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Research Article

**PREVALENCE OF INTERNET ADDICTION AMONG  
GUJRANWALA MEDICAL COLLEGE STUDENTS: A CROSS  
SECTIONAL STUDY****Dr. Mubashir Hussain, Dr. Muhammad Awais, Dr. Sajid Ejaz**  
Gujranwala Medical College Gujranawala**Abstract:**

*Internet addiction is defined as an obsessive disorder characterized by uncontrollable dependence on internet such that its stoppage can lead to severe emotional, physiological and psychological reactions.*

***Objective** To determine prevalence of internet addiction among students. To check association between internet addiction with different years of medical education and to find out the association between internet addiction and different personality type.*

***Study design** Cross sectional.*

***Study setting** Gujranwala medical college Gujranwala.*

***Study subjects** Students of Gujranwala medical College.*

***Sampling technique** Simple Random Sampling by using random number generator.*

***Sample size** (N=120).*

***Data collection** 'Internet addiction questionnaire Young's.*

***Data analysis** by using SPSS version 21 and frequency tables were constructed for quantitative variables and cross tabulation was done to find out the association between internet addiction with different years of medical education and personality type at a P-value of 0.05.*

***Results** Prevalence of internet addiction among medical students was 41.7%. Among years of medical education, 2nd and 3rd year students had more internet addiction as compared to others and type of personality type B person have more internet addiction than type A but the results of association were insignificant.*

***Conclusion** In five years of medical education, moderate internet addiction was found among the students where as high usage of internet was determined in second and third year students of medical education*

**Keywords:** Cross sectional study, Internet Addiction, Students

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**INTRODUCTION:**

Internet addiction is defined as an obsessive disorder characterized by uncontrollable dependence on internet such that its stoppage can lead to severe emotional, physiological and psychological reactions (1). It has been asserted that there might be many possible underpinning mechanisms capable of explaining association between internet addiction in medical students (2). Vast expansion of the internet has allowed many medical students to use the internet for the purpose of communication, social interaction and gaining knowledge. Further more medical colleges in developing and developed countries are beginning to utilize internet more for effective medical education(3). Internet addiction is becoming more prevalent among medical students and they are among the highest risk groups(4,5,6). It also has been associated with aggression, loneliness, dating anxiety, depression, mobile and phone dependence(8,9,10,11,14,15). Furthermore, male medical students were more likely to be internet addicted than females(12,16). Some Studies determined that mobile phone dependency is associated with unhealthy lifestyle and extrovertor neurotic personality traits(17) which may develop a question that it may also associated with internet addiction. A study found prevalence of internet addiction among medical students in Pakistan to be 58.87% (mild:51.42%, moderate:7.45%)(18). Keeping in view the increasing trends of internet use and their psychological effects on users in different educational institutions, we aim to find out prevalence of internet addiction in students of Gujranwala Medical College Gujranwala, and its association with different years of MBBS and personality type.

**METHODOLOGY:**

A crosssectional study was conducted at the Gujranwala Medical College, Gujranwala, Pakistan. The duration of study was 6 months (January2015toJune2015). By using the WHO

sample size calculator with a population prevalence of 58% at 10% precision sample size of (N=120)was calculated simple random sampling by using random number tables was used for data sample selection. The questionnaire consisted of two parts. The first part had demographic profile of students while the second part was comprised of

Internet Addiction Test(IAT) developed by Dr.Kimberly Young. It consists of 20 items which measure different levels of internet addiction. Higher scores identified a greater level of addiction. According to Young's criteria, respondents who gain above 40 scores were categorized as addict.The validity and reliability of Young's internet addiction scale was tested in many studies(19). Data analysis was done by using SPSS version 21 and frequency tables were constructed for quantitative variables and crosstabulation was done to find out the association between internet addiction with different years of medical education and personality type at a P-value of 0.05.

**RESULTS:**

Out of total 120 students that participated in the survey 52(43.3%) were male and 68(56.7%) were females. Hostilities were 64(53.3%) while the 56 (46.7%)were day scholars. Twenty six (21.7%) spent>5hrs, 45(37.5%)spent 15 hrs while 49(40.8%) spent<1 hr on internet use. Frequency(%) of demographic variables and internet addiction were shownin(Table-1). The results determine prevalence of internet addiction among medical students to be 41.7%.Our study found no association between internet addiction and each year of medical education and personality type. Among each year of medical students 2nd and3rd year had more prevalence of internet addiction as compared to others(Table2).Internet addiction was more prevalent among student with typeB personality type compared to typeA (Table-3).

Table-1: Frequency (%) of demographics and internet addiction, Gujranwala medical college, 2016

	Non Addicts %( n)	Addicts%(n)
Gender		
Male	27(38.6%)	25(50.0%)
Female	43(61.4%)	25(50.0%)
Age		
15-19Years	2(2.9%)	6(12.0%)
20-24Years	66(94.3%)	44(88.0%)
>25Years	2(2.9%)	0(0.0%)
MaritalStatus		
Married	2(2.9%)	1(2.0%)
Unmarried	68(97.1%)	49(98.0%)
PlaceofLivingofStudents		
Hostel	41(58.6%)	23(46.0%)
Dayscholar	29(41.4%)	27(54.0%)
Dailytimespentontheinternet		
<1hour	9(12.9%)	17(34.0%)
1-5hours	24(34.3%)	21(42.0%)
>5hours	37(52.9%)	12(24.0%)
AgewhenInternetwasfirstused		
<12Years	16(22.9%)	20(40.0%)
>12Years	54(77.1%)	30(60.0%)
Primaryreasonforinternetuse		
Research/Academic	14(20.0%)	5(10.0%)
Social	19(27.1%)	21(42.0%)
Entertainment	26(37.1%)	20(40.0%)
Other	11(15.7%)	4(8.0%)

Table-2: Correlation between each year and internet addiction, Gujranwala medical college,2016

	Non Addicts %( n)	Addicts Addicts %(n)	Chi square	P-value
Yearofstudy				.110
1styear	14(20.0%)	10(20.0%)	7.543	
2ndyear	11(15.7%)	13(26.0%)		
3rdyear	11(15.7%)	13(26.0%)		
4thyear	15(21.4%)	9(18.0%)		
5thyear	19(27.1%)	5(10.0%)		

Table-3: Correlation between Personality type and internet addiction, Gujranwala medical college,2016

	Non Addicts %( n)	Addicts Addicts %(n)	Chisquare	P-value
Typeofpersonality				
A	24(34.3%)	18(36.0%)	.038	.846
B	46(65.7%)	32(64.0%)		

**DISCUSSION:**

The internet is a very useful companion in modern world, however if not used properly, prolonged use can result in addiction. As this is vigorously starting

to grow in Pakistan not a lot of research has been done on this topic. The aim of this research was to study the extent of internet addiction in medical students. Our study found that internet addiction is

equally prevalent among both male and females(50.0%) while researches " Takeshi Sato"(16) on medical students found that internet addiction is more prevalent in males. According to studies, students living in hostels are more addicted to internet which may be due to un supervised access to internet(13), our study depicts more addiction in day scholars (54.0%). In our study the daily time spent on internet ranges 1-5 hours daily by (42%)students, while in similar researches the time spent on internet was reported to be positively associated with internet addiction(20,21). Social use and entertainment were the main purpose of internet use among the students which may be due to growing trends in use of Social media applications, similar findings were reported by Mehmet sahin in his research(7). Majority of the addicts had a typeB personality(64%) which is favoured by the research "Relationships of loneliness and mobile phone dependence with internet addiction in Japanese medical students "in which 60% of addicts had a typeB personality(13). This is thought to occur due to difference in lifestyle and priorities among the two personality types with typeB being less competitive than typeA. In our research 41.7% of students were categorized as internet addicts which is far more than there search by halley and Mark with 13%(2) students being internet addicts and in another research with 15%(12). The above findings highlight the importance of growing internet addiction among medical students. Due to the limitations of our study the results can not be generalized but the concern regarding growing internet addiction remains which warrants need for multi institution population based studies to be conducted to confirm growing internet addiction among medical students so that appropriate actions can be taken to over come this addiction.

### CONCLUSION:

The Conclusion of this study is that the Internet is a growing and vast field. Apart from its beneficial effects it has some draw backs too, which we tried to explore. In our study moderate internet addiction was found among medical students. Internet usage was more prevalent among second and third year students of medical education. In personality traits students with personality type b were more frequent users of internet, although the association was insignificant among each year and with personality type. Despite the lack of association Internet Addiction continues to influence students at an alarming rate. This can be primarily prevented by creating awareness among students through lectures, seminars, group discussions and counseling. New preventive interventions focusing on evaluating individual risk factors and ensuring timely intervention need to be

evaluated and implemented.

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