

Prevalence of Insomnia Among Medical Students

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ABSTRACT

Objective: The aim of this study is to determine the frequency of insomnia among medical students.

Study Design: Descriptive cross sectional study

Place and Duration: Study was conducted at Khairpur Medical College, Khairpur Mirs for duration of four months from January, 2019 to April, 2019.

Methods: Total 150 students of both genders were presented in this study. Patients detailed demographics age, sex and body mass index were recorded after taking written consent. Patients were aged between 18-30 years. Frequency of insomnia was calculated by using Athens Insomnia Scale (AIS). Social economic and marital status was also calculated among enrolled cases. Complete data was analyzed by SPSS 24.0 version.

Results: 80 (53.3%) patients were males and 70 (46.7%) patients were females. Mean age of the patients were 23.14±3.8 years with mean BMI 21.22±5.26 kg/m². According to socio economic status, 110 (73.3%) were from middle class and 40 (26.7%) were from upper class. 18 (12%) patients were married and 132 (88%) patients were unmarried. By using AIS scale frequency of insomnia was observed among 55 (36.7%) patients, in which most of the students were females 30 (54.5%).

Conclusion: We concluded in this study that prevalence of insomnia among medical students were highly effected because of stress of over and late night study to obtained good grades. Its prevalence was highly observed in increase age. Moreover, it can be reduced to complete sleeping hours (8-10) at night.

Keywords: Medical students, insomnia, demographic, AIS scale

INTRODUCTION

Insomnia, a sleep disorder that is most common in one or more of the following conditions, is the feeling or complaint of insufficient or low-quality sleep: [1,2]

- Hardness in sleeping.
- Having trouble going to sleep again during the night
- Too early morning waking
- Uncooling night. Psychiatric illness is sleep disturbance.

It is associated with one of our biological rhythms, the circadian system, regulated by factors such as physiological functions and schedules of school and work and different health conditions, including genetic variations. It is called a circadian system.[3,4] Most sleep experts accept that the requirement for adult sleep normally ranges from 6 to 10 hours per 24-hour sleep with most people taking about 8 hours per day. The minimum tolerated sleep period is around 6 hours. [5]

The sleep issues were also associated with high levels of emotional fatigue. The relationship can, however, be mutually exclusive. A recent study[6] in medical students with burnout or sleep issues revealed higher levels of mental fatigue and EDS. Medical students' academic success seems to be influential and sleeping. Students described sleep deprivation management as key in their university performance, in a qualitative study focusing on factors determining the academic achievements of medical students. [7] These correlations may be based on the impact of poor sleep on cognitive and psychomotor performance. [8,9] A meta-analysis of 24 studies found, by example, that insomnia-diagnosed adults

had greater memory impairments than those without insomnia. [10]

In addition, the psychomotor performance of medical students has been shown to worsen with 24 hours of sleep deprivation, particularly when judgment is concerned. [11] While studies have studied the links between sleep, stress and medical students' academic performance, most studies have looked at stress and academic performance as a result. It is, however, fair to argue that medical students are under high stresses and are hard at sleep cost to increase and keep their average grade point (GPA). Moreover, only one or two sleep measures were studied in several of these trials. Our current research was intended in order to explore and decide how sleep in a single cohort of medical students relates to stress levels and academic performances, namely, sleep quantity, sleep quality, insomnia and EDS results, thus removing several possible discrepancies in the comparison of these outcomes. In addition, in a past study of high-school students in Jeddah, Kingdom of Saudi Arabia, a trend of predominant day sleeping during the weekdays as opposed to night sleeping (throughout the night and after returning from the university) was noted (KSA). [12] This trend doesn't correspond to a sleep-wake cycle circadian disorders of the International Sleep Disorders Classification (ICSD-3). [13]

MATERIAL AND METHODS

This descriptive cross sectional study was conducted at Khairpur Medical College, Khairpur Mirs for duration of four months from January, 2019 to April, 2019 and comprised of 150 cases. Patients detailed demographics were recorded after taking written consent. Patients who had

schizophrenia or any other psychiatric disorder and those were not agreed excluded from this study.

Patients were aged between 18- 30years. Class officials were informed beforehand about the time and location of the session in order to assemble the lecture theater for all participants. The research objectives, methodology of the analysis and way to complete the questionnaire were told to all participants. Both procedures were conducted with the participants' consent only and all data was used exclusively for the study. Frequency of insomnia was calculated by using Athens Insomnia Scale (AIS). Social economic and marital status was also calculated among enrolled cases. Complete data was analyzed by SPSS 24.0 version.

RESULTS

80 (53.3%) patients were males and 70 (46.7%) patients were females. Mean age of the patients were 23.14 ± 3.8 years with mean BMI 21.22 ± 5.26 kg/m². According to socio economic status, 110 (73.3%) were from middle class and 40 (26.7%) were from upper class. 18 (12%) patients were married and 132 (88%) patients were unmarried. (table 1)

Table 1: Baseline detailed demographics of enrolled cases

Variables	Frequency	%age
Gender		
Male	80	53.3
Female	70	46.7
Mean Age	23.14 ± 3.8	
Mean BMI	21.22 ± 5.26	
Marital Status		
Married	18	12
Un-married	132	88
Socio-economic status		
Middle class	110	73.3
Upper class	40	26.7

Table 2: Frequency of insomnia among medical students

Variables	Frequency (n=1500)	%age
Insomnia		
Yes	55	36.7
No	95	63.3
Sex-distribution		
Female	30	20
Male	25	16.7

Table 3: Association of insomnia patients with respect to sleep disorders

Variables	Frequency (n=550)	%age
Insomnia patients		
Insufficient sleep	35	63.6
Nighttime awakening	20	36.3

By using AIS scale frequency of insomnia was observed among 55 (36.7%) patients, in which most of the students were females 30 (20%) and 25 (16.7%) were males. (table 2)

Among 55 insomnia patients, frequency of insufficient sleep was 35 (63.6%) and nighttime awakening was among 20 (36.3%) patients. (table 3)

DISCUSSION

An estimate of insomnia prevalence depends about how we interpret insomnia and more specifically increasing population is studied. A general consensus has been found

from population-based studies which report at least one of the symptoms of insomnia for about 30% of adults who are reclued from different countries: sleeping difficulty, sleeping difficulty, waking up too early and, occasionally, sleep quality or poor sleep quality [15]. The general population had insomnia prevalence ranged from 9.4% to 38.2% and weighted mean prevalence was 18.5% which is substantially higher than in the general population[16]. However, the prevalence for university students was 7.4% [16]. A cross-sectional survey of University students at nine universities in Ethiopia has shown that the prevalence of insomnia is 61.6%[17]. In our study prevalence of insomnia among medical students was 36.7%. In which most of the cases were females 30 (20%) and 25 (16.7%) were males. These results were comparable to the many previous studies. [18-20]

Mean age of the patients in our study were 23.14 ± 3.8 years with mean BMI 21.22 ± 5.26 kg/m². According to socio economic status, 110 (73.3%) were from middle class and 40 (26.7%) were from upper class. 18 (12%) patients were married and 132 (88%) patients were unmarried. These findings were comparable to the many previous studies.[21,22] Among 55 insomnia patients, frequency of insufficient sleep was 35 (63.6%) and nighttime awakening was among 20 (36.3%) patients. Piro et al. studied the same questionnaire on the smaller cohort and found that RLS was the most frequent form of slavery disorder in Duhok-Iraq universities, with 30.7 percent of pupils being affected, followed by insomnia (25.0 percent) and CRD (19.6 percent), a. 316 pupils from medical universities (medicine, nursing, dentistry, pharmacy, anesthetic science and medical laboratory) (13.6 percent) [23] This change may be due to the various cohorts studied and to different techniques and prototypes used in the trials in the prevalence of different sleep disorders.

The study also showed that, with GPA decreasing, the proportion of medicine gradually increased with at least one sleep disorder. The high risk of OSA, insomnia, affective disorder, SSM, narcolepsy and CRD was negatively linked to the academic results. Binary logistic regression analyzes to make gender and obesity were used to improve academic results nine times more in people who are at high risk of narcolepsy, six times more in those at high risk of SSM and twice as high risk of sleeplessness, affective disorder or CRD. Interestingly, OSA was not associated with low academic performance after adjustment for the impact of gender and obesity. This may be due to the fact that the main risks for OSA are not only male genus but also obesity[24,25].

Stress cannot affect sleep or sleep time during the week or on the weekends, as the student findings show. This study shows. Rather, it can affect their quality of sleep and sleep levels throughout the day. In previous study studies there has been an important link between higher stress levels and sleep disturbances for college students. Furthermore, some studies have supported the hypothesis that the relationship between well-being behaviors and quality sleep amongst school students can be mediated by stress. [26,27] This age group's age-specific circadian rhythm properties can influence certain patterns of sleep. In general teens and young adults seem to be most slower than in other age groups in their circadian rhythm, hitting

the greatest 'lateness' of their sleep period caused by the circadian at about 20 years of age. Endocrine factors in circadian rhythmic clock are suggested to form the basis of such shifts. [28] The report is not available. The findings of this study will enable insomnia practitioners to establish evidence-based recommendations for prevention and treatment of students at risk or insomnia. For investigators, this analysis is a baseline. It also provides health planners and policymakers with scientific and clinical evidence to improve society. [29]

CONCLUSION

We concluded in this study that prevalence of insomnia among medical students were highly effected because of stress of over and late night study to obtained good grades. Its prevalence was highly observed in increase age. Moreover, it can be reduced to complete sleeping hours (8-10) at night.

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