

Original Article**Sleep habits and their consequences: a survey**

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ABSTRACT

Objective: To study the sleep habits and their consequences among the students of Shifa College of Medicine.

Subjects and Methods: A survey questionnaire consisting of a total of 50 questions was designed to analyze the sleep habits of the students of Shifa College of Medicine, Islamabad. Data were collected during March and April 2002. The answers were restricted to either YES or NO. A total of 120 questionnaires were then distributed to the students of the first four years in their respective classrooms, with an explanation of the aims and objectives of the study.

Results: Responses were received from 112 students. The age range was between 18 and 23 years. Analysis revealed that on average the amount of sleep required per 24 hours of the respondents was 8 hours, however, the average amount of sleep that they actually got every day was on average 6 hours. There was an association between the quantity of caffeine ingested and its subsequent effects on the regularity of sleeping hours. Most of the students of Shifa College of Medicine are suffering from high levels of daytime sleepiness. Nearly

half the class of second year admitted to being depressed and irritable (47% and 50% respectively). A 37% said that their lifestyle and interpersonal relationships were affected.

Conclusion: Our preliminary results show that disorders related to sleep are a significant problem. Caffeine ingestion affected sleep and there was high level of daytime sleepiness. Sleep difficulties resulted in irritability and affected lifestyle and interpersonal relationships.

KEY WORDS: Sleep, Habits, Disorders, Medical Students.

INTRODUCTION

The Earth and the Sun spin through the cosmos with the Earth turning on its axis every 24 hours. As one side turns away from the Sun, and darkens, more than 3 billion people go to sleep or try; on the other side of the globe a similar number of people end their sleep and, for the most part, spend the daylight hours awake¹. If we go without sleep or drastically reduce it, the desire or need to sleep quickly becomes more important than life itself².

Millions of people have problems regarding the quality and quantity of their sleep. Studies suggest that sleep quality, rather than sleep quantity, is related to health, balance, satisfaction with life, and feelings of tension, depression, anger, fatigue, and confusion³. Lack of education about sleep disorders during graduate and postgraduate training means that the majority of physicians hardly learn about sleep medicine. Sleep itself is in short supply for young physicians in their formative years because they stay up late to cram for examinations in medical college followed by prolonged stints at the hospital⁴.

Sleep disorders may be distinguished according to the Association of Sleep Disorders classification into Alteration of sleep-awake cycle, Hypersomnia, Parasomnia and

Insomnia⁵. Information of these kinds of sleep related problems, among the Pakistani population is scarce, especially in the case of “daytime sleepiness” among the young adults age group. Therefore, our objective was to study the sleep habits and their consequences among the students of Shifa College of Medicine.

SUBJECTS AND METHODS

A survey was designed to analyze the sleep habits of the students of Shifa College of Medicine, Islamabad. Data were collected during March and April 2002. In order to carry out a comprehensive survey, a questionnaire was compiled consisting of a total of 50 questions divided into 7 blocks. Each block pertained to a specific area of sleep and its various disturbances, these were: Socio-demographic features, sleep habits, effects of lack of sleep on daily life, obstructive sleep apnea, narcolepsy, nightmare disorders, Parasomnias and restless leg syndrome. The answers were restricted to either YES or NO.

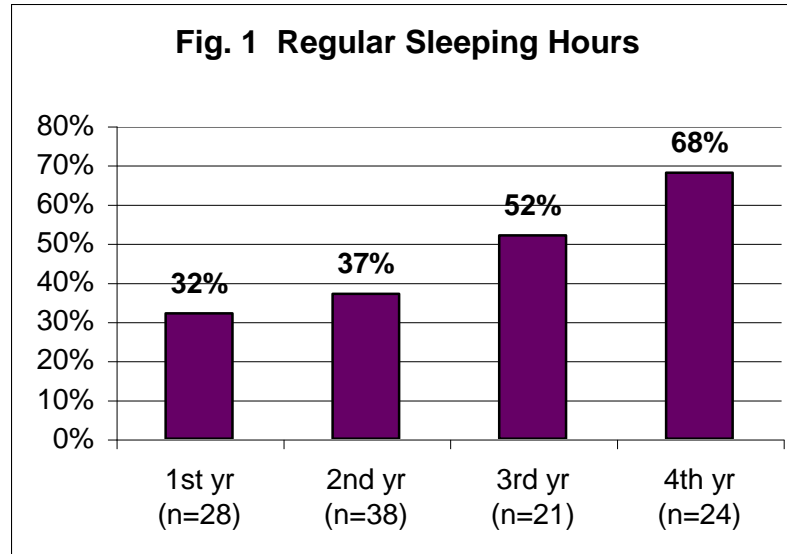
A total of 120 questionnaires were then distributed to the students of the first four years in their respective classrooms, with an explanation of the aims and objectives of the study.

RESULTS:

Responses were received from 112 students (N = 112). The breakdown according to class was; First year (n = 28), Second year (n = 38), Third year (n = 21), Fourth year (n = 25). The age range was between 18 and 23 years.

The students were asked if they kept regular sleeping hour, that is, if they went to bed and woke up approximately at the same time each day. Responses showed that First and Second years, at only 32% and 37% respectively, had the least regular sleeping hours.

The senior classes i.e. Third and Fourth years showed progressively better results at 52% and 68% respectively (Figure. 1).



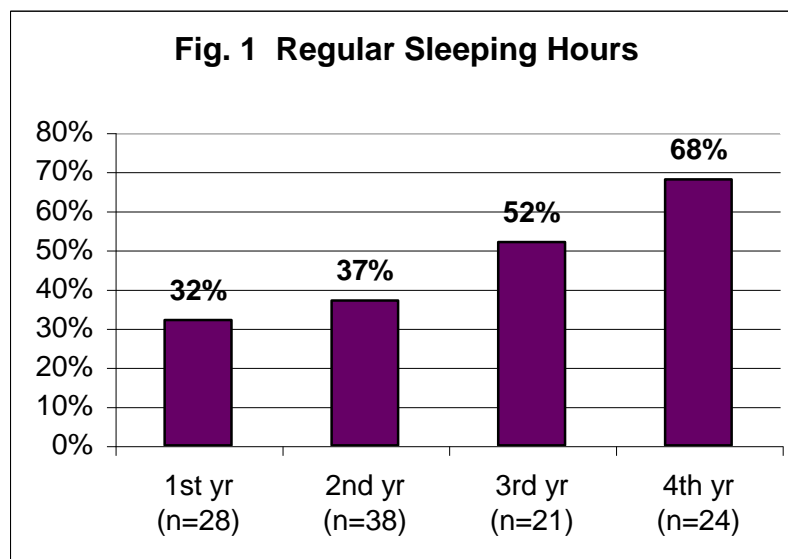
Nearly half the students got less than their desired amount of sleep everyday (Table-1).

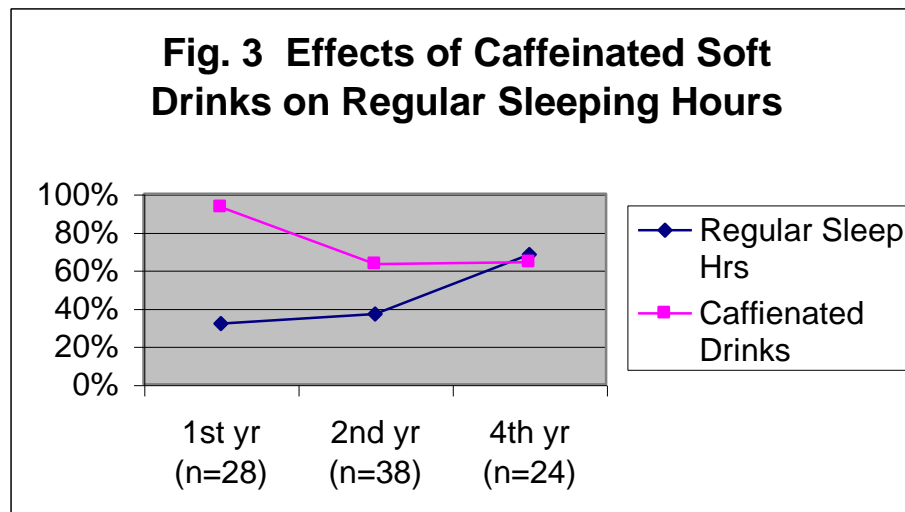
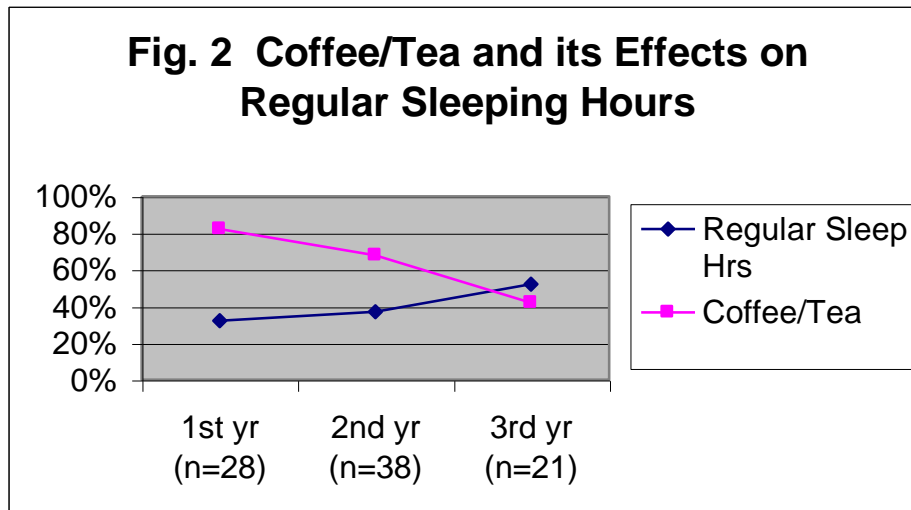
Better sleep hygiene was seen in the senior classes. The average amount of sleep required per 24 hours of the respondents was 8 hours, however, the average amount of sleep they actually got every day was 6 hours.

Table 1: Amount of actual sleep in 24 hrs compared with amount of sleep required

Sleep	1st yr (n=28)	2nd yr (n=38)	3rd yr (n=21)	4th yr (n=25)	Total (N=112)
Less than required	57%	55%	48%	36	49%
Equal to required	36%	34%	33%	48	38%
More than required	7%	11%	19%	16	13%

There was a clear association between the quantity of caffeine ingested and its subsequent effects on the regularity of sleeping hours. A number of students in each class who consumed caffeinated beverages responded that there was decrease in their regular sleep hours. This association was apparent in the cases of both coffee/tea (Figure-2) and caffeinated soft drinks such as Pepsi™ and Coke™ (Figure-3).





Thirty percent of the respondents said yes to being excessively tired during the daytime, 42 % said they fell asleep while sitting idle such as during a lecture or while watching television, 44% said they fell asleep while doing boring repetitive work and 26% of the students said that they felt as tired in the morning as when they went to bed at night

(Table-2). It was also seen that the second year class showed higher levels of tiredness than the other classes with daytime tiredness at 39% and unrefreshing sleep at 34%.

Table 2: Daytime Sleepiness among the students

Question	1st yr (n=28)	2nd yr (n=38)	3rd yr (n=21)	4th yr (n=25)	Total (N=112)
Excessive daytime tiredness	7%	39%	33%	36%	30%
Fall asleep when idle	43%	47%	38%	40%	42%
Fall asleep while at work	54%	37%	38%	48%	44%
Unrefreshing sleep	18%	34%	29%	24%	26%

Memory losses such as occasionally forgetting names, faces or misplacing small objects was seen in 21%, depression was seen at 35% and 32% of the students said that they felt irritable during the day due to their lack of sleep during the night (Table-3). Lack of sleep at night was having significant effects on their life style and hindering relationships in 28%. As before, it was seen that the class of second year showed results significantly higher than the average in most of these categories. Nearly half the class admitted to being depressed and irritable (47% and 50% respectively).

Table 3: Effects of lack of sleep on the everyday life of the students

Question	1st yr (n=28)	2nd yr (n=38)	3rd yr (n=21)	4th yr (n=25)	Total (n=112)
Suffer memory loss	18%	21%	24%	20%	21%
Feel depressed	31%	47%	24%	36%	35%
Feel irritable	25%	50%	29%	24%	32%
Effects on life style	32%	37%	29%	12%	28%

DISCUSSION

According to “HARRIS POLL” (Internet poll to monitor web activity), sleep is now one of the *top ten* health concerns on the web. Six million Americans (and millions more elsewhere) logged onto the Internet last year seeking advice about sleep.⁶

The degree of daytime sleepiness is directly related to the quantity of previous sleep⁷. Total sleep deprivation and even modest sleep restriction reduces average sleep latency in a systematic manner⁸. Studies carried out in the USA show that in the 18 to 29 year age group 41% of individuals nap during the workweek, 55% admit to staying up too late to watch TV or be on the internet, an equal percentage say they will sleep less to get more done. Thirteen percent of younger adults admit to occasionally/frequently falling asleep at work⁹. The percentage reporting significant daytime sleepiness in America (36%) and in our results (30%) rivals that of shift workers (53%), a notoriously tired group which battles the body's natural inclination to sleep between the hours of midnight and 6AM. More than 55% in the American Study and 26% in ours reported, "waking un-refreshed".

Our results showed a clear association between the quantity of caffeine ingested and its subsequent effects on the regularity of sleeping hours. The number of students who drink caffeinated beverages had less amount of sleep as compared to those who do not take caffeinated drinks. These results are supported by an earlier study which concluded that the reduction of depressive symptoms and cigarette smoking among adolescents are important factors to consider in prevention and treatment efforts focused on adolescent sleep problems¹⁰.

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 adolescents¹¹. In addition, average sleep quality was better related to sleepiness than sleep quantity. So the health care

professionals should focus on sleep quality in addition to sleep quantity in their efforts to understand the role of sleep in daily life¹².

CONCLUSION

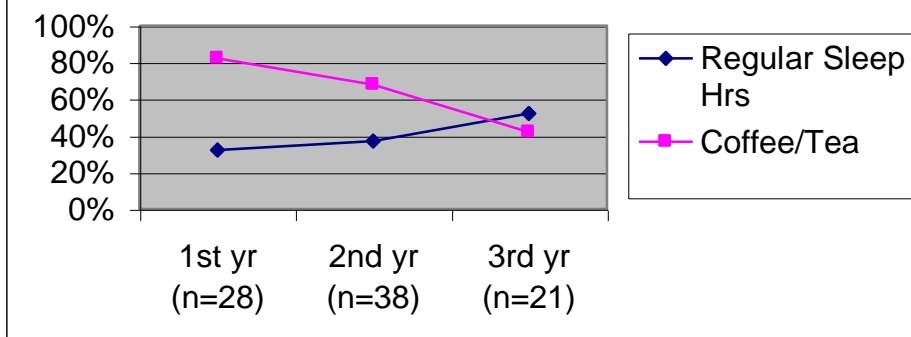
Our preliminary results show that disorders related to sleep are a significant problem. They need to be looked at more closely and further research needs to be done not only within the “young adults” (18 to 23 years) age group but also within the general public to ascertain the extent of the problem. When sleep problems are identified, only then their effects on the everyday lives, health and work capacity of people can be judged.

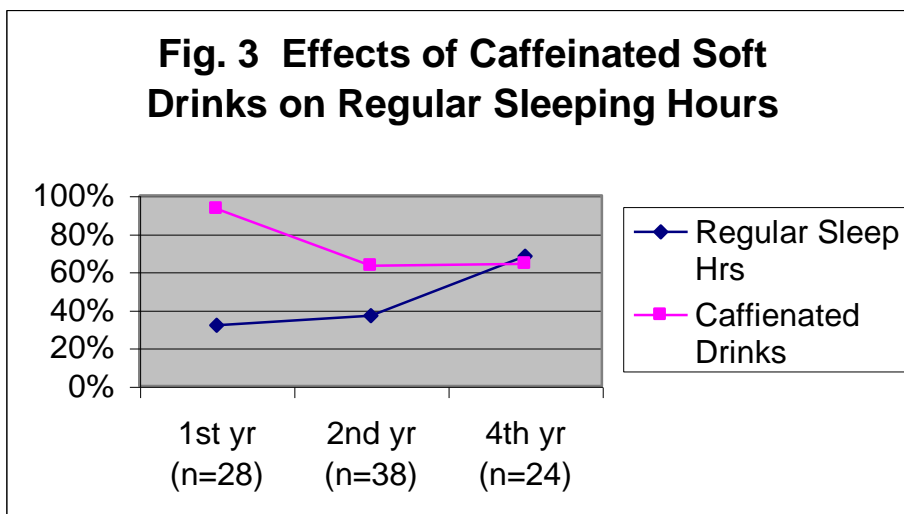
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Fig. 2 Coffee/Tea and its Effects on Regular Sleeping Hours





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