



Journal of Biomedical and Pharmaceutical Research

Available Online at www.jbpr.in

CODEN: - JBPRAU (Source: - American Chemical Society)

Index Copernicus Value: 72.80

(National Library of Medicine): ID: (101671502)

Volume 7, Issue 2: March-April: 2018, 87-90

Research Article

PREVALENCE OF SLEEP DISORDERS IN STUDENTS AFFECTING THEIR MENTAL STATE

Ashish Kumar Mittal

Associate Professor Dept. of Psychiatry Krishna Mohan Medical College and Hospital Pali Dungra, Sonkh Road Mathura

Received 10 January 2018; Accepted 23 February, 2018

ABSTRACT

Background: Sleep is an essential part of human homeostasis. Sleep disorders are closely linked to serious medical, psychological, and social problems. Chronic sleep deprivation is becoming more of a problem in many countries. Because the body's stress systems are critical in adapting to a constantly changing and uncertain environment, it is critical to determine whether insufficient sleep affects these systems. In an adaptive ability to preserve homeostasis, the human body activates defensive systems. Insomnia may arise if these defences fail. **Material and Method:** The cross-sectional type of survey study was conducted to analyse the sleeping pattern. Among the various age group of students, mostly college going students were choose as they experience more pressure and disturbance in their sleep because of various reasons including academic pressure. The sampling census was done with 200 students from different academic year.

Result: Out of 200 students, the ratio was higher on girls as on boys. 58% of girls were present in the survey where only 42% of boys were present. The average age of participants was around 22 years, where most of them were staying in hostels. The survey questioner included some of the questions related to eating and addiction habits in which smokers and drinkers were found around 15% of targeted audience. While as one having psychological disorders were found around 36%. More than 33% of the participants were found struggling with sleeping disorder.

Conclusion: our findings suggest that a large proportion of college students are at risk for sleep disorders or poor sleep hygiene, and that sleep may have an influence on academic performance. Student retention and graduation rates are a concern for higher education institutions. According to this study, medical students have a significant frequency of sleep disorders

Keywords: Sleep disorder, defensive systems, Insomnia, mental state

INTRODUCTION:

Sleep is an essential part of human homeostasis. Sleep disorders are closely linked to serious medical, psychological, and social problems. Chronic sleep deprivation is becoming more of a problem in many countries. Because the body's stress systems are critical in adapting to a constantly changing and uncertain environment, it is critical to determine whether insufficient sleep affects these systems. In an adaptive ability to preserve homeostasis, the human body activates

defensive systems. Insomnia may arise if these defences fail. A disruption in routine, such as psychiatric illness, handicap, or stress, can produce short-term insomnia.

Stress-related insomnia is usually just transitory, lasting only a few days. In the clinic, however, the real issue is chronic insomnia, often known as physiological insomnia. The predisposing, precipitating, and perpetuating factors all play a role in the development of chronic insomnia,

according to the stress-diathesis theory. A better knowledge of the progression of stress-induced insomnia, particularly physiological insomnia, is required.^[i]

Some of the major clinical signs of sleep disturbances seen in people with psychiatric diseases include difficulty getting asleep or staying asleep, poor sleep quality, nightmares, and excessive daytime sleepiness.^[ii]

Sleep difficulties are frequent in the general population as well as in people suffering from psychiatric diseases. In fact, psychiatric patients have the highest rate of insomnia. Those suffering from sleep problems frequently exhibit dissatisfaction with sleep quality, timing, and amount, and these symptoms have a negative influence on function and quality of life.

Sleep difficulties in patients with major depression, generalised anxiety disorder, bipolar disorder, and post-traumatic stress disorder include difficulty getting asleep or staying asleep, poor sleep quality, nightmares, and excessive daytime sleepiness.

College students mostly go through such sleep issues which ultimately reflects on their academic performances. The most common issues seen in students are sleep deprivation and changing sleep timings making them sleep mostly in day time and struggling in night. Sleep may be found disturbed by voluntary activity as social media, entertainment programmes, etc or involuntarily by surrounding factors. Coping up with this disturbed schedule to complete their sleep, most of the weekends are spent in bed, which worsen the situation of mental and physical health.

According to the National Sleep Foundation, high school students who reported insufficient sleep or daytime sleepiness had a sad mood and received worse marks, whereas 80 percent of students who reported receiving enough sleep had As and Bs. Among full-time college students, individuals who reported poor sleep quality were more likely to perform poorly on academic examinations.^[iii]

It is unknown how common sleep disturbances are among college students. It's unclear whether reported drowsiness among college students is related to a lack of sleep or if it's a symptom of an undetected sleep condition. Although reported sleep disorders in adults tend to rise with age, 13 they may also frequently occur enough among college students to merit evaluation. Furthermore, sleep habits or disorders among college students can differ depending on gender or race/cultural affiliation.^[iii]

The prevalence of sleep disorders in general population have been observed is 15-20% but in most medical students it has been seen around 30%.^[iv] Because of its compatibility with cognition capacity, several studies among medical students have found that poor sleep quality can influence academic and clinical performance.

Objective of study

Very few studies are conducted as to acknowledge the mental disorders caused because of disturbed sleeping habits in students. The aim of study was conducted to study the sleeping pattern of students from different educational academic year and to understand the level of mental disturbance in them.

Material and method

The cross-sectional type of survey study was conducted to analyse the sleeping pattern. Among the various age group of students, mostly college going students were chosen as they experience more pressure and disturbance in their sleep because of various reasons including academic pressure. The sampling census was done with 200 students from different academic year.

The data was obtained by questioner method where two different sets were prepared. One set of the format was to identify the mental and physical health of the participant while other set was prepared to identify the sleeping pattern and related disorder. The participants were convinced to tick the honest answers to obtain the correct

analysis. Each of the set was included with 50 different questions out of which less than 50% of score showed disturbed mental health and sleeping disorder. This questionnaire contains four components physical, anxiety and sleep, social function and depression. The questioner was filled by the students and researchers were present during the data collection. Some of the question were relative based in which students were said to exchange their papers with roommates and friends to know the basic nature of oneself during stress and anxiety conditions.

Observation and result

Before finding the result for the final assay of the survey, the validation check was done to ignore such papers that did not complete the questioner or wrote funny joking answer. There were no such papers found with any validation issue and hence all 200 assay were considered for the survey result.

Out of 200 students, the ratio was higher on girls as on boys. 58% of girls were present in the survey where only 42% of boys were present. The average age of participants was around 22 years, where most of them were staying in hostels. The survey questioner included some of the questions related to eating and addiction habits in which smokers and drinkers were found around 15% of targeted audience. While as one having psychological disorders were found around 36%. More than 33% of the participants were found struggling with sleeping disorder.

As per the finding of this survey, it could be concluded that there could be a positive correlation between sleep disorder and age. Among the selected group of participants the sleep disorder ratio of girls and boys was found as 15.5: 25%. Moreover, out of the total participants, the prevalence rate of sleep disorder and mental disorder was found 55% vs 21%.

Discussion

As per from the survey, it was found that more than 50% of the students suffer from sleep disorders. It

was also found that sleep disorder, addiction and disturbed mental health is seen more in male than females. We may have inflated the incidence of sleep disorders symptoms among our sample because symptoms of various sleep disorders overlap with symptoms of many mental diseases and because we relied on self-reported symptoms of sleep disorders.

Regular exercise has been shown in epidemiological research to lower the incidence of sleep disturbances due to its antidepressant, thermogenic, and anxiolytic effects.^[4]

Lower levels of physical activity were linked to the symptoms of all types of sleep disorders, as well as the symptoms of sleep breathing problem. Obesity was also found to be connected with sleep breathing problem on its own.

In terms of educational disparities, we discovered that those with higher education (post-secondary through pre-university) were considerably more likely to exhibit symptoms of any sleep disturbance than people with lower education levels (secondary or below).

Conclusion

In conclusion, our findings suggest that a large proportion of college students are at risk for sleep disorders or poor sleep hygiene, and that sleep may have an influence on academic performance. Student retention and graduation rates are a concern for higher education institutions. According to this study, medical students have a significant frequency of sleep disorders. The relationship between sleep disorders and academic success has been studied and shown to be significant. Therefore, undergraduate medical students should be taught about the importance of getting enough sleep for their academic success.

Sleep quality is also influenced by marital status, environment, smoking, and physical exercise. These factors may have an impact on students' academic performance, and we urge that this result be investigated further.

References

- ^[i] Han, K. S., Kim, L., & Shim, I. (2012). Stress and sleep disorder. *Experimental neurobiology*, 21(4), 141–150. <https://doi.org/10.5607/en.2012.21.4.141>
- ^[ii] Aditi Hombali, Esmond Seow, Qi Yuan, Shi Hui Sherilyn Chang, Pratika Satghare, Sunita Kumar, Swapna Kamal Verma, Yee Ming Mok, Siow Ann Chong, Mythily Subramaniam, Prevalence and correlates of sleep disorder symptoms in psychiatric disorders, *Psychiatry Research*, Volume 279, 2019, Pages 116-122, ISSN 0165-1781, <https://doi.org/10.1016/j.psychres.2018.07.009>.
- ^[iii] Merle Claßen, Anja Friedrich, Angelika A. Schlarb, Thomas Baguley. (2022) Sleep better – Think better! – The effect of CBT-I and HT-I on sleep and subjective and objective neurocognitive performance in university students with insomnia. *Cogent Psychology* 9:1.
- ^[iv] Foley DJ, Monjan AA, Brown SL, Simonsick EM, Wallace RB, Blazer DG. Sleep complaints among elderly persons: an epidemiologic study of three communities. *Sleep*. 1995;18(6):425–32. [PubMed: 7481413].
- ^[v] Kredlow et al., 2015 M.A. Kredlow, M.C. Capozzoli, B.A. Hearon, A.W. Calkins, M.W. Otto The effects of physical activity on sleep: a meta-analytic review. *J. Behav. Med.*, 38 (3) (2015), pp. 427-449 <https://doi.org/10.1007/s10865-015-9617-6>
- Heath AC, Kendler KS, Eaves LJ, Martin NG. Evidence for genetic influences on sleep disturbance and sleep pattern in twins. *Sleep*. 1990;13(4):318–35. [PubMed: 2267475].
- Kristin Wong, Vidhi Kapoor, Alan Tso, Mary O'Connor, David Convissar, Neil Kothari, Christin Traba. (2021) Environments, processes, and outcomes - using the LEPO framework to examine medical student learning preferences with traditional and electronic resources. *Medical Education Online* 26:1