

# SURVEY OF FACTORS AFFECTING ON SLEEP STATUS AMONG STUDENTS AT AL-MUTHANNA GOVERNATE

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**Abstract:** A descriptive study. It was conducted in Al-Muthanna Governorate among university students. The study aimed to know the sleep status of students in addition to finding a statistically significant relationship with demographic information variables. The study continued from 20/10/2022 to 20/10/2023. The results of the study showed that the majority of the research sample suffers from lack of sleep, as the percentage was (77%) of the total study sample, and also the presence of a statistically significant relationship with all demographic variables except for the gender variable, as it showed no relationship, in addition to the fact that the majority of students use stimulants such as coffee and tea. The research study concluded that the majority of students who have lack of sleep must reduce stimulants, organize daily schedules, and control stress. The study recommended working to increase awareness among students through educational programs that contribute to reducing negative activities among students and maintaining their physical and psychological health.

**Key words:** Sleep Status, Factors Affecting, insomnia.

## INTRODUCTION

Life is based on a number of fundamentals. Sleep is one of the most essential of these need; a typical human being cannot survive without getting enough hours of sleep. This low normal sleep range reflects negatively on the body. One of the most important consequences it causes is the impact on mental health, which may result in anxiety, depression, aggression, impaired cognitive functions and poor mental health. It also affects physical health such as non-insulin-dependent diabetes (NIDDM) and high blood pressure, chronic pain, high blood values, body mass and other negative consequences. (1)(2)(3)

The demands of daily living and social interactions are directly linked to poor sleep quality. According to research, children who use cellphones frequently have a negative effect on their sleep quality. This harmful link can result in numbness, mental and physical issues, and poor sleep quality. (7)(8)(9)

Constant irregular sleep leads to poor rest, leading to natural sleep deprivation. One of the problems related to irregular sleep is the frequent use of smartphones in one study conducted in eight countries. %75 of youth (<30 years) who use the phone in bed, this affects their calmness. (4)(5)(6)

It's important to note that some people do not remember these waking episodes, while others find them bothersome and interfere with their ability to fall asleep. Sometimes poor sleep quality is linked to a problem that, if resolved, causes sleep to return regularly. For instance, sleep is linked to medical, neurological, or psychiatric issues, as well as therapies like decongestants, sinus medications, asthma prescriptions, and adulthood. (10)(22)

Insomnia has significantly increased among university students, who also experience a decline in their physical and mental well-being, although there is equilibrium between the two. A variety of concepts, such as sleep duration, sleep efficiency, and the use of hypnotics, can be used to measure variations in the quality of sleep. (11)(12)(5)(13)

## Objective

1-Knowing the sleep status of university students in Muthanna Governorate.

## 2-Finding the relationship between demographic information and sleep status of students.

### Research methodology

Descriptive study, Simple random sampling. The study aimed to know the sleep status of university students, as the research study period lasted from 10/20/2022 to 10/20/2023. A simple random sample of university students was collected. The number of students participating in the study was (800) students, The total number of students at Al-Muthanna University in various specializations reached approximately 8,000 students, who were still continuing their university studies when the research study was conducted. The sample was collected by distributing a paper questionnaire and it was answered. Where it took 5-10 minutes to answer the questions. Where the sample collection period lasted from 1/12/2022 to 1/3/2023. The Arabic version of the questionnaire was distributed to several experts specializing in mental health nursing. A pilot study was then conducted on a number 30 students, They were then excluded from the total study sample. Where the result of the documentation using the SPSS program showed the result of reliability and this result was 80 for scale . Approvals were obtained for conducting the research and collecting the research sample. The ethical research procedures are in line with international protocols for collecting the scientific research sample. In addition to obtaining the consent of the researcher to participate in the research, the official institutions were informed that the information he/she will provide will be confidential and will be used only for scientific research purposes. These procedures relate to the rights of the research sample.

### Instrument of the study

The questionnaire was an Arabic version of the Pittsburgh Sleep Quality Index (PQSI). This index consists of several questions aimed at measuring students' sleep status or quality. This index is referred to as the PQSI. The index consists of 14 scientifically distributed questions, each of which requires a choice between (always, sometimes, never). The index is coded using three numbers (1, 2, 3). The index has an interpretive score between 14 and 42. High scores on the PQSI indicate that the student's sleep status is poor and unacceptable.<sup>(24)</sup>

**Table1: Distribution of demographic information for the research sample: university students (n=800)**

No	Sociodemographic data	Rating	f	%
1	Gender	Male	264	33
		Female	236	67
		Total	800	100
2	Age/ year	less than 20	264	33
		20-29	528	66
		30 and above	8	1
		Total	800	100
3	Marital status	Single	680	85
		Married	112	14
		Divorced	8	1
		Total	800	100
4	Place of Residence	Urban	592	74
		Rural	208	26
		Total	800	100
5	Smoking	Yes	72	9
		No	728	91
		Total	800	100
6	The monthly income	Sufficient	272	34
		Fair Sufficient	360	45
		Insufficient	168	21
		Total	800	100

The table shows the demographic parameters of the students participating in the research study. The table shows that the percentage of (67%), which was the majority of the study, was female. As for the age variable, the results revealed that the age of the participants was 20-29 years, which is higher than the majority of the sample, and their percentage was (66%). As for the marital status of the sample participating in the research, it was single, and their percentage was (85%). The results also revealed that the place of residence of the research sample was urban, and their percentage was (74%). As for the monthly income of the research sample regarding the monthly income variable, the percentage of the research sample was (45%). As for the smoking status, the largest percentage of the research sample were non-smokers, and their percentage was (91%).

**Table 2: The table shows the university students' response to questions related to sleep quality (n=800).**

No	Questions	Rating	f	%
1	Average hours of sleep during the day	No Sleep	384	48
		1-2	360	45
		3-4	56	7
		Total	800	100
2	Average hours of sleep at night	less than 6	248	31
		6-8	424	53
		8 and above	128	16
		Total	800	100
3	Drinking tea and coffee	Yes	664	83
		No	136	17
		Total	800	100
4	Have energy drinks	Yes	112	14
		No	688	86
		Total	800	100
5	Take sleeping medication	Yes	32	4
		No	768	96
		Total	800	100
6	If yes, it is by prescription	Yes	496	62
		No	304	38
		Total	800	100

The table reveals information related to the student's sleep quality. The table revealed that the majority of the sample for the question Average hours of sleep during the day had the highest percentage of answer (48%). As for the sample's response to the question Average hours of sleep at night, the percentage was (53%). The question Drinking tea and coffee had the highest percentage (83%). As for the fourth question, which included Have energy drinks, the sample's response was (86%). While the result of the fifth question revealed that the majority of the sample answered (No) and their percentage was (96%). As for the last question, which included If yes, it is by prescription, the largest response was (Yes) and the percentage was (62%).

**Table 3: The table shows the sleep status according to the university students' response (n =800).**

Sleeping status	Frequency	Percent	Mean Score	SD
Good sleep	184	23	26.544	6.341
Poor sleep	616	77		
Total	800	100		

The table shows the status of sleeping quality among university students. The results revealed that the majority of students had poor sleep quality and their percentage represented the majority of the research sample, as their percentage was (77%). As for the rest of the study sample, their sleep quality was good and their percentage was (23%).

**Table 4: The table reveals the statistically significant relationships between demographic information of university students and sleep quality (n =800).**

Ranking& intervals		Sleep Pattern				X <sup>2</sup>			
		G.S		P. S		Value	df	P. Value	Sig
		f	%	f	%				
Age	less than 20	64	8	200	25	6.209 <sup>a</sup>	2	.045	S
	20-29	112	14	408	51				
	more than 30	8	1	8	1				
	Total	184	23	616	77				
Gender	Male	64	8	200	25	0.078 <sup>a</sup>	1	0.8	N.S
	Female	120	15	416	52				
	Total	184	23	616	77				
Marital status	Single	152	19	512	64	17.160 <sup>a</sup>	2	.001	H.S
	Married	24	3	88	11				
	Divorced	8	1	8	1				
	Total	184	23	616	77				
Income	Sufficient	72	9	200	25	18.160 <sup>a</sup>	2	0.001	H.S
	Mostly Sufficient	80	10	272	34				
	Insufficient	32	4	144	18				
	Total	184	23	616	77				
Sleeping medication	Yes	8	1	32	4	14.658 <sup>a</sup>	1	0.001	H.S
	No	176	22	584	73				
	Total	184	23	616	77				
Smoking	Yes	16	2	64	8	6.905 <sup>a</sup>	1	0.009	H.S
	No	168	21	552	69				
	Total	184	23	616	77				
Sleeping night hours	Less than 6	40	5	216	27	32.325 <sup>a</sup>	4	0.001	H.S
	6-8	112	14	304	38				
	8 and above	32	4	96	12				
	Total	184	23	616	77				
	Total		23		77				
Energy drinking	Yes	176	22	600	75	21.162 <sup>a</sup>	1	0.001	H.S
	No	8	1	16	2				
	Total	184	23	616	77				

G.S: Good Sleep , P.S: Poor Sleep , X<sup>2</sup>: Chi-Square

The table reveals the statistically significant relationships with demographic information and sleep patterns among university students. The results showed that there is a statistically significant relationship with the variables age, marital status, income, sleeping medications, smoking, sleeping night hours and energy drinking. There is no statistically significant relationship with the variable gender.

### Discussion:

The study showed that the number of hours per day for the participating students was 48%. Sleeping hours at night were within the normal range of 6 to 8 hours per night<sup>(14) (16) (20)</sup>. This was the percentage of most participating students, who comprised the majority of the research sample(53%)<sup>(19) (21)</sup>. Consuming stimulants, such as tea and coffee, which contain caffeine, has a negative impact on sleep<sup>(18) (13)</sup>. This was the response of the majority of the sample(83%)<sup>(17) (19)</sup>.

Students must sleep a few hours per day to maintain a stable mental state and regain energy throughout the day. Consuming coffee and tea should be limited to avoid insomnia and poor sleep, as these substances have a negative impact on sleep<sup>(15) (5) (22)</sup>.

## Recommendations

1. Using educational programs about normal sleep to increase information among students.
2. Using courses, seminars and scientific lectures for students to raise awareness about behaviors that harm sleep such as (smoking or stimulants).
3. Increasing awareness among students to use healthy behaviors that increase the normal state such as exercising.
4. Educating students by organizing their daily schedule and what it contains of academic duties so that their sleep status is not negatively affected.

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