

## Effect of internet addiction on quality of sleep in young adults

Ananya Gupta<sup>1\*</sup>, Dr. Nikhat Kaura<sup>2</sup>

### ABSTRACT

Internet addiction has become a major disorder which is affecting a majority of people now a days. The quality of sleep of people also gets affected due to internet addiction among other factors like the surrounding environment, stress or some chronic illness and pain. The research is done to study the effect of internet addiction on the quality of sleep among young adults. A sample of 50 working and 50 non-working young adults who were in between 24 years to 35 years of age were selected randomly for the study. The results revealed a positive relationship between internet addiction and sleep quality. Also internet addiction predicts 24% of variance for sleep quality among the working and non-working young adults while no significant difference was observed between quality of sleep and internet addiction among working and non-working young adults. More research needs to be conducted for the same to understand the effect of internet addiction on sleep quality among young adults much better.

**Keywords:** *Internet Addiction, Sleep Quality, Young Adults.*

According to Collins dictionary, internet is defined as a network of computer that lets the users of computers to join with different computers present worldwide. Addiction on the other hand, can be defined as a psychological or physical necessity to take, use or do something to an extent where it becomes harmful for the person. It can be related to work, drugs, gambling or even computers or internet. Internet addiction is a disorder which does not include use of any substance or an intoxicating drug. It is almost similar to gambling. There are various signs and symptoms of internet addiction which include: Feeling of moodiness, depression, restlessness or irritability when one tries to cut short of internet usage time, internet addicts stay online for longer time than planned originally, Internet addicts use internet in increasing amounts of time in order to get satisfaction, Internet addicts even risk the loss of job, educational or career opportunities or even a significant relationship, they lie to therapists, family members or others to hide the amount of internet use etc. Oxford dictionary defines sleep as a condition of mind and body which repeats for several hours at night in which the eyes are closed, the nervous system is inactive, the muscles used for postural movement are relaxed and there is a suspension of consciousness. There are basically two stages of sleep which are: (i) Non Rapid Eye Movement Sleep (N-REM), it is a type of sleep when a person does not dream while sleeping. He or she does think but the thinking is simple and broken into parts, (ii) Rapid Eye Movement Sleep (REM), in this

<sup>1</sup>Student, Ba(H)Applied Psychology, Amity University, Noida, India

<sup>2</sup>Faculty Guide, Aips, Amity University, Noida, India

\*Responding Author

Received: November 27, 2019; Revision Received: December 21, 2019; Accepted: December 25, 2019

## Effect of Internet Addiction on Quality of Sleep in Young Adults

type of sleep the person starts dreaming while sleeping. During REM sleep the eyes of the person moves very fast and continuously. There is no movement of muscles at this time, only the person breathes and there is movement of eyes. There are different factors that influence quality of sleep. Some of them include: When a person is in chronic stress, the person might have a disturbed sleep quality as he or she might be tensed about something, if a person has some medical problem like Parkinsons diseases, heart failure, cancer or chronic pain, his or her quality of sleep is affected, if a person eats or drinks a lot of caffeine or alcohol, his or her sleeping pattern gets disturbed.

### REVIEW OF LITERATURE

Bhandari et al (2017) examined addiction of internet, quality of sleep and the signs of depression in the students of Nepal. 984 students were selected for the study. PSQI, PHQ-9 and IAT were the tools used in the study. The result showed that a significant effect on signs of depression was seen because of internet addiction and quality of sleep. Alaettin et al (2016) researched about the level of internet addiction, quality of sleep and associated factors. 508 college students were selected for the study. PSQI and IAT were used as tools. Results showed a positive association between poor sleep quality and addiction of internet. Qiaolei (2014) researched on the association between online gaming internet connectedness, decrement of academic performance and symptoms of internet addiction in young adults. In the study 594 inpatients participated voluntarily. Results revealed that online gaming plays a significant part in the increase of internet addiction, high level of addiction of internet is associated with decrease in performance in academics. Bansil et al (2011) examined the connection between sleep duration, sleep disorders, sleep quality and hypertension. Data of National Health and Nutrition Survey was used in the study. The results indicated an

association between problems in sleeping and hypertension. Hokka et al (2011) evaluated the effect of strong late night exercise on cardiac autonomic activity and quality of sleep. Results revealed that vigorous late night exercise affected the cardiac activity of the heart in the initial period of sleep while no effect was seen on the quality of sleep of late night vigorous exercise. Bakken et al (2009) studied the level of addiction of internet in Norwegian adults. YDQ was used as a tool in the study. The results revealed that a positive relation was seen between improper financial conditions, male gender, university level education with internet addiction while incidence of sleeping disorder and utilization of time on internet or any other psychosomatic damage constantly increased.

### METHODOLOGY

**Aim:** The aim of the research is to find out the relation between quality of sleep and internet addiction.

#### *Objective*

1. To study the level of internet addiction and quality of sleep in working and non-working young adults.
2. To determine the relationship between internet addiction and quality of sleep among working and non-working young adults.
3. To understand the effect of internet addiction on quality of sleep among working and non-working young adults

#### *Hypothesis*

1. There will be a significant relationship between internet addiction and quality of sleep among young adults.

## Effect of Internet Addiction on Quality of Sleep in Young Adults

2. There will be a significant difference between internet addiction and quality of sleep among working and non-working young adults.
3. There will be a significant effect of internet addiction on quality of sleep in working and non-working young adults.

### *Variables*

**Independent Variable:** Internet addiction is defined as a when a person needs to spend a lot of time on the internet to the level that the other parts of their life like relationships, work life, health etc. gets affected.

**Dependent Variable:** Quality of sleep is defined as how well a person is able to fall asleep and sleep properly without any disturbance.

### *Sample*

The sample consisted of 100 voluntary participants. They were from various parts of India but mainly from Gwalior located in Madhya Pradesh and NCR. In the study 50 participants were for working category and 50 were for non-working category

### *Description of Tools*

**Internet Addiction Test-** Internet addiction test was developed by Mr. Kimberley Young in 1988. This test measures the how much a person is addicted to the internet on a daily basis. IAT is the modification of previously used Young's Internet Addiction Diagnostic Questionnaire which had 8 items. The value of the reliability coefficient of the test is 0.90 and also has convergent, interval and a divergent reliability. Scoring of the test is done by calculating the total sum of all the 20 items which the subjects have rated from 0 to 5 where 0 indicates not applicable and 5 indicates very often. The maximum total score can be 100. If the total score ranges from 0 to 30 it shows normal level of internet use, a range of 31 to 49 shows mild level of internet addiction, 50-79 range of score indicates moderate level of internet addiction and a range of 80 to 100 indicates a severe level of internet addiction.

**Pittsburgh Sleep Quality Index** - It was developed by Buysse and his colleagues in 1988. It is meant to assess the quality of sleep of an individual. This questionnaire consists of 19 items and has 7 dimensions namely, duration of sleep, disturbance in sleep, sleep latency, sleep dysfunction, efficiency of sleep, quality of sleep and the need of medicines in sleeping. This test has a value of 0.87 test-retest reliability as well as the value of reliability coefficient is 0.83. Questions are scored on a range of 0 to 3. All the 7 dimensions were scored separately and then a sum total of all the 7 dimensions was calculated. If the total score has a value of 5 or below the subject has good quality of sleep and if the score is above 5 then the subject has poor quality of sleep.

### *Procedure*

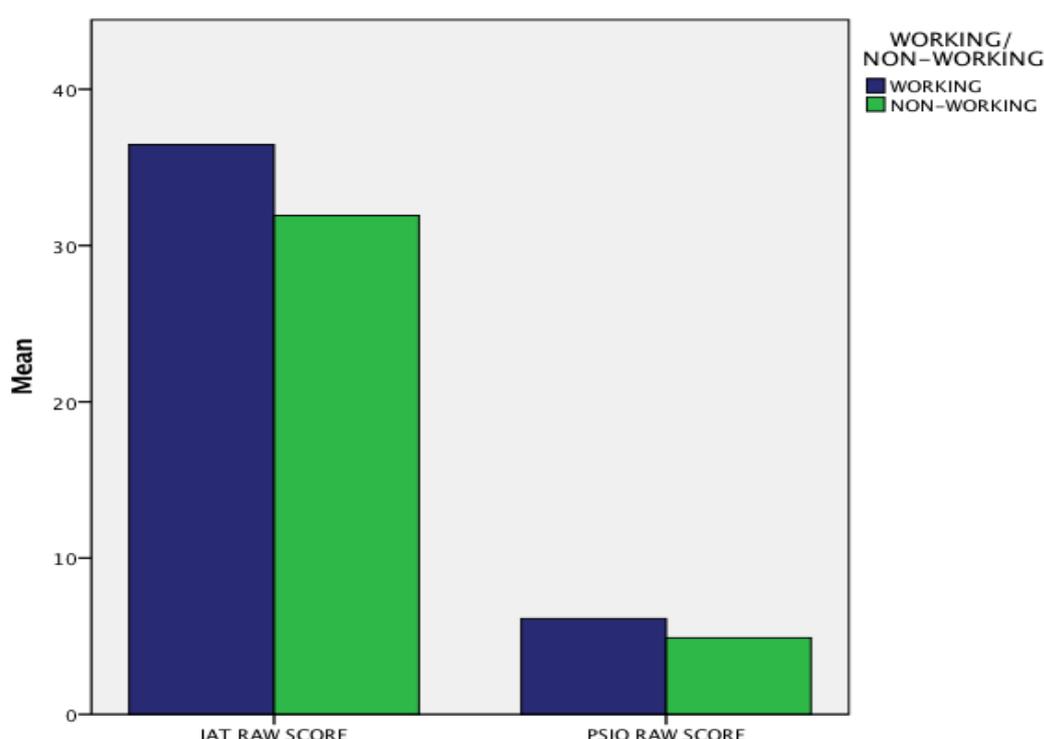
Printouts of the questionnaires were taken out and then the subjects were briefed about the questionnaire and rapport was established. Instructions were given to the subjects and informed consent was taken. Thereafter queries from the participants were resolved. 100 questionnaires were filled and result was then calculated using the SPSS 24 software wherein T- test, correlation and regression was analysed.

**RESULT**

*Table 1: t-test for internet addiction and quality of sleep among working and non-working young adults*

Variables		N	Mean	Standard Deviation	t
Internet Addiction	Working	50	36.46	15.331	0.114
	Non- Working	50	31.92	13.055	
Quality Of Sleep	Working	50	6.12	3.696	0.062
	Non- Working	50	4.90	2.690	

The t-test shows the mean difference between the working and non-working young adults. The result shows no significant difference between working and non-working for internet addiction (t=0.114) and quality of sleep (t=0.062).



*Figure 1 Mean difference between internet addiction and quality of sleep in working and non-working young adults*

*Table 2: Correlation matrix between internet addiction and quality of sleep among working and non- working young adults*

Variables	Internet Addiction Test	Pittsburgh Sleep Quality Index
Internet Addiction	-	
Quality Of Sleep	0.498**	-

\*P< 0.05, \*\*P< 0.01

Pearson correlation coefficient was found between internet addiction and quality of sleep. The value of correlation coefficient was found to be 0.498 (P>0.01). The result shows that there is

## Effect of Internet Addiction on Quality of Sleep in Young Adults

a positive relationship between internet addiction and poor quality of sleep i.e. with the increase of internet addiction, the poor quality of sleep increases.

**Table 3:Regression analysis for internet addiction and sleep quality among working and non-working young adults**

Variables	Quality Of Sleep			
	B	Seb	Beta	t
Internet Addiction	0.114	0.020	0.498	5.680

The model of regression which predicts the effect of internet addiction on the quality of sleep in working and non-working young adults was significant. This proves that internet addiction causes 24% variance in the quality of sleep of both working and non-working young adults.

### DISCUSSION

The aim of the research study was to find out the effect of internet addiction on quality of sleep in working and non-working young adults. Internet addiction is a disorder of gambling in which people use internet to the extent that it hampers their daily living style, relationships as well as their surroundings. Quality of sleep is defined as how well a person is able to sleep despite disturbance in the surroundings.

The t test result indicates that there is no significant difference among working and non-working young adults in relation to internet addiction ( $t=0.114$ ) and sleep quality ( $t=0.062$ ). It means that there is hardly any difference in both working as well as non-working young adults for internet addiction and quality of sleep. There are a lot of researches that support the current findings. A research evaluated a two-way association between problems in sleeping and internet addiction. The findings showed that problem of middle and early insomnia lead to internet addiction which lead to improper sleep pattern but did not show significant difference for age as well as gender (Chen et al. 2016).

The results also showed a positive correlation between addiction of internet and poor quality of sleep, from which it can be inferred that if internet addiction increases, the quality of sleep becomes poorer in both working and non-working young adults. This is supported by the research which was done to find the relationship between internet addiction and sleep related disorders in the youth of Vietnam where the results showed a significant incidence of sleep disorders and internet addiction in the youth (Roger, C.M. et al, 2017).

Using regression analysis it can be observed that internet addiction causes 24% variance on quality of sleep in working and non-working young adults. It confirms the hypothesis that there is a significant effect of internet addiction on quality of sleep in working and non-working young adults. It means that internet addiction hampers the sleep quality of individuals. There are many researches that prove the same. The result of a research done on medical students on the effect of addiction of internet on quality of sleep where a negative effect of internet addiction was seen on academic performance, health. It also showed that internet addiction also caused problems in the sleep-wake cycle of students (Mevsim et al 2015).

### CONCLUSION

It can be concluded from the results that no significant difference was found between internet addiction and quality of sleep in working and non-working young adults. The result also

## Effect of Internet Addiction on Quality of Sleep in Young Adults

concludes that there is a significant relationship between sleep quality and internet addiction and also effect of internet addiction is visible in quality of sleep in young adults.

### REFERENCES

- Alaettin, U., Mustafa, T., Didem, A., Emine, A., Serhat, A. M., Burcu, I. A., Tugcel, K., & Necati, B. (2016). Internet addiction and sleeping quality among college students in West Turkey. *he Research Journal of Educational Sciences*, 1(7), 1-8.
- Bansil, P., Kiklina, E. V., Merritt, R. K., & Yoon, P. W. (2011). Association between sleep disorders, sleep duration, quality of sleep and hypertension: results from National Health and Nutrition Examination Survey, 2005 to 2008. *The Journal of Clinical Hypertension*, 13(10), 739-743.
- Bhandari, P., Neupane, D., Rijal, S., Thapa, K., Mishra, S., Poudyal, A. (2017). Sleep quality, internet addiction and depressive symptoms among undergraduate students in Nepal. *BMC Psychiatry*, 17(106).
- Chen, Y.L., Gau S.S. (2016). Sleep problems and internet addiction among children and adolescents: a longitudinal study. *Journal of Sleep Research*, 25(4), 458-465.
- Jiang, Q. (2014). Internet addiction among young people in China: Internet connectedness, online gaming, and academic performance decrement. *Internet Research*, 24(1), 2-20.
- Myllymaki, T., Kyrolainen, H., Savolainen, K., Hokka, L., Jakonen, R., Juuti, T., & Rusko, H. (2011). Effect of vigorous late-night exercise on sleep quality and cardiac autonomic activity. *Journal of sleep research*, 20(1pt2), 146-153.
- Roger, C.M., Zhang, W.B.M., Bach, X.T., Le, T.H., Nguyen, D.H., Tran, D.T. & Latkin, C. (2017). Internet addiction and sleep quality among Vietnamese youths. *Asian Journal of Psychiatry*, 28, 15-20.

### *Acknowledgements*

The author appreciates all those who participated in the study and helped to facilitate the research process.

### *Conflict of Interest*

The author declared no conflict of interests.

**How to cite this article:** A Gupta & N Kaura (2019). Effect of internet addiction on quality of sleep in young adults. *International Journal of Indian Psychology*, 7(4), 795-800. DIP:18.01.091/20190704, DOI:10.25215/0704.091