WORK STRESS OF NURSES IN THE EMERGENCY DEPARTMENT OF THE GENERAL HOSPITAL DURING COVID-19 PANDEMIC

Putri Handayani, Chindy Aprilia Pratiwi

Department of Public Health, Faculty of Health Sciences,
Universitas Esa Unggul, Jakarta

ABSTRACT

Background: The COVID-19 pandemic has resulted in additional working hours, especially who work in the emergency unit. The increasing number of patients, the risk of contracting COVID-19 can cause work stress for nurses. This study aimed to analyze the relationship between workload and work stress of nurses in the emergency room of the general hospital during the COVID-19 pandemic

Subjects and Method: A cross-sectional study was carried out at the emergency department of the general hospital during the COVID-19 pandemic. A total of 44 nurses was selected by purposive sampling. The dependent variable was work stress. The independent variable were age, gender, and workload. The data were collected by The Health & Safety Executive Management Standards Indicator Tools (HSE-MS IT). The data were analyzed by odds ratio and chi-square

Results: As many as 97.7% of nurses experienced excessive workload. 50% of nurses experienced stress. Nurses age (OR= 0.83; 95% CI= 0.25 to 2.72; p= 1.000) and gender (OR= 1.59; 95% CI= 0.73 to 3.42; p= 0.332) has not affected to work stress and both were statistically not significant. Nurses workload was positively related to work stress, and it was statistically significant (OR= 2.08; 95% CI= 1.50 to 2.78; p= 0.050).

Conclusion: Nurses workload in the emergency department of the general hospital is positively related to work stress during COVID-19, and it is statistically significant.

Keywords: workload, work stress, COVID-19, emergency department, nurses

Correspondence:
Putri Handayani. Department of Public Health, Faculty of Health Sciences, Universitas Esa Unggul. Jl. Arjuna Utara No.9, RT.1/RW.2, Duri Kepa, Kb. Jeruk, West Jakarta. Email: putri.handayani@esaunggul.ac.id. Mobile: +628176567490.

BACKGROUND

Since the beginning of 2020, Indonesia and the world have been shocked by the emergence of the novel coronavirus (COVID-19) which first appeared in Wuhan, China. At the end of January 2020, WHO announced the COVID-19 outbreak that occurred in China as an international emergency that needs the attention of the whole world (Chen et al., 2020). In a short period of time, COVID-19 quickly spread to several countries and became a new disease that had an impact on global health (Muliantino et al., 2021). The number of COVID-19 cases in the world in January 2021 exceeded 90 million cases, with deaths reaching more than 1 million cases. Indonesia at the end of June 2021 recorded an increase in the number of COVID-19 cases, the number until the end of June 2021 reached more than 207 thousand active cases (SATGAS COVID, 2021a) and continued to increase until mid-July 2021 (SATGAS COVID, 2021b).

The health sector is one of the sectors with the highest stress levels

(ILO, 2016a). This condition is in line with the current situation where almost the entire world is experiencing a COVID-19 pandemic (Sunarti et al., 2021). The changes that occurred during the pandemic challenged the psychological response of nurses who served in health services, especially in the emergency department. At least 22.4% of nurses in Wuhan experienced moderate mental health problems in the early days of the COVID-19 pandemic (Kang et al., 2020). The results showed that nurses who worked in the emergency department experienced symptoms of severe anxiety (24.1%) compared to nurses who served in the COVID-19 isolation ward (Muliantino et al., 2021).

Previous research has shown that nurses on duty during a pandemic have a fear of contaminating their family and friends (Mailani et al., 2021). In addition, there is stigmatization that has an impact on the psychological well-being of nurses (Tan et al., 2020). From various surveys conducted in several countries such as Europe, America and Australia, it was found that two-thirds to half of the workers there experience work stress (ILO, 2016b). Meanwhile, the prevalence of stress in health workers has a prevalence of 45% (Salari et al., 2020), while in Indonesia the prevalence of stress levels is 55% (Nasrullah et al., 2021). In addition to the workload according to research the number of health workers experiencing mental health problems due to the COVID-19 pandemic can also be caused by fear of being infected with COVID-19, negative stigma of virus carriers and being away from family. Stress remains a major organizational challenge con-fronting many healthcare professionals due to its adverse effects on staff performance, job satisfaction, and patients outcomes. Stress has become an endemic problem in healthcare contributing to health-related challenges which decrease efficiency and productivity (Odonkor and Adams, 2021).

In connection with the heavy role of health workers, especially Emergency department nurses who are one of the frontline units in handling patients during the COVID-19 pandemic and providing services to emergency patients and patients false emergency department nurses must be able to perform triage. RSUD X is one of the health service units that operates 24 hours and is one of the COVID-19 referral hospitals that has experienced a high number of patients in the Bogor area. This condition also makes many nurses complain that they often feel tired every time they are working, this symptom is certainly one of the physical symptoms of work stress. The demands from patients and their families as well as pressure from superiors to be able to handle all existing patients quickly also make nurses often experience a loss of concentration when the patient is full, thus making it easier for nurses to experience stress that interferes with emotional, mindset, and also the nurse's physical condition. The situation like this will result in excessive stress and will adversely affect its performance in providing nursing care services.

This study aimed to describe the workload and work stress and to analyze the relationship between workload and work stress on emergency room nurses at RSUD X.

SUBJECTS AND METHOD

1. Study Design
This was an observational study with a cross-sectional design, conducted at RSUD X from Mei to September 2021.

2. Population and Sample
The population studied was nurses who served in the emergency department during the COVID-19 pandemic. A sample of 44 nurses were selected by purposive sampling.

3. Study Variables
The dependent variable was work stress. The independent variables were age, gender, and workload.

4. Operational Definition of Variables
Work stress is a response which is owned by every individual in face work related.

Age is the age of the worker from birth until the research is carried out.

Gender is a difference in respondent identity by gender.

Workload is an amount of work that must be faced by every individual within a certain period of time

5. Instruments
Job stress was measured using a questionnaire for the HSE management standard indicator issued by the Health and Safety Executive. The NASA-TLX questionnaire with six dimensions was used to measure the workload variable.

6. Data Analysis
Univariate analysis was carried out to describe the frequency of sample. Bivariate analysis was performed using the chi-square test and the calculation of the odds ratio (OR) with a 95% confidence level to examine factors associated with work stress in emergency department nurses.

7. Research Ethics
Research ethic includes informed consent, anonymity, confidentially and ethical clearence. The ethical clearence was obtained from Universitas Esa Unggul, Jakarta (0290-21.290/DPKE-KEP/FINALEA/UEU/VIII/2021).

RESULTS

1. Univariate Analysis
Univariate analysis was conducted to see the frequency distribution of the variables of age, gender, workload and work stress of nurses in the emergency department.

Table 1. Frequency Of Characteristics Distribution on Nurses

Characteristic	Frequency (n)	Percentage (%)
Age (Years)		
≥30	21	47.7
<30	23	52.3
Gender		
Male	30	68.2
Female	14	31.8
Workload		
Light Workload	1	2,3
Heavy Workload	43	97.7
Work Stress		
Mild stress	22	50
Severe Stress	22	50

Table 1 shows highest proportion were nurses who were over 30 years old (52.3%), male nurses (68.2%), and the same proportion was for nurses who experienced mild stress and severe stress (50%).

2. Bivariate Analysis
Bivariate analysis was conducted to see the relationship between the variables of age, gender, workload and work stress of nurses in the emergency department.

Table 2. Risk Factor Analysis

Variable	Work Stress				Total		OR	95% CI	p
	Severe		Mild						
	n	%	n	%	n	%			
Age (Years)									
≥30	10	47.6	11	54.2	21	100	0.83	0.25 to 2.72	1.000
<30	12	52.2	11	47.8	23	100			
Gender									
Male	17	56.7	13	43.3	30	100	1.59	0.73 to 3.42	0.332
Female	5	35.7	9	64.3	14	100			
Workload									
Heavy	22	51.2	21	48.8	43	100	2.08	1.50 to 2.78	0.050
Light	0	0.0	1	100	1	100			

Table 2 shows that there is no relationship between age (OR= 0.83; 95% CI= 0.25 to 2.72; p= 1.000), gender (OR= 1.59; 95% CI= 0.73 to 3.42; p= 0.332) to work stress and both were statistically not significant. Nurses workload was positively related to work stress, and it was statistically significant (OR= 2.08; 95% CI= 1.50 to 2.78; p= 0.050).

DISCUSSION
The COVID-19 pandemic has had an impact on changing work patterns, especially for health workers who work on the front lines. This study tried to explore the psychological condition of nurses who served in the emergency department during the COVID-19 pandemic. The results showed that 50% of nurses in the emergency department experienced symptoms of severe stress during the COVID-19 pandemic. This can be seen based on several perceived complaints such as not being able to decide when to rest (45.4%), unable to rest enough (84.1%), unable to complete work based on the allotted time (70.4%), feel they have to work intensively (95.4%), feel they have to work very quickly (75%), and feel unrealistic work time pressure (77.2%). Based on the results of observations, these complaints arise due to several things such as demands from patients and their families, pressure from superiors to be able to handle all existing patients quickly. This makes nurses often experience loss of concentration, especially when the patient's condition is full. This condition causes nurses to more easily experience stress that interferes with their emotional, mindset, and physical condition. If left unchecked, this condition can lead to excessive stress and impact on the performance of nurses in providing nursing care services.

The results of a related study stated that most of the nurses almost every day experienced mild levels of anxiety, stress, and depression. Previous studies reported high prevalence rates of anxiety, depresssion, and obsessive-compulsive

symptoms among nurses during the COVID-19 pandemic (Zhang et al., 2020). Nurses also exhibit excitability, irritability, reluctance to rest, and signs of psychological distress (Chen et al., 2020).

The results showed that there was an increase in the workload borne by nurses in the emergency unit. The workload shows a significant relationship with work stress (p= 0.050). This indicates that the work stress experienced by nurses in the emergency department may be influenced by the workload in this study. In addition, based on the results of the analysis, it is known that the importance of role of colleagues and superiors in carrying out tasks during a pandemic is a very big role in reducing the risk of stress on nurses. Communication between co-workers and managers has become more difficult during the pandemic. In addition, there is a change in rhythm and work procedures which in a short time causes nurses to feel depressed and stressed. Leaders and managers in the health sector play an integral role in ensuring that the environment is favorable and thus ensuring that nurses remain satisfied with their work (Akpabio et al., 2015). In addition, it is also mentioned that the leadership style could have a positive or negative influence on the work environment, which in turn affects the job satisfaction of nurses (Balsanelli and Cunha, 2014).

Health organizations with effective leadership styles influence the performance of nurses, resulting in low turnover, minimal conflict, and good relationships between nurses and other health care providers (Alrobai, 2020). The work environment is one of the important factors in determining the quality of care provided to patients. A bad work environment for nurses can lead to problems such as fatigue and job dissatisfaction. There is also a clear relationship between work-related stress and the work environment in nursing, where the better the work environment, the lower the probability of nurses experiencing work-related stress. However, if the work environment is poor, the nurses are more likely to experience work-related stress that leads to burnout (Alrobai, 2020).

REFERENCES
Akpabio II, John ME, Akpan, MI, Akpabio FF, Uyanah DA (2015). Work-related conflict and nurses' role performance in a tertiary hospital in South-south Nigeria. Journal of Nursing Education and Practice, 6(2): 106–114. https://-doi.org/10.5430/-jnep.v6n2p106

Alrobai T (2020). The impact of nurse leaders/managers leadership style on job satisfaction and burnout among qualified nurses: A systematic review. Journal of Nursing and Health Science. 9(1): 17–41. https://doi.org/10.9790/1959-09-

010-81741.

Balsanelli P, Cunha, ICKO (2014). The work environment and leadership in nursing: An integrative review. Revista Da Escola de Enfermagem, 48(5): 934–940. https://-doi.org-/10.1590/S00806234201400005-00022.

Chen Q, Liang MLY, Guo J, Fei D, Wang L, He L, Sheng C et al. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. Lancet Psychiatry, 7(4): e15–e16. https://doi.org/10.1016/S2215036 6(20)30078-X

ILO (2016a). Menuju Lingkungan kerja yang Bebas Stres. https://www.-ilo.org/jakarta/info/public/pr/-WCMS_495521/lang--en/index.-htm.

ILO (2016b). Workplace Stress: A Collective Challenge. https://www.-ilo.org/wcmsp5/groups/publiced_protect/protrav/safework/docume nts/publication/wcms_466547.pdf

Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, Yao L et al. (2020). Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain Behav Immun, 87: 11–17. DOI: 10.1016/j.bbi.2020.03.028.

Mailani F, Huriani E, Muthia R, Sarfika R (2021). Nurses' intention to work during the covid-19 outbreak in west sumatra, indonesia. Nurse Media Journal of Nursing, 11(1): 50–60. https://doi.org/10.14710/-NMJN.V11I1.34093.

Muliantino MR, Huriani E, Krisdianto BF, Sarfika R, Yesni M, Sulistyowati E, Wahyuningtyas K et al. (2021). Psychological Responses Among Indonesian Nurses In The Outbreak Of Covid-19 Pandemic. Journal of Nursing Care, 4(2). https://doi.org/10.24198/jnc.v4i2-.31195.

Nasrullah, D, Natsir M, Twistiandayani R, Rohayani L, Siswanto, Sumartyawati NM, Hasanah U, et al. (2021). Psychological impact among health workers in effort to facing the covid-19 in indonesia. International Journal of Public Health Science, 10(1): 181–188. https://doi.org/10.11591/ijphs.-v10i1.20524

Odonkor ST Adams S (2021). Predictors of stress and associated factors among healthcare workers in Western Ghana. Heliyon. 7(6): e07223. https://doi.org/10.1016/j.-heliyon.2021.e07223.

Salari N, Khazaie H, Hosseinian FA, Khaledi PB, Kazeminia M, Mohammadi M, Shohaimi S et al. (2020). The prevalence of stress, anxiety and depression within front-line healthcare workers caring for COVID-19 patients: a systematic review and meta-regression. Human Resources for Health, 18(1): 1–14. https://doi.org/-10.11-86/s12960-020-00544-1.

Satuan Tugas Penanggulangan Covid. (2021a). Analisis Data Covid-19 Indonesia.

Satuan Tugas Penanggulangan COVID. (2021b). Peta Sebaran COVID 19. https://-covid19.go.id/peta-sebaran-covid19.

Sunarti E, Supriyati, Junaidi (2021). Hubungan antara beban kerja dengan stres kerja pada perawat pelaksana ruang rawat inap. Jurnal Psikologi Malahayati, 3(1), 20–27. DOI: 10.33024/jpm.v3i1.3448.

Tan BYQ, Chew NWS, Lee GKH, Jing M,

Goh Y, Yeo LLL, Zhang K, et al. (2020). Psychological Impact of the COVID-19 Pandemic on Health Care Workers in Singapore. Annals of Internal Medicine, 173(4): 317–320. https://doi.org/DOI:10.73-26/M20-1083.

Zhang W, Wang K, Yin L, Zhao W, Xue Q, Peng M, Min B, et al. (2020). Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychother Psychosom, 89(4): 242–250. https://doi.org/-10.1159/000507639.