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THE EFFECT OF WORKLOAD AND WORK STRESS WITH FATIGUE ON THE WORK PERFORMANCE OF NURSES AT DADI SPECIAL HOSPITAL, SOUTH SULAWESI PROVINCE

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ABSTRACT

Workload and work stress with fatigue are some of the risk factors for work performance problems. This study aims to determine the effect of workload, work stress's and fatigue and their impact on the performance of nurses at Dadi Hospital, South Sulawesi Province. The research was conducted at the Dadi Hospital in South Sulawesi Province. This research uses quantitative methods. The population in this stuwasere 233 nurses at the Dadi General Hospital in South Sulawesi Province with 147 nurses used as samples. The type of research in this study is Analytical Observational using Cross-Sectionalal approach and this research uses a Path Analysis model, in which the intervening variable is fatigue which lies between exogenous variables. The data that has been collected is then analyzed through a process of data reduction, data presentation, and drawing conclusions and verification. From the results of the study it can be concluded that 46 respondents (31.3%) experienced heavy workload, 82 respondents (55.8%) experienced moderate work stress, 105 respondents (71.4%) were very tired), and poor work performance of 59 respondents (40.1%). Based on the results of statistical tests using the chi-square test, thp-valueue was 0.007 <0.05, meaning that there is a significant relationship between work stress and fatigue. And based on the results of AMOS work stress affects performance through fatigue (0.011). From the results of the study it can be concluded that 46 respondents (31.3%) experienced heavy workload, 82 respondents (55.8%) experienced moderate work stress, 105 respondents (71.4%) were very tired), and poor work performance of 59 respondents (40.1%). Based on the results of statistical tests using the chi-square test, thp-valueue was 0.007 <0.05, meaning that there is a significant relationship between work stress and fatigue. And based on the results of AMOS work stress affects performance through fatigue (0.011). From the results of the study it can be concluded that 46 respondents (31.3%) experienced heavy workload, 82 respondents (55.8%) experienced moderate work stress, 105 respondents (71.4%) were very tired), and poor work performance of 59 respondents (40.1%). Based on the results of statistical tests using the chi-square test, thp-valueue was 0.007 <0.05, meaning that there is a significant relationship between work stress and

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1. Introduction

One of the human resource playt plays an important role in hospital services is the availability of professional nurses. The International Labor Organization (ILO) stipulates in the International Hazard Datasheets on Occupation (HDO) that a nurse is a medical professional who is registered as a nurse who assists doctors in their duties. The duties in question are, naassistingnce to the sick, injured, physically and mentally disabled, consistently providing safe patient care, monitoring patient safety, and preventing and communicating patient risks and other health needs [6].

The number of health workers throughout Indonesia is 1,500,541 people. From these data it was, found that the mosalth workers were nurses with a total of 460,267 people spread throughout Indonesia. From the above data it can be, concluded that the majority of medical personnel are nurse health workers. Based onRegulation regulationnister of Health of the Republic of Indonesia Number 30 of 2019, the proportion of nurses in the hospital is ideally equal to the number of beds the ratio of nurses in the hospital to treat patients is a minimum of 1:1 and a maximum of 1:2.

In Denmark and Finland the majority of nursing staff work on a highly irregular shift system, planned for 4-8 week periods in Denmark and 3-4 week periods in Finland. In Norway, there are major differences between hospitals and some work schedules are planned for up to 52 weeks at a time. Schedules are usually announced with up to 2–4 weeks nweeks'. Nurses also face various problems of patient complaints, relationships with co-workers, complex jobs and the added tasks that demand they must be accomplished. It is a combination of causes that can lead to physical, emotional and mental exhaustion [3].

The results of initial observations made in the Dadi RSKD ward showed that there were different workloads for nurses. Nurses tend to do repetitive activities and are prone to burnout. The results of interviews with the Head of Nursinthe g Division at Dadi RSKD stated that the ratio of nurses to the number of inpatients was unbalanced, which sometimes caused physical and mental fatigue. In fact, from the results of the data and interviews, the average Dadi RSKD nurse treats 4-6 patients.

During the day and night shifts, there are only 3 (three) nurses in the room. According to a nurse in the inpatient room, sometimes some patients are unstable and can endanger themselves and others, so that nurse overwhelmed in handling and caring for patients. In addition, if the patient is full in the treatment room, nurses who work on day and night sthe hifts can handle patients more than usual, especially in the Kenari

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and Nyiur inpatient rooms where the patients are mental patients and there are nearly 100 people in the room.

Based on the data and facts above, the workload of nurses will increase because the need for nurses with the number of Dadi RSKD patients is not balanced. The heavy workload and complexity of work will be made even more difficult by nursing staff and can cause complaints of pain, fatigue, and unexpected emotions. This certainly affects the performance efficiency of nurses in serving patients.

The importance of the level of workload that can have an impact on good nurse performance. The US National Institute for Occupational Safety and Health (NIOSH) ranks the nursing profession among the top 40 professions with a high prevalence of illness caused by a heavy workload. Due to the special nature of their work, nurses are burdened with great responsibilities, heavy workloads, extreme work pressure and the need to work in shift shifts. Also, around 18% of nurses are forced to leave their jobs due to their heavy workload [12]

The results of a survey conducted in Indonesia by the Indonesian National Nurses Association (PPNI) show that around 50.9% of nurses in Indonesia often experience such things as often feeling dizzy, tired, unfriendly, lack of rest due to too high workload and inadequate income [11]. According to Widayani [4] explained that there is a relationship between workload and work performance of nurses in the inpatient room of Wates Hospital where as many as 13 nurses (14.3%) have a high workload with sufficient performance and 22 nurses (24.2%) have a low workload with good work performance.

Work fatigue is a condition that is often experienced by someone after carrying out their activities that arise as a result of a high workload. All work will result in burnout, and burnout will reduce performance and increase work error rates. Everyone who works beyond a certain limit will cause fatigue, therefore every company must think about resting before the energy recovers [13].

According to Kleiber and Ensman, publications on work burnout in Europe show that 4% of work burnout by legal workers and police officers, 9% by administrative and management workers, and 32% by teachers and health workers (especially nurses) rank the firs experience work fatigue, which is as much as 43% compared to doctors and pharmacists. Complex nursing responsibilities can become a heavy burden for nurses in caring for patients who may experience stress [7].

Performance is the result of someone's work where there is a close relationship with organizational goals, customer satisfaction, and economic distribution. Nurse performance is a form of professional service which is parthathealth services [16]. Nursing performance in nursing can be interpreted as nurse compliance in providing care consisting of assessment, diagnosis, planning, application and implementation [10].

Nurse performance is influenced by internal factors such as nurse characteristics (age, education level, knowledge, and length of work) and external factors such as supervision from the head of the room, availability of equipment and the existence of SOPs. Experience and length of work can affect performance in carrying out nursing care, namely all nursing actions that are in accordabytandards [15].

2. MATERIALS AND METHODS

2.1 Location and Research Design

This research was conducted at the Dadi South Sulawesi Regional Special Hospital (RSKD). The type of

research in this study is Analytical Observational using a Cross Sectional approach Cross-Sectionalh Analysis model.

The population in this study were nurses in the Dadi Sul-Sel RSKD inpatient room, totaling 233 nurses. A sample of 147 people was selected by proportional stratified random sampling who met the inclusion criteria, namely inpatient nurses at the Dadi South Sulawesi Regional Hospital and were willing to participate in this study by signing informed consent issued by the Ethics Committee of the Faculty of Public Health, Hasanuddin University.

2.2 Method of collecting data

Data collection was carried out by researchers using a questionnaire. Respondent's identity, age, years of service, position, which was carriand ed out directly/filling out a questioby nnaire or observing nurses. Workload data using the NASA TLX (National Aeronautics and Space Administration Task Load) method. Data collection is carried out at the end of the shift/shift or at the change of w shift. Data on work stress was measured using the Stress Diagnostic Survey questionnaire. Fatigue data was measured using the standard KAUPK2 questionnaire (Questionnaire for Measuring Feelings of Work Fatigue). KAUPK2 consists of 3 aspects, namely the aspect of weakening activity, the aspect of weakening motivation, and the aspect of physical symptoms.

2.3 Data analysis

Characteristic sample data were processed using SPSS for windows 20. To assess the effect of workload and work stress on fatigue and performance using ChiSquare analysis, with the SPSS program. Whereas for multivariate analysis to examine the relationship of variables simultaneously on nurse performance using the Path analysis model using AMOS.

3. Results

3.1 Univariate analysis

Table 1 shows distribution of respdistributionding to work space, most respondents work in the ICU room as many as 15 respondents (10.2%) table 2 according to workload, respondents who experience heavy workload as many as a 46 respondents (31.3%), inble 3 respondents who experienced moderate work stress as many as 82 respondents (55.8%), in table 4 respondents who experienced work fatigue were very tired as many as 105 respondents (71.4%), and in table 5 respondents who experienced poor work performance were 59 respondents (40 ,1%).

3.2 Bivariate Analysis

Table 6 reveals that out of 101 respondents, around 47.6% fall into the category of unsatisfactory and very tired work, 14.3% heavy and tired workload and 6.8% heavy workload and, less tired. According to the results of statistical analysis using the chi-square method, a p-value of around 0.531 > 0.05 was obtained, which indicates that there is no relationship between burnout and job loss.

Table 7 shows that of the 43 respondents, 23.1% of the respondents were in the category of high work stress and very tired, 4.8% in the category of high work stress and tired and 1.4% in the category of high work stress and less tired. Meanwhile, work stress is moderate and very tired as much as 55.8%. According to the results of statistical analysis using the chi-square method, a p-value of around 0.07 > 0.05 indicates that there is no significant relationship between stress and fatigue.

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Table 8 states that out of 101 respondents, 51.0% fall into the "heavy workload and poor performance" category, while 17.7% fall into the "heavy workload and good performance" category. According to the results of statistical analysis using the chi-square method, the p-value is around 0.084>0.05 indicating that there is no relationship between labor productivity and labor force participation.

In table 9 of 82 respondents, 43.5% of respondents were in the category of moderate work stress and poor work performance, while 6.1% were in the category of high work stress and good performance. There are 43.5% in the category of moderate work stress and poor performance. According to the results of statistical analysis using the chi-square method, which is supported by a p-value of around 0.985 to 0.05, there is no relationship between the two types of work, namely performance and long-term work.

And Table 10 shows that out of 105 respondents, 85% of the respondents in the Fatigue category were very tired and had poor work performance, while the fatigue category was very tired and good performance was ,13.6%. Based on the rts of the statistical analysis of the TEST using the chi-square TEST, there is no significant relationship between long-term employment and kinship, which produces a p-value of around 0.272 > 0.05.

3.3 Multivariate Analysis

Based on table 14 where the AMOS value is for work stress on fatigue, the p value (0.011) > 0.05 conclup-valuet there is an effect of work stress on fatigue.

In table 15workload on work on performance Direct effect (0.0219) > indirect effect (0.013826) which means workload has a direct effect on performance without going through an intermediary fatigue anatigue is not an intervening variable in the model of the relationship between workload and performance, and what lastly work stress on work performance Direct effect (0.034) < indirect effect (0.045492) which means that work stress has a direct effect on performance and can be through fatigue as an intermediary.

4. DISCUSSION

The data analysis phase begins with univariate analysis to determine the median and average values as well as the frequency distribution of each variable. Bivariate analysis was carried out to determine whether there was a relationship between the variables of workload, work stress, fatigue and the performance variables o,f nurses in carrying out nursing care according to the nurse's perception. Multivariate analysis was carried out to find out how much influence workload and work stress have on fatigue and the impact on nurse performance in carrying out nursing care according to nurse perceptions.

The results showed that respondents who had a light workload experienced more fatigue. The results of the path analysis show that there is no effect of workload on fatigue. This is in line with the research conducted [5], that workload has no significant effect on fatigue with a significance value (0.605 > 0.05) and a B value of 3.660.

Based on the results of a study of 147 respondents, there were 82 respondents (55.8%) who had moderate work stress. B on the AMOS above, we get a p value (0.011) <0.05, thus Ho is rp-value and it is concluded that there is an effect of work stress on fatigue. The results of the analysis between work stress and fatigue levels are very significant because it has a positive correlation direction. In line with the research conducted [14] shows a significant level produced 0.000. Thus there is a relationship between work stress and nurse fatigue at hospital X.

Based on the results of a study of 147 respondents at the Dadi South Sulawesi Regional Hospital, it was shown that the majority had a light workload of 101 respondents (68.7%). Based on the AMOS value above, the p value (0.796) > 0.05 thus Ho is ap-value and it can be concluded that there is no effect of workload on performance.

Based on the path test, the p value (0.680) > 0.05 is obtained, p-value can be concluded that there is no effect of work stress on work performance. The results of this study are in line with research Fauzan, Suwarsi and Roosallyn (2021) shows a significant level of 0.001 show results of the path analysis test showed a p value (0.127) > 0.05 with the conp-value that there was no effect of fatigue on work performance. This is in line with research [8] by how's that out of 44 respondents showed were 9 respondents who fel9 respondents felted performance, while nurses with fatigue and poor performance totalled 3 respondents (6.8%).

5. CONCLUSIONS AND RECOMMENDATIONS

We conclude that there is a significant relationship between work stress and fatigue for nurses at the Dadi Regional Special Hospital, South Sulawesi Province. As well as workload has a direct effect on performance without going through an intermediary fatigue and work stress affect performance through an intermediary fatiaffectshus fatigue is an invening variable. RSKD Dadi South Sulawesi Province is expected to be able to intervene work stress on nurses. In addition, good and coin rrect management or control of work stress for nurses also needs to get more attention. For nurses at RSKD Dadi, it is necessary to stretch a few minutes between working hours, so that fatigue levels can be minimized.

Table 1. Frequency distribution based on Workspaces at Dadi RSKD South Sulawesi Province in 2022

Workspace	Respondents	
	N	%
PHCU	11	7,5
K. Mahogany	9	6,1
K. Meranti	11	7,5
remember	10	6,8
walnut	11	7,5
Flamboyant / Banyan	11	7,5
Coconut	9	6,1
Ketapang	10	6,8
palm	9	6,1
chrysolite	7	4,8
Palm	9	6,1
ICU	15	10,2
Wren	14	9,5
Love	11	7,5
Total	147	100

Table 2. Distribution of respondents based on workload at Dadi RSKD South Sulawesi Province in 2022

Workload	Respondents	
	N	%
Heavy	46	31,3
Light	101	68,7
Total	147	100

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Table 3. Distribution of respondents based on work stress at Dadi RSKD South Sulawesi Province in 2022

Work stress	Respondents	
	N	%
Tall	43	29,3
Currently	82	55,8
Low	22	15
Total	147	100

Table 4. Distribution of respondents based on work fatigue at Dadi RSKD South Sulawesi Province in 2022

Fatigue	Respondents	
	N	%
Very tired	105	71.4
Tired	27	18,4
Less Tired	15	10,2
Total	147	100

Table 5. Distribution of respondents based on work performance at Dadi RSKD South Sulawesi Province in 2022

Work performance	Respondents	
	N	%
Not good	115	78.2
Well	32	21,8
Total	147	100

Table 6. The Relationship between Workload and Fatigue in Dadi RSKD South Sulawesi Province in 2022

Workload	Fatigue						Amount		*P Value*
	Less Tired		Tired		Very tired				
	n	%	n	%	n	%	n	%	
Light	10	6,8	21	14,3	70	47,6	101	68,7	0.531
Heavy	5	3,4	6	4,1	35	23,8	46	31,3	
Total	15	10,2	27	18,4	105	71.4	147	100	

Table 7. The Relationship between Work Stress and Fatigue in Dadi RSKD South Sulawesi Province in 2022

Work stress	Fatigue						Amount		*P Value*
	Less Tired		Tired		Very tired				
	n	%	n	%	n	%	n	%	
Low	7	4,8	4	2,7	11	7,5	22	15.0	0.07
Currentl	6	4,1	16	10,9	60	40,8	82	55,8	
y	15	1,4	7	4,8	34	23,1	43	29,3	
Tall									
Total	15	10,2	27	18,4	105	71.4	147	100	

Table 8. Relationship between Workload and Performance at Dadi RSKD South Sulawesi Province in 2022

Workload	Work performance		Amount	*P Value*
	Not good	Well		

	n	**%**	**n**	**%**	**n**	**%**	
Heavy	75	51.0	26	17,7	101	68,7	0.084
Light	40	27,2	6	4,1	46	31,3	
Total	115	78.2	32	21,8	147	100	

Table 9. The Relationship between Work Stress and Performance at Dadi RSKD South Sulawesi Province in 2022

Work stress	**Work performance**				**Amount**		***P Value***
	Not good		**Well**				
	n	**%**	**n**	**%**	**n**	**%**	
Low	17	11,6	5	3,4	22	15.0	0.985
Currently	64	43.5	18	12,2	82	55,8	
Tall	34	23,1	9	6,1	43	29,3	
Total	115	78.2	32	21,8	147	100	

Table 10. The Relationship between Work Fatigue and Performance at Dadi RSKD South Sulawesi Province in 2022

Fatigue	**Work performance**				**Amount**		***P Value***
	Not good		**Well**				
	n	**%**	**n**	**%**	**n**	**%**	
Less tired	12	8,2	3	2.0	15	10,2	0.272
Tired	18	12,2	9	6,1	27	18,4	
Very tired	85	57,8	20	13,6	105	71.4	
Total	115	78.2	32	21,8	147	100	

Table 14. Effect of the Path Analysis Coefficient and its Relation to the Direct Effect Research Hypothesis

No	**Research variable**	**Direct Effects**		
		Estimates	**p value**	**p-value**
1.	Workload → Fatigue	-.039	.439	Not significant
2.	Work Stress → Fatigue	096	011	Significant
3.	Fatigue → Performance	-.210	.127	Not significant
4.	Work Stress → Performance	-.026	.680	Not significant
5.	Workload → Performance	-.022	.796	Not significant

Table 15. Effect of Path Analysis Coefficient and Its Relation to the Indirect Effect Research Hypothesis

No	**Research variable**	**Indirect Effects**
		Estimates

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1.	Workload → Fatigue	-.062
2.	Work Stress → Fatigue	.204
3.	Fatigue → Performance	-.127
4.	Work Stress → Performance	-.034
5.	Workload → Performance	-.021

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