

**THE RELATIONSHIP BETWEEN WORKLOAD AND STRESS ON NURSES
DURING THE COVID-19 PANDEMIC IN INTENSIVE CARE UNIT (ICU) OF
MERAUKE HOSPITAL**

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ABSTRAK

Workload becomes a source of stress if the amount is not proportional to both physical ability and expertise and the time available to nurses. In addition, nurses are faced with the covid-19 pandemic situation which requires them to work longer and more carefully due to the infectious nature of the virus, especially in intensive care rooms. Patient care in the ICU during the pandemic requires nurses to go the extra mile because they are at the forefront of their response. This study will examine the relationship between workload and stress in nurses in the ICU room of Merauke Hospital. The method used is quantitative association with Cross Sectional approach. A total of 40 nurses were designated as research samples with total sampling techniques. The research measuring instrument used questionnaires using univariate data analysis using frequency distribution and bivariate data analysis using rho spearman. The results of the analysis of the relationship between the two variables using the Spearman rho correlations statistical test with the help of the SPSS program showed significant ($p = 0.000$ smaller than $(\alpha) = 0.05$). This means that there is a significant relationship between workload and nurse work stress in the ICU room of Merauke Hospital. With the Spearman correlation coefficient rho (r) = 0.964. This means that it has a strong level of relationship strength and a positive correlation coefficient value so that the relationship is unidirectional. There is a meaningful relationship between workload and nurse work stress in the ICU room of Merauke Hospital. The higher the workload, the higher the nurse's work stress level

Keywords: Nurse, workload, work stress, pandemic covid-19

INTRODUCTION

The American National Association for Occupational Health (ANAHO) has 385,000 cases in Wales, in Wales 11,000 to 26,000 cases (Health & Safty Executive, 2013). Of the forty cases of work stress work stress, nurses are at the top of the list and nurses can also be more likely to experience minor psychiatric disorder and depression (American National Association for Occupational Health, 2009 in Nonik, 2019). Research conducted by PPNI around 50.9% of nurses working in four provinces experienced work stress, frequent dizziness, unable to rest due to too high and time-consuming workload, as well as low salaries without adequate intensive follow, but the state that most influences nurse stress is working life (PPNI, 2008 in nonik, 2019). WHO declared COVID-19 on March 12, 2020 as a pandemic. The number of cases in Indonesia continues to increase rapidly, until June 2020 as many as 31,186 confirmed cases and 1851 deaths (PHEOC Kemenkes RI, 2020), thus causing a level of anxiety in nurses seeing the large number of casualties, nurses feel stressed seeing the current work conditions. Covid-19 has a significant impact on the mental state of medical workers, in fact emotional

changes, such as worry, anxiety and stress are common responses when facing a pandemic situation (Arisjulyanto, 2017).

Stress is a feeling of pressure experienced by employees in facing work. This work stress can be seen from the symptoms, including unstable emotions, feelings of unease, aloofness, difficulty sleeping, excessive smoking, unable to relax, anxiety, tension, nervousness, increased blood pressure, and indigestion. The increased workload is one of the triggers of nurse emotions that are not what the patient expects. This excessive workload greatly affects the productivity of health workers and of course affects the productivity of nurses. Nurses feel that the number of nurses is not proportional to the amount of work that must be completed (Mangkunegara, 2015). ICU nurses perform a very important task and role in tackling the COVID-19 outbreak and are at the forefront of a country's defense to reduce the spread of disease. At the forefront, nurses serve the needs of covid-19 suspect and confirmed patients who are often run at high risk and in challenging circumstances. Nurses are at higher risk of contracting COVID-19 in their duties to protect the wider community. Nurses can be exposed to dangers such as psychological distress, fatigue, mental fatigue or stigma.

The results study of Samodra (2017) with interviews with the head of the room and several nurses carried out at the Hospital of dr. M. Azhari in Pemalang found that the workload of nurses was influenced by several things among the excessive number of patients, administrative actions related to patients, documentation of nursing care, it was also obtained the reality of nurses not only carrying out their functions as nurses but also carrying out other duties that should have officers Its own.

Based on an interview with one of the nurses conducted by researchers, it shows that nurses in the ICU room of Merauke Hospital on average experience workloads such as demands from the patient's family and the duties given during shifts during the Covid-19 pandemic. The use of PPE clothes makes movement limited and the workload is heavier because they feel the heat when wearing them during work, the use of google makes the view unclear so they must be really careful in carrying out actions and the nurse is only able to survive treating patients for a maximum of 4 hours in the ICU room, so they have to alternate with other nurses to perform actions during shifts. This is very disturbing for nurses because a lot of time is taken to serve the family's phone. Various questions from the family caused the nurse to complain a lot and responded to the answer to the family in a high tone so that the family considered the nurse unfriendly and gave complaints. Facing something like this makes nurses often depressed and become irritable. This will have a negative impact on health and may ultimately affect the work and quality of nursing care. Therefore, proper handling and management of ICU nurse work stress is needed.

Based on the description above, this article focuses on how the relationship between Workload and Work Stress in Nurses During the Covid-19 Pandemic in the ICU of Merauke Hospital

METOHD

This research is a quantitative research with a cross-sectional approach. The population of all nurses in the ICU room of Merauke Hospital with total sampling technique. The study

was conducted in August 2021. The data in this study were analyzed using the Spearman Rho test statistical test with a significant p value level of $< \alpha=0.05$.

RESULT

Characteristic of Respondent

Karakteristik responden dijabarkan pada tabel 1 yang terdiri dari jenis kelamin, umur, Pendidikan, status pernikahan, dan lama bekerja.

Table 1 Characteristic nurse at ICU Merauke Hospital

Charactieristic	Frequensi	%
Gender		
Perempuan	30	75
Laki-laki	10	25
Age		
17-25	3	7,5
26-35	31	77,5
36-45	6	15
Educational		
Diploma 3	36	8,7
Ners	4	91,3
Marital Status		
Unmarried	21	52,5
Married	19	47,5
Lama Bekerja		
<5 years	18	45
5-10 years	12	30
>10 years	10	10

Source: Primery data

The 40 respondents, it is known that there are 30 respondents (75%) of the female and male sexes as many as 10 respondents (25%). The age of respondents was categorized into three groups, namely the age group of 17-25 years, 26-35 years, and 36-45 years. The distribution of the age group of 17-25 years was 3 respondents (7.5%), 26-35 years as many as 31 respondents (77.5%), and 36-45 years as many as 6 respondents (15%). The educational status of respondents was categorized into two groups, namely higher education D3 nursing and Ners. The distribution of the D3 nursing education group was 36 respondents (90%) and Ners education was 4 respondents (10%). The marriage status of respondents was categorized into two groups, namely unmarried and married. The distribution of the unmarried group was 21 respondents (52.5%) and the married group was 19 respondents (47.5%). The length of work in the hospital is categorized into three groups, namely <5 years, 5-10 years, and >10 years. The distribution of <5-year working groups was 18 respondents (45%), 5-10 years as many as 12 respondents (30%), and >10 years as many as 10 respondents (25%).

Nurse Workload During the Covid 19 Pandemic in the ICU of Merauke Hospital

The workload of Merauke Hospital ICU nurses during the pandemic is shown in table 2 below:

Table 2 Nurse workload during pandemic in ICU Merauke Hospital

Workload	Frequensi	%
Lightly 33-44	0	0
Medium 45-55	12	30
Heavy 56-66	28	70

Source: Primery data

Table 2 showed workloads grouped into three category lightly workloads 33-44, medium workloads 45-55 and heavy workloads 56-66. The assessment of the workload is based on the number of correct answers on the workload questionnaire. Mostly workload category heavy with the highest score of 28 respondents (70%), the medium-level workload was 12 respondents (30%), and none of the respondents had a lightly workload.

Nurses' Work Stress During Covid-19 Pandemic at ICU of Merauke Hospital

An overview of ICU nurses' work stress during the pandemic is set out in table 3

Table 3 Stress at ICU of Merauke Hospital

Work Stress	Frequensi	%
Lightly 28-47	7	17,5
Moderate 48-66	14	35
Heavy 67-84	19	47,5

Source: Primery data

In table 3, it can be seen that work stress is grouped into three, namely mild stress 28-47, moderate stress 48-66 and severe stress 67-84. The assessment of work stress is based on the highest number of answers on the work stress questionnaire. The distribution of work stress was the most with severe stress as many as 19 respondents (47.5%), moderate stress as many as 14 respondents (35%), and lightly stress as many as 7 respondents (17.5%).

Hubungan Beban kerja dan Stres kerja pada perawat ICU Merauke Hospital

The results of the correlation analysis test using Rho spearman to determine workload and stress are described in table 4 below:

Table 4 Crosstab workload and stress on ICU nurse of Merauke Hospital during covid-19 pandemi

Workload	Stress Kerja							
	Lightly		Moderate		Severe		Total	
	F	%	F	%	F	%	F	%
Lightly	0	0	0	0	0	0	0	0
Medium	6	15	6	15	0	0	12	30
Severe	1	2,5	8	20	19	47,5	28	70
Total	7	17,5	14	35	19	47,5	40	100

Significancy (p) = 0,000

Coefficientcy correlation *Spearman Rho* (r) = 0,694

Source: Primery Data

Based on table 4, it is known that 12 respondents with moderate workloads, 6 respondents (15%) experienced mild stress and 6 respondents (15%) experienced moderate stress. Respondents with a heavy workload of 28 people, who experienced mild stress as many as 1 (2.5%), who experienced moderate stress as many as 8 respondents (20%) and who experienced severe stress as many as 19 respondents (47.5%). The results of the analysis of the relationship between the two variables using the Spearman rho correlations statistical test with the help of the SPSS program showed significant (p) = 0.000 smaller than (α) = 0.05. This means that there is a significant relationship between workload and nurse work stress in the ICU room of Merauke Hospital. With the Spearman correlation coefficient rho (r) = 0.964. This means that it has a strong level of relationship strength and a positive correlation coefficient value so that the relationship is unidirectional. Thus H1 is accepted and H0 is rejected or there is a meaningful relationship between workload and nurse work stress in the ICU room of Merauke Hospital.

DISCUSSION

The results showed that there was a meaningful relationship between workload and nurse work stress in the ICU room of Merauke Hospital. This research agrees with another study conducted by Fahamsyah (2017); Hasby (2017); Sugesti (2018) and Nonik (2019).

This is also in accordance with research obtained by Nonik (2019) which states that there is a stress level for nurses in the ICU room and IGD of RSU Siaga Medika Pematang. This means that the more the workload increases, the more stressful it will be. Nurse work stress can occur if the nurse on duty gets a workload that exceeds her ability so that the nurse is unable to fulfill or complete her duties. The manifestation of nurse work stress, among others, due to patient characterization, patient assessment, and disturbing aspects of the work environment is the first step in dealing with problems that arise regarding the level of emergency room density, the efficiency of task execution, and the demands to save patients. Some other factors that cause nurses with heavy workloads to experience stress include the lack of number of nurses, which causes a high unbalanced transfer of job duties in the ICU room plus the lack of competent nurses, especially nurses The ICU room which only has a few nurses who are certified in ICU training so that they feel unable to handle critical patients in the ICU room because most of them are new inexperienced nurses so that when receiving patients in critical condition and emergency departments feel confused, and feel inadequate with the delegation of duties imposed on nurses.

The amount of work that must be borne by employees is one of the factors that affect the occurrence of work stress. Work demands, of course, can put pressure on a person if the demands of the task are felt to be excessive and can increase anxiety and stress. Stress at work is a serious problem within the company because it can reduce employee performance and company performance. The impact of work stress can benefit or harm employees. A beneficial impact is expected to spur employees to be able to complete work, but if stress cannot be overcome, it will have a detrimental impact on employees (Fitriantini, Agusdin, & Nurmayanti, 2020; Aini & Purwaningsih, 2013)

According to Yana (2015) Nurses are more likely to carry out additional duties outside of their duties and functions as nurses. One of them is in the form of delegation from doctors which can increase the workload of nurses and if it is not in accordance with their competence, it will cause role conflicts in nurses which can then cause nurses to have low self-confidence.

CONCLUSION

Most ICU nurses have a heavy workload; experienced heavy work stress and found a p-value of $0.000 < 0.05$ (α) between workload and work stress in Merauke Hospital ICU nurses during the COVID-19 pandemic which means that there is a significant relationship between workload and nurse work stress in the ICU room of Merauke Hospital. With the Spearman correlation coefficient rho (r) = 0.964. This means that it has a strong level of relationship strength and a positive correlation coefficient value so that the relationship is unidirectional. Thus H1 is accepted and Ho is rejected or there is a meaningful relationship between workload and nurse work stress in the ICU room of Merauke Hospital.

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Poltekkes Kemenkes Jayapura

REFERENCE

- Agnew, T. (2000). Work Stres. Diunduh dari <http://www.channel14.com/health/microsites/09/4health/stress/sawwork>
- Aini, F., & Purwaningsih, P. (2013). Hubungan Antara Beban Kerja Dengan Stres Kerja Perawat Di Instalasi Gawat Darurat Rsud Kabupaten Semarang. *Jurnal Manajemen Keperawatan*, 1(1), 48–56.
- Amalia, U, R. Suwenda, W. & Bagia, W. (2016). Pengaruh Stres Kerja dan Kepuasan Kerja terhadap Kinerja Karyawan. *Jurnal Bisma Universitas Pendidikan Ganesha*. Vol 4.
- Ammouri, A., & Hamaideh, S.H. (2011). Jordanian nurses job stressor in stressful and non stressful clinical areas. *A Journal for the Australian Nursing Profession is the Property of Econtent Management*, 37 (2), 173-181.
- Antonius. R Vanchapo. (2020). Beban kerja dan Stres Kerja. Pasuruan Jawa Timur : CV. Penerbit Qiara Media.
- Arisjulyanto, D. (2017). Pengaruh Teknik relaksasi otot progresif terhadap penurunan tekanan darah pada pasien hipertensi di Puskesmas Cakranegara tahun 2016. *Berita Kedokteran Masyarakat*, 33(11).
- Dargahi, N., & Shahan G. (2012). Life change units (LCU) rating as stressor in Iranian Hospitals' nurses. *Acta Medic Iranica.*, 50 (2), 138-146.
- Darni, N, S. (2014). Stres Kerja dan Sikap Perawat Tentang Keselamatan Pasien di Ruang Operasi Rumah Sakit Kota Medan. *Jurnal Ners Indonesia*. Vol 1, No 1. 19-20.

- Dendaas, N. (2011). Environmental congruence and work-related stress in acute care hospital/surgical unit: A descriptive correlational study, *Journal Health Environments Research an Design*, 5 (1), 23-42.
- Depkes RI. (2006). Standar Pelayanan Keperawatan ICU. Direktorat Keperawatan dan Keteknisian Medik Direktorat Jendral Pelayanan Medik. Jakarta: Depkes RI.
- Elliot, D., Aitken, L., & Chaboyer, W. (2012). *Critical Care Nursing*. (2th ed). Elsevier Australia: Libby Huston.
- Fahamsyah, D. (2017). Analisis Hubungan Beban Kerja Mental. *The Indonesian Journal Of Occupational Safety And Health*, 6(1), 107–115. <https://doi.org/10.20473/Ijosh.V6i1.2017.107-115>
- Fitriantini, R., Agusdin, & Nurmayanti, S. (2020). Pengaruh Beban Kerja, Kepuasan Kerja Dan Stres Kerja Terhadap Turnover Intention Tenaga Kesehatan Berstatus Kontrak Di Rsud Kota Mataram. *Jurnal Distribusi*, 8(1).
- Hasby.M. (2017). Pengaruh Konflik Kerja, Beban Kerja Dan Komunikasi Terhadap Stres Kerja Perawat Bagian Rawat Inap (Pada Rsud. Petala Bumi Pekanbaru). *Jom Fakultas Ekonomi*, 4.
- Febriana, D,V. 2017. Konsep Dasar Keperawatan.Yogyakarta. Healthy. 60
- Gopher, D., and Doncin, E. 1986. Workload – An Examination of The Concept: Chapter 41. *Handbook of Perception and Human Performance*.
- Hamaideh, S.H., & Ammouri, A. (2011). Comparing jordanian nurses' job stressors in stressful and non stressful clinical areas. *Contemporary Nurse*, 37 (2), 173-187.
- Hanafie, A. (2007). *Peranan Ruangan perawatan Intensif (ICU) dalam memberikan pelayanan kesehatan di rumah sakit*. Makalah dipresentasikan di hadapan rapat terbuka Universitas Sumatera Utara.
- Heru Suwardianto, Vitria W. Astuti (2020). Buku Ajar Keperawatan Kritis: Pendekatan Evidence Base Practice Nursing. Kediri: Penerbit Chakra Brahmanda Lentera.
- Ike Prafitia Sari. (2020). Hubungan Beban Kerja Dengan Stres Kerja Perawat di RSI Nashrul Lamongan. Jawa Timur: Lamongan.
- Intan Putri. (2018). Hubungan Beban Kerja Dengan Stres Kerja Pada Perawat IGD RSUD Munyung Kute Redelong. Medan: Universitas Medan Area.
- Jusnimar. (2012). Gambaran Tingkat Stres Kerja Perawat Intensive Care Unit (ICU) di Rumah Sakit Kanker Dharmais. Depok: Universitas Indonesia
- Kasmarani. (2012). Pengaruh Beban Kerja Fisik Dan Mental Terhadap Stres Kerja Pada Perawat Di Instalasi Gawat Darurat (IGD) RSUD Cianjur. *Jurnal Kesehatan Masyarakat*. Vol.1.
- Kementerian Kesehatan Republik Indonesia. 2010. *Pedoman Penyelenggaraan Pelayanan Intensive Care Unit (ICU) di Rumah Sakit*. Keputusan Menteri Kesehatan Republik Indonesia Nomor 1778/MENKES/SK/XII/2010.
- Lee, J.K.L. (2003). Job stress, coping and health perceptions of Hongkong primary care nurses, *International Journal of Nursing Practice*, 9, 86-91.

- Luminting, P. Kumaat, L & Mulyadi. (2015). Perbedaan Tingkat Stres Kerja Perawat Instalasi Gawat Darurat dan Unit Rawat Inap di Rumah Sakit Pancaran Kasih: *Journal Keperawatan*. Vol. 3, No. 1. 2
- Meltzer, L.S., & Huckabay, M. L. (2004). Critical Care Nurse's perceptions Of futile care and its effect on burnout. *America Journal of Critical Care*, 13, 202-208.
- Miftahul Munir. (2020). *Monograf Organizational Citizenship Behavior (OCB) Terhadap Kinerja Perawat*. Purwokerto: Penerbit CV. Pena Persada.
- Munandar, AS. (2001). Psikologi Industri dan Organisasi. Edisi 1, UI Press, Jakarta.
- Muthmainah, Iin. (2012). Faktor-faktor Penyebab Stres Kerja di Ruang ICU Pelayanan Jantung Terpadu dr. Ciptomangunkusumo Jakarta. Dalam <http://lib.ui.ac.id/file?file=digital/20314276-S43774-Faktor-Faktor.pdf> (diakses tanggal 4 Desember 2016)
- Notoadmojo, S. (2012). *Metodologi Penelitian Kesehatan*. Jakarta. PT. Rineka Cipta.
- Nursalam. 2001. Proses & Dokumentasi Keperawatan Konsep & Praktek. Jakarta: Penerbit Salemba Medika.
- Potter, P.A., & Perry, A.G (2005). Buku ajar fundamental keperawatan: konsep, proses, dan praktik, Edisi 4, Alih Bahasa: Renata komalasari, dkk, Jakarta: EGC.
- Rahman, F. (2010). Strategi Coping Perawat Rumah Sakit Jiwa Daerah Surakarta. Universitas Muhammadiyah Surakarta. Didapat dari : etd.prints.ums.ac.id
- Saefullah, E. (2017). Pengaruh Beban Kerja dan Stres Kerja Terhadap Produktivitas Kerja Karyawan. *Jurnal AKADEMIKA*. Vol 15. No 2.
- Sitepu, A, T. (2013). Beban Kerja dan Motivasi Pengaruhnya Terhadap Kinerja Karyawan Pada PT. Bank Tabungan Negara TBK Cabang Manado. *Jurnal EMBA*. Vol 1. No 4. 1125.
- Storduer. (2001). Leadership, Organizational Stres and Emotional Exhaustion Among Hospital Nursing Staff, *Journal of Advanced Nursing*.
- Sugiyono. (2013). *Metodologi Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Sunyoto, D. (2011). Analisis Untuk Penelitian Kesehatan. Yogyakarta : Nuha Medika.
- Sunyoto, Danang. (2013). Sumber Daya Manusia. Yogyakarta: Caps.
- Trihastuti, E. 2016. Pengaruh Kepemimpinan Motivasi dan Beban Kerja Terhadap Kinerja Perawat dalam Pendokumentasian Asuhan Keperawatan di Ruang Rawat Inap Penyakit Dalam Rumah Sakit X Surabaya. Skripsi Fakultas Keperawatan Universitas Airlangga Surabaya. 41-42
- Undang-Undang Republik Indonesia No. 38 Tentang Keperawatan* .(2014). Pasal 1.
- Widyasari. (2002). Stress Kerja dan Dampaknya, Team e-psikologi.com, Informasi Psikologi Online, Jakarta.
- Wijono, S. (2010). *Kepuasan dan Stres Kerja*. Salatiga: Penerbit Sari
- Yophi Nugraha, Arni Wianti. (2017). Konsep Dasar Keperawatan. Cirebon: Lovrinz Publishing.

- Zaghloul, A.A. (2008). Developing and validating a tool to assess nurse stress. *Journal Egypt Public Health Assoc*, 83 (3&4), 223-237.
- Arisjulyanto, D. (2017). Pengaruh Teknik relaksasi otot progresif terhadap penurunan tekanan darah pada pasien hipertensi di Puskesmas Cakranegara tahun 2016. *Berita Kedokteran Masyarakat*, 33(11).