



INTERNET ADDICTION OF HIGHER SECONDARY LEVEL STUDENTS: A STUDY ON BIRBHUM DISTRICT OF WEST BENGAL

Indranil Pal

RESEARCH ARTICLE



Author Details: Rajendra Academy for Teachers' Education, West Bengal, India

Abstract

The study: The present study is conducted on internet addiction in Birbhum district. 213 Higher Secondary students are taken as sample by simple random sampling.

Methodology: Descriptive survey method is followed for the present work. For comparison between two strata (male-female & science-arts), t-Test has been administered.

Corresponding Author: Indranil Pal

Findings: There was a significant difference between boys and girls with respect to Internet Addiction, with boys having greater addiction. There was no significant difference between rural boys and rural girls with respect to Internet Addiction. There was no significant difference between science boys and science girls with respect to Internet Addiction. There was a significant difference between arts boys and arts girls with respect to Internet Addiction, with arts boys having greater addiction. So, it may be concluded that internet addiction depends on gender and stream of study.

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Keywords: Internet Addiction, Descriptive Survey, Birbhum, Higher Secondary Level, t-Test

Introduction

Internet Addiction is a burning problem of human, especially for adolescents. Internet addiction refers to an inability to control internet usage that leads to excessive time spent online or social issues, and it may share similar characteristics with other types of addiction, resulting in challenges in interpersonal relationships, family dynamics, and social interactions (Bailin et al., 2014). Up to 50% of teenagers report feeling addicted to social media, while 59% of parents concur with this viewpoint (Dealing with Devices: The Parent-Teen Dynamic, 2016). Adolescent internet addiction has been associated with various issues such as depression, self-harm, sleep problems, increased use of alcohol and tobacco, and obesity, much of which was discussed previously in this article (Bailin et al., 2014). Furthermore, research has revealed that adolescents with internet addiction may experience microstructural changes in the brain, including a reduction in gray matter volume and modifications in neurotransmitter levels (Yuan et al., 2011). A particular cohort study indicates that frequent engagement with social media during early adolescence may be linked to long-term changes in how the brain responds to social rewards and punishments, potentially affecting psychological well-being (Maza et al., 2023).

Literature Review

Rajeswari, et al. (2017) conducted a study on Internet Addiction among the under-graduate students. Objective of the study was to assess the degree of internet addiction among the undergraduate students. The study was conducted using a non-experimental descriptive cross sectional research design. The result of the study was revealed that Forty nine percent (98) of the undergraduate students had mild addition, and 28.5% (57) were moderately addiction, and 0.5% (1) was severely addicted. No addiction was identified in 22% (44). Nellitawati, et al. (2018) conducted a study on Internet Addiction among college students of educational administration programs: network psychometric analysis. Objective of the study was to find out Internet addiction among college students of educational administration programs: network psychometric analysis. The study was conducted experimental method. The result of the study was revealed that data analysed using network psychometrics. Network psychometric analysis shows the interaction between factor structures is excellent. Based on the analysis of network psychometry can be an important input for the academic community and can be the starting point for further research. Menon, et al. (2018) conducted a study on Internet Addiction of college students in India. Objective of the study was to find out Internet Addiction: A Research Study of College Students in India. The study was conducted used a survey methodology

design. The results of the study indicated that there is a high degree of correlation between age and internet addiction with older students being more addicted to the Internet than younger students. Nitu (2017) conducted a study on Prevalence of Internet Addiction among college students. Objective of the study was to know the prevalence of Internet Addiction among the sample groups; to know level of Internet Addiction among sample and examine the impacts of gender on Internet Addiction. The sample was selected by stratified random sampling. Young's Internet Addiction Scale was used for collecting data. The data were statistically analysed using percentage analyse, Means, S.D and t- test. According to the analysis, it was observed that prevalence of Internet Addiction among undergraduate students was 13.33%. Mean score of boys and girls were 33.7% and 33.5% respectively. It is found in this study that gender doesn't affect Internet Addiction. Sushma, et al. (2018) conducted a study to access internet addiction among undergraduate medical students of MMC & RI, Mysore. Objective of the study was to access Internet Addiction among undergraduate medical students of MMC & RI using Young's Internet addiction test. A cross sectional observational study was conducted among medical students of MMC & RI during the period from August to November 2015. A total of 236 students were included. Kimberly Young's Internet Addiction test was used to access the level of Internet Addiction. The mean age of the students was 20.6 years (S.D 1.97). The mean during of internet use was 4.4 years (S.D 1.64) and the mean during of internet use per day was 1.96 hours (SD 0.99). The prevalence of service interest addition, moderate internet addiction, and mild internet addiction were found to be 0.8%, 19.5% and 58.2% respectively. Pedagogical Content Knowledge (PCK) is one of the important topics in educational research. Several studies on PCK is done by Sen and Samanta (2015a; 2015b; 2015c; 2015d) and Sen (2016). A study on achievement analysis done by Chakrabarty, B Saha (2014).

Several researchers conducted their researches in education by using several statistical techniques like t-test [Adhikari (2023); Adhikari et al. (2023); Mahanti et al. (2016); Mahato and Sen (2021a); Saha (2012b); Mahanti et al. (2016); Mondal and Saha (2017); Mondal et al. (2018); Saha (2021); Sen et al. (2013); Mondal and Saha (2013); Khatun et al. (2022); Karmakar et al. (2016); Ansary et al. (2022); Sen and Kar (2014); Kar and Sen (2014)], correlational studies [Adhikari et al. (2023); Mahato et al. (2023); Sen & Samanta (2013); Sen et al. (2023b); Mondal and Saha (2017); Saha (2012a); Saha (2013); Sutradhar and Sen (2022b); Sutradhar et al. (2023); Gayen et al. (2023); Gayen and Sen (2021); Mahato and Sen (2023); Kar and Saha (2021a); Kar and Saha (2021b)], Mahalanobis Distance [Sen and Pal (2020); Mahato and Sen (2021); Sen et al. (2023a); Ahmed et al. (2022); Mohanta et al. (2023); Adhikari (2023)], non-parametric tests [Haldar et al. (2022); Sutradhar and Sen (2022a); Adhikari and Saha (2021); Adhikari et al. (2023); Mahato et al. (2022); Sen et al. (2021)] and clustering techniques [Sen et al. (2023); Mohanta et al. (2023a); Ansary et al. (2023); Saha et al. (2021); Adhikari et al. (2023); Mohanta et al. (2023b); Adhikari and Sen (2023)]. Present work is conducted to compare the Internet Addiction on the basis of gender of higher secondary students of Birbhum district of West Bengal, India.

Objective: Objective of the study is to compare the Internet Addiction on the basis of gender of higher secondary students.

Hypotheses: Following hypotheses are constructed for the present work.

H₀₁: There is no significant difference of mean Internet Addiction score between boys and girls.

H_{01a}: There is no significant difference of mean Internet Addiction score between rural boys and rural girls.

H_{01b}: There is no significant difference of mean Internet Addiction score between Male and Female science students.

H_{01c}: There is no significant difference in means for Internet Addiction score between boys and girls arts students.

Methodology

- **Research Methods:** Descriptive survey method will be used for the present study.
- **Research Variable:** Variable of the study is Internet Addiction. Some demographic variables will be used in this study such as gender, academic stream, and locality.
- **Population:** The population of this study will be included all the higher secondary students studying in all the Higher Secondary schools affiliated to WBCHSE in Birbhum district of West Bengal.
- **Sample and Sampling Technique:** Sample size for the study will be 213. Sample will be selected using a simple random sampling technique for the present study.
- **Tools Used:** Internet addiction test scale by Young (1998).
- **Software used:** The collected data is analysed using appropriate descriptive and inferential statistics by SPSS version 20.

Results and Discussions

H₀₁: There is no significant difference of mean Internet Addiction score between boys and girls.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet Addiction	Boys	123	29.59	13.515	1.219
	Girls	90	24.49	14.244	1.501

Table 1a: Group Statistics for boys and Girls students

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
2.657	211	.008	5.096	1.918

Table 1b: Independent sample t test between boys and girls students.

Table 1a shows that the mean, standard deviation, standard error of mean score of internet addiction of higher secondary students of the Birbhum district of West Bengal for boys and girls students. Table 1b shows that the calculated t value is 2.657 which is greater than the critical value for the degree of freedom 211. So, the calculated t value is significant at .05 level of significance. Result revealed that there is a significant difference in Internet Addiction between boys and girls higher secondary students of Birbhum district of West Bengal. So, the null H_{01} is rejected.

H_{01a} : There is no significant difference of mean Internet Addiction score between rural boys and rural girls.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet Addiction	Boys	62	27.02	10.366	1.317
	Girls	45	22.96	12.724	1.897

Table 2: Group Statistics for rural boys and rural girls.

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
1.817	105	.072	4.061	2.235

Table 3: Independent sample t test between rural boys and rural girls.

Table 2 shows that the mean, standard deviation, standard error of mean score of internet addiction of higher secondary students of the Birbhum district of West Bengal for rural boys and rural girls students. Pictorial presentation of the data represented in table2 is mentioned in graph1

Table 3 shows that the calculated t value is 1.817 which is less than the critical value for the degree of freedom 105. So, the calculated t value is not significant at 0.05 level of significance. Result revealed that there is no significant difference in Internet Addiction between arts and science higher secondary students of Birbhum district of West Bengal. So, the null H_{01a} is accepted.

Let us consider the hypothesis:

H_{01b} : There is no significant difference in means for Internet Addiction score between boys and girls science students.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet Addiction	Boys	47	31.60	13.554	1.977
	Girls	24	29.67	15.739	3.213

Table 4: Group Statistics for boys and girls science students.

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
.537	69	.593	1.929	3.593

Table 5: Independent sample t test between boys and girls science students.

Table 4 shows that the mean, standard deviation, standard error of mean score of internet addiction of higher secondary students of the Birbhum district of West Bengal for boys and girls science students.

Table 5 shows that the calculated t value is 0.537 which is less than the critical value for the degree of freedom 69. So, the calculated t value is not significant at 0.05 level of significance. Result revealed that there is no significant difference in Internet Addiction between boys and girls higher secondary science students of Birbhum district of West Bengal. So, the null H_{01b} is accepted.

H_{01c} : There is no significant difference in means for Internet Addiction score between boys and girls arts students.

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Internet Addiction	Boys	76	28.34	13.429	1.540
	Girls	66	22.61	13.291	1.636

Table 6: Group Statistics for boys and girls arts students

t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
2.551	140	.012	5.736	2.249

Table 7: independent sample t test between boys and girls arts students.

Table 6 shows that the mean, standard deviation, standard error of mean score of internet addiction of higher secondary students of the Birbhum district of West Bengal for boys and girls arts students.

Table 7 shows that the calculated t value is 2.551 which is greater than the critical value for the degree of freedom 140. So, the calculated t value is significant at 0.05 level of significance. Result revealed that there is significant difference in Internet Addiction between boys and girls higher secondary arts students of Birbhum district of West Bengal. So, the null H_{0ic} is rejected. As a result, alternative hypothesis, H_{a1c} : There is a significant difference in means for Internet Addiction score between boys and girls arts students, is accepted. There is a greater internet addiction of boys student compare to their girls counterpart.

Conclusion

Let us recall the results of the hypotheses. There was a significant difference between boys and girls with respect to Internet Addiction. In this case boys had greater Internet Addiction with respect to their girls counterpart. There was no significant difference between rural boys and rural girls with respect to Internet Addiction. There was no significant difference between science boys and science girls with respect to Internet Addiction. There was a significant difference between arts boys and arts girls with respect to Internet Addiction. In this case arts boys had greater Internet Addiction with respect to their arts girls counterpart. So, it may be concluded that internet addiction depends on gender and stream of study.

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