

STRESS LEVELS AND SLEEP QUALITY OF NURSES AT GOTONG ROYONG SURABAYA HOSPITAL

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ABSTRACT

Introduction: Stress is a condition that requires individuals to react physically, psychologically, and behaviorally to a change. Sleep quality is a measure of how well a person sleeps. Increased stress and poor sleep quality can affect nurses' health conditions (physical, psychological, behavioral) and work performance.

Objective: To determine the correlation between stress levels and the sleep quality of nurses at Gotong Royong Hospital Surabaya.

Methods: Cross-sectional method was carried out with a purposive sampling technique. Data collection was done online using Jotform. The stress level questionnaire used was the Perceived Stress Scale (PSS) and sleep quality with the Pittsburgh Sleep Quality Index (PSQI). PSS results consist of mild, moderate, and severe stress, while PSQI results are good and bad sleep quality.

Results: 72 people (92.3%) experienced moderate stress, and 64 (82.1%) had poor sleep quality. From the Spearman correlation test results, a significance value of 0.069 ($p > 0.05$) was obtained, which means it was not significant.

Conclusion: There is no correlation between stress levels and the sleep quality of nurses at Gotong Royong Hospital Surabaya.

Keywords: Stress level, sleep quality, nurses.

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INTRODUCTION

In Undang-Undang (UU) Nomor 38 Tahun 2014, it is explained that the definition of a nurse is someone who has graduated from higher education in nursing and is tasked with providing services to patients, both in sickness and in health⁽¹⁾.

Based on data from the World Health Organization (WHO), there are 29.7 million nurses worldwide in 2020⁽²⁾. According to Badan Pengembangan dan Pemberdayaan Sumber Daya Manusia Kesehatan (BPPSDMK), there were 1,072,679 health workers in Indonesia in 2020, and 40.5% of the total health workers were nurses.⁽³⁾

According to Maramis, stress is a condition that requires individuals to react physically, psychologically, and behaviorally to a change.⁽⁴⁾ Work stress on nurses can be caused by large workloads, lack of sleep, exposure to infectious diseases, and handling patients in critical or near-death conditions.⁽⁵⁾ One of the things related to stress is the quality of sleep. According to the National Sleep Foundation, sleep quality measures how well a person sleeps⁽⁶⁾. Increased stress and poor sleep quality can affect health conditions (physical, psychological, behavioral) and work performance of nurses.⁽⁷⁾ Based on the discussion above, researchers were encouraged to research to determine the correlation between stress levels and the sleep quality of nurses at Gotong Royong Surabaya Hospital.

METHODS

This research is an analytic observational study with the cross-sectional method and purposive sampling technique. The population of RSGR nurses is 118 people. The minimum number of samples required is 54 people.

The stress level questionnaire used was the *Perceived Stress Scale* (PSS) and sleep quality with the *Pittsburgh Sleep Quality Index* (PSQI). Data was collected online using *Jotform*. Then the data was processed and

analyzed using the *Spearman* correlation test in *SPSS* version 25.

RESULTS

Table 5. 1 Demographic Data of Research Respondents

Variables	Frequency	Percentage
Age		
20-29	62	79.5%
30-39	13	16.7%
40-49	3	3.8%
Gender		
Male	5	6.4%
Female	73	93.6%
Marital Status		
Not married	41	52.6%
Married	37	47.4%
Years Worked in the Unit		
<1 year	24	30.8%
1-5 years	48	61.5%
5-10 years	4	5.1%
>10 years	2	2.6%
Years Worked as a Nurse		
<1 year	12	15.4%
1-5 years	42	53.8%
5-10 years	19	24.4%
>10 years	5	6.4%
Work Units		
ER	9	11.5%
ICU	14	17.9%
Outpatient	10	12.8%
Inpatient	7	9%
Child	10	12.8%
Inpatient		
Operating	12	15.4%
Room		
Isolation	7	9%
Maternity	9	11.5%

Based on Table 5.1, the highest number of respondents was found in the age group of 20-29 years (79.5%). Most respondents were women (93.6%) and unmarried (52.6%). Most respondents had worked in the unit for 1-5 years (61.5%) and worked as nurses for 1-5 years (53.8%). The highest number of nurses were in the ICU unit (17.9%).

Table 5. 2 Distribution of Nurse Stress Levels

Stress Levels	Frequency	Percentage
Low stress	1	1.3%
Moderate Stress	72	92.3%
High stress	5	6.4%

Based on Table 5.2, the highest number was obtained at moderate stress levels (92.3%), followed by high stress (6.4%) and low stress (1.3%).

Table 5. 3 Distribution of Nurse Sleep Quality

Sleep Quality	Frequency	Percentage
Good	14	17.9%
Poor	64	82.1%

Based on table 5.3, it was found (82.1%) respondents with poor sleep quality and (17.9%) with good sleep quality.

Table 5. 4 Tabulation of Stress Levels and Sleep Quality

Stress Levels	Sleep Quality	
	Good	Poor
Low	1 (1.3%)	0 (0%)
Moderate	13 (16.7%)	59 (75.6%)
High	0 (0%)	5 (6.4%)
Total	14 (17.9%)	64 (82.1%)

Based on Table 5.4, it was found that most nurses experienced moderate stress with poor sleep quality (75.6%). Based on the result of the *Spearman* correlation test, a significance value of 0.069 ($p > 0.05$) was obtained, which indicated that the results were not significant. It can be concluded that there is no correlation between stress levels and sleep quality of nurses at Gotong Royong Surabaya Hospital.

DISCUSSION

In this study, it was found that most nurses (92.3%) experienced moderate stress. This finding is in accordance with previous research by Susanti et al. (2017),

where most nurses experienced moderate stress (43,8%).⁽⁸⁾ Factors of age, gender, marital status, and years worked can affect stress.

In addition, it was found that most nurses (82,1%) experienced poor sleep quality. This finding aligns with research by Susanti et al. (2017), who found that most nurses had poor sleep quality (59,4%).⁽⁸⁾ Factors of age, gender, comorbidities, lifestyle, and medications can affect sleep quality.

This study found no correlation between stress levels and the sleep quality of nurses at Gotong Royong Surabaya Hospital. This finding is similar to research by Trisnawati (2017) that there is no relationship between stress and the sleep quality of nurses at Wates Regional General Hospital.⁽⁹⁾ Other factors such as educational level and socioeconomic status can affect stress levels. Physical activity factors, body mass index (BMI), work shifts, and the environment can affect sleep quality.^(10, 11)

CONCLUSION

1. Most nurses experienced moderate stress (92.3%), followed by high stress (6.4%) and low stress (1.3%).
2. Most nurses had poor sleep quality (82.1%), while (17.9%) had good sleep quality.
3. There is no correlation between stress levels and the sleep quality of nurses at Gotong Royong Surabaya Hospital.

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