Social Isolation in Relation to Internet Usage and Stream of Study of Under Graduate Students

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Abstract Internet has undeniable role in people's life and misuse of it may cause several problems. The present study has investigated the effect of internet usage on social isolation of under graduate students. Stratified random sampling techniques were used. 257 under graduate students studying at different college affiliated to Sidho-Kanho-Birsha University, Purulia, W.B., India were selected as sample. Social isolation questionnaire and internet usage scale were used to gather data from the samples. The data thus collected were analyzed using SPSS software (Version 17). The results indicate that high internet user are more socially isolated than that of average and low internet user whereas no significant difference exist on internet usage between humanities and science under graduate students. Pearson co-efficient of correlation between internet usage and social isolation is found to 0.326 indicating a positive relationship between the variables.

Keywords: social isolation, internet usage, humanities, science students

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1. Introduction

Social isolation may be recognized by the lack of mutual interaction with other peoples of the society and also determined by some situational factors like little social network, infrequent interaction and rare participation in social activities. It leads to depression [1,2], psychological well being [3] and other social and cognitive impairments [4]. In the present time pupils are suffering from social disconnectedness because they are busy in virtual world through high speed internet which is quite unnatural. Fast and easy access of internet is so attractive that human minds are highly hypnotized.

Now-a-day Internet served as important information and entertainment resource for adolescents [5] and serving substantial role in changing the social lives of the people [6]. The people prefer to share information through online because of easy access of internet. The dependency of human being to this technology in such a short period of time created a new era in creating and transforming of the knowledge [7]. Excessive use of Internet often affects close relationship [8,9] and creates social problems [10]. Sometimes Internet addicted individual fail to communicate well in face-to-face situations [11].

Presently social isolation is a very big issue and it influenced mainly by the excessive use of internet. Teenagers are not chatting face to face manner but prefer to chat through social networking site like facebook [12,13]. Parental bonding became weaker due to excessive use of internet [14,15] that reduced interpersonal relationships. The social problem due to excessive use of Internet has now been under close scrutiny since its emergence. In view of the above, the Investigators tried to throw some rays on the effects of the Internet usage on people's social relations.

2. Literature Review

Seif et. al. [16] established positive correlation between loneliness and internet addiction for the student of Islamic Azad University. Izanloo and Goudarzi [17] found that excessive use of the Internet leads to social isolation and a reduction in social relations. Tiwari and Ruhela [18] determined that extent of social isolation for girls is higher that of boys counterpart. Malviya et. al. [19] found that 9.5% under graduate students of MGM Medical College, Indore are internet addicted while girls student are more addicted than that of boys students [20]. Akhter [21] found that internet addiction has significantly negative relationship with academic performance of under graduate students. Various Researchers have found that socially isolated individuals tend to suffer from physical illness like higher rates of morbidity and mortality [22,23], infection [24,25] and blood pressure [26] as well as metal illness like depression [1], cognitive decline [4], stress [2,26] and psychological well being [3]. Social acceptance level also decreases with the increases of internet usage [27].

3. Hypotheses of the Study

In order to conduct the investigation smoothly, following hypotheses has been framed:

$H_0$1: There is no significant difference exist between humanities and science under graduate students on social isolation.

$H_0$2: There is no significant difference exist among low, average and high internet user on social isolation.

$H_0$3: There is no significant interaction effect exist between stream of study and internet usage on social isolation

$H_0$4: There is no significant correlation exist between Internet dependency and social isolation of under graduate students

4. Methodology

4.1 Population

The population of this study is all the under graduate students having age range 18 to 21 years of Purulia districts, West Bengal, India.

4.2. Sample and Sampling

Sample is a part of the population and it is a representative of the population. 257 samples have been collected by stratified random sampling techniques as given in Table 1. Humanities sample includes the students of Bengali, English, Sanskrit, History, Anthropology , Pol. Science, etc department where as science sample includes the students os Physics, Chemsitry, Zoology, Mathematics department from affiliated colleges under Sidho-Kanho-Birsha University, Purulia, WB, India.

Table 1. Sample profile

Stream	Male	Female	Total
Humanities	99	92	191
Science	33	33	66
Total	132	125	257

4.3. Tools Used for the Study

In order to collect the data following tools has been administered:

i. *Social isolation questionnaire developed by the investigators:* In order to measure the extent of social isolation, the Investigators framed a Likert type questionnaire with 44 statements having 23 positive and 21 negative items. The scale has been standardized by following standard procedure. The reliability of the scale was determined by calculating reliability coefficient on a sample of 600 under graduate students by split half-method and fund to 0.76. Cronbach's alpha [28] co-efficient was found to 0.83. The alpha value greater than 0.70 typically connote acceptability of overall scale reliability [29,30].

ii. *Internet dependency scale*: It is developed and standardized by Mahanti et. al. [31] containing 52 items with Cronchbach's alpha 0.96, based on Young IAD test, intend to measure internet dependency of undergraduate students.

5. Procedure

Survey was conducted with the help of Social Isolation scale and Internet Dependency Scale to collect primary data and to verify the hypotheses. Participants were invited to give response to those scales and requested to fill the data in the schedule.

6. Analysis and Interpretations

6.1. Descriptive Statistics

Each descriptive statistics reduces lots of data into a simpler summary. Here we present our descriptive data (Table 2) in the form of mean and standard deviation (SD) along with 't' critical ratio for social isolation.

Table 2. Showing mean and SD along with t- critical ratio

Pair of comparison	N	Mean	SD	Mean Difference	t-value
Science	66	104.20	16.76	1.39	0.54
Humanities	191	105.59	18.36		
High internet user	26	117.46	20.97	17.55	3.21*
Low internet user	32	99.91	20.42		
Average internet user	199	104.49	16.45	4.58	1.41
Low internet user	32	99.91	20.42		
Average internet user	191	104.49	16.45	12.97	3.65*
High internet user	26	117.46	20.97		

*Significant at 0.01 level.

6.2. Inferential Statistics

Inferential statistics plays a pivotal role in hypothesis testing where it is used to determine if a null hypothesis can be rejected or retained. For the present study we have constructed a two way (2× 3) factorial design for the analysis of different variables (Table 3).

Table 3. Summary of ANOVA results

Source of variation	SS	df	MS	F ratio	Critical F Value
A (Stream of study)	953.11	1	953.11	3.16**	6.64 (0.01) 3.84 (0.05)
B (Internet usage)	3317.66	2	1658.33	5.51*	4.60 (0.01) 2.99 (0.05)
A × B	1676.68	2	838.34	2.78**	4.60(0.01) 2.99 (0.05)
Within group	75509.05	251	300.83		

*Significant at 0.01 level, ** not significant.

7. Testing of Hypotheses

7.1. Testing of $H_0 1$

The mean scores of social isolation for humanities and science undergraduate student is 105.59 (S.D=18.36) and 104.20 (S.D=16.76) respectively. F- value for stream of study is found to be 3.16 (Table 3) which is less than critical F value at 0.01 level. Moreover, t-value for the pair of humanities and science under graduate students is found 0.54. Both the results are not significant at 0.01 level. This clearly indicates that $H_0 1$ is accepted at 0.01 level.

7.2. Testing of $H_0 2$

Internet usage is classified into three category i.e. high, average and low internet user base on the norms determined by Mahanti et.al. [31]. From Table 3 it is clear that F value for different level of internet usage is 5.51 at df (2, 251) which is significant at 0.01 level. In order to analysis further, three pairs of comparison i.e. high and average, high and low and average and low inter user are framed. 't' critical ratio (Table 2) for high vs. average and high vs. low inter user are 3.65 and 3.21 respectively which are significant at 0.1 level. Thus, H_o^2 is rejected at 0.01 level. Or in other words we can say extent of inter usage affects social isolation. The results corroborates with the findings of Nie [8] and Izanloo and Goudarzi [17].

7.3. Testing of $H_0 3$

F value from Table 3 for the interaction between stream of study and internet usage is 2.78 which is not significant even at 0.05 level. Hence, H_o^3 is accepted.

7.4. Testing of $H_0 4$

Pearson co-efficient of correlation between social isolation and Internet usage is found 0.326 which is higher than that of critical value (r = 0.148 at df 255) at 0.01 level indicating a high correlation between these variables. Hence, H_o^4 is accepted. The result corroborates with the findings of Seif et.al. [16], Izanloo and Goudarzi [17] Nalwa and Anand [32] and Atoum and Al-Hattab [33].

8. Discussions

This study was a partially exploratory effort to measure the social isolation due to the excessive use Internet. The result shows that social isolation depends on extent of internet usage. High internet users are more socially isolated than that of average and low user. However, the study indicates that internet usage does not dependent in which stream they are studying. It is consistent with the findings of Prabhu [34]. Moreover, a significant relationship was observed between social isolation and internet usage of undergraduate students. The results are consistent with the findings of Seif et.al [16], Izanloo and Goudarzi [17], Nalwa and Anand [32] and Kraut et al., [35]. It may be argued that undergraduate students using internet excessively have lower social skills because they have no adequate time for social activities. Their poor communication skills also caused for poor self esteem, feelings of isolation and create additional problems in life, such as difficulties in working with groups, making presentations, or moving to social activities.

9. Conclusion

When a person does not receive any reinforcement and rewards neither from the community nor from his family, his/her interests and emotions are taken care by the internet and he/she prefers to use internet and maintains the virtual relationship. Hence, the person becomes more addicted to internet and resigns from the community. If the extent of social interaction increases, extent of internet usage may be decreases. Thus, strengthening of social relationships from family and friends by exchanging the thoughts and ideas is highly appreciated to reduce internet dependency of undergraduate students. Planning to prevent and solve this problem by authorities of educational affairs and promoting appropriate use of this technology in society are recommended. Success in solving this problem can help to reduce its negative consequences and proper use of this valuable technology.

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