Effect Of Internet Addiction On Academic Performance And Mental Health Of Medical Students

Ijaz Ali, Ommia Kalsoom, Syed Asif Jahanzeb Kazmi, Tahir Ahmad Munir, Zanib Qayyum, Naheed Akhter, Athar Ahmad Jan

ABSTRACT:

Objective: Objective of this study was to determine internet addiction and its impact on mental health and academic performance in medical students.

Methodology: One hundred medical students (male: 50, female: 50) aged 18–21 years were selected by convenience sampling in this cross-sectional study in Mahi-ud-din Islamic Medical college Mirpur AJK. A questionnaire of Young's internet addiction test was used to identify the prevalence of Internet addiction, the purposes of Internet use, and their priority levels. Frequencies and level of mental health was measured using Mental health Battery by Singh and Gupta. Chi square test was applied and p value <0.05 was considered significant.

Results: Out of 100 students, 46 (male: 28, female: 18) were found to be slightly addicted, 53 students were average online users and only 01 male was severely addicted. There was no significant difference between male and female students in addiction level. However, males were more addicted than females. The major use of Internet was to communicate with friends and family and to watch songs and movies. 51 students used the Internet to assess information for their educational and learning activities. Some students with overuse of the Internet lead to insufficient sleep and affected their concentration levels in the class.

Conclusion: Medical students experiencing problems due to Internet overuse and experiencing poor academic progress and lack of concentration while studying. The main use of the Internet was to communicate with friends and family and for entertainment.

Key Words: addiction, Internet, medical students, entertainment.

INTRODUCTION:

Internet, a piece of technology and revolutionary invention, can be accessed from smart phones, tablets, laptops, and desktop computers anywhere and on all sorts of different mediums. According to International Telecommunication Union about 3.2 billion people (50% of the world population) was on line in 2015, which raised to >51% by 2017; out of which 81% of the internet was used by developed countries and rest by the developing countries[1]. No doubt, if used properly, it is a very good source for information, communication, entertainment, commercials, education assistance, economics, culture and for scientific knowledge[2]. Over the last few years the use of this electronic informative source is on increase by medical student due to its cost-effectiveness and the delivery of information from any source in no time[3,4]. Sstudents and teenagers are considered to be the main population becoming Internet addict compared to other population groups[5]. The students of internet addiction show academic problems, depression, anxiety, change in lifestyle, aggression, sleeping and physical disorders, phobias and a change in attitude to their emotions[6,7]. Its continues use even results in serious consequences on lifestyle change, ignoring health and main social activities[8,9].

Mental health is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is also able to make contribution to his/her community"[10,11]. The signs of poor mental health include poor concentration, easy distraction, difficulty to make decisions, loss of interest in day-to-day activities, low mood, tiredness and lack of energy, irritability and short temper and difficult to control emotions[12].

Ijaz Ali
Assistant Professor, Department of Community Medicine,
Mohi-uddin Islamic Medical College, Mirpur, Azad Kashmir

Ommia Kalsoom
Assistant Professor, Department of Physiology,
Women Medical and Dental College, Abottabad.

Syed Asif Jahanzeb Kazmi
Associate Professor, Department of Pharmacology,
Combined Military Hospital (CMH) Institute of Medical
Sciences, Bahawalpur.
Email: drsajk@yahoo.com

Tahir Ahmad Munir
Professor, Department of Physiology,
Mohi-ud-din Islamic Medical College, Mirpur, Azad Kashmir.

Zanib Qayyum
Student 4th year MBBS,
Mohi-ud-din Islamic Medical College, Mirpur, Azad Kashmir.

Naheed Akhter
Assistant Professor, Department of Medicine,
Combined Military Hospital (CMH) Institute of Medical
Sciences, Bahawalpur.

Athar Ahmad Jan
Medical Student 4th year MBBS,
Chandge Medical University China

Objective of this study was to see the frequency of internet use among medical students and its effect on academic performance and mental health.

METHODOLOGY:

This cross-sectional study was conducted on 100 undergraduate medical students (male: 50, female: 50) from first year MBBS class of Mohi-ud-Din Islamic Medical College Mirpur AJK. The students were selected by convenience sampling and any student with previous psychological illness and other systemic illness were excluded from the study. The study was approved by the ethical committee of the institution and all the participants signed the informed written consent Performa.

A standard Young's Internet Addiction Test[13] 20 items with responses on a 5 point Likert scale was distributed among the students to measures mild, moderate and severe levels of Internet addiction. The student response for each questionnaire ranged from 0 to 5: 5 = always, 4 = often, 3 = frequently, 2 = occasionally, 1= rarely, and 0 = does not apply. The IAT score was calculated by adding the scores obtained for all 20 items, (score 20–49 points: Average online user and surf the web for long at times, but have control over usage, 50–79 points: representing frequent Internet use and need consideration due to full impact on life, 80–100 points: associated with significant Internet usage and need to address the problems (students showing poor academic performance) caused by Internet usage.

A 2nd self-designed questionnaire was distributed among the students to identify the purposes of Internet use, and their priority level for different purposes. The Internet priority level was marked from "no, least, rarely, average, always". The items included to give various reasons for Internet use: Communicating with friends and families, Education and learning activities, Downloading film and music, Reading news, Learning computer applications, Watching moves and songs online, Playing online games Internet shopping, Writing weblogs, Uploading /downloading exploiting videos and images, Scientific search, Email checking, making friends and Solicitation (the act of asking for or trying to obtain something from someone). The general questions regarding mode of Internet (mobile, laptop, or desktop), any other purpose of Internet use was also asked. Additionally, monthly cost of Internet use and the impact of Internet use on their academic progress and daily activities was also assessed.

Frequencies and level of mental health of the students was measured using Mental health Battery by Singh and Gupta[14]. The Domains of Mental Health consist of Emotional Stability, Self-Concept, Autonomy, Security-Insecurity, Adjustment and Mental Capacity. Each domain consisted of at least 10 questionnaire.

After explaining the purpose of this study, questionnaires were distributed to all students during a lecture slot and were collected after the students filled them. The students were asked not to write their names in the questionnaire and chose more than one option of the questions.

The data were processed and analyzed using SPSS version 16. For descriptive statistics the frequency distribution was used.

RESULTS:

A total of 100 students were inducted in the study. The average age was 19.71±0.90. Table 1 shows internet addiction levels among the medical students. Out of 100 students, 46 students were found to be facing average problems and were found to be slightly addicted to internet use. The total percentage among male were more as compared to female students. When Internet use and its addiction level was compared between male and female students was seen between male and female medical students. In our study about 32 (32%) females as compared to 21 (21%) male students were moderate user of internet and faced frequent problems, while high addiction level with significant problem due to internet was only seen in one male student. Twenty six (26%) of the student showed that they always (scale 5) fear that life without the Internet would be boring, empty, and joyless, while 38% were often (scale 4) found addict for saying "just a few more minutes" when online. All the student agreed that internet do affect their life. On the other hand 26% agreed that their performance suffer due to internet frequently (scale 3), 28% occasionally (scale 2) use internet while going out with others and 66% rarely (scale 1) make frequent relation with online users. About 46% of the students were facing mild problems due to internet, 53% facing frequent problem and only one (01%) student was facing severe problem due to internet use and showed depression, angry, sleep deprivation, decreased ability to concentrate at work and education especially by those facing severe and frequent internet problems.

Table 2 shows purpose of internet regarding its priority. The purpose of Internet use vary among the students. The majority of students showed priority for use of some internet aspects such as communicating with friends and family members (71%), watching movies and songs on line (62%), education and learning activities (54%), and downloading films and music (53%). Other major priorities include uploading /downloading exploiting videos and images (32%), learning computer applications (30%), making new friends (30%) and scientific search (30%). None of the students declared internet to be of any significance, however, solicitation (68%), writing blogs (64%) and internet shopping (43%), playing online games (42%) were among their least prioritized. Similarly, checking emails, making new friends, uploading/downloading exploiting images and videos that harm/abuse others, reading news and scientific search were also the last priority among some students. About 15% of the students mentioned that they had lack of concentration

in their classes with poor academic progress due to overuse of the Internet. Most of the students (62%) were using internet at evening and night time. About 51 (51%) students spent about 500 Rs per month on internet, about 39 (39%) spent less than 500 Rs.

Table 3 shows distribution of mental health items according to the mental health battery by Singh and Gupta. The result showed that out of 100 students only 06 students (06%) scored more than 90 with excellent mental health, while 49 students (49%) scored between 70 to 90 and fall in good mental health category, whereas 31 students (31%) scored between 50 to 60 fall in average mental health. Only 10

student (10%) were in poor scoring between 30 to 49 and 04 students (04%) fall in very poor mental health category scoring less than 29. The female and male showed an equal percentage (03%) for excellent mental health while female have better percentage for good mental health while male were slightly higher in very poor mental health compared to females.

DISCUSSION:

Our study was conducted on 100 medical students to assess Internet use, Internet addiction levels. Our results showed that 46 students were slightly (50–79 score) addicted with a male students predominance. Our results are in agreement

Level of Addiction	Range score	Male	Female	Total
Mild user Facing average problems	20 – 49	28	18	46
Moderate internet user Facing frequents problems	50 – 79	21	32	53
Internet addict Facing significant problems	80 – 100	01	0	01

Table 1. Internet addiction test among medical students

Items	Major priority	Average priority	No priority
Communicating with friends and families	71	20	09
Education and learning activities	54	29	17
Reading news	25	43	32
Learning computer applications	30	34	36
Watching moves and songs online	62	25	13
Playing online games	29	29	42
Internet shopping	18	39	43
Writing weblogs	12	24	64
Uploading /downloading exploiting videos and images	32	30	38
Scientific search	30	44	26
Email checking	26	38	36
Chatting with new people	30	35	35
Solicitation	13	19	68

Table 2. Purpose of internet use regarding its priority

	Excellent 90 and above	Good Between 70 – 90	Average Between 50 – 69	Poor Between 30-49	Very Poor Below 29
Male	03 (3%)	20 (20%)	19 (19%)	05 (05%)	03
Female	03 (3%)	29 (29%)	12 (12%)	05 (05%)	01

Table 3. Frequency distribution of items of Mental Health Scale

with a number of studies who showed that men are more susceptible than girls[15-17]. The higher incidence of IA in our study is related to more social freedom in males, more friends in cyberspace and more membership in chat social network. These results are not consistent with Rogers et al[18] who reported excessive use of the Internet among female to update information, access knowledge, and contact with friends and family, spend leisure time, and online shopping, while a study done by Vyjayanthi et al[19] reported equal amount of Internet usage among both sex groups.

In our study 46 students were mild internet user facing average problems due to internet use, 53 student were using internet frequently and one student was found to be internet addict facing academic performance. Our results are in consistent with a number of studies[20, 21] who showed that the Internet addiction has negative affect on academic performance and is associated with poor mental health due to Internet overuse for purposes other than studies, however, there are studies who reported that Internet addiction does not affect students' academic performance or Internet addiction[22].

Mental health, is a state of well-being in which the person realizes own potential, the abilities which he or she can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to the community. The IA leeds the person towards power mental health and decreases the student academic performance[21, 23].

Our results showed majority of the student prioritized Internet use for communicating with their friends and family members, watching movies and songs on line and for learning activities to update their knowledge. These results are consistent with a similar study[24] conducted among adults from Taiwan and students of Guilan[25]. While in the study done by Ansari et al[26], there were no statistically significant relationships. The stress arisen in the students as a result of far from their home and family members, fill their loneliness and compensation for mental support feelings of loneliness they may indulge in and spending more time on the internet[27] showing that a lack of psychological support cause students to overuse the internet. Our results showed least internet usage for solicitation, writing weblogs, internet shopping and playing online games.

CONCLUSION:

In our study we found major use of internet was for communication with their family and friends, entertainment and for academic purposes. The problem experienced by the medical students due to their Internet use came out to be lack of proper sleep, poor mental concentration towards their studies and poor academic performance.

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