



Factors Responsible for Internet Addiction among Adolescents of Central India

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Abstract

Objective: To study factors responsible for internet addiction among adolescents of central India.

Design: Cross-sectional study

Setting: Six higher secondary schools in Rewa, Madhya Pradesh.

Participants: Initially 551 school students from class 11th and 12th were included in the study out of which 24 were not internet users, and 25 submitted incomplete forms. Thus, a total of 502 students were included in the study finally.

Main Outcome Measure(s): Internet addiction test score (IAT Score) of individual participants was calculated using Young's Internet addiction scale..

Results: Out of 502 students, 32.9% of students were having mild internet addiction, 16.3% moderate and 0.4% severe internet addiction. Significant correlation was observed between level of internet addiction (IAT score) and male gender, medium of education, device used to access internet, purpose of usage and time of internet use. The major single cause of internet addiction observed was social networking.

Conclusions: Easy availability of mobile phones, increasing popularity of social media and uncontrolled internet use during night hours are the major factors leading to internet addiction as observed in our study.

Keywords: Cyber addiction, compulsive internet use, IAT Score, pathological internet use, Social Networking.

Introduction

Rapid expansion and proliferation of the internet has provided better opportunities for communication, information and social interaction. However, the excessive undisciplined use by some individuals has led to the emergence

of the concept of internet addiction.¹⁻³ Internet addiction is a potential problem in adolescents as they appear to be population at risk⁴ due to variability in developing their cognitive control⁵ and boundary setting skills⁶.

The term “addiction” has generally been associated with substance use. However, with internet access becoming widespread, problematic internet use is increasingly being reported. Various types of internet addiction are cyber-sexual addiction, cyber-relationship addiction, net compulsions, information overload, and computer addiction.⁷

Internet addiction is significantly and negatively related to students’ academic performance as cited by Young. The aim of the current research was to find out the major factors influencing internet addiction among adolescent school students of Central India.

Methodology

This cross-sectional study was carried out in six different schools across different streams (mathematics, biology and commerce) in Rewa during the period 1st August 2015 to 31st July 2016 after being approved by the institutional ethics committee. The study was done with students of all the schools where permission was granted. It covered school students aged 14-18 years who were studying in 11th and 12th standards. Of the 551 students, 24 could not be included in the study as they were not Internet users, and 25 submitted forms that were incomplete. Thus, a total of 502 students were finally enrolled in the study. The study participants were explained the purpose of the study and were administered the questionnaire in the classroom.

The semi-structured proforma along with questionnaire contained three parts:

1. Sociodemographic information,
2. Details regarding patterns of internet use, and
3. Young's Internet Addiction Test (IAT).

Semi-structured proforma contained details of demographics, educational qualification, purpose of using the internet (education, entertainment, or social networking), place of access (home, cybercafé, or school), is access to internet facility (on computer, laptop, mobile phone, tablet), the

time of day when the internet is accessed the most (morning, afternoon, evening, or night), and the average duration of use per day.

Young's Internet Addiction Test (IAT). The IAT is the first validated instrument to assess internet addiction. Young's IAT, developed for screening and measuring levels of Internet addiction, has been the most widely used and is well-tested for its psychometric properties.

After all the questions have been answered, numbers for each response are added to obtain a final score. Based on the final score, degree of addiction is categorized into 4 groups. Score 0-30 points: normal, score 31-49 points: Mild internet addiction, score 50-79 points: Moderate internet addiction, Score 80-100 points: severe internet addiction.

Statistical Analysis

Data were tabulated using Microsoft office — Excel sheet and analyzed using the statistical package for social science (SPSS) software (version 16.0). Frequencies and percentages were calculated for all the categorical variables. Chi-square test was used for analysing categorical variables. P-value < 0.05 considered as significant.

Results

A total number of 502 students were included in the study of which 294 (58.57%) were males and 208(41.43%) were females. One third of the students were studying in Hindi medium schools and 2/3rd in English medium schools (Table no 1). It was seen that 70.51% students were using mobile phone for accessing internet. Most of them were using internet at their home followed by cybercafé, school and workplace. Among those who were using internet from cybercafé, 86.4% were males and 13.6% were females (Table No 2). Almost half of the students who participated in the study had some form of internet addiction. Most of them were having mild internet addiction (32.9%), followed by moderate (16.3%) and severe (0.4%).

As expected, male adolescents were found to have higher levels of internet addiction than their female counterparts. Internet addiction was more common among students studying in English medium (54.6%) compared to those studying in Hindi medium. Maximum addiction was among mobile internet users followed by laptop, desktop and tablet. A significant difference was noted with use of mobile internet and level of internet addiction with a 'p' value of 0.0069. The single major cause of internet addiction was social networking, and it was maximum among those who used it for more than one purpose. (Table No 3)

Discussion

It was alarming to note that almost half of the students who participated in the study had some form of internet addiction. Most of the students in our study were having mild internet addiction which was in accordance with the results obtained by Goel D et al⁸, Mashaei N et al⁹ and Sharma A et al¹⁰. Cybercafes are used most often by male students. Similar trend was seen in the study by Thanuskodi, S¹¹.

In the present study male adolescents were found to have higher levels of internet addiction than their female counterparts. Similar results were obtained by many studies in the past (Mazalin & Moore, Chen & Fu, Sato¹², Beutel¹³, and Kennedy, Wellman, and Klement). None of the female students had severe internet addiction. In the present study, mean IAT score was more among males (34.51) than females (27.47) and this difference was statistically significant. This provides support to the findings of utilizing teenage population for the comparison on gender difference on internet addiction.

School environment play a major role in determining internet usage among students. In the present study, we observed internet addiction to be significantly more common amongst students of English medium as compared to those of Hindi medium. This can be attributed to the fact that families opting for English medium schools are

usually of higher socioeconomic status, better literate and have approach to social media and gadgets.

The growing market of mobile phones, easy availability of smart phones with internet access and the increasing use of mobile internet among school students points towards a new and dangerous trend with maximum number of internet addicts using mobile phones in the present study. Similar observations were seen in studies by Raju Srijampana et al¹⁴. and Sharmitha Krishnamurthy et al¹⁵.

School students tend to use internet maximum during the evening hours followed by night. It was seen that internet addiction was more among those who use internet during night. These observations were statistically significant with $X^2=56.43$ and 'p' value = 0.0001. Similar findings were obtained in the study conducted by Goel D et al⁹. It was seen that maximum internet addiction was among those who used internet for more than one purpose. The rising popularity of social media and the addiction to it among school students was also apparent in our study. Sharma P et al. in their study, conducted among adolescent children in Mumbai, had reported a similar result. Early measures should be taken to prevent the increasing trend of addiction among adolescent students.

Research and clinical practice suggest that the concept is Internet addiction is not to be taken lightly as a number of negative consequences of excessive Internet use in adolescents have been identified in literature. For instance, a recent review of the neuroscientific evidence indicates that Internet addiction in adolescence can have a negative impact on identity formation and change the structure of the developing brain. In addition to this, it may negatively affect cognitive functioning, lead to poor academic performance and engagement in risky activities, poor dietary habits, low quality of interpersonal relations, and self-injurious behaviour in adolescents.

There are very limited studies establishing the prevalence of Internet addiction in central India.

Globally, a number of studies have tried to analyze similar risk factors associated with Internet addiction, and the results of this study provide evidence to support the findings of prior research from an Indian context. This study's results imply that Internet addiction is a prevalent public health issue, having multiple risk factors and varied patterns of Internet use, in a place where the Internet is becoming an inclusive component of an individual's personal and social life. The need of the hour is to create awareness among the public, plan public health policies with regard to this behavioural addiction and conduct further research to support the same.

In the age of mobile revolution, internet has become so close to humans than ever before. Even school students have such unlimited and unhindered access to internet these days that many become addicted to the wonder world it takes them into.

Conclusion

For the past one decade, internet usage and subsequent addiction to it has exponentially increased among adolescent school students in India. Male sex, easy availability of mobile phones, increasing popularity of social media and uncontrolled internet use during night hours are the major factors leading to internet addiction as observed in our study. Psychological counselling services should be provided for all students who have higher levels of Internet addiction. Parents should be informed about the ways to control Computer and Internet use at home and different activities should be planned for children to reduce the time spent on the computer and Internet.

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WHAT IS ALREADY KNOWN?

The level of internet addiction is rising exponentially among school students all over world.

WHAT THIS STUDY ADDS?

Easy availability of mobile phones, high speed mobile internet and unsupervised use are the main causes of growing internet addiction among adolescent school children.

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