Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr ICV 2018= 82.06

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

Original Research

Internet Addiction and Performance of Dental Students –A Cross-Sectional Study

Irfan Ali

Private Practitioner, Public Health Dentist

ABSTRACT

Introduction: Excessive internet usage, also called as pathological internet use or internet addiction, causes problems in social and personal life.In the community, adolescents have been found to spend more time on the Internet than adults, predisposingthemselves to Internet addiction. **Aim:** The aim of the study is to assess the lifestyle, self-esteem and academic performance associated with Internet Addiction amongdental students. **Materials and methods:** A questionnaire based cross-sectional study was conducted among 300 undergraduate students of a teaching dental college in Ghaziabad, India.Young's Internet Addiction Test was used for assessing the prevalence of Internet Addiction. The Rosenberg self-esteem scale was used to measure the self-esteem. The data analysis was performed using Statistical Package for Social Sciences (SPSS) 18.0 (SPSS Inc., Chicago, IL, USA). The association between explanatory variables and categorical outcomes was assessed by comparison of percentages. Chi-square test was done. The level of significance was set at $p<0.05$. **Results:**In the present study, it was found that131 (43.67%) students were mildly addicted and 86 (28.67%) were students are moderately addicted while 83 (27.66%) students were normal internet users.Significant association was found between academic performance and Internet Addiction. But, Internet Addiction had no significant association with Self- Esteem and Obesity. **Conclusion:**The study findings concluded that although internet addiction does not affect the BMI and self-esteem of students of health sciences, it does affect their academic performance. Proper screening methods should be used for prompt detection and management of Internet Addiction and awareness should be made about the same among the youth.

Key words: Internet addiction, Academic performance, Self-esteem, Obesity

Received: 22 July, 2019 Revised: 15 September, 2019 Accepted: 20 October, 2019

Corresponding author: Dr. Irfan Ali, Private Practitioner, Public Health Dentist

This article may be cited as: Ali I. Internet Addiction and Performance of Dental Students –A Cross-Sectional Study. J Adv Med Dent Scie Res 2019;7(11):44-47.

INTRODUCTION

Internet is a classical instrument known to stimulate addictive behaviour which is on the verge of developing into a considerable public health emergency in the future in a densely populated country like India. [1]There has been an exponential rise in the number of internet users from 10% to 30% over a period of 2011 to 2016. This surge in the usage of the Internet recently has led to a huge impact on communication and interpersonal behaviour. On one hand, Internet has become an important tool for education, entertainment, communication, and information-sharing while on the other hand, the internet has empowered people to be in an easy relationship with strangers, to create social connections that are not easily achievable in modern life and to opine their feelings and thoughts without any restraints.[1,2]

Excessive internet usage, also called as pathological internet use or internet addiction, causes problems in social and personal life.[2] The term 'internet addiction' was coined by Goldberg in 1995 for pathological compulsive internet use.[3] Anecdotal reports indicated that some online users were becoming addicted to the Internet in much the same way that others became addicted to drugs or alcohol, which resulted in academic, social, and occupational impairment.[4]

In the community, adolescents have been found to spend more time on the Internet than adults, predisposingthemselves to Internet addiction. The advent of smartphones has only contributed to this problem.[5]Even though, there has been a lot of research in the area of internet addiction, no such studies have been yet conducted on dental students. Hence, the present study aims to find out

the co-morbidities associated with Internet Addiction in dental students.

OBJECTIVE

The aim of the study is to assess the lifestyle, self-esteem and academic performance associated with Internet Addiction amongdental students

MATERIALS AND METHODS

A questionnaire based cross-sectional study was conducted among the undergraduate students of a teaching dental college in Ghaziabad, India. The study included a total sample of 300 students. Two standardized questionnaire were used to collect the data from the participants.

The internet addiction test (IAT; Young, 1998) is a 20-item 5-point Likert scale that measures the severity ofself-reported compulsive use of the internet. Total internet addiction scores are calculated, with possible scores for the sum of 20 items ranging from 20 to 100. The scale showed very good internal consistency, with an alpha coefficient of 0.89 in the present study.[6]

According to Young's criteria, total IAT scores 20-39 represent mildly addicted users with complete control of their internet use, scores 40-69 represent moderately addicted users with frequent problems caused by their internet use, and scores 70-100 represent highly addicted users with significant problems caused by their internet use. In this study, mild, moderate and severe users were taken as addicted population.

The Rosenberg self-esteem scale (RSES) was used to measure the self-esteem. It was a scale of 0-30 where a score less than 15 may indicate a problematic low self-esteem. The RSES was designed similar to social-survey questionnaires. It was a ten-item Likert-type scale with items answered on a four-point scale—from strongly agrees to strongly disagree. Five of the items had positively worded statements and five had negatively worded ones. The scale measured state self-esteem by asking the respondents to reflect on their current feelings. [7]

Additionally, questions regarding the purpose of Internet Usage, socio-demographic and academic performance of the 1st year assessed by their final examination marks, along with family/medical/drug history were asked.

The Institutional Review Board of the Dental College provided the ethical clearance for this study. Informed consent was obtained from all the study participants prior to the study and the privacy of the students participated were maintained.

STATISTICAL ANALYSIS

The data analysis was performed using Statistical Package for Social Sciences (SPSS) 18.0 (SPSS Inc., Chicago, IL, USA). The association between explanatory variables and categorical outcomes was assessed by comparison of percentages. Chi-square test was done. The level of significance was set at $p<0.05$.

RESULTS

The present study comprised of 300 undergraduate students from a teaching dental college in Ghaziabad. The mean ages of the participants were 22 years. A total of 178 females and 122 males participated in the study.

The results of the Young's internet addiction test showed that there were no severely addicted students. 131 (43.67%) students were mildly addicted and 86 (28.67%) were students are moderately addicted while 83 (27.66%) students were normal internet users. The average score was 33.16±15.36. Table 1 shows the purpose of Internet Usage by students. These variables were asked in a separate questionnaire as there is no standardized questionnaire to assess the purpose and time spent on Internet. They were chosen after reviewing previous studies done on this topic.

On studying the association of Internet Addiction with lifestyle, it was found that there was no significant association between the BMI and Internet Addiction which can be inferred from the Table 2.

On using RSES for measuring the Self-Esteem of the students, we found that there was also no significant difference in the ratio of participants who had low self-esteem in the students who were at risk of developing Internet Addiction which is seen in Table 3. Therefore, no significant association was found between Internet Addiction and low self-esteem.

As evident from Table 1, students having Internet Addiction are using Internet more for non-academic activities. Furthermore, it was found that Internet Addiction had a statistically significant association with the poor academic performance of the students as seen in Table 4.

Table 1: Risk factor for internet addiction (N=300)

VARIABLE		N (%)	WITHOUT ADDICTION (%)	WITH ADDICTION (%)
CHATTING	YES	244 (81.34%)	59 (19.67%)	185 (61.67%)
	NO	56 (18.66%)	24 (8%)	32 (10.66%)
SOCIAL MEDIA USAGE	YES	147 (49%)	62 (20.67%)	85 (28.33%)
	NO	153 (51%)	21 (7%)	132 (44%)
ONLINE SHOPPING	YES	178 (59.33%)	39 (13%)	139 (46.33%)
	NO	122 (40.67%)	44 (14.67%)	78 (26%)
ACADEMIC PURPOSE	YES	89 (29.67%)	41 (13.67%)	48 (16%)
	NO	211 (70.33%)	42 (14%)	169 (56.33%)

Table 2: Association of BMI with internet addiction in the study population (N=300).

BMI	INTERNET ADDICTION INTERPRETATION		CHI SQUARE VALUE	P VALUE
	ADDICTED (%)	NOT ADDICTED (%)		
UNDER WEIGHT (N=52)	31 (59.62%)	21 (40.38%)	2.786	0.54
NORMAL (N=147)	108 (73.47%)	39 (26.53%)		
OVER WEIGHT (N=82)	66 (80.49%)	16 (19.51%)		
OBESE (N=19)	12 (63.16%)	7 (36.84%)		

Table 3: Association of self-esteem with internet addiction in the study population (N=300).

SELF-ESTEEM	INTERNET ADDICTION INTERPRETATION		CHI SQUARE VALUE	P VALUE
	ADDICTED (%)	NOT ADDICTED (%)		
HIGH (N=210)	139 (66.19%)	71 (33.81%)	1.016	0.22
LOW (N=90)	78 (86.67%)	12 (13.33%)		

Table 4: Association of Academic position with internet addiction in the study population (N=300).

ACADEMIC POSITION	INTERNET ADDICTION INTERPRETATION		CHI SQUARE VALUE	P VALUE
	ADDICTED (%)	NOT ADDICTED (%)		
DISTINCTION (N=27)	18 (66.67%)	9 (33.33%)	12.664	0.01
FIRST CLASS (N=139)	105 (75.54%)	34 (24.46%)		
SECOND CLASS (N=81)	54 (66.67%)	27 (33.33%)		
PASS (N=37)	30 (81.08%)	7 (18.92%)		
FAIL (N=16)	10 (62.50%)	6 (37.50%)		

DISCUSSION

India has recently become a hotspot for multiple fold increase in the number of internet users. Because of the advent of smart phones, many young people have got unregulated access to internet which has had a considerable effect on their social and personal lives.[1]

The study first analyses about the association of Internet Addiction with the BMI of the students and found that there was no significant association between the two factors. This results showed agreement with a study by Cam H et al.[8] But, a study conducted by Canan F et al and Bozkurt et al found a positive correlation between internet addiction and BMI.[9,10] This shows that there has been a disparity in the results.

In our study we could not find a significant association between self – esteem and internet addiction. Even this result was also not concordant with the previous studies. A study done by Bhushan Set al showed a significant association between low self-esteem and internet addiction. [1] Another study done by Aydm B et al among Turkeysupported the previous findings.[11] A recent cross-cultural study done by Seabra L et al in Brazil and Portugal also had the same results. [12] Even in a study conducted byFortes L et al in India, the results were identical. [13] Our findings could be justified by the fact that although students of dental sciences were at a higher risk of developing internet addiction, they were already academically very qualified and at par with their peers thus showing better coping abilities and self-esteem.

The study found out a negative association between Internet Addiction and academic performance of the students and this result was in line with the previous studies. Studies done by Bhushan S et al (2018) and Rajput TA et al (2016) showed a significant negative correlation between internet addiction and academic performances of medical students.[1,14] Another study conducted by Mishra et al also had the same findings. [15] However, there has been a multi-country study, done by Usman Net al, where this result has been countered although the sample size was very small. [16] This negative association can be very well explained by the fact that the more students will use internet, more their academics will be hampered.

The limitation of our study has been that firstly, it was a self-assessment questionnaire that was used and no interview was conducted to confirm the clinical diagnosis of internet addiction. Thus we could not rule out the social desirability bias. Another major limitation of the present study is the smaller sample size due to which study results can't be generalized.

CONCLUSION

The study findings concluded that although internet addiction does not affect the BMI and self-esteem of students of health sciences, it does affect their academic performance. This implicates the necessity of an immediate need for stringent control over the internet usage at the institutional level.Proper screening methods should be used for prompt detection and management of Internet Addiction and awareness should be made about the same among the youth.

REFERENCES

1. Bhushan S, Piplani S, Tekkalaki BV. Internet addiction and performance of health science students. Int J Commun Med Public Health. 2018;5(9):3824-3828.
2. Facts I. Topic: Internet usage in India. 2017. Available at: https://www.statista.com/topics /2157 /internet-usage-in-India/. Accessed on 12 October 2018.
3. Goldberg I. Internet Addiction 1996. Available from: http://web.urz.uniheidelberg.de / Netzdienste / anleitung/wwwtips/8/addict.html. Accessed on 12 October 2018.
4. Young KS. Internet Addiction: The emergence of a new clinical disorder. CyberPsycholBehav. 1998; 3:237–244.
5. Wallace P. Internet addiction disorder and youth. EMBO reports. 2014;15(1):12-16.
6. Widyanto L, McMurran M. The Psychometric Properties of the Internet Addiction Test. Cyber PsycholBehav. 2004;7(4):443-450.
7. Rosenberg, M. Society and the adolescent self-image. Princeton, NJ: Princeton University Press; 1965.
8. Cam H, Nur N. A Study on the prevalence of Internet addiction and its association with psychopathological symptoms and obesity in adolescents. TAF Prevent Med Bulletin. 2015;14(3):181-186.
9. Canan F, Yildirim O, Ustunel T, Sinani G, Ozturk O, Gunes C et al. 467 – The relationship between internet addiction and body mass index in turkish adolescents. Eur Psychiatry. 2013; 28:31.
10. Bozkurt H, Özer S, Şahin S, Sönmezgöz E. Internet use patterns and Internet addiction in children and adolescents with obesity. Pediatr Obes. 2018;13(5):301-6.
11. Aydm B, San S. Internet addiction among adolescents: The role of self-esteem. Procedia - Social Behav Sc. 2011; 15:3500-3505.
12. Seabra L, Loureiro M, Pereira H, Monteiro S, Marina Afonso R, Esgalhado G. Relationship Between Internet Addiction and Self-Esteem: Cross-Cultural Study in Portugal and Brazil. Interacting with Computers. 2017;29(5):767-778.
13. Fortes L, Fernandes M. The Effect of Mobile and Internet Addiction on Self-esteem among Adolescents. Int J English Language, Literature Humanities. 2016;4(9):120-209.
14. Rajput TA, Khan MA, Shabbir F, Alvi AA. Effect of internet addiction on academic performance of medical students. J Islamic Int Med College. 2016; 11:48-51.
15. Mishra S, Draus P, Goreva N, Leone G, Caputo D. The impact of Internet addiction on university students and its effect on subsequent academic success: A survey based study. Issues in Information Systems. 2014;15(2):344-352.
16. Usman N, Alavi M, Shafeq S. Relationship between Internet Addiction and Academic Performance among Foreign Undergraduate Students. Procedia - Social Behav Sci. 2014; 114:845-851.