Original Research Paper

Volume-9 | Issue-12 | December - 2019 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Community Medicine

A STUDY TO FIND OUT PREVALENCE AND PATTERN OF INTERNET ADDICTION AMONG MEDICAL STUDENTS

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ABSTRACT

Introduction: In our day to day life, internet plays very important part. It is commonly used by adolescents and youth. Psychological symptoms can develop due to its excessive use. Besides using internet for information, education, and training for diagnosis, as well as patient management among medical students, they are a vulnerable group on account of the time they spend on the internet. The present study was conducted to estimate the prevalence of internet addiction, understand the pattern of internet use, and to determine the association between psychopathology and internet addiction among medical students.

Materials and methods: The present cross sectional study was conducted among Final Year MBBS students of a private medical college. A semi structured proforma used for the collecting information consists of details of age, gender, educational qualification, computer ownership, place of access (home, cybercafé, or others), type of internet connection, login status, location of internet access, time of internet use, and reasons for internet use. Data was collected from students using internet for at least 6 months . Test used for measuring addictive use of the Internet is The Internet Addiction Test (IAT) .

Results : In the present study, 23.48 was the prevalence of internet addiction. Data card was the most common type of internet connection used by 44.70% students. Most common reason for internet use was for social networking in 35.61% students. Significant association of was found with variables like gender, computer ownership, login status, and mode of internet access, however. No significant association was found of students with internet addiction among preferred time of internal use, duration of internet use, location of internet access, and purpose of internet use .

Conclusion: Internet addicted individuals showed anxiety, depression, loss of emotional/behavioral pattern, and psychological distress. Hence, measures should be taken to find at risk students, to promote awareness of PIU, and to educate students to use internet meaningfully and appropriately. Students should be monitored by college authorities for internet use .

KEYWORDS : Medical students, internet addiction,

INTRODUCTION

In our day to day life, internet plays very important part. It is commonly used by adolescents and youth. Psychological symptoms can develop due to its excessive use.[1,2] For , entertainment, social networking, and information sharing we use internet.[3].

It has wide implications in the field of medicine and healthcare including practice of evidence based medicine, research and learning and academic and recreational purposes.[4]

Behavior related to internet is often described by various terms such as internet addiction, or internet dependency.[5,6] In different populations, the prevalence of internet addiction varies from 1.5% to 25%..[7,8]

Prevalence of internet addictions among Indian adolescents was found to be 0.7%.[9] As compare to old individuals ,young individuals (18-24 yrs) have more chance of becoming internet addicts..[10]

Since the mid 1990s,just like alcoholism and compulsive gambling, internet addiction has been proposed as a new type of addiction and mental health problem [11] Internet addiction has been described as an impulse control disorder that does not involve an intoxicant.[12] Characteristics of Internet addiction disorder are preoccupation with internet, need to spend long periods online, repeated attempts to reduce internet use, suffering withdrawal symptoms when reducing internet use, time management problems, environmental distress, deception regarding time spent online, and mood modification through internet use.[13]

Decline in the size of social circle, depression, loneliness, lower self esteem and life satisfaction are characteristics of problematic internet use (PIU). On psychological well being of students, internet addiction cause negative impact .As adolescents use internet enormously, it was important to study the pattern of internet among them. Besides using internet for information, education, and training for diagnosis, as well as patient management among medical students, they are a vulnerable group on account of the time they spend on the internet. The present study was conducted to estimate the prevalence of internet addiction, understand the pattern of internet use, and to determine the association between psychopathology and internet addiction among medical students.

MATERIALS AND METHODS

The present cross sectional study was conducted among Final Year MBBS students of a private medical college in Gujarat during period of April to June 2016. Total students participated in the study were 132. This study was approved by the Ethics Committee. A written informed consent was obtained from all the students who participated before collecting the data. A semi structured proforma was distributed in classes, and necessary instructions were given.A semi structured proforma used for the collecting information consists of details of age, gender, educational qualification, computer ownership, place of access (home, cybercafé, or others), type of internet connection, login status, location of internet access, time of internet use, and reasons for internet use. Data was collected from students using internet for at least 6 months .

Test used for measuring addictive use of the Internet is The Internet Addiction Test (IAT) . The IAT is a 20 item 5 point Likert scale that measures the severity of self reported compulsive use of the internet. The marking for this questionnaire ranges from 20–100; the higher the marks are, the greater the dependence on the internet is. It is evaluated as:

<50: normal internet users 50-79: moderate addicts

80-100: severe addicts

Data were analyzed based on two groups of normal students (score < 50) and addict students (score > 50) adopted from a study by Ghamari *et al*.[15]

For evaluating mental health issues such as anxiety, depression, behavioral control, positive effect, and general distress, method used is Mental health inventory. It helps in measuring overall emotional

functioning.[16] The mental health inventory is a self-report questionnaire including 38 items; a 6-point Likert-style response is used. The test has a reported 0.93 Cronbach alpha rating. The mental health inventory may be aggregated into six subscales – anxiety, depression, loss of behavioral/emotional control, general positive affect, emotional ties and life satisfaction. There are two global scales-psychological distress and psychological well-being. Statistical analysis was done using SPSS Version 17.0. Satisticial test applied was chi-square at *P*-value 0.05.

RESULTS

In the present study, 23.48 was the prevalence of internet addiction. The mean age of the participants was 19.32 (± 1.64) years, and out of 132 internet users,55(41.67%) were males and 77 (58.33%) were females. Most of the students do not have own computer [Table 1].

Most of the students i.e. 62.88% were using internet for 1-5 years. Preferred time of internet use was not specific in 49.24% study participants. Data card was the most common type of internet connection used by 44.70% students. Most common location of internet access was not specific in 29.54% students. Most common reason for internet use was for social networking in 35.61% students.[Table 1].

Most of the students had low scores on sub scales like on loss of emotional/behavioral control, anxiety, depression, and psychological distress whereas on sub scales like emotional ties, life satisfaction, and psychological well being they had high scores .[Table 2].

Significant association of was found with variables like gender, computer ownership, login status, and mode of internet access, however, no significant association was found of students with internet addiction among preferred time of internal use,duration of internet use, location of internet access, and purpose of internet use as shown in Table 3.

DISCUSSION

In the present study , 23.48% was the overall prevalence of internet addiction (representing moderate and severe addiction). A prevalence of 18.88% was found in a study on university students of India [A study on university students in India reported [17] As compared to females internet addiction is more common in males .This found in other study also .[18]. With computer ownership , internet addiction rate is closely related.

Most of students were using computer using permanent logged in status, and internet access through broadband and Wi Fi. These findings are different from previous studies stating that gadgets (e.g., desktop, laptop, mobile phone) and mode of internet access are not significant influential factors for internet addiction.[19] Whereas findings such as using the internet for news, updates, checking mails, entertainment, social networking, and playing games, as well as location of internet access are not influential factors for addiction are consistent with our findings.[19] Our study also find continuous login status assocaited with internet addiction, which is similar to other study.[19]

Psychiatric symptoms such as anxiety, depression, loss of emotional/behavioral control, emotional ties, and psychological distress was associated with internet addiction which was also found in other studies.[14,20]. Strong association between psychiatric symptoms and internet addiction was also found in other studies.[21]

CONCLUSION

Just like other university students, medical students also have high prevalence of internet addiction.. Internet addicted individuals showed anxiety, depression, loss of emotional/behavioral pattern, and psychological distress. Hence, measures should be taken to find at risk students, to promote awareness of PIU, and to educate students to use internet meaningfully and appropriately. Students should be monitored by college authorities for internet use

Financial support and sponsorship
Nil

Conflicts of interest
There are no conflicts of interest.

Table 1: Pattern of internet use of the study participants

Variables	Number (Percentage)
Gender(n=132)	
Male	55(41.675%)
Female	77(58.33%)
Computer Ownership	
Personal desktop	9(6.82%)
Laptop	54(40.91%)
Do not have own computer	69(52.27%)
Duration of internet use	
1-5 yrs	83(62.88%)
6-10 yrs	41(31.06%)
11-15 yrs	8(6.06%)
Preferred time of internet use	
Morning	13(9.85%)
Afternoon	8(6.06%)
Evening	19(14.40%)
Night	27(20.45%)
Not specific	65(49.24%)
Type of internet connection using	
Data card	59(44.70%)
Mobile internet	45(34.09%)
Broadband	19(14.40%)
Campus wifi	09(6.81%)
Location of internet access	
Home	35(26.52%)
Café	07(05.30%)
Classroom	33(25.00%)
Library	18(13.64%)
Other places	39(29.54%)
Reasons for internet use	
Educational	34(25.76%)
Social Networking	47(35.61%)
Recreational	28(21.21%)
Games	23(17.42%)

Table 2:Symptoms on mental health inventory among the study participants

Variables	Number (Percentage)
Anxiety	
Low	77(58.33%)
High	55(41.67%)
Depression	
Low	71(53.79%)
High	61(46.21%)
Loss of essential behaviour control	
Low	81(61.37%)
High	51(38.63%)
General positive effect	
Low	39(29.55%)
High	93(70.45%)
Emotional ties	
Low	49(37.12%)
High	83(62.88%)
Life satisfaction	
Low	50(37.88%)
High	82(62.12%)
Psychological distress	
Low	36(27.27%)
High	96(72.73%)

Table 3:Association of pattern of internet use with internet addiction in the study participants

Variables	Number (Percentage)	Addicted students	p value
Gender			
Male	36(65.45%)	19(34.55%)	0.01129 Signi.
Female	65(84.42%)	12(15.58%)	
Computer ownership			
Personal desktop	05(55.56%)	04(44.44%)	0.026961 Signi.
Laptop	37(68.52%)	17(31.48%)	
Do not have own computer	59(85.51%)	10(14.49%)	
Duration of internet use			
1-5 yrs	68(81.93%)	15(18.07%)	0.151811 not signi.
6-10 yrs	28(68.29%)	13(31.71%)	
11-15 yrs	5(62.5%)	3(37.5%)	
Preferred time of internet use			
Morning	10(76.92%)	3(23.08%)	0.66966 not signi
Afternoon	6(75%)	2(25%)	
Evening	12(63.16%)	7(36.84%)	
Night	21(77.78%)	6(22.22%)	
Not specific	52(80%)	13(20%)	
Login status			
Intermittent	89(83.18%)	18(16.82%)	0.000187 signi.
Continuous	12(48%)	13(52%)	
Type of internet connection use			
Data card	50(84.75%)	9(15.25%)	0.00111 signi.
Mobile internet	37(82.22%)	8(17.78%)	
Broadband	8(42.11%)	11(57.89%)	
Campus wifi	6(66.67%)	3(33.33%)	
Location of internet access			
Home	23(65.71%)	12(34.29%)	0.123864 not signi
Café	5(71.43%)	2(28.57%)	
Classroom	26(78.79%)	7(21.21%)	
Library	12(66.67%)	6(33.33%)	
Other places	35(89.74%)	4(10.26%)	
Reasons for internet use			
Educational	27(79.41%)	7(20.59%)	0.388565 not signi
Social networking	38(80.85%)	9(19.15%)	
Recreational	18(64.29%)	10(35.71%)	
Games	18(78.26%)	5(21.74%)	

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