ORIGINAL ARTICLE

Medical Students and Prevalence of Sleep Disorder Insomnia

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ABSTRACT

Objective: The goal of this research is to find out how often medical students suffer from insomnia.
Study Design: Descriptive cross sectional study
Place and Duration of Study: THQ Hospital Kamalia. Nov 2020-Aug 2021
Methodology: A total of 112 students, both male and female, took part in this study. The demographics of the patients, including their age, gender, BMI, socioeconomic status, and marital status, were documented after receiving a signed permission from all parties. The patients were between the ages of 20 and 38 years old. The Athens Insomnia Scale (AIS) was used to gauge the frequency with which cases suffered from insomnia. The SPSS 24.0 version was used to analyze all of the data collected here.
Results: In our study the mean age of the patients was 25.13±8.41 years and mean BMI 22.15±11.31kg/m^2. Majority was males 70 (62.5%) and females were 42 (37.5%) patients. Majority were from middle socio-economic status 62 (55.4%) followed by upper class 25 (22.3%) and poor 25 (22.3%). 80 (71.4%) of the patients were single. According to the AIS scale, insomnia was reported by 50 (44.6 percent) of the patients, the majority of whom were female.
Conclusion: We concluded that Studying late at night to get good grades resulted in a considerable increase in the prevalence of insomnia among medical students. As one gets older, the likelihood of developing it increases. In addition, it is feasible to lower it to the entire night's sleeping time (7 to 10 hours).
Keywords: Demographic, Medical students, AIS scale, Insomnia

INTRODUCTION

Sleep, which accounts for one-third of our lives, is a crucial physiological and behavioural part of human physiology. A metabolic and energetic boost for proper everyday brain function may thus take place during our sleep [2, 3]. It is possible that sleep deprivation can directly cause hallucinations and delusional behaviour, and that it might also indirectly predispose to a variety of systemic diseases [4, 5]. Sleep deprivation may increase the risk of car accidents, poorer productivity at work, and the development of mental health issues such as anxiety and depression [6, 7].

Most people require between 7.5 and 8.5 hours of sleep every night [8,9]. But the sleeping schedule may not be comparable among all of them. There are a variety of things that might influence the way a person sleeps, including their age, their health, their lifestyle, and more. Sleeping interruptions can change and lengthen the non-rapid eye movement (NREM), particularly Stage 1 of it, which is the most important period of sleep.

Lack of recognition, insufficient diagnosis, and ill-treatment of teenage insomnia contribute to a lack of treatment. Nocturnal disorders like insomnia have a negative impact on waking life by taking away the physical and cognitive capabilities that sleep is known to provide [10,11]. Suicide and drug abuse are both at an increased risk in those who suffer from insomnia-related illness, which is linked to depression and other mental health concerns [12]. Older people, women, and heavy tea consumption are all associated with an increased incidence of insomnia [13]. Over 77% of the population in Riyadh, Saudi Arabia, suffer from sleeplessness. [14] According to this survey, insomnia affects more women (88.7%) and young people (64.2%) than men (70.4%). A whopping 59% of young adults aged 18 to 29 have difficulty falling asleep and insufficient sleep, according to the National Sleep Foundation. Sleep deprivation in adolescents can have a negative impact on their physical, neurodevelopmental, and psychological health [15].

Medical students at Saudi Arabian medical colleges were surveyed about their sleep patterns throughout clinical years and discovered that they averaged 5.8 hours of sleep each night, with an average bedtime of 01:53 a.m. 30 percent of students reported poor sleep quality, 40 percent reported excessive daytime sleepiness (EDS), and 33 percent reported insomnia symptoms [16]. To deal with their heavy workload and stressful atmosphere, medical students may not prioritise sleep as a priority [17]. Some students decrease their resting time in order to study an additional hour before tests [17].

There has been an increase in the number of students who suffer from insomnia, which has a negative impact on their academic performance and on their mental health. Students' health and academic success depend on a thorough understanding of this condition in order to find effective treatments and cures.

Experts say that several studies have shown that college students all around the world have considerable issues with sleep deprivation. However, to our knowledge, no research have examined the prevalence of sleep disruptions among Jordanian college students and the connection to their overall academic performance.

Because they are very contagious, it is critical to detect sleep issues in this population. A better understanding of the prevalence of sleep disorders among college students will allow us to prevent future health problems, reconsider the necessity of tough college schedules, and optimise sleeping patterns to boost academic achievement in this population.

MATERIAL AND METHODS

This descriptive cross sectional study was conducted at THQ Hospital Kamalia and comprised of 90 cases. The patient's full demographics were collected upon receipt of written consent. Schizophrenia and any other type of mental illness were ruled out as candidates for treatment. After obtaining written consent, the patient's demographics were obtained.

Among the patients, the age range was between 18 and 30 years old. The time and location of the session were communicated to the class administrators in advance, allowing them to prepare the lecture theatre for all of the attendees. It was made clear to participants what they were expected to perform and how they were to approach the questionnaire. Only the participants gave their agreement to these methods, and all data were used only for the study's aims. Athens Insomnia Scale was used to measure the frequency with which persons were affected by sleeplessness (AIS). Those who took part in the study had their socioeconomic and marital status analysed as well. SPSS-24 was used to analyze all of the data.

RESULTS

In our study the mean age of the patients was 25.13±8.41 years and mean BMI 22.15±11.31kg/m^2. Majority was males 70 (62.5%)

and females were 42 (37.5%) patients. 80 (71.4%) of the patients were single. (table 1)

Table 1: Gender and age of enrolled cases

Variables	Frequency	Percentage
Gender		
Male	70	62.5
Female	42	37.5
Mean Age (years)	25.13±8.41	
Mean BMI (kg/m^2)	22.15±11.31	
Marital Status		
Single	80	71.4
Married	32	28.6

Majority were from middle socio-economic status 62 (55.4%) followed by upper class 25 (22.3%) and poor 25 (22.3%). (figure 1)
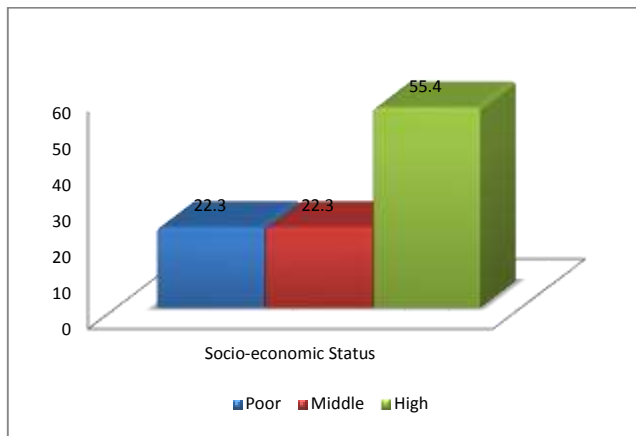

Figur1: Socio economic status of enrolled cases

According to the AIS scale, insomnia was reported by 50 (44.6 percent) of the patients, the majority of whom were female. (Table 2)

Table 2: Insomnia among medical students is common

Variables	Frequency	Percentage
Insomnia		
Yes	50	44.6
No	62	55.4
Gender		
Male	15	13.3
Female	35	31.3

Among 50 cases of insomnia, frequent overnight awakenings was found among 17 (34%) cases and frequency of insufficient sleep was found among 33 (66%). (Figure 2)
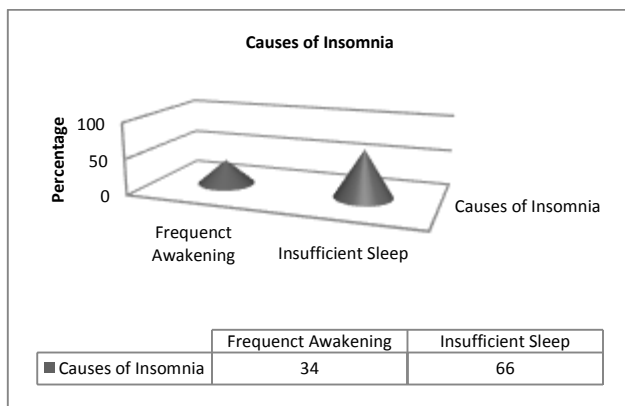

Figure 2: Association of insomnia patients with respect to sleep disorders

DISCUSSION

It's difficult to estimate the prevalence of insomnia without first determining what we mean by it and, more crucially, who we're studying. Around 30 percent of persons selected from various countries experience at least one of the following symptoms of insomnia: difficulties beginning sleep, problems sustaining sleep, waking up too early, and sometimes, nonrestorative or poor quality sleep [18]. Worldwide, insomnia is one of the most common sleep disorders, and its prevalence is increasing. [19] According to several studies, sleeplessness affects students from all over the world.[19]

Total 90 cases were included in our study. The mean age of the patients was 25.13±8.41 years and mean BMI 22.15±11.31kg/m^2. Majority was males 70 (62.5%) and females were 42 (37.5%) patients. Majority were from middle socio-economic status 62 (55.4%) followed by upper class 25 (22.3%) and poor 25 (22.3%). 80 (71.4%) of the patients were single. Our findings were in line with those of earlier investigations. [20,21]

According to the AIS scale, insomnia was reported by 50 (44.6 percent) of the patients, the majority of whom were female. More than 77% of Pakistani medical students reported having poor sleep quality, with 7.6% citing self-medication as the cause. Several developed nations have lower rates of university student sleeplessness than do the United States and Canada, according to our research. Insomnia affected 12 percent of individuals in the United States, with 8 percent of males and 14 percent of women experiencing the problem. There were 18.80% of Chinese individuals and a 25.6% of Japanese people who suffered from sleeplessness, according to research [22]. One study revealed that insomnia prevalence in Chile and Lebanon was 51.8 percent and 58.7 percent, respectively, which was equal to and more than our findings, respectively;

Frequent nocturnal awakenings were observed in 17 (34 percent) of the 50 instances of insomnia, and inadequate sleep was reported in 33 (33 percent) (66 percent).[23]

[26] Stress has no influence on sleep or sleep time during the week or on weekends, according to the findings of the students. This is what this study found, according to the results As a result, the quality and quantity of their sleep may be affected.. According to previous study, there is a clear link between college students' higher stress levels and sleep issues. There is evidence that stress can influence the relationship between well-being behaviours and quality sleep among schoolchildren, according to many studies. Age-specific circadian rhythm characteristics can impact some sleep habits in this age range. Circadian rhythm patterns in adolescents and young adults appear to be the slowest of any age group, with the maximum "lateness" of their sleep period happening around the age of twenty. Endocrine factors are thought to be the root cause of shifts in the circadian rhythmic clock. Currently, there is no way to access the report. Insomnia specialists will be able to use the findings of this study to provide suggestions based on scientific evidence for students who are at high risk of acquiring the illness. This study provides as a starting point for future researchers. Additionally, it provides scientific and clinical information to health planners and politicians in an effort to improve public health. [27]

Medical students were shown to have the worse quality of life when compared to other student populations when it came to sleep issues. Some 60.8 percent of law students in India reported a revitalising night's rest, compared to only 47.1 percent of medical students who got some shut-eye throughout the night in another survey. 40 percent of the patients in our research had insomnia, with the majority being females (44 out of 50). Thirteen (12.73 percent) of those who participated were men, while 27.27 percent of those who participated were females. Other prior investigations have shown results that are comparable to those found in this one. [28,29] Those with at least one sleep disorder were shown to take more medication as their GPA declined, according to the findings of the study. OSA, insomnia, depressive disorder, SSM, narcolepsy, and chronic respiratory illness were revealed to have

an inverse correlation with academic performance (CRD). People at high risk of narcolepsy, sleep apnea, or chronic respiratory illness improved academically nine times more than those at low risk of these conditions, six times more than those at low risk, and twice as much as those at high risk. When gender and weight were taken into consideration, it was shown that OSA was not associated with poor academic performance. The key risk factors for OSA include male gender and weight, therefore this might be the situation. [30].

CONCLUSION

We concluded that Studying late at night to get good grades resulted in a considerable increase in the prevalence of insomnia among medical students. As one gets older, the likelihood of developing it increases. In addition, it is feasible to lower it to the entire night's sleeping time (7 to 10 hours).

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