

Research Article

Pattern of internet addiction among adolescent school students of a North Indian city

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ABSTRACT

Background: In recent years, the internet and mobile technology have become increasingly important and essential to the educational and social lives of adolescents. But in many cases this use is becoming obsessive and at the expense of other aspects of their life. Almost 35% of internet users in India are adolescents and so this study was conducted to assess the prevalence of internet overuse among school going adolescent students.

Methods: It was a cross-sectional survey conducted among 300 students in three private schools in the city of Gwalior, Madhya Pradesh. Young's twenty question internet addiction test questionnaire was used to measure internet addiction.

Results: 61.34% students started using internet after 12yrs of age while 38.66% students said that they started using internet before 12 year of age. 26.33% students spent 4 hour or more online per day. 28.66% students admitted that their school work was often delayed or incomplete due to spending more time on internet. Out of 300 students, 24.00% (72) were in the score range of 50-79 i.e. moderate addiction and 06.33% (19) were in the score range of 80-100 i.e. severe addiction.

Conclusions: Parents and schools need to counsel their adolescent children regarding appropriate use of internet and balancing of time between internet surfing, studies and outdoor physical activities.

Keywords: Internet addiction, Adolescent, School students, Technology

INTRODUCTION

The Internet and mobile technology are increasingly important to the educational and social lives of adolescents, and are becoming a part of their identity. With the advent of broadband and mobile access to the internet giving young people access to the internet any place and at any time, and thus 24/7 entertainment, interaction and communication, there is a real risk that adolescents can become so immersed in their online world that it seems to take over their lives. It is easy to see the young people spending many hours pursuing their

interests, playing games, finding information and communicating with friends and strangers online. However, when this use becomes obsessive and at the expense of other aspects of a young person's life, this use of the internet could be problematic and could even be classified as Internet addiction.

Internet Addiction, Internet Addiction Disorder, Compulsive Internet Use, Computer Addiction, Internet Dependence and Problematic Internet Use - all of these are inter-changeable terms that have been applied to those that spend excessive amounts of time online at the expense of other aspects of their lives.¹

There has been an increasing amount of attention given to this phenomenon, and attempts to quantify the problem have produced some staggering statistics: a survey of 1,300 young adults, conducted by marketing agency Digital Clarity, found that 16% of the 18- to 25-year-olds displayed symptoms of net addiction.²

Another study suggests that as many as 6-10% of the 189 million US Internet users have a dependency on the Internet and there are as many as 1 million German internet addicts.³

Essentially, anyone with access to the Internet can become dependent upon it regardless of gender or age. The Internet and mobile technologies offer a world of attractions to all: it is 24/7 and it is easily accessible, and it offers continuous entertainment and stimulation. It also offers the opportunity for anonymity and can offer an escape from reality, and it can be a place where you can lower your inhibitions and experience an increased sense of intimacy.

However, addiction may not be about the attractiveness of the Internet alone. It is recognized that Internet addiction may also be symptomatic of other problems such as depression, anger and low self-esteem.

Researchers in Taiwan have argued that more than 20 hours per week constitutes Internet addiction. This figure has been echoed in the research conducted in the U.S. and Europe. This is similar to television addiction with the average person watching in the region of 11-13 hours per week and those addicted watching in excess of 21 hours per week. However, time is not the only indicator of problematic Internet use.⁴ However, the fact that time is the only indicator of problematic internet use is still debated.

In last few years, number of internet users, both broadband and mobile users has rapidly increased in India and large numbers of them are adolescents.⁵ Thus the present study was conducted to assess the prevalence of internet overuse among school going adolescent students.

METHODS

The present study was a cross-sectional survey carried out in school going students of both sexes, belonging to three private schools in the city of Gwalior, Madhya Pradesh, North India. The study period was October-December 2012. Ethical consideration was done before starting the study.

Sample size of present study was 300 which were drawn from ninth and tenth std. of three private schools of Gwalior city by using simple random sampling method keeping in mind the inclusion and exclusion criteria.

School going students of both sexes who were above 13 and below 18yrs age and who gave valid consent were included in the study. Only those students were included who gave history of using internet from past 1-year or more. Students who were either not using internet or were using it for less than 1yr and not willing to give valid consent were excluded from study.

The information was collected by using a semi structured performa that contained details of demographic data, gadget used to access internet (Desktop, Laptop, Mobile phone or Tablet), the average duration of usage per day and money spent on internet usage per month. Data were tabulated by using Microsoft office - Excel sheet. The responses obtained were expressed in proportions. The difference in the patterns of internet usage among males and females was analysed by using Chi-square test.

The challenge of measuring internet addiction was achieved by using Young's twenty questions Internet Addiction Test Questionnaire (IAT). The IAT is a 20 item, 6 point Likert scale with scores ranging from 0 to 5 for each item, which measures the severity of self-reported compulsive use of the internet.⁶

RESULTS

Maximum students 61.34% (184) started using internet after 12yrs of age while 38.66% (116) students said that they started using internet before 12 year of age. The median age of starting internet usage was 13years. Maximum students 60.33% (181) were spending less than 2 hours online per day while 13.33% (40) students were spending 2-4 hours online per day and 26.33% (79) students spent more than 4 hours online per day. Maximum students 50.66% (152) were spending Rs100-500 per month while 17.33% (52) were spending less than Rs100 and 32.00% (96) students were spending more than Rs 500 per month for using internet (Table 1).

Out of 116 students who started using internet before 12 yrs age, two students (01.72 %) were showing severe addiction to internet while out of 184 students who started using internet after 12yrs age, 17 (09.24%) were showing severe addiction to internet as per Young's IAT scores ($\chi^2=1.181$ and $p=0.277$). Out of 164 males and 136 females, 08 (04.88%) and 11 (08.88%) respectively were showing severe addiction to internet ($p=0.73$) (Table 2).

Young's Internet Addiction Questionnaire which contains 20 questions was used to measure internet addiction among students. Out of 300 students, 09.33% (28) were in the score range of 0-19 i.e. no addiction; 60.34% (181) were in the score range of 20-49 i.e. mild addiction; 24.00% (72) were in the score range of 50-79 i.e. moderate addiction and 06.33% (19) were in the score range of 80-100 i.e. severe addiction (Table 3).

Table 1: General profile of study participants.

Characteristics	Males (n=164)	Females (n=136)	Total (n=300)
Age of starting using Internet (years)			
Up to 12	40.24% (66)	36.76% (50)	38.66% (116)
Above 12	59.76% (98)	63.24% (86)	61.34% (184)
Time spent on internet per day (hours)			
<2	51.83% (85)	70.59% (96)	60.34% (181)
2-4	13.41% (22)	13.23% (18)	13.33% (40)
>4	34.76% (57)	16.18% (22)	26.33% (79)
Money spent on internet per month (Rs)			
<100	16.46% (27)	18.38% (25)	17.33% (52)
100-500	47.56% (78)	54.41% (74)	50.66% (152)
>500	35.98% (59)	27.21% (37)	32.00% (96)

Table 2: Age and gender wise distribution of internet addiction.

Variable (n=300)	Internet Addiction			
	None(n=28)	Mild (n=181)	Moderate (n=72)	Severe (n=19)
Age of starting using internet (years)				
Up to 12yrs (n=116)	08 (06.89)	77 (66.38)	29 (25.00)	02 (01.72)
Above 12yrs (n=184)	20 (10.87)	104 (56.52)	43 (23.37)	17 (09.24)
Gender				
Males (n=164)	19 (11.58)	97 (59.15)	40 (24.39)	08 (04.88)
Females (n=136)	09 (06.62)	84 (61.76)	32 (23.53)	11 (08.88)

Table 3: IAT (internet addiction test) scores for the study participants.

S. no.	Score	Category	No. of males (n=164)	No. of females (n=136)	No. of participants (%)
1.	0-20	None	19 (11.58%)	09 (06.62%)	28 (09.33)
2.	20-49	Mild	97 (59.15%)	84 (61.76%)	181 (60.34%)
3.	50-79	Moderate	40 (24.39%)	32 (23.53%)	72 (24.00%)
4.	80-100	Severe	08 (04.88%)	11 (08.88%)	19 (06.33%)

28.66% (86) students admitted that their school work was often delayed or incomplete due to spending more time on internet. 21% (63) students admitted that they became defensive or secretive when someone inquired about what they do online.

22.33% (67) students said that they get relieved from disturbing thoughts of school work with soothing thoughts of internet.

30% (90) students said that life without internet would be boring, empty and joyless. 24% (72) students said that they feel an urge to get online immediately after getting up in the morning.

40.66% (122) students admitted that they give more importance to internet than physical activities. 42% (126) students had problem of eye sight while 20% (60) were having problem of procrastination. 25% (75) students admitted that they remain online late in night. 29% (87)

students felt that they are isolated/having loss of interaction with society.

When inquired about health problems, maximum students (42.00%) had problems related to eye sight followed by anxiety (37.67%) and headache (24.33%). Maximum females had problem of eye sight (39.70%) followed by anxiety (29.41%) and headache (20.59%).

Maximum males had problem of anxiety (44.51%) followed by eye sight disorders (43.90%) and headache (27.44%). Eleven percent students had no health problem which was almost equal in both males (10.97%) and females (11.03%).

However the study could not discern the fact whether the health problem was due to internet overuse or due to other reasons (Table 4).

Table 4: Health problems among study participants.

Health Problem	Males (n=164)	Females (n=136)	Total (n=300)
Eye sight	43.90% (72)	39.70% (54)	42.00% (126)
Anxiety	44.51% (73)	29.41% (40)	37.67% (113)
Headache	27.44% (45)	20.59% (28)	24.33% (73)
Others	14.63% (24)	13.97% (19)	14.33% (43)
None	10.97% (18)	11.03% (15)	11.00% (33)

*Multiple responses

DISCUSSION

In a study done in Mangalore, the internet addiction test score revealed 21 (23.33%) as being non problematic users (score <20), 52 (57.77%) as cases of mild internet addiction (score 20-49), 17 (18.88%) as moderate internet addiction (score 50-79) and none as severe internet addiction (score >79).⁷ Compared to this, in our study, 30.33% adolescents were in the range of moderate to severe addiction.

A study from Ahmedabad, India showed that 11.8% students had internet addiction; it was predicted by time spent online, usage of social networking sites and chat rooms, and also by presence of anxiety and stress. There was a strong positive correlation between internet addiction and depression, anxiety and stress.⁸ In present study, anxiety was present in 37.67% students.

One study revealed that 12.8% subjects always neglected their chores to spend time online. (10.7%) respondents accepted that they prefer internet over their friends and partners. 13.2% subjects were always getting complaints from family members and friends about amount of time they spare online. 14% subjects accepted that their college work always suffer because of longer time spent online and 18.2% feel that life appears deserted without internet. In the same study, 13.6% subjects were found to have sleep disturbance due to excessive late night use of internet and 16.9% were found to be succumbed into their desire of using internet for just a "few more minutes".⁹

In a study, the most commonly endorsed items were the need to use the internet everyday (53.8%), internet use helping to overcome bad moods (50%), staying online longer than one originally intends to (43.3%), eating while surfing (24%) and physical inactivity (22.1%).¹⁰

According to one study, the prevalence of Internet addiction in students was 40.7% of which 2.2% had

severe addiction, and 38.5% had medium internet addiction.¹¹

CONCLUSION

Results of present study indicate that the problem of internet addiction is real and needs appropriate attention from authorities. The role of internet in our lives in present century is established beyond doubts and its usage is going to increase further. The real challenge is to have a control on usage of social sites- the amount of time being spent and the type of activities adolescents are doing online. It is essential to have a control on social sites. At present, computer and internet education have become a regular part of curriculum in all the schools. Parents need to explain their children and schools should start counseling of adolescents regarding appropriate use of internet and balancing of time between internet surfing, studies and outdoor physical activities.

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