

# Quality of Sleep in Medical Students

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## Abstract :

Good quality, adequate amount of sleep are important for cognitive performance. Good sleep is important to avoid health problems and psychiatric disorders. The aim of this study was to estimate daytime sleepiness in a population of medical students of SS Institute of Medical Sciences & Research Centre, Davangere, Karnataka, India.

## Subject and Methods :

The study was carried out during June- August 2013 with population consisted of total 503 medical students. A self-administered questionnaire developed based on Epworth Daytime Sleepiness Scale was used. Data was analyzed by using Microsoft excelsheet.

**Results :** In this study, out of 503 medical students, 57 (11.33%) students had abnormal levels of daytime sleepiness and 76 (15.1%) were in border line.

**Conclusion :** Disorders related to poor sleep qualities are significant problems among medical students in our institution. Sleep difficulties results in irritability and affects lifestyle and interpersonal relationships.

Keywords: Medical students, Sleep quality, Daytime sleepiness

## Introduction :

Evidence is growing that sleep problems in adolescents are significant impediments to learning capabilities & negatively affect quality of life. Poor sleep quality & daytime somnolence is reported to be associated with cardiovascular events & physiological stress<sup>1</sup>. This study was done to assess sleep quality in medical students studying at SS Institute of Medical Sciences & Research Centre, Davangere.

Excessive daytime sleepiness among the adults has been demonstrated to be a public health issue. It has been linked to increased motor vehicle accidents, workplace accidents, and propensity for medical errors among the sleep deprived doctors<sup>2</sup>. Napping in the lecture halls is commonly observed among the medical students but the prevalence rate of daytime sleepiness in this group is less well documented. A study on Epidemiology of insomnia reported that prevalence of insomnia is 9% in the general population & about 30% suffer from occasional insomnia<sup>3</sup>.

The few prevalence studies available showed variable rates among college or university students, from as low as 4.1% in Japanese graduate students to as high as 39.5% and 42.4% in two different Brazilian medical schools<sup>4</sup>.

Daytime sleepiness is reported as 35.5% in a study done on Malaysian Medical students. A study on sleep habits in medical students reported excessive daytime napping<sup>5</sup>.

Sleep deprivation & excessive daytime sleepiness were common in students & were associated with decreased academic performance. In a study on medical students reported daytime sleepiness in 35.5% bad sleep quality in 16.1% of students<sup>7</sup>.

## Materials & Method

Data was collected by administering a questionnaire Epworth Sleepiness Scale to evaluate day time sleepiness in 503 medical students of age group 17-25 years studying in SSIMS & RC. Ethical clearance was obtained from Institutional Ethical Committee. Epworth Daytime Sleepiness Scale (EDSS)<sup>6</sup>. It is a scale intended to measure daytime sleepiness that is measured by use of a very short questionnaire. This can be helpful in diagnosing sleep disorders. It was introduced in 1991 by Dr. Murray Johns of Epworth Hospital in Melbourne,

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Australia. The questionnaire asks the subject to rate his or her probability of falling asleep on a scale of increasing probability from 0 to 3 for eight different situations. The scores for the eight questions are added together to obtain a single number. A number in the 0-9 range is considered to be normal while the numbers 10 and 11 are border line and 12-24 range indicates that expert medical advice should be sought.

**Inclusion Criteria**

1. Subjects aged 17-25 years
2. Subjects studying in SSIMS & RC
3. Subjects who have given written informed consent

**Exclusion Criteria**

1. Subjects below 17 years & above 25 years.

**Statistical Analysis**

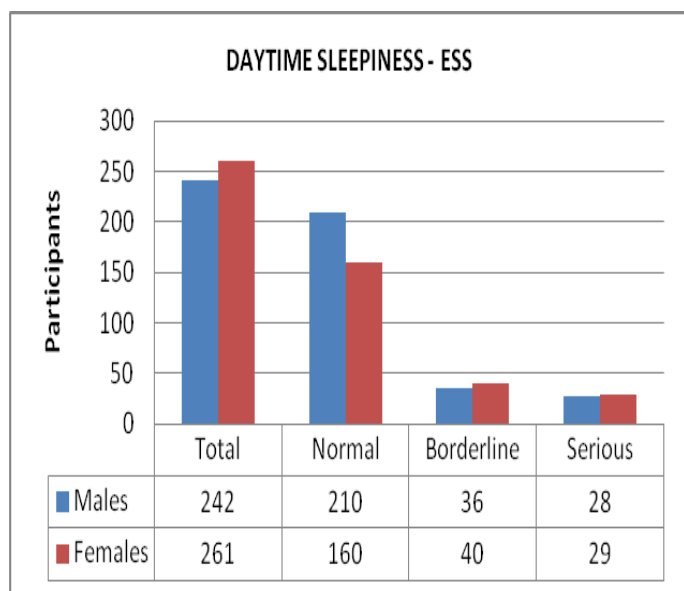
Descriptive study done using mean & standard deviation. The data was entered into an Excel datasheet.

**Result :**

In our study out of 503 students who participated, 242 were males and 246 were females. 15.1%(76) were in borderline. 11.33%(57) students had serious daytime sleepiness. 47.91% of students reported of stress due to academics.

Graph 1- Showing percentage of medical students (Total 503) with disturbed sleep pattern.

**Graph 2 – Difference in male & female students with disturbed sleep pattern using Epworth Sleepiness Scale.**



**Discussion**

Sleep disorders are an issue of major concern and has long-term social and demographic consequences.

In this study, Study shows (11.33%) students had abnormal levels of daytime sleepiness while (15.1%) were border line.

Medical students suffer high level of stress due to academic demands, particularly during examination periods. Stress associated with insufficient sleep and excessive daytime sleepiness can lead to difficulties in interpersonal relationship, depression, anxiety, and alcohol and drug abuse. In our study (47.91%) student reported being stressed. This indicates that stress had a significance correlation with sleep disorders. In our study male students had better sleep quality when compared with female students.

Sleep medicine is an important field in the medical study and allows medical students and professional to diagnose their own sleep disorders as well as their patients. Despite the numerous publications regarding the subject, students and professionals tend to ignore the sleep disorders and their possible consequences<sup>8,9</sup>. Effect of lack of sleep like memory loss, feeling depressed, feeling irritable and effects on life style were observed in our study. Good refreshing sleep is one of the constituents for general well being among students.

The limitation of the study is that the data is questionnaire based, further studies has to be done to evaluate students with serious daytime sleepiness to evaluate their quality of sleep.

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