

A Study to Assess the Correlation between Internet Addiction and Academic Performance in Students at Sumandeep Nursing College, Pipariya, Waghodia

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Abstract

Aims: The aims of this study were (1) to assess the internet addiction among students at Sumandeep Nursing College, (2) to assess the academic performance of students at Sumandeep Nursing College, and (3) to find out the correlation between internet addiction and academic performance in students of Sumandeep Nursing College.

Materials and Methods: The selection of design depends on the purpose of the study, the research approach, and variable to be studied. Non-experimental, correlational, retrospective study design was used for the study. The study was conducted on 100 students of Sumandeep Nursing College, using convenient sampling technique (non-probability sampling techniques). The tool used for data A self-administered, structured questionnaires regarding internet addiction and grade point of average scale regarding assess academic performance and assess the correlation using personal correlation coefficient between internet addiction and academic performance among the students of Sumandeep Nursing College.

Results: The result showed that 83% of samples are moderately addicted and 17% of samples are severely addicted to the internet. Moreover, their academic performances are 80% samples are having average academic performance, and 20% samples are having poor academic performance. Moreover, correlation between internet addiction and academic performance, Pearson's correlation coefficient is (-0.260643189) this show that there is moderately negative correlation between two variable in this one variable is increased (x) and it affects another variable is decreased (y). Hence, here, in our study, internet addiction moderately negative affected on students' academic performance of the UG students of Sumandeep Nursing College.

Conclusion: The study was undertaken to assess the correlation between internet addiction and academic performance in students at Sumandeep Nursing College.

Keywords: Academic performance, Internet addiction, undergraduate students

INTRODUCTION

Internet is the fastest medium of communication and information a very common way to access tons of desired knowledge infraction of seconds in the 21st century whether it may be in the form of academic and other purposes. One is compelled

to use it more and more. This medium has not only become a multi-directional source of information for knowledge but also for other purposes such as social interactions, gaming, and entertainments. Human nature being more tilted to enjoyment has increased use of the internet. At the beginning, it seems interesting later it becomes a habit and lasts it may become an addiction. Moreover, and if one talk about adolescent who are more prone to fall prey of such distraction lead to create trouble for their academic. The capacity of the internet for socialization is a primary reason for the excessive amount of time people spend having real-time interactions using email, discussion forums, chat rooms, and online games.^[1]

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Since the internet is very easily available and accessible to people of all generation and age irrespective of their economy and location for information exchange and networking, it is experiencing tremendous growth and development in its size and numbers of users all over the world. The benefits of the internet have been widely researched and include keeping in touch with friends, making vacations plans, managing finances, and assisting with educational needs. Despite the positive effect of the internet, there is growing literature on the negative effects of its excessive use.

Internet addiction - Internet addiction is defined as, “an individual’s ability to control his or her use of the internet, which eventually causes psychological, social, school, and/or work difficulties in a person’s life.”^[2] Research finding have shown that excessive use of internet or internet addiction adversely affects one’s physical health, family life, and academic performance. Academic problems caused by internet addiction include a decline in a study habits significant drop in grades, missing classes have increased the risk of students being dependent more on academic probation and poor integration in extracurricular activities. Beside, adolescent internet addicts, often suffer from severe psychological distress, such as depression; anxiety; compulsivity; feeling of self-effacements fear that life without internet would be boring, empty, and joyless; as well as feeling of loneliness and social isolation. Internet users are not a homogeneous group.^[3]

Research shows that Facebook is the most popular social media website. Approximately 85% to 99% of the college students use Facebook. It has raised millions of questions on students using and accessing social media platform like Facebook enormously, and in return, it has affected the academic performance of all college students negatively. A recent survey conducted by EDUCAUSE (a non-profit organization located in Colorado, USA) in 2011, which included 30,000 college undergraduate students from 1179 colleges and universities have shown that students juggle between personal and academic interactions and learn more in the online class environment.^[4]

According to the report, in rural India, 48% (around 78 million) are daily internet users, while about 140 million (83%) are estimated to use the internet once a month. In 2016, a number of internet users are 462,124,989 (34%), while we are aware that a high percentage of college students uses Facebook. It may not be the only factor that contributes to a student’s academic performance. Other uses of the Internet like online streaming media usage will potentially influence a student’s academic performance. The proportion of time a college student will spend on online media (such as entertainment, music, and gaming) for education compared to non-education could significantly determine the success of a student.^[5]

Objectives

1. To assess the internet addiction among students at Sumandeep Nursing College.
2. To assess the academic performance of students at

Sumandeep Nursing College.

3. To find out the correlation between internet addiction and academic performance in students of Sumandeep Nursing College.

Hypothesis

H₁: There will be a negative relation between internet addiction and academic performance of UG students at Sumandeep Nursing College.

METHODOLOGY

Research approach

A quantitative approach was used for assessing correlation between internet addiction and academic performance among nursing students in Sumandeep Vidyapeeth.

Research design

This study was a non-experimental, correlational, retrospective study design.

Variables

Dependent variable

The dependent variable in this study is academic performance among the student of Sumandeep Nursing College.

Independent variable

The independent variable in this study is internet use among the students of Sumandeep Nursing College.

Budget

In this study, expected fund is 15,000 Rs in this include printing transportation thesis binding.

Setting of the study

The study was conducted under the supervision of highly qualified faculty, respected Principal of Sumandeep Nursing College, Pipariya, Waghodia. The population selected from this setting was a student of the nursing college. The college is situated in Pipariya, Waghodia, at Vadodara, Gujarat, India.

Population

Target population: The students who are studying in Sumandeep Nursing College.

Accessible population: Students are available during the study at Sumandeep Nursing College.

Sample

In this study, the sample size was decided to be 100 who are studying in Sumandeep Nursing College.

Criteria for sample selection

Inclusion criteria

- The students of Sumandeep Nursing College, Pipariya, Waghodia.
- The students of FY B.Sc and SY B.Sc for data collection.

Exclusion criteria

- Those students who are not willing to participate in the study.

- Those students who are absent on that day when we collected data.
- Not including other faculties' students.
- Those students who are not using an android phone.
- Those students who are in ANM and GNM students.

Sampling techniques

The process of selecting a portion of the population is to represent the entire population. The samples were selected for this study by adopting a convenient sampling technique (non-probability sampling techniques). Samples were selected based on inclusion and exclusion criteria.

Development of tool

Self-administered, structured questionnaires regarding internet addiction and grade point of average (GPA) scale regarding assessing academic performance and assessing the correlation between internet addiction and academic performance.

Description of tools

The tool used for the study was divided as follows:

Section-1

The sociodemographical variable that consists of eight question seeking information related to age, gender, current living pattern, parents education, type of domicile, internet source, and duration of internet use.

Section-2

Modify internet addiction tool will be used for assessment of internet addiction among UG students of Sumandeep Nursing College.

Internet addiction test is a reliable and valid measure of addictive use of the internet. In this Likert scale used which is developed by Dr. Kimberly young. It consists of 20 questions that measure in the mild, moderate, severe, or strong level of internet addiction [Table 1]. There are total 20 questions, and each has to give score 0–5 points:

Table 1 shows that category of internet addiction as per score out of 100 points. There are three criteria strongly addicted (100–80), moderately addicted (50–79), and mild addicted (49–20).

Section-3

In this academic performance of the students in measure with the total yearly GPA achieved in a previous year [Table 2].

Table 2: There are total four categories such as good performance (4.0–3.0), average performance (2.9–2.0), poor performance (1.9–1), and very poor performance (below 1)

Description of intervention

The pre-level assessment of internet addiction using with internet addiction tool and academic performance with GPA grade score of nursing students was assessed by the use of questionnaires and pre-test score was noticed.

Reliability

Reliability refers to the accuracy and consistency of information obtained during the study.

Table 1: Score of Internet addiction according to categories

Serial no.	Category	Score (points)
1	Strongly addicted	100–80
2	Moderate addicted	79–50
3	Mild addicted	49–20

Table 2: Academic performance according to GPA (grade point of average) categories

Serial no.	Category	Score
1	Good performance	4.0–3.0
2	Average performance	2.9–2.0
3	Poor performance	1.9–1
4	Very poor performance	<1

Reliability has to do with the quality of measurements. Reliability is the extent to which the measurements of a test remain consistent over repeated of the same subject under identical conditions (Pilot and Hunglar 1993).

Final form of questions related to eight demographic data, modified internet addiction tool 20 questions pertaining to assess internet addiction, and academic performance of the students in measure with a total yearly GPA achieved in a previous year.

Pilot study

A pilot study is a smaller version of purpose study conducted to refine the methodology.

A pilot study was conducted on 10 UG students in Sumandeep Nursing College, Pipariya. Formal permission had been taken from the concerned authority for the pilot study that is the principal of Mr. Ravindra H.N, Sumandeep Nursing College, Pipariya. The investigator personally met the principal discussed the purpose of the study. Investigator discussed the objective of the study and obtained consent from 10 nursing student for the participation in the study. Knowledge of students regarding internet addiction and academic performance was assessed by structured knowledge questionnaires tool of internet addiction and GPA scale for assessing academic performance. The pre-test was conducted on UG students assess internet addiction and academic performance was assessed by administering the structured knowledge questionnaires tool and GPA scale for assessing academic performance of UG students of Sumandeep Nursing College.

There is a moderately negatively correlation between internet addiction, and academic performance here correlation coefficient (r) is (-0.8); hence, internet addiction is negatively affected by students' academic performance.

Data collection procedure

Formal prior permission was obtained from the Principal Sir, of Sumandeep Nursing College, Pipariya, Wagh. Data will be collected after verification by Sumandeep Nursing College by explaining the purpose of the study. The investigator will introduce her to the participants. The objectives of the study

will be explained to the participants, and formal written consent will take from the subject. Then, the tool is administered, and after 20 min the questionnaires will be collected.

Plan for data analysis

- The demographic variables were analyzed using descriptive measures (frequency and percentage).
- Assess the internet addiction and academic performance using internet addiction tool and academic performance GPA scale of the UG students of Sumandeep Nursing College.
- Assess the correlation between the internet addiction and academic performance was analyzed using Pearson's correlation coefficient (r).

Protection of human rights

The study was conducted after the approval of the research committee in the college. The nature and purpose of the study were explained to the participants. The written consent was obtained from the study participants to gain full cooperation. The assurance was given to the study samples that the anonymity of each individual would be maintained.

Ethical clearance

Ethical clearance was taken in to account for the study to evaluate and assess the correlation between the internet addiction and academic performance among students of Sumandeep Nursing College, Pipariya, Waghodia.

RESULTS

Organization of the study findings

The data are analyzed and presented in the following sections:

Section-1

Assess the frequency distribution and percentage of demographical variables.

Section-2

Assess the internet addiction and academic performance among the UG students of Sumandeep Nursing College.

Section-3

Assess the correlation between the internet addiction and academic performance of UG students of Sumandeep Nursing College.

Section-1: Frequency and percentage distribution of sociodemographic variables

A semi-structured questionnaire is planned to collect the demographic variables, which include age, gender, current living pattern, type of family, the area of domicile, parent's education level, type of internet source, and duration of internet use.

Table 3 shows that there are total eight sociodemographical variables frequency and percentage distribution of sample according to their age, 5 (5%) samples are between age of 16 and 18 years, 95 (95%) samples are between age of 19 and 21 years, and no sample are between the age of 22 and

24 years; according to their gender, 15 (15%) samples are male and 85 (85%) samples are female; according to their current living pattern, 50 (50%) samples are living at hostel, 46 (46%) samples are day scholar, 4 (4%) samples are pain guest, and no sample is living at relatives house; according to their domicile, 55 (55%) samples are from rural area and 45 (45%) samples are from urban area; according their type of family, 40 (40%) sample's family is nuclear, 56 (56%) sample's family is joint, and 4 (4%) sample's family is extended; according to their parent's education level, 11 (11%) parents are illiterate, 43 (43%) parents are educated up to higher secondary, 31 (31%) parents are educated up to undergraduate, 15 (15%) parents are educated up to postgraduation; according to type of internet source used by samples, 16 (16%) samples are Wi-Fi user and 84 (84%) samples are mobile network user; and according to their duration of internet using by samples, 74 (74%) samples are internet using 5–8 h and 24 (24%) samples are internet using 0–4 h [Table 3].

Section-2: Assess the internet addiction and academic performance among the ug students of sumandeep nursing college

- Assess the internet addiction of the UG students of Sumandeep Nursing College:

Table 4 shows that no sample is mild addicted, 83% of samples are moderately addicted, and 17% of samples are severely addicted to the internet.

Table 3: Description of sociodemographic variables of samples $n=100$

Age of student	Frequency (%)
16–18	05 (05)
19–21	95 (95)
22–24	00 (00)
Gender	
Male	15 (15)
Female	85 (85)
Current living pattern	
Hostel	50 (50)
Day scholar	46 (46)
Pain guest	04 (04)
Relative house	00 (00)
Domicile	
Rural area	55 (55)
Urban area	45 (45)
Type of family	
Nuclear	40 (40)
Joint	56 (56)
Extended	04 (04)
The education level of parents	
Illiteracy	11 (11)
Higher secondary	43 (43)
Undergraduate	31 (31)
Postgraduation	15 (15)
Type of internet source	
Wi-Fi	16 (16)
Mobile network	84 (84)
Duration of internet using	
5–8 h	76 (76)
0–4 h	24 (24)

Table 5 shows that internet addiction shows that the overall internet addiction was found to have a maximum value is 92, mean of 75.6, the median of 76, and the standard deviation of 6.08.

- Assess the academic performance of UG students of Sumandeep Nursing College:

Table 6 shows that no sample is having good academic performance (good GPA score), 80% samples are having average academic performance (average GPA score), 20% samples are having poor academic performance (poor GPA score), and no sample is having very poor academic performance.

Table 7 shows that the maximum score of academic performance is (2.983), mean of (2.203295), the median of (2.2235), and standard deviation of (0.311981).

Table 4: Analysis and interpretation of level of internet addiction

Internet addiction	Levels	Frequency (%)
Mild addicted	20–49	0 (0)
Moderate addicted	50–79	83 (83)
Severe addicted	80–100	17 (17)
Total		100 (100)

Table 5: Maximum score, mean, median, SD of internet addiction

Scale	Maximum score	Mean	Median	SD
Internet Addiction	92	75.6	76	6.08

SD: Standard deviation

Table 6: Analysis and interpretation of level of academic performance (GPA grade)

Academic performance (GPA score)	Levels	Frequency (%)
Good	4.0–3.0	0 (0)
Average	2.9–2.0	80 (80)
Poor	1.9–1.0	20 (20)
Very poor	<1	0 (0)
Total		100 (100)

Table 7: Maximum score, mean, median, SD of academic performance (GPA grade)

Scale	Maximum score	Mean	Median	SD
Academic performance	2.983	2.203295	2.2235	0.311981

SD: Standard deviation

Table 8: Assess the correlation (r) between internet addiction and academic performance

Mean IA ($\bar{x}$)	Mean AP ($\bar{y}$)	$\sum(x-\bar{x})^2$	$\sum(y-\bar{y})^2$	$\sum(x-\bar{x})(y-\bar{y})$	r
75.6	2.203295	366	9.63586	-48.947	-0.26064318

Section-3: Assess the Correlation between the Internet Addiction and Academic performance of UG students of Sumandeep Nursing College

$$r = \frac{\sum(x-\bar{x})(y-\bar{y})}{\sqrt{\sum(x-\bar{x})^2 \sum(y-\bar{y})^2}}$$

Table 8 shows that Pearson's correlation coefficient is (-0.260643189) this show that there is moderately negative correlation in this normally r is in between (-1) and (1) and in our result r is (-0.260643189), hence, this is somewhat negatively relation between two variable in this one variable is increased (x) and it affects another variable is decreased (y). Hence, here in our study, internet addiction moderately negative affected on students academic performance.

H₁: There will be a negative relationship between internet addiction and academic performance of UG students at Sumandeep Nursing College.

Here, correlation coefficient (r) is (-0.260643189) this show that there is a moderately negative correlation between internet addiction and academic performance, in this one variable negatively affected on other variables, so internet addiction is negatively affecting on the academic performance of the UG students of Sumandeep Nursing College.

DISCUSSION

Our study statement is a study to assess the correlation between internet addiction and academic performance in students of Sumandeep Nursing College, Pipariya, Waghodia. This study assesses how to affect internet on students' academic performance.

Chou *et al.* (2017) conducted a study on social skills deficits and their association with internet addiction and activities in adolescents with attention-deficit/hyperactivity disorder. The study showed that the associations between social skills deficits and internet addiction and activities and the moderators of these associations were examined using Logistic regression analysis. Social skills deficits were significantly associated with an increased risk of internet addiction after adjustment for the effects of other factors (odds ratio = 1.049, 95% confidence interval = 1.030–1.070). Social skills deficits were also significantly associated with internet gaming and watching movies. The maternal occupational socioeconomic levels of the participants moderated the association between social skills deficits and internet addiction.^[6]

Muller *et al.* (2016) conducted a study on a hidden type of internet addiction? Intense and addictive use of social

networking sites in adolescents. Computer is affected up on human behaviour. The study showed that internet gaming disorder has been included as a preliminary diagnosis in DSM-5. The question remains if there are additional internet activities related to addictive use. Especially, use of social networking sites has been discussed to be related to excessive use, but only a few empirical studies are available. We wanted to explore if the use of social networking sites is related to addiction symptoms and psychosocial distress and which variables (demography, personality) predict addictive to use. A representative sample of $n = 9173$ adolescents (12–19 years) was enrolled. Self-report questionnaires assessed demography, the frequency of social networking sites use, internet addiction, personality, and psychosocial distress. Gender-specific associations were found between frequency of use of social networking sites and addiction criteria, especially regarding preoccupation and loss of control. Adolescents using social networking sites intensely were more often classified with internet addiction (4.1% boys and 3.6% girls) and displayed higher psychosocial distress. The frequency of social networking sites use, and its addictive use was predicted by similar variables except for extraversion that was only related to the frequency of use. Since the intense use of social networking sites can be related to addictive symptoms and is accompanied by psychosocial distress, it might be considered as another form of addictive online behavior.^[7]

Lepp *et al.* conducted a study on the relationship between cell phone use and academic performance in a sample of US college students age open study showed that the cell phone is ever-present on college campuses and is frequently used in settings where learning occurs. This study assessed the relationship between cell phone use and actual college GPA after controlling for known predictors. As such, 536 undergraduate students from 82 self-reported majors at a large, public university were sampled. A hierarchical regression ($R^2 = 0.449$) demonstrated that cell phone use was significantly ($P < 0.001$) and negatively ($\beta = -0.164$) related to actual college GPA after controlling for demographic variables, self-efficacy for self-regulated learning, self-efficacy for academic achievement, and actual high school GPA, which were all significant predictors ($P < 0.05$). Thus, after controlling for other established predictors, increased cell phone use was associated with decreased academic performance. Although more research is needed to identify the underlying mechanisms, findings suggest a need to sensitize students and educators about the potential academic risks associated with high-frequency cell phone use.^[8]

Junco *et al.* (2010) conducted studies on too much face and not enough books: A study conducted that the relationship between multiple indices of Facebook use and academic performance. Computers in human behavior. The study showed that of the social media platform's widespread adoption by college students, there is a great deal of interest

in how Facebook use is related to academic performance. A small number of prior studies have examined the relationship between Facebook use and college GPA; however, these studies have been limited by their measures, sampling designs and failure to include prior academic ability as a control variable. For instance, previous studies used non-continuous measures of time spent on Facebook and self-reported GPA. This paper fills a gap in the literature using a large sample ($n = 1839$) of college students to examine the relationship among multiple measures of frequency of Facebook use, participation in Facebook activities, and time spent preparing for class and actual overall GPA. Hierarchical (blocked) linear regression analyses revealed that time spent on Facebook was strongly and significantly negatively related to overall GPA, while only weakly related to time spent preparing for class. Furthermore, using Facebook for collecting and sharing information was positively predictive of the outcome variables while using Facebook for socializing was negatively predictive.^[9]

In our study, the findings are discussed in relation to the objectives formulated, compared, and contrasted with those of other similar studies conducted in different settings. The present study is an assess the correlation between internet addiction and academic performance among undergraduate students. To achieve the objectives, samples were selected for this study by adopting a convenient sampling technique (non-probability sampling techniques). Samples were selected based on inclusion and exclusion criteria. This study was conducted over a period of 4 weeks. The data were collected from 100 undergraduate students using modified internet addiction tool and assess GPA score by previous year academic percentage. Our finding is 83% samples are moderately addicted, 17% of samples are severely addicted to internet, and 80% samples are having average academic performance (average GPA score), and 20% samples are having poor academic performance (poor GPA score) and correlation measured with Pearson's correlation coefficient (r) is (-0.260643189) this show that there is moderately negative correlation between internet addiction and academic performance, in this one variable negatively affected on, so internet addiction is negatively affecting on academic performance of the UG students of Sumandeep Nursing College.

CONCLUSION

The following conclusion can be drawn from the study findings, which are supported by evidence from author literature. We attended selected departments of Sumandeep Vidyapeeth to assess the correlation between internet addiction and academic performance among UG students of Sumandeep Nursing College. Moreover, the finding is moderately negatively relation between two variable in this one variable (internet addiction) (x) is increased, and it affects another variable (academic performance) (y) is decreased. Hence, here in our study, internet addiction moderately negative affected students' academic performance.

REFERENCES

1. Ayar D, Bektas M, Bektas I, Kudubes AA, Ok YS, Altan SS, *et al.* The effect of adolescents' internet addiction on smartphone addiction. *J Addict Nurs* 2017;28:210-4.
2. Chou C, Hsiao M. Internet addiction, usage, gratification, and pleasure Experience: The Taiwan college student's case. *Comput Educ* 2000;35:65-80.
3. Mafe CR, Blass SS. Explaining internet dependency: An exploratory study of future purchase intention of Spanish internet users. *Internet Res* 2006;16:380-97.
4. Hargittai E. Whose space? Differences among users and non-users of social network sites. *J Comput Med Commun* 2007;13:276-97.
5. Coyne SM, Padilla-Walker LM, Howard E. Emerging in a digital world decade review of media use, effects, and gratifications in emerging adulthood. *Emerg Adulthood* 2013;1:125-37.
6. Chou WJ, Huang MF, Chang YP, Chen YM, Hu HF, Yen CF. Social skills deficits and their association with internet addiction and activities in adolescents with attention-deficit/hyperactivity disorder. *J Behav Addict* 2017;28:1-9.
7. Muller KW, Dreier M, Beutel ME, Duven E, Giral S, Wölfling K. A hidden type of internet addiction? Intense and addictive use of social networking sites in adolescents. *Comput Human Behav* 2016;55:172-7.
8. Lepp A, Barkley JE, Karpinski AC The relationship between cell phone use and academic performance, anxiety, and satisfaction with life in college students. *Comput Human Behav* 2014;31:343-50.
9. Junco R, Merson D, Salter DW. The effect of gender, ethnicity, and income on college students' use of communication technologies. *Cyberpsychol Behav Soc Netw* 2010;13:619-27.

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