

## **Internet addiction as a predictor of depression, anxiety and stress (DASS)**

**ADITY JAMWAL<sup>1</sup>, CHANDRA SHEKHAR\* AND NEHA CHOUDHARY<sup>2</sup>**

Research Scholar<sup>1</sup>, Sr. Assistant Professor, Student<sup>2</sup>  
Post-Graduate Department of Psychology, University of Jammu,  
Jammu-Tawi (J&K) India

### **ABSTRACT**

The present study was conducted to study the impact of Internet Addiction on Depression, Anxiety and Stress in males and females among College Students in Jammu. The study was carried out on the total sample of Hundred Students out of which fifty were male students and fifty were female students. The variables of the study was Internet Addiction and Depression, Anxiety and Stress (DASS). A significant difference in both the scales *i.e.*, Internet Addiction and Depression, Anxiety and Stress (DASS) and a Positive correlation between Internet Addiction and Depression, Anxiety and Stress(DASS) was found. 24% problematic internet users and 2% significant problematic users was found. 31% severe cases of depression, 58% extremely severe cases of Anxiety and 45% moderate cases of stress was found. Internet addiction predict 19.6% of DASS as a whole variable using simple linear regression was found.

**Key Words :** Internet addiction, Students, Depression, Anxiety and stress

### **INTRODUCTION**

Internet seems to be at best easily overused/abused, and at worst, addictive. Depression, anxiety, substance use, and eating disorders are common mental health issues in college campuses. As College can be an exciting time, it can also be overwhelming and stressful. Of the approximately 20% of students who had been diagnosed or treated for a mental health/ substance use condition in the past year, the most common conditions were depression, anxiety, panic attacks and ADHD (APA, 2015). Internet addiction may be defined as an impulse control disorder, which does not involve use of an intoxicating drug and is very similar to pathological gambling. Excessive usage have been documented as neglect of academic, work, and domestic responsibilities, disruption of relationships, social isolation, and financial problems (Akin and Iskender, 2011). Lam *et al.* (2009) examined factors associated with Internet addiction Majority of respondents were classified as normal users of the Internet with one fifty eight moderately and ten severely addicted to the Internet and fifty per cent increased odds for males to be addicted to the Internet when compared to

**Cite this Article:** Jamwal, Adity, Shekhar, Chandra and Choudhary, Neha (2016). Internet addiction as a predictor of depression, anxiety and stress (Dass). *Internat. J. Appl. Home Sci.*, 3 (3 & 4) : 110-117.

females. Wiensten and Lejoyeux (2010) reviewed the literature on Internet addiction over the topics of diagnosis, phenomenology, epidemiology, and treatment. Cross-sectional studies on samples of patients report high comorbidity of Internet addiction with psychiatric disorders, especially affective disorders (including depression), anxiety disorders (generalized anxiety disorder, social anxiety disorder), and attention deficit hyperactivity disorder (ADHD). Akin and Iskender (2011) did a study on university students to examine the relationships between internet addiction and depression, anxiety, and stress. Internet addiction was found positively related to depression, anxiety, and stress. According to path analysis results, depression, anxiety, and stress were predicted positively by internet addiction. Razieh(2012) investigated not only the prevalence of internet addiction among the girls and boys students in the universities students, but also the relationship between internet addictions with anxiety. Prevalence of internet addiction among boys' students in universities was more than girls and in science and engineering students was more than art and humanity students. There was a significant difference in four groups in anxieties .The result of regression analysis showed that anxiety, could significantly predict internet addiction. Azher (2014) did a study to investigate not only the prevalence of internet addiction among the male and female students in the University of Sargodha but also the relationship between internet addiction and anxiety level of students. There were three hundred students, from Masters' classes .Regression analysis showed a positive and significant relation between internet addiction and anxiety level among University students. Another study by Musa and Vahedi (2014) identified the extent of internet addiction and anxiety among Iranian students to see if there is a relationship between internet addiction and anxiety and a significant relationship between internet addiction and anxiety among female students was found and the risk for internet addiction and anxiety among this population was at a mild level. Vaghela (2014) investigated the difference of anxiety between Internet addicts and non addicts adolescents of urban and rural area. The results reported that there exists a significant difference in anxiety between Internet addicts and non addicts adolescents of urban area. As regarding the rural area Internet addicts and non addicts adolescents differ significantly in their level of anxiety. Internet addicts adolescents found to be more anxious as compare to Internet non addicts adolescents.

## METHODOLOGY

### **Variables :**

#### ***Independent variables***

- Internet Addiction

#### ***Dependent variables:***

- Depression, Anxiety and Stress (DASS)

### **Objectives :**

- To assess the level of Internet Addiction in males and females among College Students.
- To assess the level of Depression, Anxiety and Stress in males and females among College Students.
- To assess the relationship between Internet Addiction and Depression, Anxiety and

Stress among college students.

- To assess the impact of Internet addiction on Depression, Anxiety and Stress.

**Hypothesis:**

There will be a significant relationship difference in the level of Internet Addiction in males and females among college students.

There will be a significant difference in the level of Depression, Anxiety and Stress in males and females among College Students.

There will be a relationship between Internet Addiction and Depression, Anxiety and Stress (DASS) among College Students.

There will be a Positive impact of Internet addiction on Depression, Anxiety and Stress.

**Sample :**

The Purposive Sampling consists of total 100 College Students out of which 50 are the male students and 50 are the female students.

**Tools :**

**Young’s Internet Addiction Test (IAT) :**

The Internet Addiction Test (IAT) consists of 20 self-report questions, rated on a six-point Likert scale developed by Young (1998). IAT consisted of 20 questions designed to identify people as mildly, moderately, and severely addicted to internet. It is scored on 5 point rating scale from strongly agree to strongly disagree. The total score range is from 20-100. Scores =49 are considered normal, 50-79 is considered problematic, and 80-100 is considered as significantly problematic.

***The Depression Anxiety, Stress Scale (DASS-21):***

(Lovibond and Lovibond, 1995). It is a short version, self-rated questionnaire that is designed to assess the severity of the symptoms of depression, anxiety and stress; it consists of statements referring to the past week. Each item is scored on a 4-point scale (0 = Did not apply to me at all, to 3 = Applied to me very much or most of the time)

**RESULTS AND DISCUSSION**

The current study was conducted to Study the impact of internet addiction on DASS in college students among male and female students. After the collection of data and scoring, statistical analysis was done to test the formulated hypotheses of the study. The results have been discussed below:

<b>Table 1: Frequency of Internet addiction test on college students</b>		
Level of addiction	Frequency	Percentage
Normal	74	74.0%
Problematic	24	24.0%
Significant problematic	2	2.0%
Total	100	100.0%

Level of DASS	Depression		Anxiety		Stress	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Normal	7	7%	5.0	5%	23.0	23.0%
Mild	19	19%	2.0	2%	18.0	18.0%
Moderate	27	27%	18.0	18%	45.0	45.0%
Severe	31	31%	17.0	17%	13.0	13.0%
Extremely severe	16	16%	58.0	58%	1.0	1.0%
Total	100	100%	100.0	100%	100.0	100.0%

Table 3 show the mean, SD, t-values and p-values on the dimensions of Internet Addiction among gender. Mean and S D on the dimension of Internet Addiction among male students is 47.6800 and 16.11241 respectively. Mean and S D on the dimension of Internet Addiction among female students is 36.5200 and 12.66079 respectively. A t- value of 3.851 with p-value of .000 ( $P < 0.05$ ) that indicates that outcome value for the dimension of Internet Addiction is significant.

Table 4 shows Mean, S D, t-values and p-values on all the 3 dimensions of DASS of Boys and Girls. Mean and S D on the dimensions of Depression, Anxiety and Stress in Boys is 23.3200, 22.0400 and 21.9200 and 5.26226, 5.45841 and 5.12632, respectively. Mean and S D on the dimensions of Depression, Anxiety and Stress in Girls is 15.8800, 16.2000 and 17.3200 and 7.26647, 5.43984 and 5.75145, respectively. A t-value of 5.864, 5.359 and 4.222 with p-value of .000, .000 and .000, respectively ( $P > 0.05$ ) that indicates the outcome value for all the dimension is significant. In the same way mean and S D, total of boys is calculated which is 67.2800 and 7.69585, respectively. Mean and S.D, total of Girls is 48.3200 and 12.12425, respectively. A t-Value of 9.336 with p- value of .000 which indicates

Variable	Gender	N	Mean	Standard deviation	T	Sig(2-tailed)
Internet Addiction	Male	50	47.6800	16.11241	3.851	.000
	Female	50	36.5200	12.66079		

Variables	Gender	N	Mean	Standard deviation	T	Sig. (2-tailed)
Depression	Male	50	23.3200	5.26226	5.864	.000
	Female	50	15.8800	7.26647		
Anxiety	Male	50	22.0400	5.45841	5.359	.000
	Female	50	16.2000	5.43984		
Stress	Male	50	21.9200	5.12632	4.222	.000
	Female	50	17.3200	5.75145		
Total	Male	50	67.2800	7.69585	9.336	.000
	Female	50	36.5200	12.12425		

the results to be significant.

Table 5 Showing the correlation between Internet Addiction and Depression, Anxiety and Stress (DASS). Significant positive Correlation was found between Internet Addiction and Depression, Anxiety and Stress (DASS) at 0.01 level.

Above model indicates that Internet addiction as a whole can explain the total of DASS up to 19.6% which is statistically significant ( $p < 0.001$  and  $F = 23.95$ ).

Above table indicates Internet addiction significantly influence the DASS. The value of standardized coefficients (Beta) is .443 which indicates the degree of correlation between Internet addiction and DASS. It represents linear correlation between Internet addiction and DASS, it means when internet addiction increases DASS also increases and when internet addiction decreases DASS also decreases.

The Present study was conducted to measure the level of the Internet Addiction and Depression, Anxiety and Stress (DASS) among college students .

The first objective of the study was to assess the level of Internet Addiction in males and females among college students . The mean of the males is obtained to be higher than that of the girls. In the scores obtained in the scale of Internet Addiction, results were found to be significant between the two groups . Therefore, the alternate hypothesis *i.e.*, there will be significant difference in the level of Internet Addiction in males and females among college students is accepted .The second objective of the study was to assess the level of

**Table 5: Correlation between Internet addiction and depression, anxiety and stress (DASS)**

Variables	Correlation	Internet addiction	DASS
Internet addiction	Pearson correlation	1	.443**
	Sig(1-tailed)		.000
	N	100	100
DASS	Pearson correlation	.443**	1
	Sig(1-tailed)	.000	
	N	100	100

**Table 6 : Regression analysis of variance related to the role of Internet addiction on DASS**

Model summary				
Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.443 <sup>a</sup>	.196	.188	12.458

a. Predictors: (Constant), Internet addiction

**Table 7 : Internet addiction significantly influence the DASS**

Coefficients						
Model		Un-standardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41.348	3.658		11.304	.000
	Internet addiction	.399	.081	.443	4.894	.000

a. Dependent Variable: Dass (Depression, Anxiety and Stress)

Depression, Anxiety and Stress in males and females among college students. In the total scale, the mean of the girls is higher than boys. The results obtained in all the three dimensions of DASS *i.e.* Depression, Anxiety and Stress were significant. In the full scale, the results were significant. Thus the alternate hypothesis *i.e.* there will be significant difference in the level of Depression, Anxiety and Stress in males and females in college students is accepted. The third objective of the study was to assess the relationship between Internet Addiction and Depression, Anxiety and Stress (DASS) among college students. The scores obtained in both the scales *i.e.* Internet Addiction and Depression, Anxiety and Stress (DASS) shows the positive correlation between Internet Addiction and Depression, Anxiety and Stress. Thus the alternate hypothesis *i.e.* there will be a relationship between Internet Addiction and Depression, Anxiety and Stress among college students is accepted. The Fourth objective of the study was to assess the Impact of Internet Addiction on Depression, Anxiety and Stress (DASS) among college students and Internet addiction predict 19.6% of DASS as a whole variable and our hypotheses is accepted. On the level of Internet addiction 74% normal, 24% problematic and 2% significant problematic was found. Among the level of DASS 31% severe cases of depression, 58% extremely severe cases of Anxiety and 45% moderate cases of stress was found. The studies which support our hypotheses are given below:

Sharma *et al.* (2015) administered Six hundred adolescents to study the prevalence of internet addiction and its correlation to psychopathology. The prevalence of internet addiction was noted to be 3.96% in boys and 1.62% of girls. Over 15% of the total sample showed overuse of internet but below internet addiction criteria. Stress scores were significantly correlated with the internet use patterns in both sexes.

Students of Islamic Azad University of Birjand were investigated to find the relationship between Internet addiction and depression, anxiety and stress. The results showed a positive and significant relationship between addiction to the Internet and anxiety, stress, depression as a whole and all its components. The regression results also indicated that Internet can predict about 17% of depression variable, 20% of anxiety variable and 13% of stress variable (Seifi *et al.*, 2014).

Meena *et al.* (2015) explored the prevalence of social networking sites addiction and associated psychological problems in young adults. Out of 197 students 83 students (42.1%) were mildly effected, while 108 (54.8%) and 6 (3%) students were moderately and severely addicted to SNSs. Those with excessive SNSs use had higher rates of depression, anxiety and stress scores.

Jafari and Fatehizadeh (2012) investigated the relationship between internet addiction and depression, anxiety, stress and social phobia among students in Isfahan University. The results indicated a significant correlation between internet addiction and each clinical variable (depression, anxiety, stress and social phobia ( $p < 0.001$ )) and revealed a positive correlation between internet addiction and the set of these clinical variables ( $r = 0.62$ ) and 39% prediction of addiction to the internet ( $p < 0.001$ ).

A cross sectional study was conducted in 2014 on 400 male and female intermediate students of Birjand. It was found that 73.8% of the students were normal users, 20.5% had low addiction and 5.7% had a severe addiction to internet. The mean scores of stress,

anxiety, and depression in students addicted to internet were significantly higher than normal users' ( $P < 0.001$ ).

A descriptive correlational survey was conducted comprising 99 engineering students. Of the 99 students, 62 (62.6%) were males and 64.6% belong to 20–22 years of age group. 6.1% students reported severe internet addiction and it was found positively related to depression ( $r = .413$ ,  $p < .01$ ), anxiety ( $r = .262$ ,  $p < .01$ ), stress ( $r = .410$ ,  $p < .01$ ) and somatic symptoms ( $r = .0376$ ,  $p < .01$ ) (Kumar and Kaur, 2014).

### Conclusion:

The present study found a significant difference in both the scales i.e., Internet Addiction and Depression, Anxiety and Stress (DASS). A Positive correlation between Internet Addiction and Depression, Anxiety and Stress (DASS) was also found. Internet addiction positively predicts DASS.

## REFERENCES

- Akin, A. and Iskender, M. (2011). Internet Addiction and Depression, Anxiety and Stress. *International online Journal of Educational Sciences*; 3(1):138-148. <http://www.iojes.net>
- American Psychiatric Association. (2015). *Medical Leadership for Mind, Brain And Body*. <http://www.psychiatry.org/college-students>.
- Azher, M., Khan, R.B., Salim, M., Bilal, M., Hussain, A. and Haseeb, M. (2014). The Relationship between Internet Addiction and Anxiety among students of University of Sargodha. *International Journal of Humanities and Social Sciences*. [http://www.ijhssnet.com/journals/Vol\\_4\\_No\\_1\\_January\\_2014/33.pdf](http://www.ijhssnet.com/journals/Vol_4_No_1_January_2014/33.pdf)
- Jafari, N and Fatehizadeh, M. (2012) Investigation of the relationship between internet addiction and depression, anxiety, stress and social phobia among students in Isfahan University. *Scientific Journal of Kurdistan University of Medical Sciences*. VOL.17(4): 1-9
- Kumar, R. and Kaur, K. (2014). Problematic Internet use in Engineering Students and Its Relation to Psychosomatic Symptoms. *Res. & Reviews: J. Medical Sci. & Technol.*, 3(1).
- Lam, L.T., Peng, Z., Mai, J. and Jing, J. (2009). Factors Associated With Internet Addiction among Adolescents. *Cyberpsychology & Behaviour*; 12(5):551-555. <http://online.liebertpub.com/doi/abs/10.1089/cpb.2009.0036>
- Lovibond, S.H. and Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales*. Sydney: Psychology Foundation.; 2nd. Edn
- Meena, P.S., Soni, R., Jain, M. and Paliwal, S. (2015). Social networking sites addiction and associated psychological problems among young adults: A study from North India. *Sri Lanka J. Psychiatry* 6(1)
- Musa, M.A.H. and Vahedi, M. (2014). Study of the Relationship between Internet Addiction and Anxiety: Determination of the Extent of Internet Addiction and Anxiety among Iranian Students. *J. Appl. Environ. & Biological Sci.*, 4(2):201-209. [http://textroad.com/Old%20version/pdf/JAEBS/J.%20Appl.%20Environ.%20Biol.%20Sci.,%204\(2\)201-209,%202014.pdf](http://textroad.com/Old%20version/pdf/JAEBS/J.%20Appl.%20Environ.%20Biol.%20Sci.,%204(2)201-209,%202014.pdf)
- Razieh, J., Ali, G., Zaman, A. and Narjesskhatoun, S. (2012). The relationship between internet addiction

- and anxiety in the universities students. *Interdisciplinary J. Contemporary Res. Business*; **4**(1) : 942-949. <http://journal-archievs18.webs.com/942-949.pdf>
- Sharma, P., Bharati, A., De Sousa, A. and Shah, N. (2015). Internet Addiction and Its Association with Psychopathology: A Study in School Children from Mumbai, India. *Ntl J Community Med.*, **7**(1):1-4.
- Seifi, A., Ayati, M. and Fadaei, M. (2014). The Study of the Relationship between Internet Addiction and Depression, Anxiety and Stress among Students of Islamic Azad University of Birjand. *Internat. J. Economy, Management & Soc. Sci.*, **3**(12).
- Turi, A., Miri, M., Beheshti, D., Yari, E., Khodabakhshi, H. and Anani Sarab, G. (2015). Prevalence of Internet Addiction and its relationship with anxiety, stress, and depression in intermediate students in Birjand city in 2014. *J. Birjand University Medical Sci.*, **22** (1): 67-75.
- Vaghela, K.L. (2014). A Psychological Study of Anxiety between Internet Addicts and non Addicts Adolescents of Urban and Rural Area. *International Journal of Multidisciplinary Research & Development*; **1**(7):314-316. <http://allsubjectjournal.com/vol1/issue7/PartH/pdf/37.1.pdf>
- Weinstein, A. and Lejoyeux, M. (2010). Internet Addiction or Excessive Internet Use. *American J. Drug & Alcohol Abuse*, **36**(5):277-283. <http://www.tandfonline.com/doi/abs/10.3109/00952990.2010.491880#.VZpCUKjrbrc>
- Young, K.S. (1998). Caught in the Net. *Centre for Internet Addiction Recovery*. <http://netaddiction.com/Kimberly-Young/>.

\*\*\*\*\*