

QUALITY OF SLEEP AMONG COLLEGE STUDENTS- A DESCRIPTIVE STUDY

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ABSTRACT

Introduction: Sleep is a universal biological feature in all species, and represents a global state of immobility with greatly reduced responsiveness to environmental stimuli, which can be distinguished from coma or anaesthesia by its rapid reversibility. It is by no means a dormant state. As a basic need of mankind, sleep is important for health and life quality at all ages. When prevented from sleeping, the body tries to recover the lost sleep time. **Objectives:** Of the work were to assess the quality of sleep, to find the association between social demographic proforma and quality of sleep among college students. **Methodology:** Non experimental descriptive research design was adopted. The study included 100 college students studying in two constituent colleges of a University, Mangaluru were selected by stratified sampling technique. The Data was collected by using socio demographic proforma and quality of sleep scale prepared by the investigators. **Result:** The study findings showed that 3% college students had very good sleep, 23% had good sleep, 73% had fairly bad sleep and 1% had very poor sleep. There was association between number of sibling and quality of sleep. **Conclusion:** Based on the study finding it is concluded that majority college students has fairly bad sleep and there is no any significant association between socio demographic proforma and quality of sleep except number of siblings. The study helped in identifying the quality of sleep among college students. The study may help the future investigators to adapt different method to shape the truth.

KEYWORDS: Quality of sleep, college students.

INTRODUCTION

Sleep is a universal biological feature in all species, and represents a global state of immobility with greatly reduced responsiveness to environmental stimuli, which can be distinguished from coma or anaesthesia by its rapid reversibility. It is by no means a dormant state. As a basic need of mankind, sleep is important for health and life quality at all ages. When prevented from sleeping, the body tries to recover the lost sleep time.^[1] Sleep deprivation can lead to negative outcomes such as fatigue and even a compromised immune system.^[2] Poor sleep quality has been found to be associated with poor academic achievement and health. Sleep is food for the brain. According to National Sleep Foundation (NSF) sleep is essential for a person's health and wellbeing. Several important body functions and brain activity occurs during sleep. According to Stanford University, 'the average sleep requirement for college student is well over 8 hours, and the majority of student would fall within the range of this value plus or minus 1hour.^[3] Prevalence rate of poor sleep quality is high among under graduate students in world wide.^[4] The progressive

lack of sleep diminish their ability to function at work or in school, can lead to dangerous behaviour such as drowsy driving, can contribute to weight gain, and can deepen feelings of depression.^[5] National Sleep Foundation's recent Sleep Health Index revealed that as many as 27 percent of people take longer than 30 minutes, on average, to fall asleep.

A case control study was conducted among 165 male and female medical students at two Sudanese Universities. Excellent (A) and pass (C) academic groups were invited to respond to a self-administered questionnaire, using the Pittsburgh Sleep Quality Index (PSQI). Students also completed a diary detailing their sleep habits for 2 weeks to filling the entire questionnaire. Various parameters of sleep quality where then compared between the two groups. The result showed that a significant difference ($p < 0.001$) between the excellent and average groups was found for over all sleep quality, subjective sleep rating, bed time later than midnight, sleep latency and day time dysfunction (during driving, preparing a meal, etc.). The mean sleeping hours was (7 ± 1.9) and (6.3 ± 1.9) for the

excellent and pass groups respectively ($p < 0.05$). A significant difference ($p < 0.001$) between the excellent and average groups was found for weekday and weekend bed time, weekend wake-up time and weekend wake-up delay.^[6]

College students are one of the most sleep-deprived populations. Research at Brown University has found that approximately 11% of students report good sleep, while 73% report sleep problems. 18% of college men and 30% of college women report having suffered from insomnia in the past 3 months. To understand the consequences of sleepiness and sleep deprivation, knowledge of normal sleep and its impact on learning, memory and performance are necessary. Equally important are potential interventions, as this may offer an opportunity to improve health and educational outcomes for this demographic. This study aims at understand the relation between quality of sleep with socio demographic proforma.^[7]

METHODOLOGY

Non experimental descriptive research design was adopted in the present study with study sample of 100

RESULTS

Table 3: Description of samples based on demographic characteristics.

N=100

Sl no	Samples characteristics	Category	Frequency	Percentage (%)
1	Age in years	Below 20	40	40%
		21-23	55	55%
		24-26	5	5%
		Above 27	0	0%
2	Gender	Male	14	14%
		Female	86	86%
3	Course	Nursing	52	52%
		Physiotherapy	48	48%
4	Year	1 st year	30	30%
		2 nd year	29	29%
		3 rd year	25	25%
		4 th year	16	16%
5	Type of family	Nuclear	88	88%
		Joint	11	11%
		Extended	1	1%
6	Number of siblings	Nil	5	5%
		One	52	52%
		Two	31	31%
		Three and above	12	12%
7	Presently residing	With family	5	5%
		With relatives	0	0%
		Hostel /PG	95	95%
8	Fathers occupation	Government job	6	6%
		Private job	33	33%
		Business	28	28%
		Daily wage work coole /retired	26	26%
		Unemployed	6	6%
9	Mothers occupations	Government job	1	1%
		Private job	12	12%
		Daily wage work /coole /retired	1	1%
		House wife	85	85%
10	Annual income in Rupees	<12,000	17	17%
		12,000-60,000	49	49%
		60,001-1,20,000	23	23%
		1,20,001-1,80,000	7	7%
		>1,80,000	4	4%

college students in the age group of 18 and above studying in selected colleges of Mangaluru who were selected by stratified sampling technique. The ethical clearance was obtained by Institutional Review Board of the University. The purpose of the study was explained to the subjects and individual written informed consent was obtained before collecting the data from the subjects.

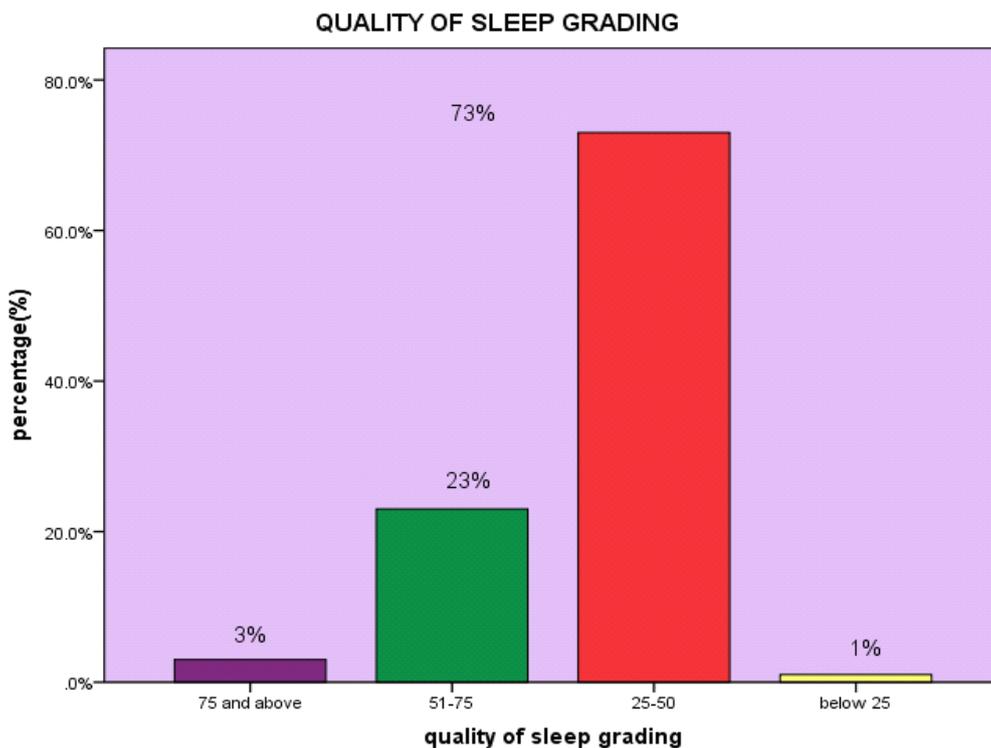
Data for the study was collected by using socio demographic proforma and quality of sleep scale developed by the investigators. The quality of sleep scale consist of 20 items distributed in terms of sleep and wake up habit, sleep timings, sleep disturbance factor and sleep disturbance effect. The maximum score was 100, which was arbitrarily categorized and interpreted as <75= very good, 51-75=good, 25-5=fairly bad and below 25=very poor. Tools were validated and checked for reliability (Cronbach's alpha $r=0.7$). The time taken to complete the tool was 15 minutes.

In this study around 55% students were in the age group of 21-23 years, 40% were below 20 years and 5% were between the ages of 24-26 years. It is evident from findings that 86% of respondents were female and (14%) male. Among the total number of college students, 52% were B.Sc. Nursing students and 48% of B.P.T students. The result indicated that 30% students were from first year, 29% from second year, 25% and 16% from third and fourth year respectively. Majority (88%) respondents belongs to nuclear family, 11% to joint family, and 1% from extended family. With respect to number of siblings majority 52% respondents have one sibling, 5% don't have sibling, 31% has two siblings and 12% has three and above. Regarding the residence of the respondents

95% stays in hostel or PG, and 5% are with family. Result revealed that 33% of the father involved in private job, 28% were in business, 26% were daily wage, 6% of were in government job, 6% were involved in coolie and retired respectively and 1% unemployed. According to the findings 85% mothers were house wives, 12% involved in daily wage, 2% work for private job and only 1% involved in coolie or retired. With respect to the family income 17% respondents belong to the income below Rs.12000, 49% were between Rs.12000 to 60000, 23% were in the range between Rs.60001 to 120000, 7% of were between 120001 to 180000, and 4% belongs to above 180000 income.

Quality of sleep among college students

Quality of sleep grading	scores	Frequency	Percentage%	Cumulative Percentage%
Very good	75 and above	3	3.0	3.0
Good	51-75	23	23.0	26.0
Fairy bad	25-50	73	73.0	99.0
Very poor	below 25	1	1.0	100.0
	Total	100	100	



Bar diagram showing the grading of quality of sleep.
 Bar diagram indicates 73% respondents with fairly bad quality sleep, 23% with good sleep, 3% with very good sleep and only 1% of respondents with very poor quality of sleep.

Table 3: Association between quality of sleep and socio demographic proforma.

Sl.no	Socio demographic proforma	adequate	inadequate	χ^2	df	P value	inference
1	Age			1.515	2	.469	NS
	Below20	1	39				
	21-23	0	55				
	24-26	0	5				
	Above 27	1	99				
2	Gender			.164	1	.685	NS
	Male	0	14				
	Female	1	85				
3	Course			.932	1	.334	NS.
	Nursing	1	51				
	Physiotherapy	0	48				
4	Year			2.473	3	.480	NS.
	1 st year	0	30				
	2 nd year	1	28				
	3 rd year	0	25				
	4 th year	0	16				
5	Type of family			.138	2	.933	NS
	Nuclear	1	89				
	Joint	0	11				
	Extended	0	1				
6	Number of siblings			19.192	3	.000	Sig.
	Nil	1	4				
	One	0	52				
	Two	0	31				
	Three and above	0	12				
7	Presently residing			.053	1	.818	NS
	With family	0	5				
	With relatives	0	0				
	Hostel /PG	1	94				
8	Fathers occupation			2.051	5	.842	NS
	Government job	0	6				
	Private job	1	32				
	Business	0	28				
	Daily wage work						
	/coole /retired	0	26				
Unemployed	0	6					
9	Mothers occupations			7.407	3	.060	NS
	Government job	0	2				
	Private job	1	11				
	Daily wage work /coole	0	1				
	/retired						
House wife	0	85					
10	Annual income in			1.051	4	.902	NS
	Rupees<12,000	0	17				
	12,000-60,000	1	48				
	60,001-1,20,000	0	23				
	1,20,001-1,80,000	0	7				
>1,80,000	0	4					

The data presented in the table 3 revealed that there is no significant association between sleep and socio demographic proforma in terms of age, gender, course, year, type of family, presently residing, father's occupation and annual income it showed association between number of sibling and quality of sleep.

DISCUSSION

The present study findings showed that 3% college students had very good sleep, 23% had good sleep, 73% had fairly bad sleep and 1% had very poor sleep.

A similar cross sectional study was conducted on sleep habits and sleep problems among medical students of Pravara institute of medical sciences Loni, Western Maharashtra, India in 2011 October to December. A total of 150 medical students include 50 undergraduates, 50 interns, 50 post graduates were selected by using a convenience sampling technique. The data was collected by using questionnaires. Pittsburgh Quality of Sleep Index and Epworth Day time Sleepiness Scale is used to assess the quality of sleep. In this study, out of 150 medical students, 26 / 150 (17.3%) students had abdominal level of day time sleepiness while 20/ 150

(13.3%) were borderline. Sleep Quality in females was better than male.^[8]

Majority (55%) were in the age group of 21-23 years. In the present study male and female 14% and 86% respectively. In the present study nursing and physiotherapy students are 52% and 48% respectively. Most of the students belong to 1st year 30%. Most of the students are from nuclear family (88%). Most of the students have one sibling (52%). Majority (95%) of the students are residing in hostel/PG. Most of the student's fathers (33%) had private job. Most of the student's mothers (85%) were housewife. The data collected on the income of the family showed that majority 49% had a family income of Rs.12, 000 to Rs.60, 000 only (17%) had a family income below Rs.12, 000.

According to Karl Pearson correlation coefficient there is no significant association between sleep and socio demographic proforma in terms of age, gender, course, year, type of family, presently residing, father's occupation and annual income.

CONCLUSION

Based on the study findings it is concluded that there is a positive association between quality of sleep and socio demographic proforma. Sleep is very important for maintaining a normal circadian rhythm and attaining good academic performance. So it is evident that sleep is important for a healthy life.

RECOMMENDATIONS

An exploratory study can be conducted to identify the sleep quality disturbance and the factors affecting the quality of sleep. In future research work can be done to rectify the relation between the number of siblings and quality of sleep.

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REFERENCE

1. Brand S, Kirov R. Sleep and its importance in adolescence and in common adolescent somatic and psychiatric conditions. *Int j gen med.*, 2011; 4: 425-442. Published online 2011 June 7. Doi:10.2147/ijgm.s11557.
2. <https://www.healthcentral.com/article/how-internet-addiction-is-harming-your-brain-your-health-and-your-sleep>.
3. <https://sleepfoundation.org>.2016.
4. Bhandari PM, Neupane D, Rijal S, Thapa K, Mishra SR, Poudyal AK. Sleep quality, internet addiction and depressive symptoms among undergraduate students in Nepal. *BMC Psychiatry.*, 2017; 17: 106.

Published online 2017 Mar 21. doi: 10.1186/s12888-017-1275-5.

5. Cline J Ph.D. Sleep and the internet addict. Poor sleep. Compulsive use of internet. Posted: Sep 11, 2011. Available from: <https://www.psychologytoday.com/blog/sleepless-in-america/201109/sleep-and-the-internet-addict>.
6. Osman H, Salih O, Siddig M. Good sleep quality is associated with better academic performance among Sudanese medical students. *BMC Research Notes.* Bio Med Central.
7. Available from: www.campusmindworks.org
8. Giri PA, Baviskar MP, Phalke DB. A study of sleep problems among medical students of Pravara institute of medical sciences Loni, Western Maharashtra, India. *Ann Med Health Sci Res.*, 2013 Jan-Mar; 3(1): 51-4.