A correlative study to assess the internet addiction and psychopathologies among the students of SOA University Bhubaneswar

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Abstract: *With the advancement in media and technologies internet has emerged as an effective tool in eliminating human geographical barriers. However, excessive use of theInternet has resulted in negative consequences especially among the regular users labeling it as an addiction. The objectives of the study were to assess the prevalence of internet addiction and find a correlation between internet addiction and psychopathologies among university students.A descriptive survey approach with cross sectional design was adopted for the study. 264 students were selected by convenient sampling technique from the different colleges of various streams like medicine, dental, nursing, pharmacology and agriculture, who are undergoing graduation and fulfilling the sampling criteria. The data collection instruments used were Internet addiction test (IAT) and Duke Health profile tool to assess the data. This study reveals that according to IAT score 85.5% were normal & 14.5% were abnormal in 1st year, 95% were normal & 5% were abnormal in 2nd year ,68.9% were normal & 31.1% were abnormal in 3rd year ,10.7% were normal & 89.2% were abnormal 56.2% normal in 4th year.Study also shows IAT score among various disciplines, 69.2% were normal and 30.8% were abnormal in medical college, 68% were normal and 32% were abnormal in nursing college, 50.5% were normal and 49.5% were abnormal in pharmacology college, 57.5% were normal and 42.5% were abnormal in dental college, 65.6% were normal and 34.4% were abnormal in agriculture college. Further it was observed through the analysis that there is no statistically significant correlation between IAT score and psychopathologies.*
Key words: *internet addiction, psychopathologies, college students, undergraduates, anxiety-depression*

I.   Introduction:

With the availability and mobility of new media, Internet addiction has emerged as a potential problem in young people. Based on a growing research base [1],the American Psychiatric Association visioned to include InternetUse Disorderin the appendix of the fifth edition of the Diagnostic and Statistical Manual for Mental Disorders (2012) for the first time, acknowledging the problems arising from this type of addictive disorder. Adolescents appear to be a population at risk for developing Internet addiction[2] due to variability in developing their cognitive control[3]and boundary setting skills[4]. Internet is being integrated as part of every day's life because the usage of internet has been growing explosively worldwide. It has dramatically changed the current communication scenario and there has been a considerable increase in the number of internet users worldwide in the last decade. Reports reveals that there were about 137 million internet users in India in 2013 and further suggest India as world's second largest in internet use after China in the near future. With the advancement in media and technologies internet has emerged as an effective tool in eliminating human geographical barriers. However, excessive use of the internet has resulted in negative consequences especially among the regular users labeling it as an addiction [5].

There has been an explosive growth in the use of internet not only in India but also worldwide in the last decade. There were about 42 million active internet users in urban India in 2008 as compared to 5 million in 2000[4]. There have been growing concerns worldwide for what has been labeled as "internet addiction the term "internet addiction" was proposed by Dr. Ivan Goldberg in 1995 for pathological compulsive internet use.Griffith considered it a subset of behavior addiction and any behavior that meets the 6 "core components" of addiction, i.e., salience, mood modification, tolerance, withdrawal, conflict, and relapse.While Davis avoided the term internet addiction, referring it as a dependency "pathological internet use" (PIU). Young linked excessive on psychoactive substances, he instead preferred the term internet use most closely to pathological gambling, a disorder of impulse control in DSM IV and adapted the DSM IV criteria to relate to internet use in the internet Addiction Test developed by her. According to her, various types of internet addiction are cyber sexual addiction, cyber relationship addiction, net compulsions, information overload, and computer addiction[1]

1.1 Objectivesof the study were to:
1. identify the prevalence of internet addiction among university students.
2. study the correlation between internet addiction and psychopathologies among university students.

II.   Materials and Methods:

The study has used the descriptive survey approach with non-experimental cross sectional design

2.1   Participants: Graduate students of Medical College, Nursing College, Pharmacy College, Computer and business school and Agriculture College of SOA University, Bhubaneswar, Orissa were selected according to the sampling criteria. Permission was taken from each college's head of institution and individual permission was obtained ensuring the confidentiality of the data.

2.2   Measures: Tools utilized were the Duke Health profile and internet addiction test, which are both standardized. Questionnaires were filled by the participants itself. The Duke Health profile consists of 17 items covering for physical health, mental health, social health, general health, self-esteem, perceived health, anxiety, anxiety-depression, depression and self esteem 100 indicates the best health status, and 0indicates the worst health status.

Internet addiction test tool consisting of 20 items to understand the level of internet addiction in an individual. The tool was developed by Dr. Kimberly Young, the IAT, with the minimum score being 20 and maximum 100. The researcher had considered scores below 50 to be normal and otherwise abnormal internet addiction.

2.3   Sample: 264 undergraduate students from various disciplines like medical, nursing, dental, pharmacy and agriculture, who are studying within SOA University, Bhubaneswar were selected by Purposive sampling technique

2.4   Methods: After receiving permission from administration, at the period of data collection researcher had approached the participants directly and explained the purpose and method of using the questionnaires, also ensured the confidentiality of the data. Once the questionnaires were completed it was scored and interpreted according to the tool. For ethical consideration researcher had taken permissions from the deans of respective colleges and also provided information about the purpose of the data to the participants. Confidentiality of the data has been maintained.

III.   Results:

3.1. Prevalence of addiction within 1st to 4th years:

Figure 1 shows the IAT score percentages according to year, wherein score less than 50 is considered normal and more than 50 is considered abnormal internet addiction. 85.5% is normal & 16.5% is abnormal in 1st year,95% normal & 5% abnormal in 2nd year ,68.9% normal& 31.03% abnormal in 3rd year ,10.7% normal &89.2% abnormal in 4th year ,56.2% normal & 43.7% abnormal in other in SOA university.
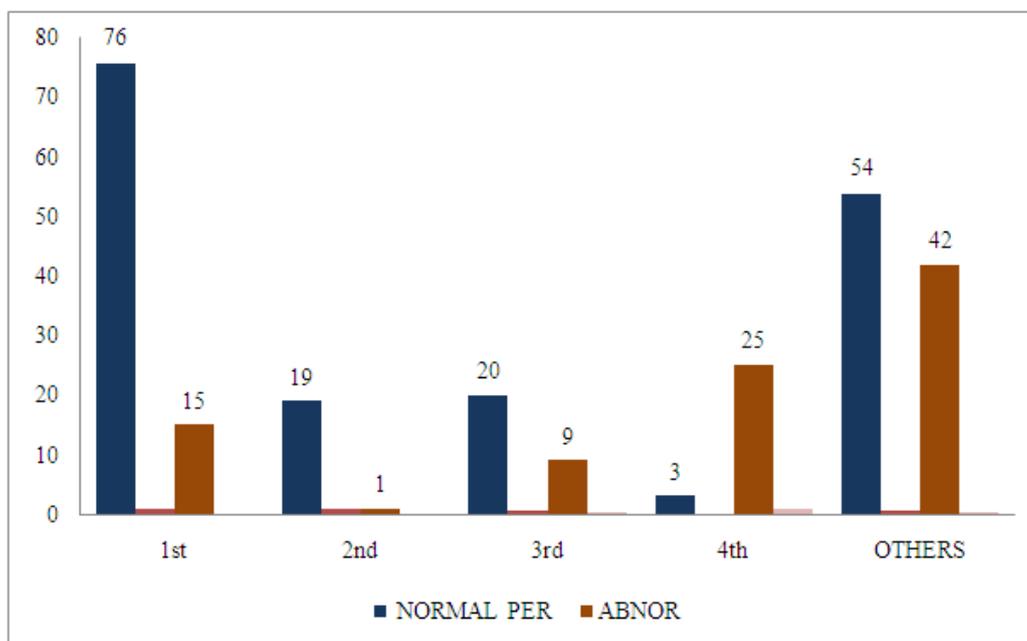
n=264

Fig 1: Prevalence of addiction within 1st to 4th years

3.2. Prevalence of addiction within various disciplines:

Table 1 shows IAT score among various disciplines are as 69.2% normal and 30.8% abnormal in medical college, 68% normal and 32% abnormal in nursing college, 50.5% normal and 49.5% abnormal in pharmacology college, 57.5% normal and 42.5% abnormal in dental college, 65.6% normal and 34.4% abnormal in agriculture college.

n=264

DISCLIPINES	NORMAL	ABNORMAL
MEDICAL COLLEGE (48)	69.2%	30.7%
NURSING COLLEGE (80)	68%	32%
PHARMACY COLLEGE (43)	50.5%	49.5%
DENTAL COLLEGE (41)	57.5%	42.5%
AGRICUTURE COLLEGE (52)	65.6%	34.4%

Table 1: Prevalence of addiction within various disciplines

3.3. Correlation between the internet addiction and psychopathologies

In order to test the relationship between the university student's internet addiction and health status, Pearson's correlation coefficient was used. Following null hypothesis was stated to test the significance of relationship between internet addiction and health status and was tested at 0.05 level of significance. The data in presented in the table 2 shows that Pearson 'r' computed between internet addiction andpsychopathologies that there no significant relationship (r= -0.00916, p =0.848). thus it is interpreted that internet addiction does not affect the psychopathology of the students.

n=264

Variables	R value	P value	Remarks
Internet addiction Psychopathologies	- 0.00916	0.848	No correlation

Table 2: Correlation between the internet addiction and health status

IV.   Discussion

This study reveals that according to IAT score 85.5% is normal & 14.5% is abnormal in 1st year, 95% normal &5% abnormal in 2nd year ,68.9% normal & 31.1% abnormal in 3rd year ,10.7% normal &89.2% abnormal in 4th year ,56.2% normal & 43.7% abnormal in other in SOA university. These results could be compared with a study done by Deepak Goel, AlkaSubramanyam, and RavindraKamath in 2009 among students in Mumbai and found to have about 74.5% were moderate (average) users. 0.7% of students were found to be addicts [7].

IAT score among various disciplines are as 69.2% normal and 30.8% abnormal in medical college, 68% normal and 32% abnormal in nursing college, 50.5% normal and 49.5% abnormal in pharmacology college, 57.5% normal and 42.5% abnormal in dental college, 65.6% normal and 34.4% abnormal in agriculture college. Similar study carried out by researchers at universities where they conducted a study on internet addicts suffer withdrawal symptoms like drug users. Sixty volunteers with an average age of 25 were tested to determine their internet use. Result shows that around half of young people spend so much time on the net that it has negative consequences for the rest of their lives.[8]

Study reveals that there is no statistically significant correlation between internet addiction and psychopathologies among the university students, which is contradicting results to a study conducted by researchers, wherein several factors are predictive of problematic Internet use, including personality traits, parenting and familial factors, alcohol use, and socialanxiety. They concluded that Although Internet-addicted individuals have difficulty suppressing their excessive online behaviors in real life, little is known about the patho-physiological and cognitive mechanisms responsible for Internet addiction. Due to the lack of methodologically adequate research, it is currently impossible to recommend any evidence-based treatment of Internet addiction [9]

V.   Conclusion

There is a dramatic increase in the proportion of internet addicts from 1st year to 3rd year, statistically, in all disciplines. It could also be seen mostly in pharmacology students the number of internet addicts and non addicts are almost the same. Further, there is no correlation between internet addiction and psychopathologies within the university students.

5.1. Implication
Nursing Practice
- These findings will help the nursing professional to identify the causes of physical problems in adolescents
- These results could help to diagnose the problematic internet use among students.
Nursing Education

- This study finding can be utilized to prepare a curriculum or health education to improve the mental health status of the students.
- Nurse educator should educate the adolescent regarding the effect of internet on physical & mental health which is useful to control the excessive internet use among adolescent.
Nursing research
-The findings can be utilized for conducting research to assess the problematic internet use & its psychopathological effect among students.

5.2. Recommendations
On the basis of findings of the study, it is recommended that-
- Similar study can be under taken with larger sample so that the result can be generalized.
- A study can be done to evaluate the positive and negative effect of internet use among students.
- A study can be conducted to find out the problematic internet use of younger student groups in other schools and other stream of study.
- A survey study could be initiated to check the hospitalized adolescent's internet use
- An interventional study to improve the physical status of adolescents with problems due to internet use could be done

5.3. Strengths:
The study emphasis on the need of concern towards unattended and uncontrolled internet use. Easy and cost effective method to assess the internet over use and psychopathologies arising from it among the students studying professional courses.

5.4. Limitations:
The study has been limited to one university and has utilized less samples within small time frame, which hinders the generalizability of the study

Acknowledgement:

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