Research Article

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IMPACT OF LIFESTYLE AND ON MOOD DISORDERS AND ACADEMIC PERFORMANCE AMONGST MEDICAL AND ENGINEERING STUDENTS

Snigdha Pattnaik*[1] and Sreekari Kedarisetti[2]
Department Of Community Medicine, Bhaskar Medical College, Hyderabad, Andhrapradesh, India

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Abstract: The main objective of the study is to

1. To correlate sleeping pattern of professional college students, their academic performance and associated morbidity.
2. To identify sleep patterns in the chosen segment of population, the prevalence of anxiety, depression and its overall impact on lifestyle and academic performance.

Keywords: Anxiety; Depression; Adolescent health

INTRODUCTION

Insomnia is defined as inability to sleep, in the absence of external impediments, such as noise, bright light etc. during the period when sleep should normally occur, may vary in degree from restlessness or disturbed slumber to a curtailment of the normal length of sleep or to absolute wakefulness. It is the most common sleep disorder, yet little is known about the etiology, pathophysiology, and clinical course of this highly prevalent and chronic disorder. Insufficient sleep is frequently associated with a number of chronic physical and mental health disorders and conditions, such as diabetes, cardiovascular disease, obesity, major depression, generalized anxiety disorder and alcoholism which threaten our nation's health.

Depression is defined as a temporary mental state or chronic mental disorder characterized by feelings of sadness, loneliness, despair, low self-esteem and self-reproach; accompanying signs include psychomotor retardation or less frequently agitation, withdrawal from social contact and vegetative stated such as loss of appetite. Insomnia is a risk factor for the development of depression1, 2 and depression is a risk factor in the persistence of insomnia. Inadequate sleep can impair learning skills.

Available research data suggests that sleeplessness may affect the course of associated conditions independently and adversely impact function and quality of life (QoL).

Since sleep inversely influences an individual's health, productivity, mental well-being and moods, this research holds more significance.

Sleep deprivation is common among teenagers. Lack of sleep, sleepiness, and irregular sleep patterns due to urban lifestyle may lead to negative psychosocial consequences such as depressed mood and behavior problems, and it has been hypothesized that insufficient sleep may contribute to problems like suicides and motor vehicle accidents which are two of the leading causes of death in young adulthood. Insufficient sleep may also contribute to increased reports of pain and poor overall health as well as poor functioning at school and work. There are relatively few empirical studies of the relationship between sleep and psychological functioning in adolescents

Studies have shown associations between sleep disturbance and the onset of depression and anxiety. Self-reported sleep disturbance was significantly associated with an onset of major depressive disorder.

Anxiety is defined as a vague uneasy feeling of discomfort or dread accompanied by an automatic response, the source is often nonspecific or unknown to individual, a feeling of apprehension caused by anticipation of danger. It is a potential signal that warns of impending danger and enables the individual to take measures to deal with threat. Anxiety disorders have a chronic and persistent course, and are frequently co morbid with other anxiety disorders, depressive disorders, and substance abuse. Anxiety disorders most frequently precede depressive disorders or substance abuse, Co morbid diagnoses may influence risk factors like functional impairment and quality of life. It remains unclear whether certain anxiety disorders (eg, PD) are risk factors for suicide. The comorbidity of anxiety disorders has important implications for assessment and treatment and the risk factors should be explored. The etiology, natural history, and outcome of these disorders need to be further addressed in epidemiological studies.

***Corresponding Author:**
Dr. Snigdha Pattnaik,
Department of Community Medicine,
Bhaskar Medical College, Hyderabad,
Andhrapradesh, India.

Epidemiologic and clinical investigations indicate that onset of depressive disorders usually occurs during adolescence or early adulthood. Although less frequent, onset during childhood has also been documented. The clinical presentation of adolescent-onset depression shares a variety of features with that of adult onset. Both are more common in females; are frequently associated with anxiety disorders, substance use disorders, and/or suicidal behavior; and result in impairment in social and academic or occupational functioning. The main objective of the study is to;

- To correlate sleeping pattern of professional college students, their academic performance and associated morbidity.
- To identify sleep patterns in the chosen segment of population, the prevalence of anxiety, depression and its overall impact on lifestyle and academic performance.

MATERIALS AND METHODS

Selection criteria:

Young adults in the age group of 17- 23 years, attending undergraduate professional colleges (medical and engineering) under J.B. group of educational institutions in Hyderabad city were interviewed. The students who were not present, who were above 23 years or refused to participate have been excluded from this study. Two batches medical and engineering students each containing a minimum of 200 totaling up to 463 was interviewed with a valid, questionnaire.

The Epworth Sleepiness Scale (ESS):

Generalized Anxiety Disorder 7 anxiety questionnaire, The Goldberg Depression Scale: History of academic performance

RESULTS

Out of the total sample of 463, 264 were females and 199 were males. Based on the Epworth sleepiness scale 28.72 % (133) appeared to be "sleepy" while 0.86% (4) appeared to be "very sleepy". (Table 1)

Table.1: Prevalence of sleepiness

Sleep scale (score)	Number	%
Very sleepy (>19)	4	0.86
Sleepy (10-18)	133	28.72
Normal (0-9)	326	70.42
Total	463	100.00

Table.2: Prevalence of depression

Depression scale (score)	Number	%
Severe depression (54-81)	14	3.02
Moderate to severe depression (36-53)	28	6.04
Minor to moderate depression (22-35)	78	16.84
On the verge of depression (18-21)	36	7.77
Minor depression (10-17)	118	25.48
No depression (0-9)	189	40.85
Total	463	100.00

Table.3: Prevalence of anxiety

Anxiety scale (score)	Number	%
Severe anxiety (15-21)	22	4.75
Moderate anxiety (10-14)	59	12.74
Mild anxiety (5-9)	176	38.01
Normal (0-4)	206	44.49
Total	463	100.00

Out of the total 463 subjects 3(75%) of very sleepy secured <30%, 30 (22.55%) of 133 "sleepy" secured 40-50% in academics. While 211 (64.72%) out of 326 subjects who had no sleep difficulty secured >50%.

Table.4: Relation between sleepiness and academics

Sleepiness and academics	Number	%
Very sleepy	**4**	**100**
<30	3	75
>50	1	25
Sleepy	**133**	**100**
<30	14	10.52
30-40	12	9.02
40-50	30	22.55
>50	77	57.89
Normal sleep	**326**	**100**
<30	14	4. 29
30-40	23	7.05
40-50	78	23.92
>50	211	64.72

DISCUSSION

The present study used Epworth sleepiness scale designed to investigate sleepiness in the daytime. Out of the 463 participants 137 were sleepy ("sleepy"+ "very sleepy") (Table 1). The overall proportion of people those who were sleepy was 29.6%. About 60% of adolescent in the study population were depressed. Around 56% (257) of the total participants showed signs of anxiety Out of the total 463 subjects 3(75%) of very sleepy secured <30%, 30 (22.55%) of 133 "sleepy" secured 40-50% in academics. While 211 (64.72%) out of 326 subjects who had no sleep difficulty secured >50%.

CONCLUSION

From this cross sectional study, which was carried out in urban educational institutions, it was seen that daytime sleepiness, anxiety and depression are all inter-related and influence academic performance. Young adults are likely to have nocturnal activity and neglect sleep. The cumulative sleep debt attributes towards

mood disturbance and poor academic performances, as it evidenced in the present study. Alcohol intake and smoking have adverse effect on overall health, in particularly sleep and productivity of an individual as can be seen from the analysis in this study.

The purpose of the present study was to find out the prevalence of daytime sleepiness and mood disorders like depression and anxiety among the collegiate students in urban setup. Chi square test reveals that sleepiness is significantly related to anxiety and depression in both females and males (p value <0.01). 68% of the individuals addicted to drugs experienced daytime sleepiness and anxiety, 96% of the subjects were sleepy in the daytime and depressed while 76% were assessed with signs of anxiety, depression and sleepiness in the daytime. 41.17% of the participants addicted to drugs experienced sleepiness and anxiety, whereas 47.05% subjects were sleepy and depressed while 41.17% were assessed with signs of anxiety, depression and sleepiness in the daytime. These figures indicate high prevalence of adverse effects in relation to improper sleep habits and changing lifestyle.

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