



ORIGINAL RESEARCH PAPER

Pharma

A PROSPECTIVE OBSERVATIONAL STUDY AMONG MEDICAL STUDENTS ON SLEEP PATTERN

KEY WORDS: Sleep, Medical Students, Sleep Pattern

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ABSTRACT

Sleep is a physiological and psychological state that usually lasts for several hours each night. During this time, the nervous system is dormant, the eyelids are closed, the postural muscles are relaxed, and consciousness is essentially suspended. There are impacts on emotional and physical health associated with sleep deprivation. Therefore, the purpose of this study is to determine how medical students' sleep patterns. Techniques: Using a pre-tested, semi-structured, self-administered questionnaire, 200 medical students participated in a cross-sectional study. Descriptive statistics were used to assess the data that was entered into an Excel sheet. Findings: The average age of the students was 20.65±0.56 SD, and 68.5% of them slept for the recommended number of hours. Of these, 31.5% possessed abnormal sleep. 35% of students watch television/late night movies and hinder their sleep which depicts the younger generation is much attracted towards browsing at night times which affect their sleep pattern. 34.86% of sleep deprived students went for depression followed by agitation which affected their daily routine at a significant level. Conclusions: Sleep is essential for good physical and mental health. Deprivation of sleep can affect day-today activities.

INTRODUCTION

Sleep affects physical growth, behaviour and emotional development besides determining cognitive functioning, learning and attention. Apart from physiological, psychological and environmental factors, socio-cultural factors also play a major role in determining sleep pattern of a person. In recognition of the importance of sleep to the nation's health, CDC surveillance of sleep-related behaviours has increased in recent years. Additionally, the Institute of Medicine encouraged collaboration between CDC and the National Centre on Sleep Disorders Research to support development and expansion of adequate surveillance of the U.S. population's sleep patterns and associated outcomes. Two new reports on the prevalence of unhealthy sleep behaviours and self-reported sleep-related difficulties among U.S. adults provide further evidence that insufficient sleep is an important public health concern.

AIM

To determine the sleep pattern among medical students.

METHODS & MATERIALS :

Inclusion criteria

All the students who were present on the day of interview were taken for study.

Exclusion criteria

The students who did not give their consent and those who were absent on the day of interview are excluded from the study.

A cross-sectional study was carried out at government sivagangai medical college sivagangai among the medical students. Ethical clearance was obtained. 100 undergraduates were taken for study by convenient sampling technique. All the students who were present on the day of interview were taken for study till the sample size is achieved. They were made to sit in class on a particular day of interview and were explained about the purpose of the study and the questions were explained to them and have been told to fill the same and can choose multiple choices if required. It was a self-administered, semi-structured questionnaire given to them. After data collection, it was entered in Excel sheet and analyzed using SPSS software. Descriptive statistics was

applied and results were represented in the form of percentages, figures, graphs, tables and charts wherever necessary.

RESULTS

The average age of the undergraduate participants in the study was found to be 20.65±0.65 standard deviations. Of them, 33% were females and 67% were boys. Few of them are day scholars, and the majority (80%) reside in hostels. Of them, 32% had irregular sleep patterns. When someone has an abnormal sleep pattern, their circadian rhythm is disrupted and they get less than six hours of sleep every day. Research shows that among medical students who lack sleep, 61.9% report that it affects their academic performance, making it difficult for them to remember answers on tests, and 38.09% report that it affects their health, making it difficult for them to focus in class. 35% of students watch TV/late night movies and hinder their sleep which depicts the younger generation is much attracted towards browsing at night times which affect their sleep pattern.

DISCUSSION

According to the results of this study, medical students' normal sleep patterns are becoming less noticeable, while abnormal sleep patterns are becoming more prevalent. Numerous studies regarding the sleep patterns of medical residents and schoolchildren have also demonstrated a strong correlation between sleep deprivation and its negative health effects. A study done by Rosen et al on the prevalence of chronic sleep deprivation, depression burnout, and empathy increased from baseline to year end. Specifically, the prevalence of "high" scores changed for chronic sleep deprivation (9% to 43%, p=0.0001). The prevalence of moderate depression increased from 4.3% to 29.8% (p=0.0002). There was an association between becoming chronically sleep deprived and becoming depressed (OR = 7, p=0.014). A study done by Baviskar et al to describe sleep habits and sleep problems in a population of undergraduates, interns and postgraduate students of Pravara Institute of Medical Sciences (Deemed University), Loni, Maharashtra, India showed that out of 150 medical students, 26/150 (17.3%) students had abnormal levels of daytime sleepiness while 20/150 (13.3%) were border line. Sleep quality in females was better than the male. It is observed from the study that out of 100 medical

students, the mean age group who participated in the study was 20.65 ± 0.65 SD. The cross-sectional study done by Aesha et al in King Khalid Medical College, Saudi Arabia, enrolled 318 medical students during October–November, 2015 by Convenient sampling showed that the overall mean sleep quality score was 6.79 with a standard deviation of 3.06. Poor sleep quality was reported by 74.2% students. Poor sleep was predicted by sleep behaviors such as going to sleep after midnight (AOR = 2.18, 95% CI: 1.20, 3.94) and sleep duration of less than seven hours (AOR=7.49, 95% CI: 4.24, 13.22).¹² Sleep quality and its psychological correlates among university students in Ethiopia: a cross-sectional study by Lemma et al on the prevalence of poor sleep quality (total PSQI score>5) was 55.8% (1,424). Female students (adjusted odds ratio (AOR) 1.23; 95% CI: 1.00, 1.57), second year (AOR 2.91; 95% CI: 2.1, 4.02) and third year students (AOR 2.25; 95% CI 1.62, 3.12) had statistically significant higher odds of poor sleep quality. Perceived stress level and symptoms of depression and anxiety were strongly associated with sleep quality.¹³ The interaction between sleep quality and academic performance by Ahrberg et al showed that academic performance correlated with stress and sleep quality pre-exam ($r=0.276, p<0.001$ and $r=0.158, p<0.03$), 59% of all participants exhibited clinically relevant sleep disturbances (PSQI>5) during exam preparation compared to 29% during the semester and 8% post-exam.¹⁴ It is observed from our study that among sleep deprived medical students, 61.9% of them were affected in their academics. Similar study done on sleep quality among dental students and its association with academic performance—a cross-sectional study by Elagra et al among 1160 students from clinical and non-clinical levels to measure the sleep-related variables and academic performance. The response rate was 62%. Sixty five percent of the students described their sleep as good or very good, whereas 35% described their sleep as bad or very bad. The mean number of hours of sleep per night for all students was 5.85 ± 1.853 hours.

Lack of sleep used to impair their ability to focus, their inability to remember answers, and their daytime drowsiness in class. Lack of sleep also has an impact on people's mental health and can change their behavior, causing melancholy, irritability, and lethargy. Adolescents should get health education regarding proper sleep hygiene. It must become important to pupils from an early age in order to avoid issues brought on by sleep deprivation.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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