

# SLEEP PATTERN AMONG DENTAL STUDENTS - A SURVEY

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**Abstract:** Sleep is an integral part of health. When this part of an individual's life isn't in its proper form, it might lead to many other abnormalities or disorders. This is said to be sleep disorder or somniphobia. It is a medical disorder of sleep patterns of a person or in a simpler term it is said to be a group of conditions that affect the ability to sleep well on a regular basis. The aim of this study is to determine the sleep disturbances among dental students. A questionnaire based study was conducted to evaluate the duration, disturbances of sleep and effects of sleep deprivation among dental students in Saveetha Dental College. An online survey was conducted among 100 dental students from Saveetha dental college. Causes of sleep disturbance, the after affects of sleep deprivations and their normal sleep hours have been calculated in percentage. Only 10% of the students of dental college go to bed before 10pm whereas 41% sleep between 10pm-12am and the rest 49% sleep after 12am. Most students reported daytime dysfunction and they suffered from nausea (5.6%), headache (6.7%), irritability (33.3%), sometimes all of the above mentioned (27.8%). Sleep disturbances cause considerable issues among dental students. The major issue that is presented in this study is the difficulty in concentrating while performing an individual's day to day activity after lack of sleep.

**Keywords:** sleep disorder, sleep apnea, mental stress, narcolepsia, causes, exams, parasomnias

## I. INTRODUCTION

Sleep is an integral part of health. When this part of an individual's life isn't in its proper form, it might lead to many other abnormalities or disorders. This is said to be sleep disorder or somniphobia. It is a medical disorder of sleep patterns of a person or in a simpler term it is said to be a group of conditions that affect the ability to sleep well on a regular basis.

In the past few years, there has been a growing attention to sleep related problems [1][2]. There can be various impacts that take place when a person undergoes sleep deprivation. During sleep, some behavioural physiological and neurocognitive processes occur: these processes may be impaired by lack of sleep.

Sleep deprivation has various consequences including sleepiness and impairments in neurocognitive and psychomotor performance which also includes the negative impact on a person's mood, attention, sensory registering, academic performance and their perspective view.[3-12][13][14].

Sleep disorders are classified into numerous types like insomnia, sleep apnea, parasomnias, restless leg syndrome and narcolepsy. Sleep apnea is referred to, when there is an obstruction of the airway during sleep causing the individual to unconsciously gasp for air and sleep is disturbed. A category of sleep disorder that involves abnormal and unnatural movements, behaviours, perceptions and dreams in connection with sleep like sleep walking, night terrors and catathrenia. Restless leg syndrome, as the name suggests it's an irresistible urge to move legs. Narcolepsia is a chronic neurological disorder, which is caused by the brain's inability to control sleep and wakefulness. When this occurs in a severe form can cause a sudden weakness in the motor muscles that can result in collapse to the floor.

Treatment for sleep disorders can vary depending on the type and underlying cause. However, it generally includes a combination of medical treatments and lifestyle changes. Sleep disorder can also be treated by acupuncture, hypnosis, music therapy and melatonin.

The objective of the current study was to determine a self -reported sleep pattern among dental students.

## II. MATERIALS AND METHOD

A Questionnaire based survey was conducted among the dental students of saveetha dental college. The study sample consisted of 100 dental students from the first year. The questionnaire was sent as an online survey to be filled by the students. This questionnaire contained a total of 10 questions that recorded their sleep pattern, which includes the amount of duration of sleep they acquire and the cause of their sleep disturbance.

## III. RESULT AND DISCUSSION

Sleep has its own unique role in learning and memory processes. A disturbance caused to any individual's sleep cycle impairs these major functions. Individuals who suffer from sleep deprivation run a major risk of creating serious medical problems and health issues than those who have had an adequate amount of rest. In this study, we have addressed the pattern of sleep and sleep problems among dental students[15].

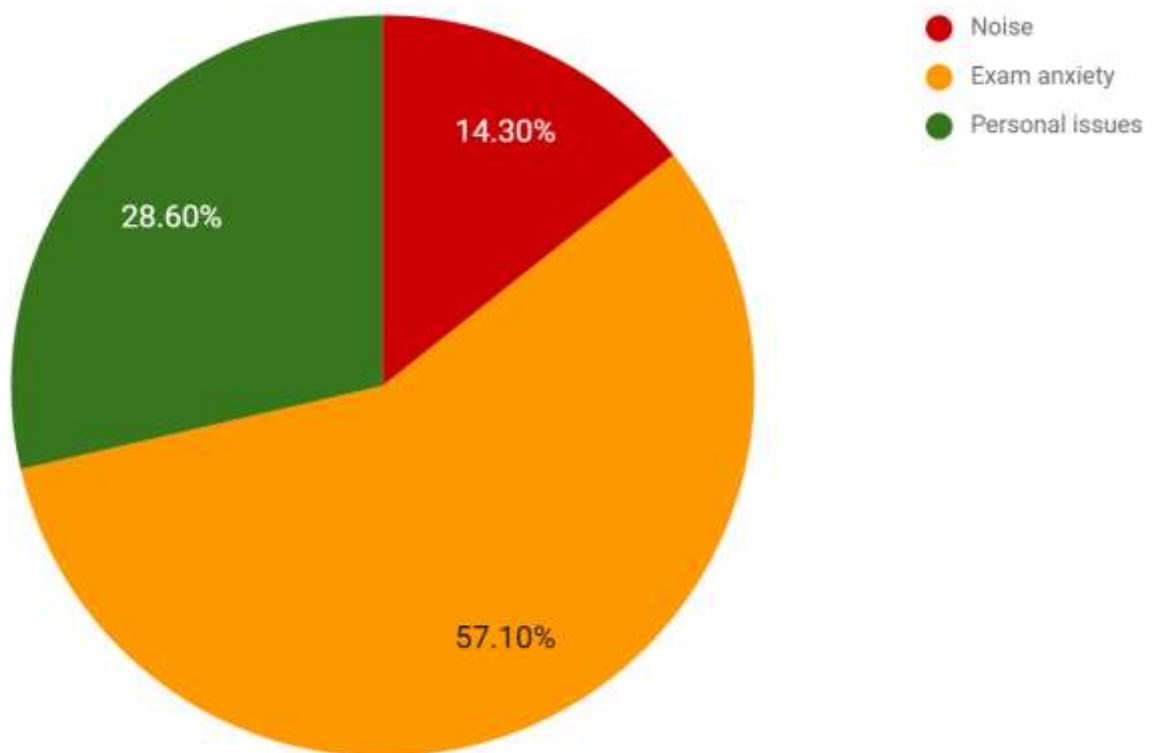
Sleep disturbances are associated with age, gender, living conditions, doing exercise and workload of students. According to the response of our study, only 10% of the students of dental college go to bed before 10pm whereas 41% sleep between 10pm-12am and the rest 49% sleep after 12am. 75% usually wake up before 7am. Most of the students sleep later than their usual timing. 66%

sleeps during the day and only 8% sleeps more than thrice when judged on a weekly basis during the day (**Table1**). About 17% of the dental students have a disturbed sleep and the major cause for it is the exam tension (57.1%) that they undergo, considering the other causes include noise (14.3%) and personal issues (28.6%) as seen in **Figure 1**. During exams, only 31% of the students sleep for more than five hours whereas the rest 69% sleep for less time. When asked about difficulty in concentrating while performing daytime activities, due to their subordinate volume of sleep, most students reported daytime dysfunction and they suffered from nausea (5.6%), headache (6.7%), irritability (33.3%), sometimes all of the above mentioned (27.8%). Only 16.7% of the students don't suffer from any of the mentioned effects in their day to day activity even after being sleep deprived as mentioned in **Figure 2**.

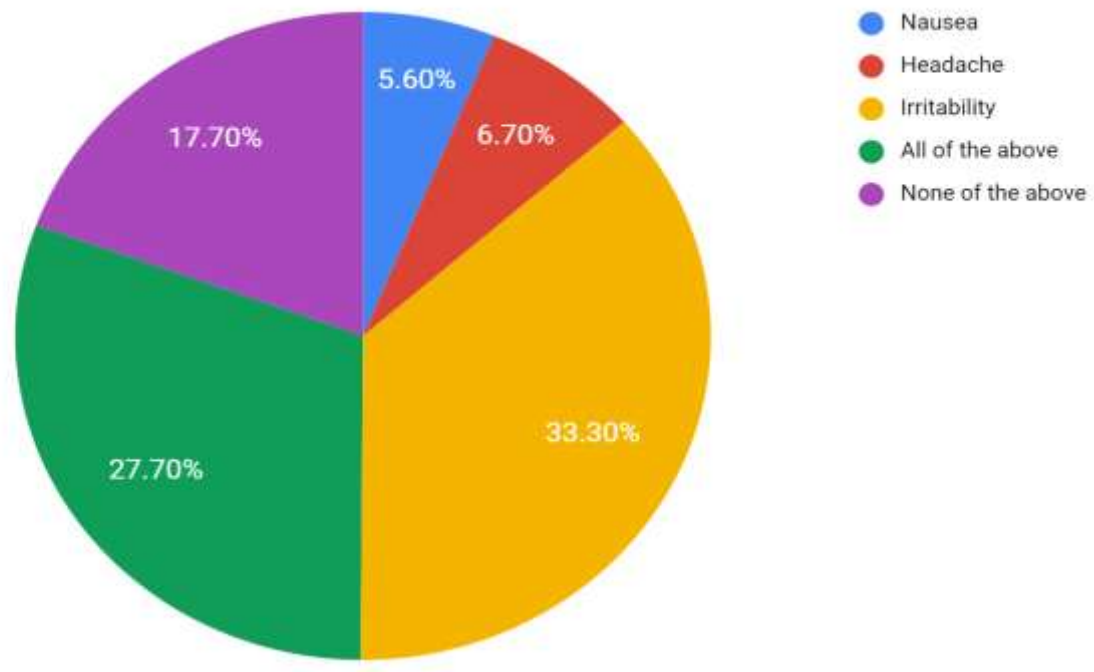
Majority of undergraduate students require only a short amount of time to fall asleep (69.8%) compared with the other groups. Perhaps this behaviour may suggest a greater fatigue in that group[16]. There are other studies that are held associated with the workload on students, students going to bed late at night, snoring, feeling tired in the morning, day time naps, and other criteria of parasomnia and insomnia. They have also found association between going to bed late at night and working while studying[15].

**Table 1:** Table representing the normal bedtime, wakeup time and duration of sleep

Normal time to bed		Wake up time		Sleep hours	
<b>Before 10pm</b>	10%	<b>Before 7am</b>	75%	<b>Less than 5hrs</b>	69%
<b>10pm-12am</b>	55%	<b>After 7am</b>	25%	<b>More than 5hrs</b>	31%
<b>After 12am</b>	25%				



**Figure 1:** Pie Chart representing the causes for disturbed sleep among the dental students



**Figure 2:** Pie chart representing the after affects of sleep deprivation among the dental students

#### IV. CONCLUSION

According to the study, our data demonstrate that sleep disturbances cause considerable issues among dental students. The major issue that is presented in this study is the difficulty in concentrating while performing an individual's day to day activity after lack of sleep, the night before. Special attention should be given for the amount of sleep an undergraduate student gets.

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