

THE RELATIONSHIP OF WORK STRESS LEVEL AND SLEEP QUALITY IN INPATIENT NURSES

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Submitted: Oct 27th, 2023 Revised: Nov 8th 2023 Accepted: Jan 2nd 2023 Published: Jan 4th, 2024

ABSTRACT

Inpatient nurses have the ability and qualified knowledge in treating patients. Nurses often experience work stress due to caring for patient with various diseases, facing work situations and pressure at work. This research aims to determine the relationship between work stress levels and sleep quality in inpatient nurses. This type of quantitative research with a correlational method using a cross sectional approach. The sample in this study were nurses in the Alamanda and Mawar inpatient rooms. The sampling technique used simple random sampling technique with a sample of 36 respondents with 18 respondents in each room. The bivariate test uses the rank spread test with research instruments in the form of standardized questionnaires, namely HSE and PSQI. In this study, it has gone through an ethical test with number 60/EC-LPPM/UWHS/VII-2023. The results showed that 22 respondents (61,1%) had moderate levels of work stress and 21 respondents (58,3%) has poor sleep quality. The result is a p value of $0,044 < 0,05$ and a correlation coefficient = 0,338. This shows that the closeness of the correlation is in the low category with a positive direction where the higher the level of work stress, the worse the sleep quality of inpatient nurses. There is a relationship between the level of work stress and the quality of sleep in inpatient nurses.

Keyword : *Work stress, Sleep quality, Nurse*

INTRODUCTION

Nursing is a profession that is humanistic and adheres to standards of nursing service or care using the nursing code of ethics as the main guideline (Suara et al., 2018). Nurses have a heavy workload which results in a decline in their health, such as a decrease in daily activities, feeling tired, and a decrease in the body's immune system which has an impact on the quality of sleep and the amount of work can trigger stress for nurses because they feel anxiety and pressure due to this. (Agustina, 2022). Sleep is a process of recovery and restoring energy reserves in the body. Fulfilling the need for adequate sleep will help reduce stress in individuals. Lack of quality sleep can affect your mood and body and cause negative psychological effects (Kemenkes, 2019).

In Indonesia, 73.3% of nurses have poor sleep quality in the care unit and 26.7% have good sleep quality, while in non-intensive pediatric wards 27.5% of nurses have poor sleep quality (Agririsky & Adiputra, 2018). Research conducted by Dimkatni et al in 2019 found that up to 30.3% of nurses had good sleep quality and 69.7% of nurses had poor sleep quality. Due to irregular work shifts, nurses' sleep patterns often change, resulting in fatigue at work (Dimkatni et al., 2020). Factors that can influence sleep quality are shown in an individual's ability to sleep and get the amount of rest that suits their needs. This can be influenced by several factors including disease, environment, motivation, exercise and fatigue, psychological stress, and lifestyle. Stress is one of the causes of poor sleep quality which is often not realized by individuals themselves (Saragih & Darmanik, 2022).

Stress is a physical and mental disorder caused by changes and demands in life which are influenced by the environment and individual appearance. Work stress experienced by nurses is caused by excessive and continuous work demands which can affect the quality of nurses' sleep. This can affect work efficiency and the risk of work accidents, as well as lower production levels. When work stress is not managed well and effectively, it will affect the individual (Sanger & Lainsamputti, 2022). According to research by Bessie et al in 2021, 87.5% of male nurses experienced moderate stress and 12.5% experienced severe stress. Meanwhile, 25% of female nurses experienced mild stress, 66.66% experienced moderate stress and 8.33% of nurses experienced severe stress. (Bessie et al., 2021).

Based on a preliminary study conducted at RSUD dr. Gondo Suwarno Ungaran, by interviewing 4 nurses in the Alamanda and Mawar inpatient ward, the nurse said that the quality of his sleep was very poor and he couldn't sleep well every night, besides that the large number of patients resulted in several tasks piling up and having to be completed immediately, thus affecting the quality of his sleep. On average, nurses sleep <7 hours/day. With the increasing number of patients and increasing work, nurses often have a lot on their minds which ultimately causes work stress for nurses.

Not only because of work problems, but the relationships between co-workers, superiors and the work environment also have an influence on their psychological condition.

METHODS

This research was carried out at RSUD dr. Gondo Suwarno Ungaran in July-August 2023. This type of research is quantitative research with correlational methods using a cross sectional approach. The sampling technique in this research used a simple random sampling technique with 36 samples. Inclusion criteria are executive nurses and nurses who have worked >1 year. The instruments in this research used standard questionnaires, namely the HSE (Health and Safety Executive) questionnaire which consisted of 35 questions and the PSQI questionnaire which contained 7 components. The results of this study were analyzed using SPSS 25, univariate analysis in this study used the frequency distribution and percentage of each variable, namely stress level and sleep quality. This research has gone through ethical testing number 60/EC-LPPM/UWHS/VII-2023.

RESULTS

Table 1. Frequency Distribution of Respondents based on Level of Work Stress

Job Stress Level	Frequency	Percentage (%)
Low	10	27,8
Currently	22	61,1
Tall	4	11,1
Total	36	100

Based on frequency distribution table 4.1 above, it can be seen that of the total number of respondents, the majority had moderate levels of stress, namely 22 respondents (61.1%).

Table 2. Frequency Distribution of Respondents based on Sleep Quality

Sleep Quality	Frequency	Percentage (%)
Good Sleep Quality	15	41,7
Poor Sleep Quality	21	58,3
Total	36	100

The data in table 4.2 shows the amount of sleep quality among nurses in the inpatient room at RSUD dr. The majority of Gondo Suwarno Ungaran had a higher quality of poor sleep, namely 21 respondents (58.3%).

Table 3. Relationship between Work Stress Level and Sleep Quality

Job Stress Level	Sleep Quality						P value	rho
	Good Sleep Quality		Poor Sleep Quality		Total			
	F	%	F	%	F	%		
Low	7	19,4	3	8,3	10	27,	0,044	0,338
Currently	7	19,4	15	41,7	22	8		
Tall	1	2,8	3	8,3	4	61,		
Total	15		21		36	100		

Based on table 4.3, it is known that 15 respondents (41.7%) had moderate levels of work stress and poor sleep quality. The results of the analysis using the Spearman rank test, for the variables of work stress level and sleep quality, showed a p value of 0.044 <0.05, so Ho was rejected and Ha was accepted. So it can be concluded that there is a relationship between work stress levels and sleep quality among inpatient nurses at RSUD dr. Gondo Suwarno Ungaran. Meanwhile, the results of the correlation coefficient = 0.338 show that the correlation is in the low category, namely 0.20-0.399 in a positive direction, where the lower the level of work stress, the better the sleep quality of inpatient nurses.

PEMBAHASAN

The results of the analysis showed that 27.8% of respondents experienced low levels of work stress. Judging from the results of the questionnaire, respondents clearly know what duties and responsibilities must be carried out and are their obligations. Respondents work based on a work system and can easily find out schedule changes that occur in the room. This is in line with previous research, namely that 62.2% of respondents experienced low stress and 33.8% experienced severe stress, where work stress had an effect on nurse performance, nurses with mild work stress were more likely to have good performance. (Hakman et al., 2021).

The results of research on data on respondents' work stress levels were that most of the respondents were at moderate stress levels, with 22 respondents with a percentage of 61.1%. Based on the questionnaire, differences of opinion between colleagues can trigger an uncomfortable environment. Tasks that are too many and beyond their capabilities and short time limits make respondents feel that working under long time pressure and lack of rest can result in work fatigue, risk of injury at work, and disturbed sleep quality.

This research is in line with research by Hikmawati et al (2020), namely 84.8% of respondents experienced moderate work stress and 15.2% of respondents experienced high work stress. 22 nurses experienced work stress that occurred in the inpatient room at Nur Hidayah Hospital Bantul Yogyakarta due to the heavy workload (Hikmawati et al., 2020). In line with research by Runtu et al (2018) that work stress that occurs in nurses is in the moderate category, namely 70.7%. Stress occurs due to the many demands of work and being faced with several tasks that are beyond one's abilities as a nurse. Not only that, nurses are also required to have creative thinking and versatile energy (Runtu et al., 2018).

As many as 11.1% of respondents experienced high levels of stress. The results of the questionnaire showed that respondents received some unfavorable treatment from colleagues and superiors. In carrying out a lot of work, respondents experienced difficulty in completing the work in the allotted time. So respondents often ignore some of the tasks that are their responsibilities. This is in line with research conducted by Badri 2020, the results showed that 25 or 53.2% of respondents experienced high work stress where this stress was caused by a lot of work that was not in line with what had been planned by some nurses. Apart from that, there is pressure which causes nurses to lose concentration in completing their tasks so that quite a few nurses feel bored with their work in the ICU room which is the same every day. (Badri, 2020).

Based on research results, it was 41.7%. Most respondents had never used sleeping pills to help them fall asleep. Respondents have quite good sleep efficiency where respondents need time to rest or sleep for 6-7 hours. The results of research conducted by Karlinda et al (2021) showed that 39 nurses or 62.9% of nurses on duty in the Covid-19 isolation ward had good sleep quality, while 23 nurses or 37.1% had poor sleep quality. In this study, the average respondent needed around 15-30 minutes to start sleeping (Karlinda et al., 2021).

Based on the analysis that has been carried out, the results of the hypothesis test show that the p-value is 0.044 ($p < 0.05$), so H_0 is rejected and H_a is accepted, which means there is a significant relationship between the level of work stress and the quality of sleep among inpatient nurses at RSUD Dr. Gondo Suwarno Ungaran. In this study, the results of the correlation coefficient show a value of 0.338, which means that the relationship between the level of work stress and the quality of sleep among nurses has a positive relationship, where the higher the level of stress, the worse the quality of sleep experienced by nurses. Based on the results of the questionnaire filled out by respondents, it was found that 41.7% of respondents experienced stress due to job demands which required respondents to work quickly and seriously and continuously in carrying out their responsibilities as a nurse.

The results of this study were supported by Agustina (2022) in her research entitled Nurses' Sleep Quality can be influenced by Nurses' Job Stress Levels, after carrying out statistical tests, they obtained a p value = 0.009 and showed that 83.3% of nurses experienced moderate stress with poor sleep quality, Likewise, nurses who experience low work stress are followed by good sleep quality among nurses, namely only 66.7% of the 30 respondents (Agustina, 2022). In line with research by Oktaviani et al (2021), the results show that the p value = 0.001 with $r = 0.445$, which means there is a significant relationship between stress levels and sleep quality and with a strong level of closeness in a positive direction (Oktaviani et al., 2021).

CONCLUSION

Based on the research results, it can be concluded as follows The level of work stress experienced by inpatient nurses at RSUD dr. Gondo Suwarno Ungaran was mostly in the medium category, namely 22 respondents (61.1%) while the other 10 respondents (27.8%) experienced low stress, Sleep quality among inpatient nurses at RSUD dr. Gondo Suwarno Ungaran mostly had poor sleep quality, namely 21 respondents (58.3%) and 15 respondents (41.7%)

had good sleep quality, There is a relationship between the level of work stress and the quality of sleep among inpatient nurses at RSUD dr. Gondo Suwarno Ungaran with the Spearman rank statistical test results $p=0.044 \leq 0.05$, then H_0 is rejected and H_a is accepted so there is a significant relationship with $r=0.338$.

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