

PREVALENCE OF INTERNET ADDICTION AMONG STUDENTS OF PEOPLE'S DENTAL ACADEMY, BHOPAL - A CROSS SECTIONAL QUESTIONARRE BASED STUDY

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ABSTRACT: Introduction: The internet, one of the important scientific developments in this field, provides a wealth of information in relation to diseases, therapeutic procedures and pharmaceutical products. It has a lower cost as compared to paper based dissemination of information and also has an added advantage of being available worldwide instantly on demand. Therefore, there is a need not only to equip Dental fraternity with adequate skills for use of internet but also to make internet facility available in institutions providing Dental education and healthcare. **Aim:** The aim of this study is to find out the use of computers and internet and the purpose of using the internet among undergraduate and postgraduate dental students and faculty members compare male to female ratio of using internet. **Materials and Methods:** Internet addiction questionnaire consisting of 20 questions were distributed among the Dental Undergraduate and postgraduate students and faculty members. No specific sampling technique was employed for selecting the study subjects. Data was analyzed using EpiInfo. Chi-square test was used to find out statistical significance of differences in proportions. A p-value of <0.05 was considered to be significant. **Results:** As per the results the male dental students uses internet more than female dental students doing extracurricular activities besides educational work. The productivity and work performance of male dental students suffer more than female students due to prolonged internet use. Male dental students also hide their online time and become more defensive and secretive when someone bothers them online. So almost 50 % are at the verge of internet addiction and they have to be monitored properly.

KEYWORDS: Internet. Addiction. Dental students. Education.

INTRODUCTION

The Internet is an exciting new medium that is evolving into an essential part in everyone's life all over the world. It has opened a new domain in social interactivity with the promise of increased efficiency and worldwide understanding. Though devised primarily to facilitate research, information seeking, interpersonal communication, business transactions. With the increasing importance of internet and online usage increasing dramatically, pathological internet use (Internet Addiction) is becoming more common in society¹.

The term Internet Addiction is coined by Dr.Evan Goldberg for pathological compulsive internet usage. The proper detection and diagnosis of internet addiction is difficult as there is no accepted criteria for internet addiction in DSM IV.Young defined pathological use of internet as an impulsive control disorder which does not involve an intoxicant².

Internet addiction is been defined as an psychological dependence on the internet characterized by an increased investment of resources on the internet related activities.

unpleasant activities when offline, increasing tolerance to the effects of being online, denial of problematic behavior. Students being the most vulnerable in developing dependency on the internet. It has become compulsory in some courses which tends the students to become more vulnerable to internet pathological use. However increasing reports of being psychologically addictive of internet usage has led to increased concern among researchers and psychologists. Young found that 58% of the students have been reported decline in study habits, significant drop in grades, missed classes, Researches has revealed that addictive usage of internet is associated with the significant social, psychological, occupational impairment³.

Kimberly Young (1998b) a well know researcher in this field, describes Internet addiction as follows: "Internet addiction is defined as any online-related, compulsive behaviour which interferes with normal living and causes severe stress on family, friends, loved ones, and one's work environment. Internet addiction has been called Internet dependency and Internet compulsivity. By any

name, it is a compulsive behaviour that completely dominates the addict's life⁴."

What is Internet addiction or computer addiction?

Internet Addiction, otherwise known as computer addiction, online addiction, or Internet addiction disorder (IAD), covers a variety of impulse-control problems, including:^{5,6}

- **Cybersex Addiction** – compulsive use of Internet pornography, adult chat rooms, or adult fantasy role-play sites impacting negatively on real-life intimate relationships.
- **Cyber-Relationship Addiction** – addiction to social networking, chat rooms, texting, and messaging to the point where virtual, online friends become more important than real-life relationships with family and friends.
- **Net Compulsions** – such as compulsive online gaming, gambling, stock trading, or compulsive use of online auction sites such as eBay, often resulting in financial and job-related problems.
- **Information Overload** – compulsive web surfing or database searching, leading to lower work productivity and less social interaction with family and friends.
- **Computer Addiction** – obsessive playing of off-line computer games, such as Solitaire or Minesweeper, or obsessive computer programming⁵.

Risk factors for Internet addiction and computer addiction

- **You suffer from anxiety.** You may use the Internet to distract yourself from your worries and fears. An anxiety disorder like obsessive-compulsive disorder may also contribute to excessive email checking and compulsive Internet use.⁶
- **You are depressed.** The Internet can be an escape from feelings of depression, but too much time online can make things worse. Internet addiction further contributes to stress, isolation and loneliness.
- **You have any other addictions.** Many Internet addicts suffer from other addictions, such as drugs, alcohol, gambling, and sex.
- **You lack social support.** Internet addicts often use social networking sites, instant messaging, or online gaming as a safe way of establishing new relationships and more confidently relating to others.
- **You're an unhappy teenager.** You might be wondering where you fit in and the Internet could feel more comfortable than real-life friends.
- **You are less mobile or socially active than you once were.** For example, you may be coping with a new disability that limits your ability to drive. Or you may be parenting very young children, which can

make it hard to leave the house or connect with old friends.

- **You are stressed.** While some people use the Internet to relieve stress, it can have a counterproductive effect. The longer you spend online, the higher your stress levels will be.⁶

Signs and symptoms of Internet addiction or computer addiction

- Losing track of time online.
- Having trouble completing tasks at work or home..
- Isolation from family and friends
- Feeling guilty or defensive about your Internet use.
- Feeling a sense of euphoria while involved in Internet activities.⁷

Physical symptoms of Internet addiction

Internet or computer addiction can also cause physical discomfort such as:

- Carpal Tunnel Syndrome (pain and numbness in hands and wrists)
- Dry eyes or strained vision
- Back aches and neck aches; severe headaches
- Sleep disturbances
- Pronounced weight gain or weight loss.⁸

Aim: The aim of this study is to find out the use of computers and internet and the purpose of using the internet among undergraduate and postgraduate dental students and faculty members compare male to female ratio of using internet.

Materials and methods- The present study was designed in order to find out the extent of Pathological usage of internet among the undergraduate and postgraduate dental students and dental faculty members.A semi structured questionnaire of 20 questions based on Kimberley young researches .It was developed to seek information regarding length of time spent using internet, hours spent per day, application used, delay of work to spend time online, loss of sleep due to late night logins, feeling to control online time and irritation depression when unable to use internet. No specific sampling technique was employed for selecting the study subjects. Data was analyzed using EpiInfo. Chi-square test was used to find out statistical significance of differences in proportions. A p-value of <0.05 was considered to be significant.(**Table-I**)

Results:

Male dental students stay online longer (30.9%) than the female dental students (27.7%)and the p value coming

Table .1. Evaluation of responses for male and female dental students

	Male	Female	Chi value	P value	Significance
Question 1(Stay online longer)	Often (30.9%)	Rarely (27.7%)	12.012	0.017	Significant
Question 2(Neglect household chores)	Occasionally (33.6%)	Rarely (37.9%)	11.318	0.045	Significant
Question 3(excitement of intimacy with partner)	Frequently (32.2%)	Rarely (53.1%)	24.694	.000	Highly significant
Question 4(form new relationships online)	Occasionally(32.9%)	Rarely (55.9%)	30.602	0.000	Highly significant
Question 5(others complain about time spend online)	Occasionally (30.3%)	Rarely(42.6%)	9.158	.057	Not Significant
Question 6(gradesand school work suffer)	Occasionaly (29.1%)	Rarely (46.1%)	15.193	0.004	Significant
tQuestion 7(check your e mail often)	Frequently(32.2%)	Rarely (41.0%)	19.900	0.001	Highly Significant
Question 8(Job performance suffer)	Occasionally (32.2%)	Rarely (50.4%)	21.384	0.000	Highly Significant
Question 9(become defensive or secretive online)	Occasionally and frequently (29.6%)	Rarely (43%)	26.920	.000	Highly Significant
Question 10(block out disturbing thoughts with soothing thoughts of internet)	Rarely, occasionallyand frequently(25.7%)	Rarely(35.2%)	6.337	.175	Significant
Ques 11(anticipating to go online again)	Occasionally(43.4%)	Rarely(39.8%)	12.597	.013	Significant

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	Male	Female	Chi value	P value	Significance
Ques12(life without internet will be boring empty joyless)	Occasionally (39.5%)	Occasionally (27.3%)	10.876	0.028	Significant
Question 13(snap,yell,annoyed when someone bothers on internet)	Occasionally (30.5%)	Rarely (43.8%)	21.598	0.000	Highly significant
Question 14(lose sleep due to late night logins)	Rarely (27.6%)	Rarely(49.2%)	19.365	0.001	Highly Significant
Question 15(preoccupied with internet)	Rarely (29.6%)	Rarely (46.1%)	12.916	0.012	Significant
Question 16(find ourself saying few more minutes online)	Occasionally (33.6%)	Rarely (34.8%)	10.210	0.037	Significant
Question 17(try to cut online time but fail)	Rarely (27%)	Rarely (42.2%)	10.630	0.031	Significant
Question 18(try to hide how long you been online)	Occasionally (35.5%)	Rarely (46.1%)	17.612	0.001	Highly significant
Question 19(choose to spend more time online over going out with others)	Rarely and occasionally (27%)	Rarely (57.4%)	38.127	0.000	Highly significant
Question 20(feel depressed,moody,nervous when go offline which goes away once you are back online)	Rarely (28.3%)	Rarely (50.0%)	23.965	0.000	Highly significant

out to be statically significant. Male dental students neglect their household chores occasionally (33.6%) than the female dental students who do it rarely (37.9%).P value coming to be statically significant.

Male dental students frequently use internet (32.2%) as an excitement of intimacy with their partners than the female students who rarely(53.1%) does this.P value coming to be highly significant. Male dental students occasionally (32.9%) form new relationships online than the females students who rarely forms (55.9%).P value coming to highly significant.

Others complain occasionally (32.9%) to male dental students about the time they spend online than the female dental students in which rarely (42.6%) complain about their online time.P value coming to be statically not significant. Occasionally (29.1%) male dental students grades suffer because of internet than the female students whos work rarely suffers (46.1%).P value coming to be significant. Male dental students frequently check their e mails (32.2%) than female dental students who rarely check e mails (41%).P value coming to be highly significant.

Job performance or productivity of male dental students suffers occasionally (32.2%) than the female student's whos suffer rarely (50.4%).P value coming to be statically highly significant. Male dental students frequently become defensive or secretive when online (29.6%) than the female dental students who do it rarely 43.3%.P value coming to be highly significant. Males use internet frequently and occasionally (25.7%) to block out disturbing thoughts than the female students who rarely does (35.2%).P value coming to statically significant.

Male dental students go online again occasionally (43.4%) than the female students who rarely goes (39.8%).P value is statically significant. Both male and female dental students occasionally say 39.5%and27.3% that the life without the internet will be boring, empty and joyless. P value is 0.028 which is statically significant.

Male dental students occasionally (30.5%) yell, snap, act annoyed when someone bothers online than the female students who rarely does (43.8%).P value is highly statically significant. Both the male and female dental students rarely lose their sleep (27.6%)and(49.2%)respectively. P value coming to statically highly significant. Both male and female rarely feel preoccupied with the internet when offline or fantasize about being online (29.6%)and(49.1%).P value coming to statically significant.

Males occasionally say just few more minutes online(33.6%) than female students who rarely say this(34.8%),P value coming to be statically significant.

Both the male and female dental students rarely (27%) and 42.2% respectively try to cut their online time but fail to do it. P value coming to be statically significant.

Male dental students occasionally hide their online time(35.5%) than the female dental students who rarely does it (46.1%).P value coming to be statically highly significant. Male dental students occasionally prefer (27%) to be more online over going out with others than the female dental students who rarely does this (57.4%).P value coming to be highly statically significant.

Both the male and female dental students rarely(28.3%)and(50%) feel depressed, moody, nervous when offline which goes away when back online. P value coming to be highly statically significant

Discusssion

In the present study the results shown that male dental students stay online longer than the female dental students due to which their job productivity and performance suffer. Male dental students also neglect their household chores more than the female students to be online. Male dental students also use internet in forming new relationships online and prefer to be intimate with their partners more often than the female dental students.

Due to more online time grades of male dental students suffer due to involment in extracurricular activities rather than the educational work.Male students often delay work due to spending more time being online. It is shown by the survey this time that majority of dental students have the experience of Internet surfing, the rate of Internet surfing for male is higher than that for female.

John Suler deemed that people's behavior in cyberspace was to satisfy the need of sex drive, the need to alter state of consciousness, the need for achievement and mastery, the need to belong, the need for relationships, the need for self-actualization and the transcendence of self. These needs can not all be satisfied in real life, but the Internet can compensate people in various ways (Suler, 1999)⁸. According to Maslow's Need-hierarchy Theory, people have five basic needs, among which physiological and safety needs are the low-level ones, while need for affiliation, respect and self-actualization are the high-level ones (1943)⁹. It is found through our study that Internet-surfing dental students, no matter at present or in the future, are not too keen on survival need (such as doing business, shopping, etc.) and physiological need (such as Internet sexual behavior, playing game, browsing pornographic web pages, etc.), showing that high-level needs such as need for knowledge and friendship acquisition (receiving and sending e-mail, chatting, browsing news or literature works) are the mainstream need for Internet-surfing dental

students. The result corresponds with the viewpoint of Rotunda et al (2003)¹⁰ and Lal et al (2006)¹¹. The result also corresponds with the study done in China by the Xiaolei Liu Department of Medical Education, Faculty of Training Administration¹² and Kalwan Nalwa and Archana Preet Anand¹³ on internet addiction.

The online behaviors shown that students resist are mainly low-level needs such as online sexual behavior, falling in love, doing business, browsing pornographic web pages, shopping, etc., indicating that dental students possess remarkable ability in differentiating, analyzing and choosing Internet information; therefore, there is no need to worry too much that those students may be aggrieved by unhealthy information on the Internet. Among the Internet behaviors which are going to be conducted, survival needs such as shopping, doing business, etc. rank top five in terms of occurrence rate, prompting that dental students are more likely to conduct Internet behaviors for economic reasons or have a strong desire to attempt emerging things on the Internet, therefore guidance needs to be given properly.¹⁴

In addition, activities such as chatting online and browsing entertainment news are still the ones which university students pay the most attention to in Internet application.¹⁵ Despite that learning (looking up information and browsing news) through the Internet remains a high proportion, an unbalance still exists in Internet use of the dental students. They pursue much more for making friends and entertainment on the Internet with possible reason that their extracurricular activities are monotonous and they overindulge themselves in the virtual world of Internet.¹⁶ A media perception survey of over 350 college students and recent graduates indicates that 43% spent at least ten hours per week on the Internet with 24% reporting that they were active participants in online bulletin boards, groups or chat rooms (Lowe, 2006).¹⁷

The advantage of the internet makes it an excellent research tool, however students are captivated by the opportunities created by the internet surfing irrelevant web sites, engage in chat room gossip at the cost of healthy productive activities. Increase in academic impairment, poor integration in extracurricular activities, mental and psychological problems due to excessive internet usage requires strategies to be developed to control pathological internet usage.¹⁹

Excessive use of Internet may lead to problems in time management, various physical and psychological disorders, and conflicts in daily activities or in relationships with friends and family members. It also creates problems in spending time on studying and sleeping, moreover, it can result in mood change in users, so that they are likely to experience various mental disorders. The mass of information in the World Wide Web creates a kind of

obsessive behavior regarding excessive searches within the networks in databases.²⁰

Obsessive desire toward a particular kind of information in the fields of interest, and decrease in the importance of work tasks are usually associated with this behavior. While these people know their work is socially desirable, they cannot stop because it will lead to less self-esteem, and more symptoms. The excessive use of the Internet can cause many problems, including marital, professional, family and also social communication problems. These issues can create a great deal of stress, anxiety and feelings of hostility in people.²¹

Studies have shown that people who spend long hours on the internet will experience failure in their academic, career, and family performance, and will be socially isolated. They also incur a lot of financial pressures, and the pressures that have an important role in accelerating their anxiety, aggression, and mental and emotional fatigue.²¹

CONCLUSION

The benefits of the Internet should be properly reaped for the benefit of the students otherwise may lead to gratuitous consequences.

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