



# The relationship between fatigue and work stress in the operating room hospital. Tgk chik in tiro, pidie regency

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## ABSTRACT

The fatigue felt by nurses can have a negative impact on psychological conditions. The burden of providing nursing care with a high level of problem complexity can trigger fatigue which is difficult for nurses to accommodate, often resulting in stress. The aim is to determine the relationship between fatigue and work stress in nurses. The research method is a cross-sectional approach. The sample was 34 nurses who worked in the Surgical Room at the Regional Hospital. Tgk Chik Di Tiro. Data was collected using a questionnaire. Analysis uses chi square test. Based on the results of statistical tests, it was found that the P value < (0.05), namely 0.000, it can be said that there is a relationship between the level of fatigue and the level of stress in nurses in the surgical ward at the Tgk Chik Regional General Hospital in Tiro, Pidie Regency.

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## 1. INTRODUCTION

A hospital is a health facility that provides health services evenly, by prioritizing efforts to cure disease and restore health, which are carried out in a harmonious and integrated manner with efforts to improve health by preventing disease in a referral setting, and can be used for staff education and research. (Baan, 2020). Law Number 44 of 2009 concerning hospitals states that a hospital is a comprehensive individual health service institution (including promotive, preventive, curative and rehabilitative) by providing inpatient, outpatient and emergency services.

In short, it can be said that a nurse must be equipped with knowledge, so that he is always ready and immediately knows when the patient's behavior is a sign of danger, indicating that the patient knows the seriousness of the patient's condition. In this way, nurses can take appropriate actions based on instructions and other assistance necessary for the patient's recovery. all team members who handle patients, nurses are the ones who have the most and frequent contact with patients (Maatisya & Santoso, 2022).

The health unit that provides emergency services is called the Emergency Unit. The definition of emergency as held by members of the public is different from that of health workers. By members of the community, every health problem they experience can be interpreted as an emergency, therefore they go to the ER to ask for help. (Ariga, 2020). It is not surprising that the number of outpatients visiting the ER appears to be increasing from year to year (Emanuela, 2022). The second activity that is

the responsibility of the ER is providing screening services for cases that require intensive services. Basically, this activity is a continuation of emergency services, namely by referring emergency cases that are considered serious to obtain intensive inpatient services.(Ramli, 2019).

Given the frequency of these meetings, it is the nurse who sees the initial signs of a deviation, any changes or deviations that occur in the healing process or the patient's adjustment process. A nurse must be equipped with sufficient knowledge to quickly recognize the needs of patients who need immediate help. Nurses need to know what help will be useful and where this help can be obtained for their patients(Faliyandra, 2019).

Work fatigue is a condition where a person feels physically tired due to routine work carried out every day (Zhu, 2020). The fatigue felt by nurses can have a negative impact on psychological conditions. The burden of providing nursing care with a high level of problem complexity can trigger fatigue which is difficult for nurses to accommodate, often resulting in stress (Jing, 2016). A research result conducted by Aslan, et al (2022) identified that there is a positive relationship between work-related stress and fatigue ( $r = 0.204$ ,  $p = 0.000$ ).

Meanwhile, research conducted by Anita (2011) showed that the psychological and physical demands of work received a high score, but social support and freedom to make decisions received a low score (Jalilian, 2019). Care and supervision of the patient is completely carried out by the nurse on duty, while the family is only allowed to visit occasionally (Kang, 2020).

Nurses must be able to understand and understand what the patient wants. Nurses who receive excessive workloads can cause work stress which can result in fatigue. The fatigue experienced by nurses can reduce productivity when serving patients (Tsamakis, 2020).

Nurse burnout refers to a work-related condition that ranges from acute to chronic and can result in excessive fatigue such as decreased energy, and tiredness, which is ultimately accompanied by impacts on physical and cognitive function.(Rosyanti et al., 2023). Factors known to contribute to a high risk of burnout include intensive patient care, high mortality rates, and inappropriate working conditions in terms of high workloads coupled with a lack of time to adequately treat patients, therefore, health workers who relevant experience levels of stress beyond their capacity which can lead to burnout (Talaee et al., 2020).

Based on the results of an initial survey conducted by researchers on ten nurses in the RSUD Surgical Room(MIRDAHNI & ANDRIANI, 2021). Tgk Chik Di Tiro Sigli, five of them said that they felt stressed such as being irritable, irritable and feeling very burdened due to fatigue because they had to take high protective measures due to the patient's vulnerability to disease transmission. Then five more people said that even though they felt tired, they had to remain enthusiastic in providing care to patients because it was their responsibility.

Therefore, based on the background that has been described, researchers are interested in conducting research entitled "The relationship between fatigue and work stress in nurses in the operating room at the Tgk Chik Di Tiro Regional General Hospital"

## 2. RESEARCH METHOD

The research method used is analytical with a cross-sectional approach. The sample was 34 nurses who worked in the RSUD Surgical Room. Tgk Chik Di Tiro. This research was conducted in August 2022. Data was collected using the Fatigue Scale-14 (FS-14) Instrument and Perceived Stress Scale-10 (PSS-10) questionnaires. Data analysis uses univariate analysis by looking at the percentage of each variable studied. Bivariate analysis uses chi square test.

### 3. RESULTS AND DISCUSSIONS

#### Results

Table 1  
Frequency distribution of nurse fatigue in Surgical Treatment Room at Tgk Chik Regional General Hospital in Tiro

No	Fatigue	Frequency	Percentage (%)
1.	Light	15	45.5
2.	Currently	18	54.5
3.	Heavy	0	0.0
Amount		33	100.0

Table 1 above shows that fatigue There were 15 respondents in the mild category (45.5%), 18 (54.5%) in the moderate category and no respondents experienced fatigue in the severe category.

Table 2  
Frequency distribution of work stress for nurses in the surgical ward at Tgk Chik Di Tiro Regional General Hospital

No	Work stress	Amount	Percentage (%)
1.	Light	13	39.4
2.	Currently	17	51.5
3.	Heavy	3	9.1
Amount		33	100.0

Table 2 above shows that There were 13 people (39.4%) of work stress in the light category, 17 (51.5%) in the moderate category and 3 people (9.1%) in the heavy category.

Table 3  
Cross tabulation between burnout and work stress in Surgical Treatment Room at Tgk Chik Regional General Hospital in Tiro

Fatigue	Work stress						Total	P value
	Light		Currently		Heavy			
	f	%	F	%	f	%		
Light	13	100.0	0	0.0	0	0.0	13	100.0
Currently	2	11.8	15	88.2	0	0.0	17	100.0
Heavy	0	0.0	3	100.0	0	0.0	3	100.0
Total	15		18		0		33	

Based on table 3 above, it shows that 13 respondents with mild fatigue experienced mild work stress (100.0%). Furthermore, 2 respondents with moderate fatigue experienced mild stress (11.8%) and 15 people (88.2%) experienced moderate stress. Then 3 respondents with severe fatigue experienced stress (100.0%). Therefore, based on the results of statistical tests, it was found that the P value was 0.000, so it can be said that there is a relationship between fatigue and work stress in nurses in the surgical ward at the Tgk Chik Regional General Hospital in Tiro, Pidie Regency.

#### Discussion

The results showed that 13 respondents with mild levels of fatigue experienced mild stress (100.0%). Furthermore, 2 respondents with moderate levels of fatigue experienced mild stress (11.1%) and 16 people (88.9%) experienced moderate stress. Then 3 respondents with severe levels of fatigue experienced stress (100.0%). Therefore, based on the results of statistical tests, it was found that the P value < (0.05), namely 0.000, it can be said that there is a relationship between the level of fatigue and the level of stress in nurses in the surgical ward at the Tgk Chik Regional General Hospital in Tiro, Pidie Regency.

Working amidst intense media and public attention, long, massive, and perhaps unprecedented work duration for some health workers or nurses has additional implications in triggering or giving rise to negative psychological effects including emotional disorders, depression, stress, low mood, irritability, panic attacks, phobias, symptoms, insomnia, anger, and emotional exhaustion (Brooks & Webster, et al, 2020).

The stigma received by nurses or other medical personnel can make medical personnel or nurses seem like they are carriers of the virus. And this is an attitude that can trigger psychological disorders in the medical team, especially nurses. Each person has a different level of adjustment to stress. This can be because each person has differences or demands in daily life so that a person's ability to deal with stress depends on: age, gender, occupation, social status, emotions, personality and intelligence (Tsamakis et al, 2020).

Stress can affect work fatigue but is different for each worker. This is in line with research conducted by Ardian (2019) regarding the relationship between work stress and work fatigue in nurses at the Deli Serdang Lubuk Pakam Regional Hospital which shows that there is a relationship between work stress and work fatigue in nurses,  $p=0.016 < 0.05$ .

This is in accordance with research conducted by Lendombela et al (2017) regarding the relationship between work stress and work fatigue of nurses in the inpatient ward of RSU Gmim Kalooran Amurang which shows that there is a relationship between work stress and work fatigue of nurses  $p=0.012 < 0.05$  more further research results showed that nurses who experienced stress numbered 20 people (29.4%), followed by nurses who were not stressed totaling 48 people (70.6%), while nurses who experienced fatigue were 16 people (23.5%), and followed by 52 non-tired nurses (76.5%). This is in accordance with research conducted by (Pontung et al, 2018).

Based on the research results, the researcher believes that the fatigue felt by nurses is related to the stress they experience. The more severe the fatigue experienced, the more stress will increase. Nurses who feel tired and stressed can disrupt the nursing service process. Nurses said that fatigue was felt especially when working at night, especially female nurses because the next day they still had to do household work while they still had little rest. Apart from that, the piling up of work also causes them to become increasingly stressed and ultimately become unable to do their work optimally.

#### 4. CONCLUSION

Based on the research results, it was found that the P value was 0.000, so it could be said that there was a relationship between the level of fatigue and the level of stress in nurses in the General Surgery Room at the Tgk Chik Regional General Hospital in Tiro Sigli. There is a relationship between workload and stress levels in inpatient nurses at the Tgk Chik Di Tiro Sigli Regional General Hospital. Based on the results of the chi-square statistical test analysis, the value of  $p = 0.000 < 0.05$  was obtained. There is a relationship between work fatigue and stress levels in inpatient nurses at the Tgk Chik Di Tiro Sigli Regional General Hospital. Work shifts and stress levels in inpatient nurses at the Tgk Chik Di Tiro Sigli Regional General Hospital based on the results of the chi-square statistical test analysis obtained values  $p = 0.000 < 0.05$ .

#### REFERENCES

- Ardian, H. (2019). The Relationship Between Work Stress and Work Fatigue in Nurses at the Deli Serdang Lubuk Pakam Regional General Hospital (Rsud). *Journal of Medical Nursing research*, Volume 1.
- Ariga, R.A. (2020). *Textbook for the Implementation of Health Service Management in Nursing*. Deepublish.
- Aslan, et al (2020). Relationship Between Compassion Fatigue in Nurses, and Work-Related Stress and the Meaning of Life.
- Baan, R.R.S. (2020). Analysis of the influence of service quality on inpatient satisfaction at hospitals. *Happy Makassar. Science Economies: Journal of Economics, Finance and Business*, 5(1), 45-52.
- Brooks, et al. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *The Lancet*, 395(10227), 912-920.

- Dyrbye LN, Shanafelt TD, Johnson PO, Johnson LA, Satele D, West CP (2019) A cross-sectional study exploring the relationship between burnout, absenteeism, and job performance among American nurses. *BMC Nurs* 18:57.
- Emanuela, e. SS (2022). Nursing care for patients with a medical diagnosis of PDP rapid reactive pneumonia with accompanying disease DM hyperglycemia in the IGD of the Royal Hospital Surabaya (doctoral dissertation, Stikes Hang Tuah Surabaya).
- Faliyandra, F. (2019). Tri Center for Social Intelligence "Building Good Relations Between Humans in the Educational Environment in the Technological Era". Archipelago Literacy.
- Jalilian, et al. (2019). Relationship between Job Stress and Fatigue Based on Job Demand-control-support Model in Hospital Nurses. *Int J Prev Med*, 10(56).doi:10.4103/ijpvm.IJPVM\_178\_17
- Jing et al (2016). Reliability and Construct Validity of Two Versions of the Chalder Fatigue Scale among the General Population in Mainland China. *Int J Environ Res Public Health*.13(1): 147.
- Kang, L, Li, Y, Hu, S, Chen, M, Yang, C, Yang, BX, Wang, Y, Hu, J, Lai, J, Ma, X, Chen, J, Guan, L, Wang, G, Ma, H, Liu, Z (2020) „The mental health of medical workers in Wuhan, China dealing with the 2019 novel coronavirus“, *The Lancet Psychiatry*. doi: 10.1016/S2215-0366(20)30047-X.
- Lendombela, D., Posangi, J., & Pondaag, L. (2017). The Relationship between Job Stress and Work Fatigue of Nurses in the Inpatient Room at Rsu Gmim Kalooran Amurang. *UNSRAT Nursing Journal*, 5(1).
- Maatisya, YF, & Santoso, APA (2022). Reconstruction of Social Welfare for Health Workers in Hospitals. *JISIP (Journal of Social Sciences and Education)*, 6(3).
- Mirdahni, r., & Andriani, n. S. (2021). Failure to Provide Exclusive Breastfeeding. Lakeisha Publishers.
- Ramli, R. (2019). Analysis of the Quality of Health Services in the Emergency Unit (Igd) of the Makassar City Regional General Hospital (Rsud) (Doctoral Dissertation, Stia Lan Makassar Polytechnic).
- Rosyanti, L., Hadi, I., Antari, I., & Ramlah, S. (2023). Factors Causing Psychological Disorders in 9 Chronic Kidney Disease Patients Undergoing Hemodialysis: Narrative Review Literature. *Health Information: A Research Journal*, 15(2), e1102-e1102.
- Talae, et al (2020). Mental Health and Psychosocial Considerations During COVID-19 Outbreak.
- Tsamakis et al. (2020). COVID19 related stress exacerbates common physical and mental pathologies and affects treatment (Review). *Exp Ther Med*. 2020;4-7.
- Zhang, J. Huipeng, Haiping, Shining, Qifeng, Tingyun and Baoguo (2020) „The differential psychological distress of populations affected by the COVID-19 pandemic“, *Brain, Behavior, and Immunity*. doi: 10.1016/j.bbi.2020.04.031.
- Zhu et al. (2020). COVID-19 in Wuhan: Immediate Psychological Impact on 5062 Health Workers“, *medRxiv*. doi: 10.1101/2020.02.20.20025338.