



THE STUDY OF SLEEP HABITS ON ANXIETY AND STRESS LEVEL AMONG COLLEGE GOING STUDENTS

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Background- Sleep is considered to be the most part for human physiology which affects the cognitive domain. Sleep deprivation has a huge impact on the anxiety and stress level of people. Therefore, study was conducted to know that, how sleep habits are affecting the anxiety and stress level among the college going students.

Methods and material- The study examined effect of sleep pattern on anxiety and stress level of 100 college going students selected randomly. All the students were asked to respond to the questionnaire comprising of Hamilton anxiety rating scale and sleep quality scale (SQS), questions on students current sleep habits and stress level in college life.

Results- Mean scores on SQS reveals that good and poor quality sleep were significantly differ ($P < 0.01$) on all the items of Hamilton anxiety scale. The mean scores were found significantly higher of the poor quality sleep group compared with good quality sleep group.

Keywords- SQS, HAM-A, Good Quality Sleep, Poor Quality Sleep

INTRODUCTION:

Sleep is considered to be most important part in functioning of human body as it helps in maintaining the good mental health and quality of life. (Altevogt & Colten 2006). Poor sleep has many negative effect on the psychological fulfilment of people as it deteriorates the ability to concentrate and things, poor reasoning and remember (AlDabal & BaHammam 2011). The symptom of insomnia are highly visible in college going students because now students have to shifted to 24/7 working hours leading to increased burden in their schedule. The Meta analysis of seventy studies was conducted which concluded the most of the cognitive part which are affected due to insufficient sleep is work memory, attention and thinking processes. (Lim & Dinges 2010). Stress also has a negative correlation with the academic results of students. It slows the academic performances of the students. Therefore it very important to promote such coping skills to students which can help in maintains a healthy life. (Stewart et al. 1999, Sohail 2013, Morin et al. 2003).

The objective of this study was to investigate the relationship between sleep duration, anxiety and stress in college students. Abraham Maslow also included sleep as very important aspect in psychology of people and inclusion in his five human needs. (Lohitashwa et al. 2015). University students are especially vulnerable to sleep disorders, which manifest as trouble falling asleep, frequent night awakenings, and nightmares. (Schlarb, et al. 2015). Sleep problems, poor sleep quality, and excessive daytime drowsiness are linked to decreased academic motivation and self-efficacy. (Edens 2006). Mental strain has several components that interact with one another. Sleep issues frequently co-occur with different mental health conditions like depression, anxiety and drug addiction among college students. (Taylor et al. 2011). Healthy sleeping habits are referred to as sleep hygiene and are frequently employed as the initial treatment for sleep disorders. One common technique of this kind entails setting up the bedroom so as to reduce night-time noise and light interruptions. (Sexton-radek & Hartley 2013). Teenagers and young adults experience's a delayed sleep and are "night owls" physiologically. Understanding sleep problems in children and adolescents requires knowledge of what defines normal sleep behaviour during development. (Jenni and Carskadon, 2007)

After knowing the factors and the reasons effecting sleep pattern, stress and anxiety of the students, we will able to take precautionary measures in healthy sleep habits.

Procedures- The study was conducted on 100 subjects including both male and female. The random sampling was selected for the survey. The population targeted was college going students. The questionnaire method was selected to gather the information about the research topic. HAM-A (Hamilton anxiety rating scale) and SQS (sleep quality scale) was administered on all the 100 samples. SQS was used as screening tool in the research. The data was collected in two steps. Participants were asked to fill the questionnaire. The SQS is made up of 18 items which was evaluated on 5 likert scale. The SQS is a widely used and validated technique for measuring sleep quality that has been used in several researches.

Participants were asked to complete the HAM-A, a questionnaire that evaluates anxiety levels, in the second stage. The HAM-A is made up of 14 items and interpretation of scores was done on the basis of scoring manual. The HAM-A is a commonly used and validated tool for measuring anxiety levels in numerous investigations. The age group was taken 19 to 30 year of age. Both Students residing on the campus and off the campus area were included in the study.

INSTRUMENTS:

Hamilton Anxiety Rating Scale (HAM-A) – The Hamilton anxiety scale was developed by max Hamilton. It was developed in 1959. It is assessment tool which helps to determine the anxiety level of the individuals. The test consists of total 14 items which helps to assess the anxiety of subject. The test is used to determine both physical and psychological symptoms of the individual which include fear, nervousness, insomnia, somatic sensory, autonomic behaviour, respiratory symptom, depressed mood. The total score ranges from 0 to 56. The lowest scores on HAM-A indicates the mild anxiety level and the high scores on HAM-A indicates severe anxiety level. The internal consistency on items of scale is considered to be very good which ranges from Y alpha = 0.77 to 0.92.

Sleep Quality Scale (SQS) – The sleep quality scale was developed by Korean Yi, shin and shin. It was developed in 2006. It is assessment tool to determine the sleep quality of an individual. The test is applicable to individual from 18 to 59 years of age. The consist of 28 items which helps to assess the six domains of sleep that is sleep duration, sleep latency, sleep disturbance, daytime dysfunction, sleep efficacy and sleep satisfaction. The scoring is done by using the 5 likert scale on the items of the scale. There was also reverse scoring on some items. The highest score on the SQS scale indicates poor sleep and lowest score on SQS scale indicates good sleep among the students.

DATA ANALYSIS:

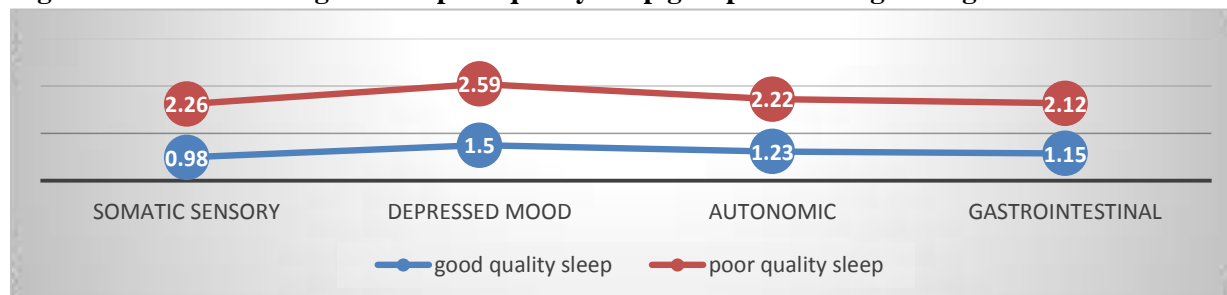
Table 1 Comparison of good quality and bad quality sleep group on anxiety and stress level of students on HAM-A

S.N	SYMPTOMS	GROUP	N	M	SD	T-SCORE
1.	Anxiety	Good quality sleep	51	1.60	1.32	2.7*
		Bad quality sleep	49	2.32	1.29	Df- 98
2.	Tensions	Good quality sleep	51	1.90	1.21	3.36*
		Bad quality sleep	49	2.67	1.07	Df=98
3.	Fears	Good quality sleep	51	1.59	1.31	2.92*
		Bad quality sleep	49	2.38	1.33	df=98
4.	Insomnia	Good quality sleep	51	1.38	1.31	3.95*
		Bad quality sleep	49	2.63	1.82	df=98
5.	Intellectual	Good quality sleep	51	1.42	1.02	2.72*
		Bad quality sleep	49	2.26	1.94	df=98
6.	Depressed mood	Good quality sleep	51	1.50	1.26	4.6*
		Bad quality sleep	49	2.59	1.10	Df= 98
7.	Somatic(muscular)	Good quality sleep	51	1.3	1.24	3.2*
		Bad quality sleep	49	2	0.9	Df=98
8.	Somatic(sensory)	Good quality sleep	51	0.98	0.86	6.4*
		Bad quality sleep	49	2.26	1.10	Df= 98
9.	Cardiovascular symptoms	Good quality sleep	51	1.02	1.63	2.87*
		Bad quality sleep	49	1.87	1.30	Df=98

10.	Respiratory symptoms	Good quality sleep	51	0.92	1.04	3.9*
		Bad quality sleep	49	1.83	1.25	Df= 98
11.	Gastrointestinal symptoms	Good quality sleep	51	1.15	1.03	4.4*
		Bad quality sleep	49	2.12	1.17	Df= 98
12.	Genitourinary symptoms	Good quality sleep	51	0.96	1.11	3.9*
		Bad quality sleep	49	1.91	1.30	Df= 98
13.	Autonomic symptoms	Good quality sleep	51	1.23	1.16	4.2*
		Bad quality sleep	49	2.22	1.19	Df=98
14.	Behaviour at interview	Good quality sleep	51	1.33	1.09	3.1*
		Bad quality sleep	49	2.06	1.21	Df=98

*Significant at $P < 0.01$ level

Figure 1. Mean score of good and poor quality sleep groups on the highest significant difference.



RESULTS AND DISCUSSION

It appeared from the analysis of the data (Table-1) shows that there was significant difference on all the items. The subjects with poor quality sleep were found to have more anxiety issues than subjects with good quality sleep. Recent literature suggests that poor sleep contributes to greater pain sensitivity in the population. (Yoon et al. 2021). The high mean difference ($p < 0.01$) of the depressed mood and autonomic symptoms reveals the exacerbation symptoms of sweating, shaking and muscle stiffness and agitated behaviour in poor quality sleep group. One of the exploratory studies conducted on the relationship between anxiety level, sleep and physical activities illustrates the higher anxiety issues lead to sleep deprivation and lower level of physical activity (Frontini et al. 2021). Poor quality sleep show symptoms diminishing interest in pleasurable activities, lack of engagement in leisure activities and easily arising in the morning.

The mean difference on 'anxiety', 'fears', 'tensions', and 'respiratory symptoms', was slightly significant but it was less than others. It may be explained as poor quality sleep results in emotional regulation which makes the students more vulnerable to negative emotions like feeling of tension, fatigability, feeling of restlessness and inability to relax. According to one of the studies published in journal of American college health in 2020 states that students who reported difficulty in falling asleep and waking for longer period of time has higher anxiety issues. (Talbot et al. 2020). The students who manifested sleep deprivation exhibit higher scores on all the items of HAM-A as compared to students who manifested adequate sleep. The data also revealed presence of anxiety issues in group who reported good sleep habits. Emotional regulations and physiological problems like individual differences to confrontation to problems, past trauma, social adjustments and environmental factors could be the other reason for anxiety problems in group who had good quality of sleep. One of the studies that were published in journal of sleep research indicates that both short duration and sleep duration shows the depression symptoms in the young adult. (flink et al. 2020). There was indication of positive correlation between sleep scores and level of anxiety among students. A study published in journal of American college health also stated that students reported adequate sleep, depicts lower anxiety issues (lund et al. 2010). The research provides with various psychological and physiological issues prevailing in college going students which included both the group.

CONCLUSION

The anxiety and stress level of good quality sleep was differentiated from bad quality sleep on all the items of Hamilton anxiety scale. The poor quality sleep students found to be more vulnerable to 'anxiety issues'.

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