

# Relationship between Workload and Work Stress of Post-Disaster Nurses in the Emergency Room of the Regional General Hospital in North Lombok Regency

Yahya Ulumuddin<sup>1</sup>, Sismulyanto<sup>2</sup>, Menap<sup>2</sup>, Bq. Hilda Septiana<sup>3</sup>, OvieLestya Nurdiana<sup>1</sup>, Nova Budiharjo<sup>1</sup>, Mursaka<sup>1</sup>

<sup>1</sup>Postgraduate Student, <sup>2</sup>Graduate School, Public Health Department, Universitas Qamarul Huda BadaruddinBagu, West Nusa Tenggara, Indonesia, <sup>3</sup>Nurse at the Regional General Hospital of North Lombok, Regency, West Nusa Tenggara, Indonesia

## Abstract

The workload is a condition where workers are faced with tasks that should be completed at a certain time. The excess workload can cause work stress. This often occurs in emergency room nurses where the emergency room nurse is part of the hospital which is the first destination for patients who experience an emergency to get first aid immediately. This study aims to identify the relationship between workload and work stress of nurses in the emergency room at North Lombok District General Hospital. In this study, researchers used a total sampling technique and obtained a sample of 27 nurses. The instrument used in measuring workload and work stress is a questionnaire. The data obtained were analyzed using the Spearman Rank Test statistical test. The results of this study using data analysis with the Spearman Rank Test statistical test can be seen from the relationship between workload and work stress which is determined by the results of workload analysis (quantitative) with work stress (physical)  $p = 0.041$ ; with a significance level of  $p < 0.05$ , this indicates that there is a relationship between workload and work stress of the nurse in charge. The conclusion of this research shows that workload has a relationship with the work stress of the nurse in charge. This research is recommended for hospitals as a consideration for the hospital management to adjust the workload with the abilities and expertise of nurses so that work stress does not occur.

**Keywords:** *Emergency Room Nurses, Workload, Work Stress*

## Introduction

Nurses are health workers who play an important role in the hospital by providing health services in the form of comprehensive bio-psycho-socio-spiritual nursing care to individuals, families, groups, and communities, both healthy and sick, covering all processes of human life<sup>(1)</sup>.

The Emergency Unit (UGD) or Emergency Room (IGD) is a part of the hospital which is the destination for first-time patients who experience an emergency to get first aid immediately. Not only do first aid, but the emergency room nurse also carried out the process of recording cases and actions taken in the emergency room and the process of transferring patients from the emergency room to inpatient care if the patient needed intensive care and was required to be hospitalized. Factors that affect the workload of nurses are the patient's constantly changing condition, the average number of hours of care needed to provide direct service to patients that exceed one's ability, the desire to achieve work, high job demands, and documentation of nursing care<sup>(2)</sup>.

### Corresponding Author:

**Yahya Ulumuddin**

Postgraduate student, Universitas Qamarul Huda BadaruddinBagu, H. Badaruddin-Bagu Street, Central Lombok, Pringgarata, West Nusa Tenggara, Indonesia  
Email: ulumuddin73@gmail.com  
Phone number: +62853-3893-6239

Based on the results of research conducted by the Indonesian National Nurses Association<sup>(1)</sup>, as many as 50.9% of Indonesian nurses who experience work stress, often feel dizzy, tired, unfriendly, lack rest due to too much workload. high income and inadequate income<sup>(3)</sup>. According to the results of research conducted by the National Nurses Association Indonesia<sup>(1)</sup>, there are 50.9% of nurses experience work stress. This can be seen from the many complaints of muscle and joint pain, heart palpitations, irritability, difficulty concentrating, apathy, feeling tired, and lust. eating decreases. The workload can be in the form of work stress. task or job, organization, and work environment. This is supported by the results of research byHudaningsih<sup>(4)</sup>that there are 5 (five) major stressor sequences in nurses. First, due to excessive workload (as much as 82.2%), then due to unfair wages (57.9%), working conditions (52.3%) under workload (48.6%), and not being included in the taking decisions (44.9%).

Apart from these problems, another problem that can cause stress is limited human resources. Where the number of tasks has not been matched by an adequate number of nurses. The number of nurses and the unbalanced number of patients will cause fatigue in work because the patient’s need for nurse services is greater than the standard of nurse ability. Conditions like this will have an impact on the nurse’s psychological state such as fatigue, emotion, boredom, mood changes, and can cause stress to nurses. Workload fluctuations are another form of stress. An inappropriate situation like this creates anxiety, job dissatisfaction, and a tendency to leave work<sup>(2)</sup>.

The North Lombok District Hospital Emergency Unit provides medical services for emergency patients, namely patients with death threats and need immediate help, patients who do not have a threat of death but need immediate help, and non-emergency patient services who come to the ER for 24 hours. North Lombok District Hospital’s working time is divided into 3 shifts, morning 6 hours, afternoon 6 hours, and night 12 hours, and for each shift, the number of nurses on duty is 6 people before the earthquake disaster. After the earthquake, it was divided into 2 shifts, each morning to night 12 hours, a night to morning 12 hours with a total of 6 nurses in each shift. Workload has a positive and significant effect on work stress. Knowing the Relationship between Workload and Work Stress of Post-Disaster Nurses in the Emergency Room at the North Lombok Regency Regional Hospital.

**Method**

This type of research is an analytical survey. The subjects in this study were 27 nurses in the IGD room at General Hospital North Lombok District. The independent variable in this study is workload. The dependent variable in this study is the work stress of nurses. The questionnaire about workload consisted of 17 statements in which 13 statements by the author of the adoption of the IGD nurse workload instrument from Nursalam<sup>(5)</sup> and 4 statements which the author modified himself based on Hudaningsih<sup>(4)</sup>. The questionnaire about work stress consisted of 13 statements that the author adopted from Nursalam’s work stress instrument and modified from the symptoms of work stress. Data analysis using Spearman rho.

**Result**

**Bivariate Analysis**

**Table 1 Cross-tabulation of the relationship between workload (quantitative) and work stress (physical) for post-disaster nurses**

No.	Quantitative	Physical						P-value
		Moderate		Weight		Total		
		n	%	n	%	n	%	
1.	Moderate	0	0,0	15	55,6	15	55,6	<b>0,041</b>
2.	Weight	3	11,1	9	33,3	12	44,4	
Total		3	11,1	24	88,9	27	100,0	

Based on Table 1, shows that of the 27 respondents who have a moderate workload (quantitative) with the category of moderate physical work stress (0%), the category of work stress (physical) is heavy (55.6%). While the workload (quantitative) is heavy with the

category of moderate physical work stress (11.1%), the category of work stress (physical) is heavy (33.3%). Total workload (quantitative) is medium with physical work stress category (55.6%), workload (quantitative) heavy physical work stress category (44.4%).

**Table 2 Cross-tabulation of the Relationship between Workload (quantitative) and Work Stress (psychological) for Post-Disaster Nurses**

No	Quantitative	Psychological								P-value
		Light		Moderate		Weight		Total		
		n	%	n	%	n	%	n	%	
1.	Moderate	2	7,4	7	25,9	6	22,2	15	55,6	0,757
2.	Weight	2	7,4	4	14,8	6	22,2	12	44,4	
Total		4	14,8	11	40,7	12	44,4	27	100,0	

Based on Table 2, it shows that of the 27 respondents who have a moderate (quantitative) workload with a mild (7.4%) work stress category (7.4%), a moderate (25.9%) work stress category (25.9%), a work stress category (psychological ) heavy (22.2%). While the workload (quantitative) is heavy with the category of work stress (psychological) light (7.4%), the category of work stress

(psychological) is moderate (14.8%), the category of work stress (psychological) is heavy (22.2%). Total workload (quantitative) is in the category of work stress (psychological) (55.6%), the quantitative workload is heavy in the category of work stress (psychological) (44.4%).

**Table 3 Cross-Tabulation of the Relationship between Workload (quantitative) and Work Stress (Social / Behavioral) for Post-Disaster Nurses**

No.	Quantitative	Social / Behavior				Total number		P-value	
		Light		Moderate					
		n	%	N	%	n	%		
1.	Moderate	12	44,4	3	11,1	15	55,6	0,767	
2.	Weight	9	33,3	3	11,1	12	44,4		
Total		21	77,8	6	2,2	27	100,0		

Based on Table 3, it shows that of the 27 respondents who have a moderate (quantitative) workload with a mild (social) work stress category (44.4%), a medium (11.1%) work stress category (11.1%), a work stress category (social) by weight (0%). While the workload (quantitative) is heavy with the category of work stress

(social) light (33.3%), the category of work stress (social) is moderate (11.1%), the category of work stress (social) is heavy (0%). Total workload (quantitative) is in the category of work stress (social) (55.6%), the quantitative workload is heavy in the category of work stress (social) (44.4%).

**Table 4 Cross Tabulation of the Relationship between Qualitative Workload and Physical Work Stress of Post-Disaster Implementing Nurses**

No.	Qualitative	Physical						P-value
		Moderate		Weight		Total		
		n	%	N	%	n	%	
1.	Light	0	0,0	2	7,4	2	7,4	0,431
2.	Moderate	2	7,4	18	66,7	20	74,1	
3.	Weight	1	3,7	4	14,1	5	18,5	
Total		3	11,1	24	88,9	27	100,0	

Based on Table 4 shows that of the 27 respondents who have a light (qualitative) workload with a moderate (0%) work stress category (0%), a heavy (7.4%) work stress category. Workload (qualitative) was with the category of work stress (physical) was (7.4%), the category of work stress (physical) was heavy (66.7%).

Workload (qualitative) is heavy with the category of work stress (physical) is (3.7%), category of work stress (physical) is heavy (14.8%). Total workload (qualitative) is light with the category of work stress (physical) (7.4%), workload (qualitative) is (74.1%) and workload (qualitative) is heavy with the category of physical work stress (18.5%).

**Table 5 Cross-tabulation of the Relationship between Qualitative Workload and Psychological Work Stress of Post-Disaster Implementing Nurses**

No.	Kualitatif	Psychological						Total number		P-value
		Light		Moderate		Weight		n	%	
		n	%	n	%	n	%			
1.	Light	0	0	2	7,4	0	0	2	7,4	0,892
2.	Moderate	3	11,1	7	25,9	10	37,0	20	74,1	
3.	Weight	1	3,7	2	7,4	2	7,4	5	18,5	
Total		4	14,8	11	40,7	12	44,4	27	100,0	

Based on Table 5, shows that of the 27 respondents who have a light (qualitative) workload with the category of work stress (psychological) light (0%), the category of work stress (psychological) is moderate (7.4%), work stress (psychological) is heavy ( 0%). Workload (qualitative) is with the category of work stress (psychological) light (11.1%), the category of work stress (psychological) is medium (25.9%), the category of work stress (psychological) is heavy

(37.0%). Workload (qualitative) is heavy with the category of work stress (psychological) light (3.7%), the category of work stress (psychological) is moderate (7.4%), the category of work stress (psychological) is heavy (7.4%). Total workload (qualitative) light with work stress (psychological) (7.4%), medium workload (qualitative) with work stress (psychological) (74.1%), and heavy (qualitative) workload with stress category work (psychological) (18.5%).

**Table 6 Cross Tabulation of the Relationship between Workload (qualitative) and Social Work Stress of Post-Disaster Implementing Nurses**

No.	Qualitative	Social / Behavior						P-value
		Light		Moderate		Total		
		n	%	n	%	n	%	
1.	Light	2	7,4	0	0	2	7,4	0,796
2.	Moderate	15	55,6	5	18,5	20	74,1	
3.	Weight	4	14,8	1	3,7	5	18,5	
Total		21	77,8	6	22,2	27	100,0	

Based on Table 6, it shows that of the 27 respondents who have a light (qualitative) workload with the category of work stress (social / behavior) light (7.4%), the category of work stress (social / behavior) is (0%), the category of work stress (social / behavior) heavy (0%). Medium qualitative workload with work stress category (social / behavior) light (55.6%), work stress category (social / behavior) Medium (18.5%), job stress category (social / behavior) heavy (0%) . Workload (qualitative) is heavy with the category of work stress (social / behavior) light (14.8%), the category of work stress (social / behavior) is moderate (3.7%), the category of work stress (social / behavior) is heavy (0 %). Total workload (qualitative) light with work stress category (social/male) (7.4%), workload (qualitative) moderate with work stress category (social / behavior) (74.1%), workload (qualitative) weight with the category of work stress (social / behavior) (18.5%).

**Discussion**

This study found a relationship between workload (quantitative) and work stress (physical) of post-disaster nurses in the emergency room of North Lombok District General Hospital indicated by the results of the Spearman rank test  $p = 0.041$   $\alpha < 0.05$ , the level of correlation was ( $p = 0.041$ ). with a significance level of  $\alpha < 0.05$ , this indicates that  $p < \alpha$   $H_0$  is rejected and  $H_a$  is accepted, which means that there is a relationship between workload (quantitative) and work stress (physical) for post-disaster executing nurses in the emergency room of the North Lombok District General Hospital.

Judging from the results of the study, most of the 6 analyzed did not have a relationship, except for workload (quantitative) and work stress (physical). This can be due to an increase in workload (quantitative) accompanied

by a lot and variety of work done, continuous contact, lack of energy in doing work compared to the number of patients resulting in work stress (physical) on nurses which causes fatigue, feeling stiff muscles. , increased pulse rate, loss of appetite, difficulty sleeping, and sore feet. The large number of jobs that exceeded the capacity caused the physical condition of nurses in the ER to become tired and easily tense. Nursing services in the emergency room are also very complex, which requires more technical skills and knowledge. The workload is so much to fulfill needs, handling problems, in the end, is very draining both physical energy and cognitive abilities. The stressful condition of emergency room nurses due to their already heavy workload should not be added to other burdens outside of their duties as emergency room nurses. An example is the guidance of practical students, the burden of organizational management, or other burdens which in turn get heavier so that the stress level of nurses increases.

Everyone has experienced stress and will experience it, but the levels are different and in different timeframes, Suliswati<sup>(6)</sup>, states that stress is a comprehensive response from the body, both physically and mentally to any demands or demands. disturbing changes, threatening the individual's sense of security and self-worth. Stressful experiences are personal and subjective. Stress occurs when the individual assesses that the situation that is in him is threatening. Working in the emergency room at every opportunity will meet patients who have various characteristics that have an impact on different conditions and workloads. For this reason, nurses act as a versatile staff, have initiative, have creative behavior and have broad insight with hard work motivation, are smart, sincere, and have quality.

Munandar's theory<sup>(2)</sup> states that if the workload of nurses is high, the level of work stress experienced by nurses should also be high, where moderate workloads that are not resolved immediately will increase the level of stress at work, but this does not apply in all conditions. This can be seen from the research that has been done, namely that most of the workload has no relationship with work stress. The results of this study are consistent with those stated by Hudaningsih<sup>(4)</sup>, where work stress is essentially influenced by several factors, including work

environment, excess workload, deprivation stress, and high-risk jobs. Where nurses who experience work stress are caused by excessive workload both quantitatively and qualitatively which are not immediately resolved and the demands of other roles (tasks), namely non-nursing tasks. As a result, various complaints arise which include nurses feeling tired quickly even though they have rested, finding it difficult to concentrate, and feeling headaches during or after work which are symptoms of work stress.

## Conclusion

The work stress experienced by nurses can occur because the number of actions that must be completed is not proportional to the number of existing nurses. Everyone has the opportunity to experience stress at work depending on how the individual can cope with the problem. The relationship between workload and work stress from the research results can be seen from the 6 items studied, which were obtained, namely: there is a relationship between workload (quantitative) and work stress (physical). As for workload (quantitative) with work stress (psychological), workload (quantitative) with work stress (social). Workload (qualitative) with work stress (physical), workload (qualitative) with work stress (psychological), and workload (qualitative) with work stress (social) have no relationship.

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