Analysis Of Differences In Stress Levels Of Nurses Working In Isolation And Non-Isolation Wards For Covid-19 In General Hospital Royal Prima Medan

Stefenie[1], Ermi Girsang[2]*, Linda Chiuman[3], Sri Wahyuni Nasution[4]

[1]Postgraduate Students Department Magister of Public Health, Faculty of Medicines at University Prima Indonesia.
[2,3,4]Postgraduate Lecturer Department Magister of Public Health, Faculty of Medicines at University Prima Indonesia
* Corresponding author:
Email: ermigirsang@unprimdn.ac.id

Abstract.
Along with the escalating number of confirmed cases of COVID-19, it becomes a big demand for medical staff, in particular nurses, as the frontline in caring COVID-19 patients, this makes nurses' stress levels to build up. So, this research aims to describe the factors that affect stress levels experienced by nurses during the pandemic COVID-19. The purpose of this study is to analyze the differences in stress levels of nurses working in isolation and non isolation wards for COVID 19 in General Hospital Royal Prima Medan. Type of research used in this research is quantitative research by using Cross Sectional approach. The results obtained from this research is that the majority of nurses in non isolation ward have stress levels that are still within normal limits with good performance and moderate workload, and the majority of nurses in isolation ward have a high level of stress with poor performance and a heavy workload. Workload (OR =5.21 95%CI 2.47-10.95; p=0.015), Performance (OR =2.60 95%CI 1.38-4.91; p=0.002), and Work Unit (OR =5.33 95%CI 2.65-10.75; p=0.029) significantly affect the sress level of nurses working at General Hospital Royal Prima Medan.

Keywords: *General Hospital Royal Prima Medan, Stress levels, Covid-19, Nurses.*

I.   INTRODUCTION

In December 2019, patients emerged in Wuhan, China with pneumonia of unknown cause [1, 2, 3]. Research conducted by experts from WHO confirmed that the pathogen that causes this new pneumonia is SARS-CoV-2, and it is called Coronavirus Disease 2019 (COVID-19). The COVID-19 pandemic has posed a remarkable threat to public health [4]. The first COVID-19 was reported in Indonesia on March 2, 2020, with two cases. Data on March 31, 2020 showed that there were 1,528 confirmed cases and 136 deaths. COVID-19 mortality rate in Indonesia is 8.9% and this figure is the highest in Southeast Asia. As of March 30, 2020, there were 693,224 cases and 33,106 deaths worldwide. Europe and North America have become the epicenter of the COVID-19 pandemic, with cases and deaths already surpassing China. The United States ranks first with the most COVID-19 cases with the addition of 19,332 new cases on March 30, 2020, followed by Spain with 6,549 new cases. Italy has the highest

mortality rate in the world, at 11.3%. [5].As the coronavirus disease 2019 (COVID-19) pandemic accelerates, the global healthcare system is becoming overwhelmed. Millions of people have been infected and hundreds of thousands more have died worldwide. A particularly vulnerable population are frontline health care workers. Nurses are one of the main workforces in occupational health; Nurses treat patients in the closest distance to the patient and for the longest time.

The role of nurses can increase the risk of contracting and endanger their physical and psychological well-being. Critical care nurses are particularly at risk because they care for patients during their most severe state of illness [6].The risk of being exposed to the virus, and asymptomatic people who appear healthy but are actually carrying the virus that causes Covid-19 causes anxiety and psychological stress for nurses in carrying out their duties. Concerns about transmitting disease to the family, changes in work patterns, long-term use of personal protective equipment, limited Personal Protective Equipment (PPE), physical exhaustion and community stigma are psychological stress factors faced by nurses. Watching coworkers get sick and even die, all of these things drain the nurses' physical and mental energy. [7]. The ongoing state of emergency caused by COVID-19 is putting care services under intense pressure. When nurses are faced with a work environment with high job demands and low resources, higher job stress and greater symptoms of physical and psychological stress can have an adverse impact on health and well-being [8, 9, 10, 11]. Nurses are one of the professions that have a high level of work stress, coupled with emotional exhaustion due to the complexity of the work that must be done as a demand and routine, thus causing nurses to be more susceptible to work stress. Job stress is a dangerous condition for the emotional and physical that results from the interaction of workers and the environment where job demands exceed the ability of workers and their resources. [12]

II.   METHODS

This study uses a quantitative method with a cross-sectional design to determine the relationship between the independent variable and the dependent variable. [13]This research was conducted at the Royal Prima General Hospital, Medan. With the consideration that the hospital is a teaching hospital in collaboration with Prima Indonesia University. The target population of this study were all nurses in the isolation and non-isolation rooms for Covid 19 at the Royal Prima General Hospital in Medan. As for the number of samples is 184.The method of data collection in this study was to use a questionnaire given to each nurse online. Thus, the data obtained in this study are primary data.

III.   RESULT AND DISCUSSION

The Influence of Work Unit on Stress Level

Based on the results of questionnaires that have been done found that the work unit variable significantly affects the sress level of nurses working at General Hospital Royal Prima Medan, it is seen from the level of significance p=0.029< 0,05.According to the researcher, this is caused by concerns that occur in nurses who work in isolation wards due to the high risk of exposure, fears of transmitting disease to the family, changes in work patterns, use of personal protective equipment in the long term, physical fatigue and community stigma faced during pandemic.

The Influence of Workload on Stress Level

Based on the results of questionnaires that have been done found that the workload variables significantly affect the sress level of nurses working at General Hospital Royal Prima Medan, it is seen from the level of significance p=0.015< 0,05.States that the factors that affect a person's workload can be classified into internal factors and external factors. Internal factors such as gender, age, health status, motivation, perception and others. Meanwhile, the external factors include the work environment, work facilities and work organization. In overcoming the workload, of course, these factors can be analyzed and then optimized so that it does not cause an excessive workload for employees, especially nurses in the Covid-19 isolation room at Royal Prima Hospital Medan. [14] One of the factors causing work stress is workload. Too much workload can cause tension in a person, causing stress. This is because the level of expertise demanded is too high, the work speed may be too high, the work volume may be too much and so on. [15]

The Influence of Performance on Stress Level

Based on the results of questionnaires that have been done found that the Performance variables significantly affect the sress level of nurses working at General Hospital Royal Prima Medan, it is seen from the level of significance p=0.002< 0,05.Based on research conducted also stated that stressors cause stress at work both physically and psychologically. While on the other hand, stressors affect the performance of nurses in doing their jobs. Stress caused by work will affect work results.

[16] The performance of nurses in the COVID-19 isolation ward must be improved. Good performance will affect patient satisfaction, because nurses are the ones who are in direct contact with patients. One way to improve employee performance is a reward system that will affect employee performance.The hospital can also conduct a training on job stress. An even distribution of work shifts can also be done to minimize the incidence of stress. Or by taking refreshing (vacation) together twice a year to reduce the level of burn out in carrying out work. So that the performance will also be better and the service will even be greater.

IV.   CONCLUSION

The conclusions we can draw from this research are Workload (OR =5.21 95% CI 2.47-10.95; p=0.015), Performance (OR =2.60 95% CI 1.38-4.91; p=0.002), and Work Unit (OR =5.33 95% CI 2.65-10.75; p=0.029) significantly affect the stress level of nurses working at General Hospital Royal Prima Medan.

V.   ACKNOWLEDGMENTS

REFERENCES

[1]   Catton, H., RN, MA, BS (Econ) (Hons). (2020). *Global challenges in health and health care for nurses and midwives everywhere*. **International Nursing Review**, 67(1), 4–6.

[2]   Huang, C., Wang, Y., & Li, X. (2020). *Clinical features of patients infected with 2019 novel corona virus in Wuhan, China*. **Lancet**, S0140–6736(20), 30183–30185.

[3]   Li, Q., Guan, X., Wu, P., Wang, X., Zhou, L., & Tong, Y. … Feng, Z. (2020). *Early transmission dynamics in Wuhan, China, of novel coronavirus-infected pneumonia*. **New England Journal of Medicine**, https://doi.org/10.1056/NEJMoa2002032.

[4]   Pan, Y., Guan, H., Zhou, S., Wang, Y., Li, Q., Zhu, T., … Xia, L. (2020). *Initial CT Findings and Temporal Changes in Patients with The Novel Corona Virus Pneumonia (2019-nCoV): A study of 63 patients in Wuhan, China*. **European Radiology**. https://doi.org/10.1007s00330-020-06731-x.

[5]   Susilo A, Rumende CM, Pitoyo CW, Santoso WD, Yulianti M, Herikurniawan H, et al. (2020). *Coronavirus Disease 2019: Tinjauan Literatur Terkini*. ***Jurnal Penyakit Dalam Indonesia***. 2020;7(1):45. DOI: http://dx.doi.org/10.7454/jpdi.v7i1.415.

[6]   Leng M, Wei L, Shi X, Cao G, Wei Y, Xu H, et al. (2020). *Mental distress and influencing factors in nurses caring for patients with COVID-19*. **Nursing in Critical Care. Willey**. 2021;26(2):94–101. https://doi.org/10.1111/nicc.12528.

[7]   Shen X, Zou X, Zhong X, Yan J, Li L. (2020). *Psychological stress of ICU nurses in the time of COVID-19*. **Critical Care**, 24:200. https://doi.org/10.1186/s13054-020-02926-2.

[8]   Chou. Li-Ping, Li. Chung-Yi, Hu. Susan (2014). *Job stress and burnout in hospital employees: comparisons of different medical professions in a regional hospital in Taiwan*. **BMJ Open** 2014; 4: e004185. doi:10.1136/bmjopen-2013-004185.

[9]   Khamisa. Natasha, Oldenburg. Brian, Peltzer. Karl and Ilic. Dragan (2015). *Work related stress, burnout, job satisfaction and general health of nurses*. ***International Journal of Environmental Research and Public Health***.12, 652-666; doi:10.3390/ijerph120100652.

[10]   Lin, S. H., Liao, W. C., Chen, M. Y., & Fan, J. Y. (2014). *The impact of shift work on nurses' job stress, sleep quality and self-perceived health status*. ***Journal of Nursing Management, Willey***. 22(5), 604–612. https://doi.org/10.1111/jonm.1202.

[11]   Malinauskiene, V., Leisyte, P., Romualdas, M., & Kirtiklyte, K. (2011). *Associations between self-rated health and psychosocial conditions, lifestyle factors and health resources among hospital nurses in Lithuania*. ***Journal of Advanced Nursing***, 67(11), 2383–2393. https:// doi.org/10.1111/j.1365-2648.2011.05685.x

[12]   Puri. Intan (2018). *Hubungan beban kerja dengan stres kerja pada perawat IGD RSUD Munyang Kute Redelong*. **Skrpisi**. Repository.uma.ac.id.

[13]   Sugiyono. (2019). *Metode penelitian kuantitatif*. Edisi: 2, Bandung: CV Alfabeta.

[14]   Koesomowidjojo, S.R.M. (2017). *Panduan praktis menyusun analisis beban kerja*. Jakarta: **Raih Asa Sukses**.

[15]   Sunyoto, Danang (2013). *Statistik untuk paramedis*. Badan Litbangkes - Kementerian Kesehatan RI. **Pustaka Poltekkes.** Padang.

[16]   Enny Nurcahyani, Dyah Widodo, Yanti Rosdiana. (2016). *Hubungan tingkat stres kerja dengan kinerja perawat*. **Jurnal Care**. Vol. 4, No.1, pp44-50.