

ORIGINAL ARTICLE

INTERNET USE BEHAVIOR: EMERGING STUDENT MENTAL HEALTH PROBLEM

Samina Qadir¹, Ayesha Naeem¹, Muhammad Naeem Akhtar²

¹Department of Community Medicine, Gomal Medical College, D.I.Khan, ²Type D Hospital, Panyala, D.I.Khan, Pakistan

ABSTRACT

Background: Internet addiction is emerging community mental health issue. Objective of study was to determine frequency of three types of internet use behaviors, modal reason of internet use and association of internet use behavior to different socio demographic variables.

Material & Methods: This comparative cross-sectional study was conducted in Gomal Medical College from 1st September to 30th September 2018. A sample size of 100 students was chosen through non probability sampling technique. All students were given a questionnaire. Our sociodemographic variables were age, residence, gender, language and socioeconomic status. Research variables were frequency of different internet use behaviors and modal reason of internet use. SPSS version 19 was used for data analysis. Categorical variables were expressed as frequency and percentages and numerical variables expressed as mean and SD. Chi square test was done to see association of internet use behaviors with socio demographic variables.

Results: in this study male and female were both equal in number with 50 each. Majority of them were below 25 yrs of age 99%, hosteler 74%, Pushto speaking 54% and from middle class 78%. Regarding internet use behavior 53% were normal user, 45% were problematic user and 2 were addict. Chi square test did not show any significant difference between type of user and sociodemographic characteristics.

Conclusion: In our study frequency of problematic user is high and internet use behavior is not significantly associated to different sociodemographic groups. Entertainment was the most frequent reason for using internet.

KEY WORDS: Internet; Public Health; Mental Health; Pandemics.

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INTRODUCTION

In 1960 internet was used first time by US military for its operations.^{1,2} Since then its use has taken the world by storm. It has affected all spheres of our life changing the way we live, work and interact with others.^{3,4} At the same time people are so much indulged in its use that it has generated new kind of addiction. An addiction that is increasingly more common in young people and has become a global pandemic.^{5,6} This day by day growing addiction is known as internet addiction. Many countries have identified it as significant public health issue and support research education and treatment of this issue. Different terms were used for this compulsive internet overuse like pathological internet use, problematic internet use, compulsive internet use and internet addiction.^{7,8,9}

Corresponding Author:

Dr. Samina Qadir
Associate Professor
Department of Community Medicine
Gomal Medical College, D.I.Khan, Pakistan.
E-mail: samina_q@yahoo.com

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Problematic internet use has been defined as maladaptive preoccupation with internet use, experienced as irresistible for periods of time longer than intended with significant distress or impairment resulting from internet use and absence of other psychiatric pathology that might explain excessive use like mania.¹⁰ This same compulsive use was later defined ironically by Dr Goldberg in 1995 as Internet addiction as it meets all the basic criteria for diagnosis of addiction i.e salience, tolerance, mood modification, conflict, withdrawal and relapse.^{11,12} How to measure level of problematic use had been a big question. To answer it various scales were devised. The tool whose psychometric properties have been tested and is widely recommended for research purposes because of its high validity and reliability is Young Internet Addiction test. According to this scale those having a score of 20-49 points are normal users. Those having a score of 50-79 points on IAT are problematic users and those having a score of 80 to 100 points are internet addict.^{13,14,15}

Internet addiction has affected young specially students more frequently and studies showed that 80% of students are online.^{16,17} There are so many psychological, social, environmental and other factors that increase the vulnerability of young people

specially university and college students.^{18,19} There are many possible explanations for this phenomenon like these students have a lot of unsaturated time, free and unlimited internet access is provided in many colleges and universities, faculty encourages use of internet, affordable packages are available, loose parental control and for students living away from home, facing difficulty in adopting to new life and finding friends results in more reliance on using gadgets with internet. Moreover students use it as weapon to combat stress of exam, assignments etc.²⁰

Internet use is widespread and according to international telecommunication union report 2016, there are 3.2 billion users worldwide. China is leading country in internet use followed by India.²¹ India has 460 million users likely to increase to 635.8 by the year 2021.¹⁰ Same is the situation with other countries like in Bangladesh internet users have increased from 0.1 million in 2000 to 62 million in 2016 and Vietnam show increase from 44.4 million in 2015 to 55.8 million in 2018.²²

Overall worldwide prevalence of internet addiction is 6% with highest percentage of users in younger age groups. Surveys in Europe and USA indicated internet addiction rate between 6% to 18.5%.^{22,23}

As internet availability and affordability has increased and people are increasingly spending more time in virtual world than real one. Our majority population is young particularly at risk group so question arises what is the internet use behavior of our young population and what is the most frequent reason for using internet. As there is lack of information regarding this issue in our area so to fill this knowledge gap this study was conducted. Objective of study was to determine frequency of three types of internet use behaviors, modal reason of internet use and association of internet use behavior to different socio demographic variables.

MATERIAL AND METHODS

This comparative cross-sectional study was conducted in Department of Community Medicine, Gomal Medical College from 1st September 2018 to 30th September 2018. Target population was students of G.M.C and sampling technique was non probability. Sample size was 100. Only those students who had access to internet and were using internet for at least last 6 months were included in the study.

Our demographic variables were sex, age groups, family Socioeconomic, status, language and residence. Gender had two attributes male and female. Age had two categories 18 to 21 years and 22 to 26 years. Family socioeconomic status was poor, middle and rich. Language had 3 attributes ie. Urdu, pushto and saraiiki. Residence had two attributes,

day scholar and hosteller. All categorical variables were measured on nominal and ordinal scale and expressed as frequency and percentages.

Our research variables were single most common reason for using internet having attributes of entertainment, information, gaming, study/ research, online shopping and communication. Other research variable was frequency of 3 main types of internet users. Those were normal user, problematic user and internet addict. Subjects were divided into 3 categories on the basis of internet addiction test score measured on a specially designed scale devised by Dr young and most commonly used in the world for identifying internet addicts.

Young IAT scale is 20 items questionnaire where responses are recorded on 5 point Likert scale. A respondent can score minimum 20 to maximum 100 points on this scale.

Actual IAT score was recorded on Likert scale and then divided into 3 categories according to operational definition of normal, problematic internet user and addict. That is those having a score of 20-49 points are normal/average users. Those having a score of 50-79 points on IAT are problematic users and those having a score of 80 to 100 points are internet addict. Frequency and percentages of each category was calculated. Actual IAT score was also presented as mean and standard deviation. SPSS version 19 was used for data analysis.

RESULTS

Total number of respondents was 100. There was no missing data. Males and females were 50 (50%) each. Regarding age categories 44 (44%) were between 18 to 21 and 56(56%) were between 22 -26. Hosteller were 74 (74%) and day scholars were 26 (26%). Urdu speaking were 30 (30%), saraiiki speaking were 13 (13%) and pushto speaking were 57 (17%). Regarding S.E. status, 12(12%) belonged to poor families, 78 (78%) were from middle class and 10 (10%) were from upper class.

Results of research variables are as follows, single main reason for internet use was entertainment according to 53 (53%) respondents, information was for 15 (15%), gaming was for 2 (2%), 20 (20%) used it for study mainly, online shopping for 1 (1%) and communication was single main reason for 9 (9%). Regarding type of user, 53 (53%) turned out to be normal user, 45 (45%) were problematic users and 2 (2%) were addicts.

Chi square test was used to find any significant association between type of users and sociodemographic characteristic and it was non-significant (p value above .05) for all. (Table 1-5)

Table 1: Association of internet use behavior with sex among medical students of GMC, D.I.Khan

Gender	Normal user	Problematic user	Addict	Row total	Chi square value	df	P value
Male	24	24	2	50	2.672	1	.263
Female	29	21	0	50			
Column total	53	45	2	Grand total 100			

Table 2: Association of internet use behavior with age groups among medical students of GMC, D.I.Khan

Age in years	Normal user	Problematic user	Addict	Row total	Chi square value	df	P value
18-21	22	22	0	44	2.971	1	.563
22-26	31	23	2	55			
Column total	53	45	2	Grand total 100			

Table 3: Association of internet use behavior with residence among medical students of GMC, D.I.Khan

Residence	Normal user	Problematic user	Addict	Row total	Chi square value	df	P value
Hosteller	40	33	1	74	.669	1	.716
Day scholar	13	12	1	26			
Column total	53	45	2	Grand total 100			

Table 4: Association of internet use behavior with language among medical students of GMC, D.I.Khan

Language	Normal user	Problematic user	Addict	Row total	Chi square value	df	P value
Urdu	20	10	0	30	5.015	2	.286
Saraiki	5	8	0	13			
Pushto	28	27	2	57			
Column total	53	45	2	Grand total 100			

Table 5: Association of internet use behavior with socio-economic status among medical students of GMC, D.I.Khan

Socio economic status	Normal user	Problematic user	Addict	Row total	Chi square value	df	P value
Poor	5	7	0	12	5.077	2	.279
Middle class	44	33	1	78			
Upper class	4	5	1	10			
Column total	53	45	2	Grand total 100			

Internet score was also recorded for all and its mean was 48.54, SD was 11.88,

DISCUSSION

Internet addiction is emerging epidemic. Now a days we can see more people indulged in virtual rather than real world. Man is now more interacting with machines rather than humans. This dissociation of man from real world is alarming. Our research is basically focused on to find out how much of this problem our student community is facing now.

In our study 2% of respondents were internet addict and 55% were problematic users. In a study done by Krishnamourthy 57.3% were normal users 42.7% were problematic users while addicts were 0.3%. male students were more addicted to internet than female students. Male preponderance was also found in studies done by Choi et al and Hahn and Jerusalem.²³ but in a study done in Japan prevalence of internet addiction was more than double in females as compared to males.²⁴ In a study done among indian adolescents, mean IAT score was found to be 43.21 with a SD of 15.72. Internet addiction was more among male participants and significantly associated with increasing age.¹ In another study done by Deepak Goel 74.5% were normal users, 24.8% were problematic users and 0.7% were addicts.¹⁵ In our study no signifi-

cant relationship between gender, age and internet addiction was found. In this study mean IAT score was 48.54 with a SD of 11.87 which seem close to above findings. In a study done by Bachxuan et al in Vietnam, 21.2% suffered from internet addiction. In a study done by Gurpeet Singh et al majority (80.3%) were average online users, 19.7% were problematic users and none of the student was internet addict.¹⁰ No statistically significant difference was found with age.¹⁰ In our study percentage of problematic users is more as compared to study by Gurpeet, may be because our city is small with very few options for outdoor activities, moreover security issues also cause people to stay at their place most of time, so they find it entertaining to spend time online as 53% of respondents marked entertainment as single most frequent reason for using internet.

CONCLUSION

In our study frequency of problematic users is high, entertainment is most frequent cause of using internet and internet use behavior is not significantly associated with different sociodemographic groups.

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CONFLICT OF INTEREST
Authors declare no conflict of interest.
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AUTHORS' CONTRIBUTION

The following authors have made substantial contributions to the manuscript as under:

Conception or Design:	SQ, MNA
Acquisition, Analysis or Interpretation of Data:	SQ, AN
Manuscript Writing & Approval:	SQ, AN, MNA

All the authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.



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