

Factors associated with poor sleeping patterns among male students at Jahangirnagar University in Bangladesh: A cross-sectional study

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1. Introduction



2. Objectives

General objective

- To identify the factors associated with poor sleeping patterns among male students at Jahangirnagar University in Bangladesh.

Specific objectives

- To identify the sleep quality among the participants by using PSQI (Pittsburgh Sleep Quality Index) scale.
- To explore the risk factors of poor sleeping patterns.
- To investigate the association between lifestyle variable and quality of sleep.

3. Materials & Method

- It was a cross sectional study.
- Study Area and Population: At Jahangirnagar University, (1st to 5th year) students were chosen for the study.
- Sample Size: 390 university students (Male) aged between 19-27 years.
- Sample Techniques: A simple random sampling method was used.

Study Tools

Questionnaires: The questionnaire included

- Socio-demographic information (e.g., age, gender, marital status)
- Information about sleep quality.
- Information about factors associated with poor sleeping pattern.
- Used Pittsburgh sleep quality index (PSQI), by which sleep quality was assessed.
- Data Collection Procedure: Assuming a 3% margin of error, data were collected from 390 students.
- Data Analysis: Data were analyzed using Statistical Package for the Social Sciences (SPSS) version 23.0 (SPSS, Chicago, IL, USA).
- Pearson Chi- square test was applied to determine relationship between sleep patterns and factors affecting sleep.
- A p-value less than 0.05 was considered statistically significant.

4. Result

Table: 01

Characteristics	N	Percentage (%)
Age		
<20 Years	48	12.3
20-24	273	70.0
>24	69	17.7
Religion		
Islam	352	90.3
Hindu	35	9
Christian	1	0.3
Buddhist	0	0
Others	2	0.5

Table: 02

Characteristics	N	Percentage (%)
Academic year		
1 st	80	20.5
2 nd	124	31.8
3 rd	57	14.6
4 th	74	19
5 th	55	14.1
Living place		
University hall	353	90.5
Apartment	17	4.4
Both	20	5.1

Table: 03

	Frequency	Percentage
PSQI<5 (Good sleep quality)	209	53.6
PSQI>5 (Poor sleep quality)	181	46.4
Total	390	100



Figure: 01

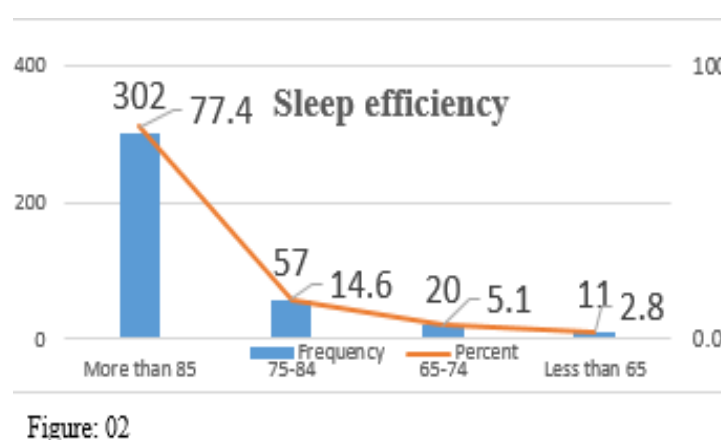


Figure: 02

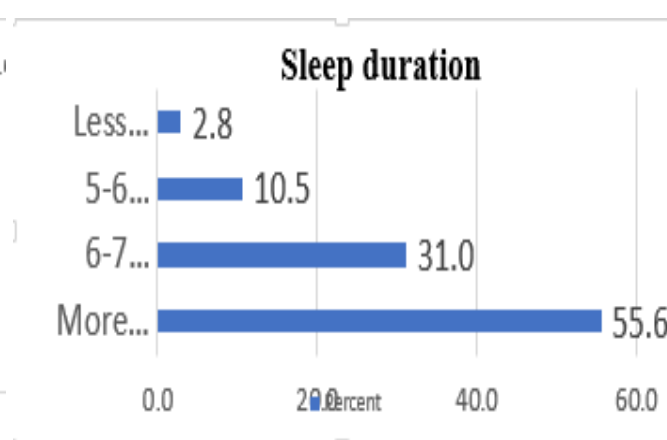


Figure: 03

Table: 04

Variables	Categories of quality of sleep					Chi-square value	p-value
	Very good (% within row)	Fairly good (% within row)	Fairly bad (% within row)	Very bad (% within row)	Total (% total)		
Category of age							
Less than 20 years	5 (10.4)	35 (72.9)	7 (14.6)	1 (2.1)	48 (12.3)	16.312	0.012
20-24 years	42 (15.4)	154 (56.4)	66 (24.2)	11 (4)	273 (70)		
More than 24 years	16 (23.2)	25 (36.2)	24 (34.8)	4 (5.8)	69 (17.7)		

Table: 05

Variables	Categories of quality of sleep					Chi-square value	p-value
	Very good (% within row)	Fairly good (% within row)	Fairly bad (% within row)	Very bad (% within row)	Total (% total)		
Academic year							
1 st year	8 (10)	48 (60)	16 (20)	8 (10)	80 (20.5)	32.143	.001
2 nd year	21 (16.9)	81 (65.3)	21 (16.9)	1 (0.8)	124 (31.8)		
3 rd year	10 (17.5)	30 (52.6)	17 (29.8)	0 (0.0)	57 (14.6)		
4 th year	12 (16.2)	32 (43.2)	27 (36.5)	3 (4.1)	74 (19)		
5 th year	12 (21.8)	23 (41.8)	16 (29.1)	4 (7.3)	55 (14.1)		

Variables	Categories of quality of sleep					Chi-square value	p-value
	Very good (% within row)	Fairly good (% within row)	Fairly bad (% within row)	Very bad (% within row)	Total (% total)		
Physical Factors (Noise, moisture of the room, sound of tv, temperature etc.)							
Yes	63 (17.7)	198 (55.8)	81 (22.8)	13 (3.7)	355 (91)	15.386	0.002
No	0 (0.0)	16 (45.7)	16 (45.7)	3 (8.6)	35 (9)		

Variables	Categories of quality of sleep					Chi-square value	p-value
	Very good (% within row)	Fairly good (% within row)	Fairly bad (% within row)	Very bad (% within row)	Total (% total)		
Social Factors (Having family problems, loneliness, having trouble with partner etc.)							
Yes	53 (16.5)	185 (57.6)	72 (22.4)	11 (3.4)	321 (82.3)	9.032	.029
No	10 (14.5)	29 (42)	25 (36.2)	5 (7.2)	69 (17.7)		

Table: 06

Table: 07

Table: 01&02 Sociodemographic characteristics of the participants. Table: 03 PSQI Score. Figure: 01 Subjective Sleep Quality. Figure: 02 Sleep Duration. Figure: 03 Sleep Efficiency

Table: 04&05 Association between demographic variables and quality of sleep. Table: 06&07 Association between Physical factors and quality of sleep.

Conclusion:

- Poor sleep quality is reported among almost half of the respondents.
- Test result showed that there was highly significant association between physical factors and poor sleep quality.
- Also find significant association between social factors and poor sleep quality.