage of internet amongst medical students and to classify levels of internet addiction.

Aims and Objectives

Aim:

The Aim of present Cross-sectional study is to study the Internet usage amongst medical students and to classify their usage according to severity.

Objectives:

1. To study prevalence of internet addiction amongst Medical students of Central India
2. To Classify their level of addiction as Normal, mild, moderate and severe.

2. Materials and Methods

The present observational study was carried out at medical college situated in the core of the city in Central India. This medical college has an influx of 150 students per year [10-14]. The students of 1st year MBBS, 3rd year MBBS and interns were included in the study. Considering prevalence of social networking site's addiction amongst medical students as 9.5%¹⁰ in central India, with 95% confidence interval and 5% absolute error, the minimum calculated sample size for our study is 137. A self administered questionnaire was designed which included sociodemographic characteristics, internet addiction assessment scale, and questions related to use of internet. Young's Addiction test was used as a tool to assess the internet addiction. This addiction test comprises of a set of 20 questions which has to be assessed on 5 point scale. The 5 point scale ranges from 0 to 5; 0-not Applicable (NA), 1- Rarely, 2- Occasionally, 3-Frequently, 4-Often, 5- Always. The respondent has to answer each question according to this 5 point scale. Total score is being calculated by adding the responses of all the 20 questions. The maximum score of Internet Addiction Test is 100 and the minimum score is 0. The severity of addiction depends on total score. The internet Addiction severity has been classified on the basis of range of total score which is as follows: Normal level of internet use ranges from 0-30 scores; Mild level of internet addiction ranges from 31-49 scores; Moderate level of internet addiction ranges from 50 - 79 scores and 80-100 scores is classified as severe level of internet addiction. Approval was taken from institutional ethical committee. Willingness of the students was considered to participate in study and students who use internet frequently were included in the study.

Questionnaire was distributed to students and interns in batches over a period of 1 month and information was collected. Data entry and analysis was done in epiinfo7.

3.Results:

Table 1: Sociodemographic Characteristics of students

Charateristics	Number (N) (Total 400)	Percentage (%)
Type of family		
Nuclear	316	79
Joint	74	18.50
Extended nuclear	10	2.50
Year		
1 st year	128	32.0
3 rd year	98	24.50
Intern	174	43.50
Residence		
Rural	77	19.25
Urban	323	80.75
Mother's Education		
Uneducated		
Primary	31	7.75
Secondary	28	7.0
Higher Secondary	49	12.25
Graduate	145	36.25
Postgraduate	147	36.75
Father's Education		
Uneducated		
Primary	9	2.25
Secondary	15	3.75
Higher Secondary	44	11.0
Graduate	152	38.0
Post graduate	180	45.0
Father's Occupation		
Unemployed	0	
Farmer	41	10.25
Businessman	77	19.25
Govt employee	53	13.25
Professional	229	57.25
Mother's Occupation		
Housewife	177	44.25
Farmer	10	2.50
Businesswoman	38	9.50

Govt employee	83	20.75
Professional	92	23.0

This is a cross-sectional study in which 400 students participated. Table 1 shows sociodemographic characteristics of participants of study. 79%(316) students stayed in nuclear family whereas 18.50% (74) students stayed in joint family and 2.50% (10) students stayed in extended nuclear family. 128 students of 1st year, 98 students of 3rd year and 174 students doing internship participated in our study. Maximum students (80.75%) belong to urban area whereas 19.25% students belong to rural background. Mothers of maximum students (36.75%) has completed post graduation, mothers of 36.25% students has completed graduation, mothers of 12.25% students, 7.0% students, 7.75% students have completed higher secondary, secondary and primary level of education respectively. Fathers of 45% students, 38% students, 11% students, 3.75 % students, 2.25% students have completed post graduation, graduation, higher secondary, secondary and primary level of education respectively. Fathers of 57.29% (229) students are professionals, whereas fathers of 13.25% students do government job and fathers of 19.25%(77) students, 10.25% students are businessman and farmers. Mothers of maximum students are housewives i.e. 44.25% (177) students. Mothers of 23%(92) students, 20.75%(83) students, 9.50% (38) students, 2.50% (10) students are professionals, government employee, businesswomen and farmer respectively.

Table 2. Distribution related to gadgets used and frequently used social networking site

Characteristics	Number (%)	Percentage (%)
Gadgets Used		
Desktop	39	9.75
Laptop	16	4
Mobile phone	264	79.75
All of the above	81	20.25
Most commonly used social networking site		
Instagram	205	51.25
Watsapp	150	37.50
Twitter	42	10.50
Facebook & youtube	3	0.75

Table 2 shows distribution related to gadgets used and frequently used social networking site. The most commonly used gadget is mobile phone in 79.75% (264) students followed by 20.25% (81) students who used all the three gadgets i.e. desktop, laptop, and mobile phone. Laptop is used by 4% students(16) and desktop is used by 9.75% (39) students. The most commonly used social networking site by students is instagram i.e. 51.25% (205), followed by wats app in 37.50% (150), twitter 10.50 (42) and only 0.75%(3) students use facebook and youtube.

Table 3. Internet addiction score wise distribution of study participants

Internet addiction score	Number (N)	Percentage (%)
0-30 (Nil)	40	10
31-49 (mild)	146	36.50
50-79 (moderate)	199	49.75

80-100 (Severe)	15	3.75

Table 3 shows that 49.75% (199) students has mean score between 50-79 which indicates moderate dependence on internet whereas 36.50 (146) students has mean score of 31-49 and 3.75% (15) students show mean score between 81-100 which indicates mild and severe dependency on internet respectively. 10% (40) students has mean score between 0-30 which indicates normal internet usage.

Table 4. Mean score of internet addiction according to year of graduation

Year	Mean	Standard deviation
1 st year	52.40	11.41
3 rd year	52.85	10.02
intern	49.56	16.63

Table 4 shows mean score is 52.40 ± 11.41 , 52.85 ± 10.02 , 49.56 ± 16.63 amongst first year, third year MBBS students and interns respectively. The mean age of first time exposure to internet is 15.51 ± 2.80 years in our study and mean age of first time exposure to internet for moderate addiction is 15.27 ± 2.58 .

Table 5: Average expenditure per month on internet by students

Average expenditure/month (Rs)	Number (N)	Percentage (%)
400	53	13.25
401-800	261	65.25
800 & more	86	21.50

Table 5 shows that the 13.25% (53) students spend less than 400 Rs on internet, 65.25% (261) students spend 400-800 Rs on internet whereas 21.50%(86) students spend more than 800 Rs on internet.

4. Discussion:

The present study shows maximum students (49.75%) has moderate level of dependence on internet and only 3.75% students are severely dependant on internet. A study reported from Guangzhou city of Republic of China which assessed prevalence of internet addiction with the help of Internet Addiction Test showed that normal users of the Internet ($n=1,392$, 89.2%) were maximum respondents whereas 158 (10.2%) respondents were moderate users and 10 (0.6%) were severely addicted to internet severely.[10] The prevalence of internet addiction has been found to be 28% and 30% from studies of south Punjab[11] and Lahore[12] respectively. The mean age of first time exposure to internet for moderate addiction is 15.51 ± 2.80 years in our study. Study by Bhushan et al[13] showed mean age of exposure is 10.67 ± 2.67 .13. The most commonly used gadget in our study is mobile phone, study of Bhushan et al shows more number of students using mobile phones are addicted to internet. This might be due to present day smart phones are easily available with students and they can access internet easily on these phones[14].

5. Conclusion:

The current study highlighted that internet addiction in medical students is dark reality of today's world and it is on rising trend with each passing year. Detection of internet addiction should be done seriously and should be a part of routine Medical checkup before

admission. Special programmes should be designed to create awareness amongst medical students regarding internet addiction. Special task force should be appointed on college level for medical students from where they can seek help for internet addiction.

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