

To Evaluate The Correlation Between Internet Addiction And Academic Performance Among High School Students

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Abstract

Aim: To evaluate the correlation between Internet addiction and academic performance among high school students.

Materials and methods: The current study was a cross-sectional, descriptive observational study conducted in the psychiatry department. The study included English medium 11th grade students from Central Board of Secondary Education (CBSE) affiliated schools based on the inclusion criteria listed below. The internet addiction test (IAT) developed by Young was used to determine the presence of internet addiction. The IAT is scored on a five-point Likert scale ranging from 20 to 100. According to Young's original scheme, three types of internet users were identified: Internet Addicts, Possible Internet Addicts (PIA), and Non-Addicts (NA). Pearson's correlation coefficient was used to assess the correlation between the variables. A $p < 0.05$ was considered statistically significant.

Results: 140 (70%) of the entire sample were non-internet addicts (NIA) or non-addicts (NA), 50 (25%) were probable internet addicts (PIA), and 10 (5%) were internet addicts. As a result, the prevalence of internet addiction was discovered to be 5%. The overall prevalence of IA (including PIA and IA) was determined to be 30%. Of the 20 students who utilised the internet for academic purposes, 19 (95%) had no online addiction, 1 (5%) had PIA, and no students were Internet addicts. The majority of students (100) utilised the internet for both academic and nonacademic reasons. 80 pupils solely accessed the internet for non-academic reasons. The distinction between using the internet for academic, nonacademic, or both reasons, as well as internet addicts, PIA, and NA, was shown to be statistically significant (p -value = 0.003). Of the entire 10 internet addicted students, 7 (70%) scored 60% and 3 (30%) achieved 60% in the test. Out of a total of 140 NIA students, 133 (95%) achieved 60% on the test and 7 (5%) got 60% on the exam. The grades earned by pupils in the three sub-groups differed significantly (p -value 0.001).

Conclusion: This research found that among high school students, 5% of internet addicts and 30% of individuals with both PIA and internet addiction had IA. Students who used the internet for both schoolwork and personal reasons had a higher rate of addiction. Students are a particularly vulnerable population, thus it is imperative that educational initiatives aimed at preventing and responding to IA, as well as programmes aimed at preventing unsafe internet usage, rehabilitation centres, support groups, and the integration of training workshops, be supported.

Keywords: Internet addiction, academic performance, students.

Introduction

Unhealthy internet usage has been more frequent in recent years owing to technology developments and accessibility. As to the Internet Globe Stats (IWS, 2020) statistics, 63.2% of the world is reported to utilise the internet. North America and Europe have the greatest use rates (90.3%, 87.2%, respectively), and Africa (47.1%) the lowest usage rates in terms of internet usage. Excessive use of the internet, lack of self-control, or family issues in this respect raise the risk of internet addiction in youngsters. Internet addiction creates negative symptoms such as weariness, sleep issues, postural abnormalities, memory problems, learning challenges, trouble in expressing oneself, school failure, and reduced productivity. In conclusion, various psychological issues, including as anxiety, sadness, and social isolation, develop.^{1,2} In recent years, the internet has become the most significant academic and recreational tool for teenagers and adults.^{3,4} Many schools have now integrated internet usage in their curriculum, since it allows access to knowledge across a broad range of educational disciplines or themes, boosting communication and educational interaction with instructors and classmates.⁵ Common online activities include doing coursework, playing online games, reading and sending emails and participating in real time talking to exchange ideas, digital images, videos, postings, and other real world actions and events with individuals in their network. Internet addiction (IA) has been characterised as “excessive or poorly regulated preoccupations, impulses or behaviours involving computer usage and internet access that leads to impairment or distress” .⁶⁻⁸ Excessive Internet usage had also been reported to be connected with challenges of maintaining

daily routines, school achievement, and family relationships.⁹ A poll of 283 undergraduates found that "pathological users" spend an average of 8.5 hours per week on the internet, with men showing a greater propensity toward internet addiction than females.

Materials and methods

The current study was a cross-sectional, descriptive observational study conducted in the psychiatry department. The study included English medium 11th grade students from Central Board of Secondary Education (CBSE) affiliated schools based on the inclusion criteria listed below. Students who provided written informed consent, students who took the CBSE 10th Class Board Exams, and students who used the internet regularly for at least 6 months prior to the board exams Students with a diagnosed chronic physical disease, a prior diagnosed mental illness, a neurological deficit, an intellectual disability, or a history of substance abuse, as well as students who were absent from class on the day of the study, were excluded from the study. Semi-structured questionnaires were used to elicit socio-demographic information, internet usage characteristics, board exam results, and information about absenteeism from school. The internet addiction test (IAT) developed by Young was used to determine the presence of internet addiction. The IAT is scored on a five-point Likert scale ranging from 20 to 100. According to Young's original scheme, three types of internet users were identified: Internet Addicts, Possible Internet Addicts (PIA), and Non-Addicts (NA). Pearson's correlation coefficient was used to assess the correlation between the variables. A p 0.05 was considered statistically significant.

Table 1: Demographic Profile

Variables	Number of students	Percentage
Age		
below 16	60	30
above 16	140	70

Gender		
Male	146	73
Female	54	27
Religion		
Hindu	194	97
Muslim	4	2
Others	2	1
Course /stream		
PCM	40	20
PCB	60	30
Arts/Humanities	30	15
Commerce	70	35
Type of school attended before		
Public	40	20
Private	160	80

The sociodemographic features of the students are shown in Table 1. The majority of the students (70%) were above the age of 16 and were men (73%). Hindu students dominated the study (97%). Around 40% of students were

from the scientific and commerce streams, whereas 20% were from the arts/humanities stream. The majority of the kids (80%) attended a private school.

Table 2: Prevalence of Internet Addiction among school students

Groups	No of student	Percentage
Non addicts (NA)	140	70
Possible Internet Addicts (PIA)	50	25
Internet Addicts (IA)	10	5
Total	200	100

Table 2 demonstrates that 140 (70%) of the entire sample were non-internet addicts (NIA) or non-addicts (NA), 50 (25%) were probable internet addicts (PIA), and 10 (5%) were

internet addicts. As a result, the prevalence of internet addiction was discovered to be 5%. The overall prevalence of IA (including PIA and IA) was determined to be 30%.

Table 3: Association between IA and purpose of using Internet

Purpose of using internet	Internet addiction status						Total		Chi- square test 15.22,
	Internet addicts		Non addicts		Possible internet addicts		No.	Percentage	
	No	Percentage	No	Percentage	No	Percentage			
Academic	0	0.00	19	95	1	5	20	100	p- value=0.003
Both	4	4	76	76	20	20	100	100	
Non Academic	6	7.5	45	56.25	29	36.25	80	100	
Grand Total	10	5	140	70	50	25	200	100	

Table 3 demonstrates that, of the 20 students who utilised the internet for academic purposes,

19 (95%) had no online addiction, 1 (5%) had PIA, and no students were Internet addicts. The

majority of students (100) utilised the internet for both academic and nonacademic reasons. 80 pupils solely accessed the internet for non-academic reasons. The distinction between using the internet for academic, nonacademic, or both reasons, as well as internet addicts, PIA, and NA, was shown to be statistically significant (p-value = 0.003).

Among non-academic internet uses, the most students (80) utilised it for movies/music/TV, with 60 students being NA, 16 being PIA, and 4 being IA.

The next most popular Internet usage was for social networking services such as Facebook and WhatsApp, which were utilised by 130 pupils. Pornographic content surfing was performed by the fewest number of pupils among non-academic usage (20). Except for casual online surfers (p value = 0.14), the difference in utilising the internet for different non-academic reasons was found to be statistically significant (p value 0.001).

Table 4: Association between Internet addiction and marks obtained in Board exam

10th marks	Internet addiction status						Total		Chi-square test=29.98
	Internet addicts		Non addicts		Possible Internet addicts		No.	Percentage	
	No.	Percentage	No.	Percentage	No.	Percentage			
<60%	3	30	7	5	5	10	20	10	0.001
≥60%	7	70	133	95	45	90	180	90	
Total	10	100	140	100	50	100	200	100	

Table 4 demonstrates that of the entire 10 internet addicted students, 7 (70%) scored 60% and 3 (30%) achieved 60% in the test. Out of a total of 140 NIA students, 133 (95%) achieved

60% on the test and 7 (5%) got 60% on the exam. The grades earned by pupils in the three sub-groups differed significantly (p-value 0.001).

Table 5: Correlation of Academic performance (10th marks) with IAT score

Pearson correlation coefficient	Academic Performance	IAT
Academic Performance	1	-0.33 (0.001)
IAT	-0.33 (0.001)	1

Table 5 shows a weak or mildly negative correlation between internet addiction and the academic performance of school students ($r = -0.33$, p value = 0.001).

Discussion

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Internet use disorder (IUD) is a mental disorder that has a negative impact on the quality of life of children and adolescents as well as adults. The time spent online is strongly correlated with the

development of an internet addiction. In particular, spending more than two hours a day online raises the likelihood of developing a dependency on the medium. IUD risk factors include communication and social media use in older people, gaming disorders in younger age groups, and the use of these technologies across all age groups. The purpose of this research was to look at how high school students' internet usage (both for schoolwork and for fun) affects their grades. This range of prevalence is consistent with that reported by earlier research

on internet usage globally and in India, with 5% for IA and 30% for gross prevalence (sum of internet addicts and probable internet addicts) among the school kids. The findings of our study are consistent with those of Nalwa et al., who found a prevalence of IA of 5.3% among secondary school students in Riyadh city in 2014.¹¹ About half, or 100 students (50%) use the internet for both school and personal use, while fewer than a tenth, or 20 students (10%) use it solely for school, and about a quarter, or 80 students (40%) use it solely for personal use. The majority of students (80) who used the internet for non-academic purposes watched movies/listened to music/watched TV; 60 were classified as non-academic users (NA), 16 were PIA, and 4 were academic users (IA). After schoolwork, 130 students' primary Internet usage was for social networking sites like Facebook and WhatsApp. The fewest students admitted to using the internet for pornographic purposes (20). With the exception of casual browsers ($p = 0.14$), a statistically significant difference was discovered between users who accessed the internet for a variety of non-academic purposes. An earlier study from 2012 corroborated our findings by describing how engaging in extracurricular activities besides schoolwork boosts IA.¹² Several studies have shown that online social networking and discussion are strong indicators of IA. In India, although 21% of all internet use is devoted to social networking, 84% of all internet users are based in the country.¹³ Social networking and online talking have been linked to PIU in studies conducted throughout the globe. We included students in their eleventh grade year from a variety of schools, but we used their Board exam scores to ensure a consistent sample size and to eliminate any potential for subjective grading differences. This is because the Board exams are graded by an anonymous committee, and the exam papers were given out to each student at random. We observed that compared to probable internet addicts and internet addicts, non-addicts had higher grades and better academic performance. As far as statistics go, this was a noteworthy deviation.

(p -value less than 0.001). A somewhat negative connection ($r = -0.33$, $p = 0.001$) was also found between students' internet use and their grades in this research. Results from the present study are supported by a study by Morahan-Martin¹⁴, which looked at the effects of internet addiction on the academic performance of 100 high school students randomly selected from English medium schools in Rishikesh and Haridwar (Uttarakhand). Students in the severe and profound groups of internet addiction were found to have detrimental effects on their academic performance. However, a few research did not agree with our findings and instead found no connection between IA and academic achievement. Studying 621 pupils from six English-medium high schools in Ahmedabad's city in 2013, Yadav et al.¹⁵ found that self-rated academic success did not predict IA. Equally convincing was the finding that there is no correlation between IA and academic achievement, which was shown in studies conducted on female college students and on undergraduate students from different countries. Even if some other research has shown the opposite, we still find that teenagers who are able to discover, explore, and use a variety of information resources and who understand the context in which the material was generated have greater academic success. Our findings suggest that kids may be at risk from the health effects of internet addiction. The internet has many positive applications, but its overuse may have unintended consequences, such as decreased productivity in the classroom and emotional suffering. Therefore, it is important to educate both adolescents and their parents about the risks associated with its use.

Conclusion

This research found that among high school students, 5% of internet addicts and 30% of individuals with both PIA and internet addiction had IA. Students who used the internet for both schoolwork and personal reasons had a higher rate of addiction. Students are a particularly vulnerable population, thus it is imperative that educational initiatives aimed

at preventing and responding to IA, as well as programmes aimed at preventing unsafe internet usage, rehabilitation centres, support groups, and the integration of training workshops, be supported. While it's important for students to have access to the latest and greatest technological advancements, it's just as important to identify the risks associated with excessive technology usage and take steps to reduce those risks for both the user and society as a whole.

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