



Occupational Therapy

IDENTIFYING INTERNET ADDICTION, QUALITY OF SLEEP AND STRESS AMONG UNDERGRADUATE(UG) OCCUPATIONAL THERAPY(OT) STUDENTS : A CROSS SECTIONAL STUDY

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ABSTRACT **Background-** People with stress disorders report with high level of psychological distress and are unable to relax and sleep. It has been shown that excessive internet use may lead to depression, anxiety and sleep disturbance, so that it is important to know relationship among sleep, stress and internet addiction. **Objective-** To Identify Internet Addiction, Quality Of Sleep And Stress Among Undergraduate(UG) Occupational Therapy(OT) Students & to study correlation between all the scales. **Study Design-** A cross sectional study design. **Methods-** Written consent from participants was taken. Paper-based version of the Internet Addiction Scale, Pittsburgh Sleep Quality Index (PSQI) and Perceived Stress Scale (PSS) were given to OT UG Occupational therapy students (I to IV year) from OT Training School and centre. **Result**—Occupational therapy students showed Good and poor quality of sleep and moderate stress along with normal to mild internet addiction. **Conclusion**—Quality of sleep in Occupational Therapy undergraduate students is affected due to stress and internet addiction.

KEYWORDS : Sleep, Stress, Internet Addiction, Occupational Therapy

INTRODUCTION:

Addiction is considered by WHO as dependency as the continuous use of something for the sake of relief or stimulation which often causes cravings when it is absent. Internet addiction causes maladaptive difficulties, interfere with performance in school or work, reduce real life social interaction, neglect of personal life, mental preoccupation mood modifying experiences and can also lead to relationship disorders. According to the study in KOREA Kim et al; found that there is a positive co-relation between depression, aggression and impulsions associated with internet addiction. It has been shown that excessive internet use may lead to depression, anxiety and sleep disturbances.

Sleep is a naturally recurring state of mind and body, characterized by altered consciousness, relatively inhibited sensory activity, reduced muscle activity and inhibition of nearly all voluntary muscles during rapid eye movement (REM) sleep, and reduced interactions with surroundings. Difficulty in and staying asleep is the most common sleep disturbances. People with stress disorders report with high level of psychological distress and are unable to relax and sleep.

Addiction is a chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences, with addiction use substances or engage in behaviours that become compulsive and often leads to sleep disturbances.

Stress is the body's reaction to any change that requires an adjustment or response. The body reacts to these changes with physical, mental, and emotional responses. Stress can adversely affect sleep quality and duration, while insufficient sleep can increase stress levels. Both stress and lack of sleep can lead to lasting physical and mental health problem.

NEED OF THE STUDY—

Over years, it has been seen in studies that internet addiction affects the quality of sleep causing insomnias, daytime sleepiness, in class, etc. Regular, good quality sleep is important for brain functioning, emotional, well-being, physical health, performance and personal safety. Occupational therapy students has to actively attend lectures and clinicals daily. Therefore, it is important to determine if students

are affected by internet addiction and sleep disturbances which may cause hindrance in daily academic activities. Internet addiction affects social life, communication and difficulty in concentration. This study was conducted with the aim magnitude of internet addiction among medical students.

AIM:

- To Identify Internet Addiction, Quality Of Sleep And Stress Among Undergraduate(UG) Occupational Therapy (OT) Students

OBJECTIVES:

- To Identify:
- Internet Addiction scores
 - Quality Of Sleep
 - Stress score & To study correlation between all the scales.

METHODOLOGY:

Occupational Therapy undergraduate students from the Occupational Therapy Department of a medical college and hospital (PVT) participated in the study. They were explained the purpose and nature of the study. A consent letter was taken in the language best understood by students. Any queries regarding the study were explained. There were total 110 participants which included in the study. The participants ranged in age from 19 to 23 years. Paper-based version of the Internet Addiction Test (IAT), Pittsburgh Sleep Quality Index (PSQI) and Perceived Stress Scale (PSS) were used. Data was collected & scores were calculated for the individual scale that was administered. Statistical analysis was done of the collected data and results were concluded.

RESULTS AND DATA ANALYSIS:

Table 1 : Sleep Quality Based On The PSQI Scores & Stress Scores in Undergraduate Students Of Occupational Students.

PSQI	N	Pittsburgh Sleep Quality Index (PSQI)					
		Mean	Median	Std. Deviation	Minimum	Maximum	Percentage
Good sleep (<6)	28	3.6785	4	1.05597	2	5	25

Poor sleep (>=6)	82	10.158	9	4.20308	6	21	75
Total	110	8.5090	7	4.63086	2	21	
Perceived Stress Scale (PSS)							
PSS	N	Mean	Median	Std. Deviation	Minimum	Maximum	Percentage
Low stress	12	10.25	11.5	2.73446	5	13	10.91
Mod stress	82	20.52	21	3.51759	14	26	74.55
Severe stress	16	31.25	30.5	3.73273	27	40	14.54
Total	110	20.96	21	6.3393	5	40	100.0

Table 1 shows Percentage of Pittsburgh Sleep Quality Index & Perceived Stress Scale of Undergraduate Occupational Therapy Students (I to IV years). It is observed that OT UG students demonstrates 25% with Mean of 3.6785 & SD 1.05597 of Good sleep and 75% with mean of 10.158 & SD 4.20308 students shows Poor sleep. OT UG students demonstrates Low Stress (10.91%) with Mean of 10.25 & SD 2.73, Moderate Stress(74.55%), Mean of 20.25 with SD of 3.51 and Severe Stress (14.54%) Mean of 20.96 with SD of 3.37.

Table2: Internet Addiction Based On The IAT Scores in Undergraduate Students Of Occupational Students

IAT	N	Mean	Median	STD. Deviation	Minimum	Maximum	Percentage
Normal	47	18.61	18	7.36192	4	30	42.72
Mild user	39	38.48	38	5.22076	31	49	35.45
Mod user	22	56	54.5	4.57737	50	66	20
Severe user	2	89.5	89.5	9.19238	83	96	1.83
Total	110	34.42	33.5	17.3334	4	96	100.0

Table 2 shows Internet Addiction Test of Undergraduate Occupational Therapy Student (I to IV years). It is observed that OT UG students demonstrates 42.72% are Normal users(Mean 18.61 with SD of 7.36), 35.45% are Mild users(Mean 38.48 with SD 5.22), 20% are Moderate users (Mean of 56 and with SD of 4.57) and 1.83% are Severe internet users (Mean of 89.5 and SD of 9.19).

Correlation Between Different Variables

Table 3: All Correlations

	PSQI	PSS	IAT
PSQI			
r'	—	0.2850	0.1795
p'	—	0.0025	0.0605
N	110	110	110
PSS			
r'	0.2850	—	0.38001
p'	0.0025	—	0.00004
N	110	110	110
IAT			
r'	0.1795	0.38001	—
p'	0.0605	0.00004	—
N	110	110	110

TABLE 3: Shows Correlation between Perceived Stress Scale, Pittsburgh Sleep Quality Index and Internet Addiction Test. There is significant correlation between Quality of Sleep and Stress ($P < 0.05$), Internet Addiction and Stress ($P < 0.05$). The correlation between Internet Addiction and Quality of Sleep is not significant ($P > 0.05$).

DISCUSSION:

Occupational Therapy students often work with people with mental health problems, disabilities, injuries, or impairments. They also provide intervention for helping children with disabilities to participate fully in school and social situations, and providing supports

for older adults experiencing physical and cognitive changes. The students also have stress of exams ,notes preparation, research work for which they have to use internet which causes stress that affects sleep. Restful sleep provides the basis for physical, mental, and psychological well-being in humans, and sleep deprivation.

The present research attempted to identify relation between internet addiction, quality of sleep and stress among under-graduated occupational therapy students .The quality of sleep was assessed using the PSQI, stress was assessed with PSS and internet addiction was assessed by IAS.

Table 1 shows students with 25% of good quality of sleep and 75% poor quality of sleep. This could be because of spending maximum time with friends for academic purpose and sociocultural factors. This is supported by the study of Anurag Rathi et al (2015) who mentioned in his article that approximately 32.53% of the medical students showed poor sleep quality on the PSQI which in accordance with the results of most studies conducted in Brazil ,Mexico and India also he stated that the prevalence of poor sleep possibly because of differences in measurement tools, culture, socio demographical variables and personality traits of medical students which was published in JCDR.

And Table 1 also shows students with low stress 10.91% , moderate stress 74.55%, and severe stress 14.54% . This may be due to parental stress, peer pressure , submission of assignment & journals on time, cost of education, student debt , adjustment issues ,interaction with various department professionals, cultural barrier and reach college on time, etc. Gessely de La Rosa-Rojas et al published his article in Gaceta Medica de Mexico (2015) mentioned in his study that the competitive environment and the burden of care associated responsibilities which involves having to face situations of pain, suffering and death are causes of stress. According to the study conducted by Murphy and Gray in Philadelphia (USA), stress experienced by Medicine students is caused by financial insecurity due to the cost of education and student debts. Other referred cause is associated with a lack of professional identity, since students experience insecurity regard to their knowledge and skills.

Table 2 shows students with 42.72% are Normal users , 35.45% are Mild users, 20% are Moderate users and 1.83% are Severe internet users, this may be due to use of internet for academic purpose, communicating with family and friends for students staying in hostel, leisure time & essential online shopping . Our findings are supported by this study of Namrata Upadhyay et al published in journal Doves Press Journal in 2016, concluded that the students use internet to access knowledge disseminate information, keep in contact with friends and family , spare leisure time, online shopping. Majority of the students prioritized internet use for downloading and watching movies and songs and communicating with their family and friends. To minimize the stress that may have arisen from being far from home students may indulge in more time spent on the internet .

Table 3 shows that In our study too, it was found that there is significant correlation between quality of sleep and stress ($P = 0.0025$) , and internet addiction is significantly correlated with stress ($P = 0.00004$) and non- significant in internet addiction and quality of sleep ($P = 0.0605$) , this means quality of sleep is not affected due to internet addiction ,but it is affected due to stress . this could be because of students uses internet for only academic purpose and for leisure time and communicating with friends and family. To combat stress students play online games ,surf social media and watch movies., web series, not able to complete assignments on given time because of this time management skills is affected. This is supported by the study Chang and Hung(2012) stated that the internet is used by addicts as a mean of avoiding and dealing with underlined psychological problems .

Janhabi Das(2019) showed in their study that there was significant association between internet addiction and depression, anxiety, stress which supports the idea that internet addiction should be added to iteration of DSM. A study investigating the correlation between internet use and sleep in 380 medical students concluded that overuse of Mobile phones and social networks could impair sleep quality (Mohammad digital et al. ,2016) . Internet addiction has been found to contribute to disturbed circadian rhythm (Chen and Gau,2016) that may negatively influence bedtime and sleep duration leading to daytime fatigue and impaired work performance .

LIMITATIONS:

- The population was less in number.
- There was unequal proportion of Occupational Therapy UG student male and female
- It was an Unicentric study

STRENGTHS:

This study attempted to identify Internet Addiction, Quality of Sleep and Stress among

Undergraduate Occupational therapy students in Private College

CONCLUSION:

This study showed the relation between Quality of Sleep, Stress and Internet Addiction in Undergraduate Occupational Therapy students. Internet addiction is a growing health problem in the developing countries like India where using of internet access is high. Due to overuse of internet it causes stress which in-turn affects the quality of sleep. India in compared to other western countries is lagging to understand importance of research more on internet addiction, also awareness about ways to combat stress may help people to lead a balanced and healthy life .Hence there is a definite need to identify students with internet addiction and plan intervention strategies.

RECOMMENDATIONS:

Larger data from multiple institutes can be compiled and analyzed together. Sleep should be considered as an important factor for psychological well-being. Internet addiction & Stress may be a factor in poor sleep quality and should be considered in sleep interventions. Similar long-term studies can be conducted with larger sample size. Factors such as family financial status, social support, and past emotional trauma may be included in the study as it affects the sleep quality of a person. Persons with other occupations can be studied.

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