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Original Research Article

A study on internet addiction among medical students in a tertiary care hospital in Bangalore, India

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ABSTRACT

Background: Internet usage is prevalent among medical students as they utilize it for both study purposes as well as for entertainment. Widespread usage of the internet may lead to its addiction. The objective of the study was to determine the prevalence of internet addiction and identify its contributing factors among medical students.
Methods: 239 second and third year medical students completed the internet addiction test as well as the supplementary questionnaire at Vydehi institute of medical sciences and research center. The assessment of addiction was performed using Dr. Kimberley Young's internet addiction test.
Results: It was found that 120 (50.2%) students were mildly addicted and 39 (16.3%) students were moderately addicted and 1 (0.42%) student was severely addicted.
Conclusions: 66.9% of medical students had various levels of internet addiction from mild to severe. Therefore, behavior change communication is required to overcome addiction in these students.

Keywords: Internet addiction, Medical students, Dr Kimberely Young

INTRODUCTION

The diagnostic and statistical manual of mental disorders IV defines addiction as a maladaptive pattern of substance use which leads to clinically significant impairment or distress meeting certain criteria occurring within the same 12 month period.[1] This definition was used to describe habits such as tobacco and smoking. As time has passed and technology advanced, addictions are manifesting themselves in more and more unique ways. Internet addiction is a compulsive-impulsive spectrum disorder that involves online and/or offline computer usage. Like other typical addictions, it has components of excessive use, withdrawal, tolerance and negative repercussions.[2] The prevalence of such addiction has ranged between 1.5-25% between different populations.[3] Though the internet can be utilized in a positive manner, its negative usage is what troubles clinicians.

One of the most popular ways of how the internet can hook individuals is social media. Nearly 22% of teenagers log on to their favorite social media site more than 10 times a day. With the appearance of conditions such as facebook depression, social media is now impacting lives with equal severity as with events occurring in the real world.[4] Medical students are among the population affected by internet addiction. Medical students often spend a majority of their time either in class or studying. The time for any real entertainment and person-to-person interaction is very limited. Some medical students may turn to substance abuse in order to ease their nerves.

Psychological stress causes one-fifth of medical students to abuse at least one substance despite being aware of the ill effects.[5] Previous research conducted on the matter has shown that internet addiction has similar symptoms to that of alcohol and drug addiction.[3] Health problems such as weight gain, depression, headache, backache and sleep disturbances may result due to internet addiction.[6] Studies conducted have provided varying statistics in reference to its predisposing factors. A study conducted by Ranganatha and Usha has shown that people who stay outside the hostel were more likely to be addicted when compared to hostel dwellers. However other studies have suggested that students living by themselves were more likely to be addicted.[7,8] The need for such research is to identify possible addiction among a group that uses technology on a daily basis. The internet is a must need for a medical student as it may provide information that has not been included even in the most recent textbooks. Nowadays it seems as if the power of the internet is being abused and time is being taken away from a medical student's educational experience due to social media. As there are few studies on internet addiction among medical students the following study was taken up to find out the prevalence of addiction to the internet and the factors influencing the same.

Objectives

The objective of the study was to determine the prevalence of internet addiction and identify its contributing factors among medical students.

METHODS

This cross-sectional study was conducted after obtaining ethical clearance from Vydehi institute ethics committee and the informed consent was obtained from all participants. The study was conducted over a span of 3 months from May 2018 to July 2018. The second (105) and third year (134) medical students of Vydehi institute of medical sciences and research center, Bangalore who gave consent formed the target group for the study. The sample size encompassed the total number of 2nd and 3rd year students present at the time of the study with the sampling technique being convenience. The exclusion criteria were those who did not use the internet and who were not present during the study period. The socio-demographic data was collected, namely gender, age and residence. Dr. Kimberly Young's internet addiction test was administered to all the participants.[9] After completing the survey, the participants were assessed using a preformed grading system which accompanies Dr. Young's test. A score of 0-30 is normal, 31-49 is mild addiction, 50-79 is moderate addiction, 80-100 considered severe dependence. The information collected from the 239 surveys was then compiled. The data was analyzed using SPSS version 21. Statistical significance was considered to be present if there was a p value was <0.05.

RESULTS

Out of a total of 254 students who participated in the study, complete data was available from only 239 students. The following are the results of the study.

Table 1 shows the distribution of the participants based on gender. The results show that in both second and third year, there were more girls (70.6%) than boys (29.2%). This was statistically significant ($p<0.05$).

Table 2 shows the distribution of the participants according to internet addiction. The table shows that a majority (50.2%) of the students had mild levels of addiction and only 1 (0.42%) had severe addiction.

Table 1: Distribution of the participants based on gender.

Gender	2nd year (%)	3rd year (%)	Total (%)
Girls	83 (34.7)	86 (35.9)	169 (70.6)
Boys	22 (9.2)	48 (20.0)	70 (29.2)
Total	105	134	239

Table 2: Distribution of study participants according to internet addiction.

Internet addiction	Number	Percentage (%)
Nil	79	33.05
Mild	120	50.2
Moderate	39	16.32
Severe	1	0.42

Table 3: Gender distribution of students according to internet addiction.

Gender	Nil (%)	Mild (%)	Moderate (%)	Severe (%)
Girls	57 (23.8)	86 (35.98)	26 (10.88)	0 (0)
Boys	22 (9.2)	34 (14.22)	13 (5.4)	1 (0.42)
Total	79 (33)	120 (50.21)	39 (16.32)	1 (0.42)

Table 4: Residential influence on addiction in 3rd year girls.

Residentials	Nil (%)	Mild (%)	Moderate (%)	Severe (%)
Day scholars (living with parents)	14 (41.17)	26 (63.41)	8 (72.72)	0 (0)
Hostelites and paying guest students	20 (58.82)	15 (36.59)	3 (27.27)	0 (0)
Total	34	41	11	0

Table 5: Residential influence on addiction in 3rd year boys.

Residentials	Nil (%)	Mild (%)	Moderate (%)	Severe (%)
Day scholars (living with parents)	8 (57.14)	13 (61.9)	9 (75)	0 (0)
Hostelites and paying guest students	6 (42.86)	8 (38.1)	3 (25)	1 (100)
Total	14	21	12	1

Table 3 shows the gender distribution of students according to internet addiction. A majority of the boys (14.22%) and girls (35.98%) had mild levels of internet addiction. The study showed that 1 boy had severe addiction.

Table 4 illustrates how residence can influence addiction among third year girls. It shows that 34 (70.83%) day scholars who were living with their parents were addicted to the internet. This was statistically significant (p=0.02) when compared to those who were not living with their parents who were staying either as paying guests or were in the hostel.

Table 5 illustrates how residence can influence addiction among third year boys. Day scholars who lived with their parents were more likely to have mild addiction levels. Day scholars who do not live with their parents and hostel dwellers encompass the data displayed in the 3rd column of Table 5. When the data was looked at as a whole, a p value of 0.62 was attained. This indicates that there was no statistically significant association among addiction levels and areas of residence among 3rd year boys.

DISCUSSION

The present study has shown that 66.95% of the medical students had various levels of internet addiction. Among the girls (35.98%) and among the boys (14.22%) had mild levels of internet addiction. The studies by Mohammadbeigi et al, Ranganatha et al and Chaudhari et al have shown a prevalence of internet addiction ranging from 10.8-58.9%.[3,7,8]

This study showed that among the 3rd year girls 70.83% of them were addicted among those who lived with their parents while only 47.36% of them who lived as paying guests or in the hostel were addicted. This was in contrast to what was found by Mohammadbeigi et al which provided significance between addiction and male gender.[3] The study by Chaudhari et al also proved significance between addiction and the male gender.[8]

The study conducted by Ranganatha and Usha showed statistical significance between addiction and localites.[7] Future studies can include a greater diversity of students of other healthcare fields such as dental, nursing and paramedical sciences in order to derive a broader result. It is important to also survey for consequences such as sleep disturbances, depression and social withdrawal which have been documented in students addicted to the internet.[10,11] At the same time, it seems that complete elimination of internet usage seems counterproductive as the study conducted by Alsaad et al showed that medical students with moderate levels of internet addiction had a better quality of life.[12] Possible limitations of the study included the use of convenience rather than a more efficient sampling method as well as the proportion of girls being more than boys in the study.

CONCLUSION

The prevalence of internet addiction was 66.95% (mild, moderate and severe) among medical students. Overall, girls were more likely to be mildly addicted to the internet. There was more addiction (70.83%) reported among the day scholars who lived with their parents. Statistical significance was reported between gender and years of study. Behavior change communication will be required to prevent internet addiction from hampering the academic studies.

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