

Relationship of Work Stress to the Performance of Intensive Care Unit Nurses in Makassar

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Abstract Aim: This study aims to determine the relationship between work stress to the performance of Intensive Care Unit nurses in Makassar Hospital. **Method:** This is quantitative research with the observational method using cross-sectional study. Samples were taken as many as 36 people as respondents conducted by using proportionate random sampling. Data collected through observation, interview, and documentation by using questionnaires Perceived Stress Scale (PSS-10), and the data was analyzed through Gamma & Somer's d test. **Result:** Female nurses in the ICU who suffered severe job stress, 91.7% have less performance, the correlation value of 0.522, significant with p-value = 0.001. **Conclusion:** This study shows that there is a relationship between work stress to the performance of Intensive Care Unit nurses in Makassar city hospitals. Lack of staff and lack of sleep regarded as physical stressors that can reduce the performance of ICU nurses.

Keywords: work stress, female nurse, Intensive Care Unit

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1. Introduction

Almost every job could cause stress. The nursing profession which daily meets and dealing with various health problems of the patients can potentially cause work stress. In carrying out their role and functions, nurses not only deal with people who are sick who are responsible, but also to deal with various problems such as the family, rules, procedures, bureaucracy, other health team and reproductive issues that requires physical and mental endurance so that nurses can reduce or avoid the effects of stress. [1]

Work stress is defined as the harmful physical and emotional responses that occur when the requirements do not meet the worker's wishes, ability, resources, and needs [2].

Work stress can emerge from several sources and affect people in different ways. Although the link between psycho-social aspects of work and the health and welfare of workers has been well-documented [3].

The results of the Labor Force Survey study in 2014 found out that there are 440.000 cases of work stress in the UK with a total incidence rate of 1,380 cases for 100,000

workers suffered work-related stress. 35% of work-related pressure is estimated to be fatal and lost work days by 43%. Male workers lost approximately 50.8 work days, and female workers lost approximately 58.5 work days. [4]

Along with the increasing number of people, each year on the other hand also increase the needs of health workers especially nurses. The nurse is the professional/health worker which are needed more than the other health professionals.

Ministry of Health shows that the number of nurses in 2014 as many as 295 508 of the total 891 897 health human resources in Indonesia. Based on the report registered membership in an organization's of nursing profession information system that is PPNI, the number of nurses in Indonesia in April 2017 was 359 339 nurses, which consisted of 29% (103 013 persons) male nurses and 71% (256 326 persons) female nurses [5].

The reports are inversely proportional to the initial observation results obtained by researchers in the field where several hospitals in the Makassar city, especially in the ICU, do not have adequate nurses. And it significantly impacts the workload of nurses which later cause physical fatigue, known as work stress.

Stress faced by nurses when working will significantly affect the quality of nursing care provided to patients, so it

is essential to know the causes of work stress. The workload is very high, especially in the ICU with sophisticated equipment and can be a source of stress for nurses on duty in the ICU.

Nurses have an essential position in producing the quality health care in the hospital because the services must be implemented for 24 hours and giving a certain advantage over other services. Thus the hospital must have nurses who perform well to support the performance of the hospital so that it can reach customer satisfaction or patient.

To improve the performance, healthy and productive workers are needed. The declining performance of nurses who allegedly influenced by many things including the factor of stress, age, sex, length of employment, education and marital status.

The above statement is supported by several studies such as Chiang research results (2012), showing marital status ($r = 0.205, p < 0.01$) and a term of $r = 0.212, p < 0.01$ significant cause high levels of stress. [6] Nurlaela Jum'ati research results, was (2013), shows an individual stressor variables and organizational stress variables significantly affect the particular performance F count 16.706, $p = 0.000$. [7] Mkiga M, research (2013), found that the issue of management factors influence the emergence of stress symptoms (physical stress, $p = 0.01$). [8] Results of research conducted by Edison (2014) with the title of factors related to the stress of nurses working in the ICU of Stella Maris Hospital Makassar, shows that as many as 13 people (43.3%) have mild stress and 17 (56.7%) have severe stress. Multivariate analysis showed that the intrinsic factor is the most work-related stress factor of ICU nurses. [9] The study of some of the literature that has been described previously, the researcher wanted to see the relation between work stress on the performance of nurses.

2. Materials and Methods

The study was quantitative research with the observational method using cross-sectional study, which becomes one of the types of study design in where all the variables studied in the same period. The plan was intended to explore the dynamics and the relationship of

Table 2. Correlation Analysis Gamma & Somer's d based stress variables on the performance of the female nurse's hospital ICU of the city of Makassar

		Directional Measures			
		Value	Asymp. Std. Error ^a	Approx. Tb	Approx. Sig.
Ordinal by Ordinal	Symmetric	0.559	0.142	3.890	0.001
	Dependent stress category	0.522	0.138	3.890	0,001
	Dependent Performance Categories	0.602	0.158	3.890	0,001

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error of assuming the null hypothesis.

The above table shows the correlation value of 0.522, which means that there is a correlation between stress and performance variables. It can be concluded that lowest levels of work stress performance will be better performance they have.

work stress to the performance of nurses in the ICU of Makassar city hospital. This research was conducted in several hospitals namely DR. Wahidin Sudirohusodo Hospital, Unhas Hospital, Hikmah Hospital, and Sayang Rakyat hospital with the whole population of as many as 40 people. The sample was divided into two (2) phases of sample selection using purposive sampling technique, and the sampling phase by using the formula Stanley Lemeshow nurse while sampling method by using a random sampling proportionate. Total sampling obtained as many as 36 samples. And the overall sample has met the criteria for inclusion and exclusion as follows.

Inclusion criteria as follows:

1. Female nurses who served in the ICU for at least six months.
2. Cooperative and willing to participate and signed informed consent.

And the exclusion criteria :

1. Female nurses who are on a state furlough.
2. Nurses with a history of severe physical illness.

Female nurses who were doing training during the study period.

3. Results and Discussion

Work stress variables in this study were divided into three categories: mild, moderate, severe, severe work stress which gives consequence to the performance of nurses. Distribution group work stress is presented below:

Table 1. Distribution of work stress based on the performance of female nurses in the ICU of the hospital the city of Makassar in 2017

Work stress	performance						Total	
	Good		Enough		Less		n	%
	N	%	n	%	n	%		
Light	1	50	0	0.0	1	5.0	2	100
moderate	15	68.2	4	18.2	3	3	22	100
Weight	1	8.3	0	0.0	11	91.7	12	100
Total	17	47.2	4	11.1	15	41.7	36	100

Source: Primary Data.

The above table Shows female nurses in the ICU who suffered severe job stress, 91.7% have less performance.

4. Discussion

Distribution data obtained through interviews age group shows that 47% of the most respondents aged 28-35 years old. Information education level showed only 30%

were educated Diploma, and 70% were educated, Undergraduate. With this information, the respondent's educational level is considered to give answers to the questionnaire properly. The distribution of the data showed that 68% had been married status, as well as 32% of unmarried status. Furthermore, the distribution of the data showed a 20% majority with tenure for seven years.

Stress is a condition affecting the emotional tension, a way of thinking, and physical health. The pressure is not addressed correctly usually resulted in the inability of nurses to execute their roles, functions, and responsibilities as the organization's goals, guided by the standards of professional nursing practice.

The results showed that female nurses in the ICU who experience work stress experienced severe work stress showed the considerable performance of 91.7%.

The Gamma & Somers's d result test shows the correlation value of 0.522, which means that there is a correlation between stress and performance variables. It can be concluded that lowest levels of work stress performance will be better performance they have. Lack of staff, lack of sleep, considered as the physical stressors, so the performance is less than the maximum.

The results of this study are supported by Rahmila Sari (2012) which has proved the effect of work stress to the performance with a significance level of 0.040 <0.05, which shows that work stress variables affect the performance. Partially, the most dominant factors that influence the performance of employees at Bank Syariah Mandiri Makassar Branch Office. [10]

Nurlaela Jum'ati research show that individual stressor variables and organizational stress variables simultaneously significantly affect the performance of particular performance F count 16.706, p = 0.000.

5. Conclusions and Recommendations

There is a relationship between work stress to the performance of women nurses in ICU at Makassar City hospital. Lack of staff, lack of sleep, considered as physical stressors, so the performance is less than maximum. The work stress prevention and the solution of that affect the performance decline are needed as well as the necessary to review working shifts schedule, especially the adequate number of nurses with the competence needed.

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Conflicts of Interest

The author states that they have no conflict of interest

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