Internet addiction in a group of medical students: a cross sectional study

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ABSTRACT

The use of Internet for education, recreation and communication is increasing day by day. Nevertheless, the possibility of exploitation and addiction leading to impairment in academic performance and emotional balance cannot be denied, especially among young population. The study was aimed to measure the degree of Internet addiction among a group of medical students. Internet addiction test questionnaire developed by Young was used to assess mild, moderate and severe addiction. Amongst the study population (n=130, age 19-23 years), 40% had mild addiction. Moderate and severe addiction was found in 41.53% and 3.07% of the participants respectively. The study revealed that 24% often and 19.2% always found themselves using Internet longer than they had planned or thought. Late night Internet surfing leading to sleep deprivation was found in 31.53% of the participants. Almost one fourth of them (25.38%) occasionally tried to cut down the time they spent on the Internet but failed and 31.53% sometimes experienced restlessness when deprived of Internet access. Results reflected that a significant number of participants suffered from mild to moderate addiction. The role of counseling and education should be emphasized for prevention of Internet addiction.

Keywords: Internet addiction, medical students.

INTRODUCTION

With no barriers to access the Internet, many people are readily exposed to it from a very young age. A click on the computer is enough to open doors into the infinite world of the Internet. Be it social networking or online games, Internet attracts all ages and has undoubtedly been successful to preoccupy the minds of almost everyone.

Avoiding Internet is nearly impossible and in many cases might preclude educational advancement or office based employment.[1] With the increased use of Internet many problems have emerged. Internet addiction is conceptualized by individual's inability to control his or her use of the internet which eventually causes marked distress or functional impairment[2] and can be classified as an impulse control disorder,[3] that merits inclusion in DSM-V. It is a compulsive impulsive spectrum disorder that involves online and / or offline computer usage[4,5] and consists of three subtypes, excessive gaming, sexual preoccupation and email/text messaging.[6] Nevertheless, all of the variants share four components--excessive use often associated with a loss of sense of time or neglect of basic drives; withdrawal including feelings of anger, tension and / or depression when the computer is inaccessible; tolerance, including the need for better computer equipment, more software or more hours of use and negative repercussion including arguments, lying, poor achievements, social isolation and fatigue.[7] Internet addiction has also been associated with negative academic consequences such as missed classes, lower grades, and even academic dismissal.[8,9]

Among all ages, adolescents and young adults are seen to be most vulnerable to the effects of Internet. A study reported that 210,000 South Korean children (age 6-19 years) are afflicted and require treatment. The government trained 1043 counselor for the treatment of Internet addiction and enlisted over 190 hospitals and treatment centers.[10] To the best of our knowledge Internet addiction among Nepalese students have not been reported till date. Medical students, like students of other fields easily adopt Internet for their studies, recreation (computer games) and communication (email, Facebook). Nevertheless, the possibility of exploitation and addiction cannot be denied. Present study was aimed to assess the level of Internet addiction among a group of medical students at Nepal Medical College and Teaching Hospital.

SUBJECTS AND METHODS

A cross sectional study was carried out amongst 130 medical students (males- 65 and females-65, age group 19-23 years) between January-April 2012. To minimize the selection bias, random sampling was applied for the selection of the study population. The purpose of the study was explained and they were asked to fill up a 20-item questionnaire. Participants were requested to complete the questionnaire anonymously in order to minimize any potential reporting bias.

Table-1: Internet addiction level amongst the male and female participants.

Gender	Mild addiction (%)	Moderate addiction (%)	Severe addiction (%)
Male (n=65)	38.46	41.53	1.53
Female (n=65)	41.53	41.53	4.61

Table-2: Internet Addiction Test score in mildand moderately addicted students.

Gender	Mild addiction (Mean ±SD)	Moderate addiction (Mean ± SD)	Level of significance (Z test)
Male	24.35±8.99(n=37)	48.55±6.52(n=27)	P<0.001
Female	26.62±9.74(n=35)	49.51±8.34(n=27)	P<0.001

Internet addiction was assessed using the Internet Addiction Test (IAT) score developed by Young that scales mild, moderate and severe addiction. [2]Young defines 20-39 points as mild, 40-69 points as moderate and more than 70 points as severe addiction. Z-test was applied to compare the IAT score between mildly addicted and moderately addicted students.

RESULTS

Among a total of 130 medical students who participated in the study 40% had mild addiction. Moderate and severe addiction was found in 41.53% and 3.07%respectively. Table-1 shows the level of addiction in male and female participants. Internet addiction scores in mildly addicted and moderately addicted students are presented in Table-2.

The present study revealed that 24% often and 19.2% always found themselves using Internet longer than they had planned or thought. Frequent urge to use the Internet was noted in 29% of the participants. Late night Internet surfing leading to sleep deprivation was found in 31.53% of the participants. Almost one fourth of the participants (25.38%) occasionally tried to cut down the time they spent on the Internet but failed and 31.53% sometimes experienced restlessness when they were deprived of Internet access.

DISCUSSION

Internet is a readily accessible means for information retrieval, entertainment and socialization.[11,12] Internet addiction disorder (IAD) is a newly emergent disorder[13-15] that includes substance use disorder, attention deficit hyperactivity disorder, depression, hostility and social anxiety disorder.[16] It is upheld that Internet addiction may constitute an escape mechanism for adolescents to temporarily relieve and/or escape from emotional and behavioral difficulties.[17]Addicted persons are associated with longer reaction time and more response errors in incongruent condition than the control group. People with IAD show impaired executive control ability than the normal group.[18] The effect of Internet use on health is linked to not only the amount of time spent but also the nature of these activities and the objectives followed by the young users.[19]

Results of the study showed female preponderance among the Internet addicts. (3 out of 65 participants) while previous studies carried out among Italian students,[13] Chinese adolescents[20] and Greek adolescents[21] reported male preponderance amongst Internet addicts. This variation might be due to the small number of participants in the present study.

Results of the study showed that a significant number of participants suffered from mild to moderate addiction. We are concerned that this percentage may progress to severe addiction that may eventually impair academic performance and emotional balance. Internet addiction is resistant to treatment, entails significant risk and has high relapse rate. It is also associated with co-morbid disorders less responsive to therapy.[22] Therefore, the role of counseling and education need to be emphasized to put the progression of Internet addiction to a hold.

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