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OVERVIEW OF THE MENTAL WORKLOAD OF FEMALE NURSES DURING THE COVID-19 PANDEMIC AT HOSPITAL X

Fatmawaty Mallapiang[1*], Febriyani Prastike[1], Nildawati [1], Azriful[1]
[1] Departement of Public Health, Faculty of Medicine and Health Sciences, Universitas Islam Negeri Alauddin, Indonesia

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CORRESPONDENCE

Phone : -
Email :fatmawaty.mallapiang@uin-alauddin.ac.id

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ABSTRACT

Backgrounds: *In the Covid-19 pandemic crisis, nurses are professionals in the health sector who have to work and provide nursing services during the Covid-19 pandemic and always interact with patients who are positive for Covid-19 so as to increase the mental workload of nurses. The mental workload of nurses should be within normal limits.*
Objective: *This study aims to describe the mental workload of female nurses during the Covid-19 pandemic.*
Method: *The type of research used is quantitative with a descriptive approach. The population in the study were all female nurses on duty at Hospital X with a total sample of 22 nurses using purposive sampling technique with inclusion criteria, namely female nurses in charge of handling Covid-19 and the ICU room.*
Result: *The results showed that the mental workload felt by female nurses was in the high category of 17 (77.3%) and very high category of 5 (22.7%). The mental workload of nurses is in the high category and the indicator of the NASA-TLX method is the most dominant on the mental workloadof nurses in Hospital X, namely the time requirement indicator of 21.75%.*
Conclusion: *Nurses to manage their time as housewives and workloads andprovide the best care during the Covid-19 pandemic.*

INTRODUCTION

World Health Organization (WHO) identified Covid-19 as the newest epidemic coronavirus disease under the category*Public Health Emergency of International Concern* (PHEIC) in early January 2020, and Covid-19 was later classified as a pandemic in March 2020 (World Health Organization, 2020). Covid-19 is a new type of pneumonia that has been detected since late December 2019 in Wuhan, China and has since spread rapidly to neighboring countries (Li et al., 2020). During the past week (14–20 June 2021), more than 2.5 million new cases and over 64,000 deaths were reported globally, down from the previous week. More than 177 million cases have been documented globally. More than 600,000 new cases and more than 19,000 new deaths have been recorded in Southeast Asia. The number of new cases and deaths for the territory of Indonesia is 78,551 new cases and 1,783 deaths (*World Health Organization,* 2021).

Based on data published by PPNI on October 28 2020, there were 92 nurses who died after being exposed to Covid-19 while caring for Covid-19 patients. As many as 65% of nurses in hospitals have died as a result of exposure to Covid-19, according to the institutions where they work. Health workers are very vulnerable to Covid-19 transmission in hospitals (PPNI, 2020). This can have special consequences for the families of health workers (Shania, 2020).

During the Covid-19 pandemic crisis, nurses are professionals in the health sector who must work and provide services (RI Ministry of Health, 2017). Apart from providing nursing care at the forefront and always interacting with patients who have cases of Covid-19, nurses play an important role in the management and prevention of Covid-19 (Susanti et al., 2021). Nurses are included in the high-risk category of being infected with Covid-19. Health services are under tremendous pressure as a result of the increasing number of Covid-19 patients. Mental workload can be triggered by the heavy workload and the danger of exposure to the virus when treating Covid-19 patients.

Physical and mental workload is part of the workload of nurses in hospitals (Yudi et al., 2019). The occurrence of mental workload on nurses is also influenced by several undoubted factors which consist of patient and non-patient factors. Patient factors, namely the patient himself and non-patient factors such as organizational factors, work factors, individual characteristics, and motivation (Wihardja et al., 2019). In carrying out their duties, nurses have a great responsibility towards patients or their families. This commitment requires nurses to remain professional in providing care, which can increase the mental workload of nurses (Werdani, 2016).

The female nurse has very complex and significant responsibilities not only as a

subject in the human life hierarchy, but also as an individual, a person wife, and a mother (Notosoeddirdjo, & Latipun, 2011 in Kalendesang, 2017). In a pandemic situation, female nurses are faced with the noble task of handling the Covid-19 virus and their responsibility to care for their husbands and children. Considering that the general hospital in the area where the research was conducted is a Covid-19 referral hospital, it has a very high risk of transmitting the Covid-19 virus, placing female nurses in a difficult situation. Conflicts can arise if female nurses cannot manage time and pressure both from work and from their family (Latifah, 2010 in Rahmanita, 2020).

Nurses' mental workload should be within normal limits, in which the volume of work is balanced with the abilities of nurses or the time used by nurses is the same as the available working hours to complete work (Hakiim et al., 2018). One of the measurements of mental workload on nurses uses a subjective method that is widely used, namely*National Aeronautics and Space Administration Task Load Index* (NASA-TLX) (Nurfajriah et al., 2017).

The results of Huang., et al (2020) revealed that the mental health of 1,257 health workers who treated patients*Covid-19*in 34 Chinese hospitals experienced levels of anxiety, insomnia, depressive symptoms, and psychological stress. Whereas in the research in Indonesia conducted by Achmad & Farihah (2018) at Hospital X involving 15 nurses. Where it was found that the workload of nurses at RS X has a high and very high workload. The highest to lowest ranking of the workload dimension from that is*Temporal Demand* (62), *Frustration* (63), *Mental Demand* (65), *Physical Demand* (69.667), *Effort* (76.67) and*Performance* (80667). Finally, the research was conducted on 5 nurses in the RSU dr. Slamet Garut involving 62 nurses. Researchers used the NASA-TLX questionnaire sheet as a measurement of mental workload. The results show a high category of mental workload of 58 respondents (100%) (Permana et al., 2020). With this phenomenon, researchers are interested in researching the description of the Mental Workload of Female Nurses During the Covid-19 Pandemic at Hospital X".

METHODS

This type of research is a quantitative research approach*descriptive*. The research was conducted in November 2021 at X Hospital. The data used were primary data obtained from interviews and observations through a NASA-TLX questionnaire for each respondent and secondary data obtained from X Hospital reports. The population in the study were all female nurses who served at X Hospital. A total of 22 respondents were drawn by the method*purposive sampling* with the inclusion criteria, namely nurses working in

the ICU room or Covid-19 isolation room, especially female nurses.

RESULT

Table 1

Distribution of Mental Workload for Female Nurses During the Covid-19 Pandemic at X Hospital

Mental Workload Category	Amount (n)	Percentage (%)
Height	17	77.3
Once High	5	22.7
Total	**22**	**100**

Source: Primary Data, 2021

Based on Table 1, it can be seen that there were 22 female nurses, where there were 17 (77.3%) nurses with a high mental workload category while 5 (22.7%) other nurses had very high mental workload.

Table 2
Distribution of NASA-TLX Indicator Values for Female Nurses During the Covid-19 Pandemic at X Hospital

Indicator	Amount (n)	Percentage (%)
Mental Needs	4325	19.16
Physical Needs	3895	16.88
Time Requirement	5020	21.75
Performance	1195	5.18
Business Level	4715	20.43
Frustration Level	3930	17.03
Total	**23.080**	**100**

Source: Primary Data, 2021

From Table 2 it can be seen that of the 6 NASA-TLX indicators, the highest indicator value was obtained, namely the Time Requirement (KW) indicator with a score of 5020 (21.75%) and the lowest indicator value, namely the Performance indicator (P) with a score of 1195 (5.18%).

DISCUSSION

1. Discussion of Mental Workload

Based on the results of the study, the number of female nurses who experienced mental workload in the high category was more than in the very high category. This happens as a result of the demands of work that must be completed. So nurses are more likely to feel a mental burden.

This is in line with research conducted by Kusumaningsih., et al (2020), concerning the Relationship between the Physical and Mental Workload of Nurses and the Implementation*Patient Safety*during the Covid-19 Pandemic at the Pesawaran District Inpatient Health Center UPT which explained that excessive workload on health workers could arise due to an imbalance between working time and the amount of work that had to be completed. As during the Covid-19 pandemic, there was a lot of work that had to be completed which required health workers to finish at the hospital, so that health workers felt anxious and worried about the increasingly widespread spread of the Covid-19 virus.

Women are often less physically strong than men by about two-thirds, although sometimes they are more careful (Tarwaka 2010 in Widiastuti et al., 2017). Men have a strong spirit in dealing with risky situations, but women are considered more emotional and sensitive (Bachri, 2017).

Female nurses experience a high category of mental workload due to having multiple roles. This dual role is that apart from having to work according to their profession, those who are already married have an obligation to take care of their household. Female nurses must divide their time when faced with their profession as nurses and as housewives. Work at home is also a must for women, such as cooking, cleaning, taking care of children and serving husbands before going to work. As stated by Triana & Krisnani (2018), these housewives must be able to share their time for their children and their families. They are required to continue to take care of the household, husband, children and also help the family's economy.

As for the workplace, they also have responsibilities towards their duties as a nurse. Handling and monitoring patients, administering drugs, and so on. Multiple roles require a lot of time and effort and can result in high levels of stress. High pressure from both work and family can cause mental overload. In research by Mallapiang (2022) revealed the dual role of women and the work environment during the Covid-19 pandemic was one of the triggers for stress. On the one hand, the demands of family obligations made it difficult for respondents to spend time with their families, and on the other hand, changes in work systems and job demands made it even more difficult.

Female nurses experience multiple role conflicts due to perceived difficulties in carrying out the obligations or demands of different roles simultaneously. The female nurses are required to be able to complete their duties both within the family and at the office. While on the other hand also required to be able to provide maximum performance. According to Raymond (2017) conflict can occur when two or more needs arise simultaneously or two different interests meet at the same time and can have negative effects (Mariati & Rambing, 2019).

Meanwhile, during the Covid-19 pandemic, the situation and pressure they faced were much different from the usual conditions. The situation and pressure faced requires extra caution in providing services to patients due to the Covid-19 virus. This is what causes female nurses to experience a very high mental workload. In addition, the mental workload in the very high category appears apart from the factors above, because more female nurses are in the Covid-19 isolation room and have small children and the elderly at home, thus adding to the psychological burden on the nurses themselves coupled with feelings of worry and anxiety. transmission of the Covid-19

virus to loved ones. Not to mention the negative response from people around the neighborhood.

This statement is in accordance with what was stated by Cai., et al (2020), which stated that the existence of the Covid-19 pandemic caused an increase in workload, both physical workload and mental workload for health workers. This happens because health workers are worried about infecting their families with the Covid-19 virus, especially for health workers who live with young children and the elderly.

2. Mental Workload Indicator

Based on the comparison of the NASA-TLX indicators for nurses at X Hospital which shows the sum and percentage of each indicator, it is known that the indicator that affects the amount of mental workload on respondents is time requirement, which is equal to 21.75%, followed by an indicator of effort level of 20 .43%, and an indicator of mental needs of 19.16%. Then, 17.03%, 16.88% and 5.18% are indicators of frustration level, physical needs and performance. The mental burden of nurses at X Hospital is determined by these six parameters.

Furthermore, the time requirement indicator is the most important indicator and has the greatest score on the mental burden of nurses at Lagaligo I Hospital. The amount of time pressure experienced at work is an indicator of the need for time. The results of the study showed that nurses at Lagaligo I Hospital worked quickly and with difficulty. Given the patient's life is at stake, nurses must be careful and alert in providing nursing services. During service hours, nurses must work quickly with a large number of patients. In addition, the time period that the nurse has until the end*shift* now to do its job.

In the research of Zamanian., et al (2021), in terms of the dimensions of mental workload, performance and efficiency with an average score of 77.32 ± 15.85 it has the highest score with hopelessness and the last failure with an average score of 58.04 ± 26,72. Research conducted by Aprillia & Zuraida (2019) found that the time requirement indicator is the dominant indicator. That is, time availability affects mental workload because project activities are completed in a short time and many things need to be done quickly and deftly.

In this study, nurses switched schedules*shift* with his partner or nurse asking permission to change*shift* work for the head of the room due to several circumstances. Break times are shorter due to a shortage of nurses for several*shift* and nurse burnout on busy schedules. Plus administrative work takes a lot of time.

In order to provide nursing services and monitor patients according to established protocols, nurses must be more vigilant. The patient must not be left unattended. And nurses have to work fast so they can serve all the patients. In addition, most patients who have not been able to meet their personal

needs need help to meet these personal needs.

The number of patients that need to be treated, the capacity to work according to training, the hours spent completing tasks according to the work performed each day, and the availability of resources to support the work of nurses can all be used to determine the workload of a nurse. (Barahama et al., 2019).

CONCLUSION

As many as 17 (77.3%) nurses with high mental workload category while 5 (22.7%) nurses with very high mental workload category.

The most dominant indicator is the time requirement which is equal to 21.75% while the lowest is performance which is equal to 5.18%.

SUGGESTION

Suggestions in this study are for nurses to manage their time as housewives and workload and provide the best care during the Covid-19 pandemic.

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