RELATIONSHIP BETWEEN STRESS LEVELS AND THE COPING MECHANISM OF NURSES IN DEALING WITH COVID-19 At Dr. H. SOEMARNO SOSROATMODJO KUALA KAPUAS

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Abstract

In Indonesia, health workers face the corona virus pandemic which experiences stress due to the Covid 19 outbreak by 55%, very heavy stress levels of 0.8% and mild stress 34.5%. Health workers who experienced depression were 23.5%. depression rate was very 0.5% and mild depression 11.2%. The relationship between the stress level of nurses and the coping mechanism varies greatly depending on the level of stress and conditions that can lead to stress. Coping mechanisms are needed by every individual in dealing with stress. To determine the relationship between stress levels and the coping mechanism of nurses in dealing with Covid-19 at Dr. H. Soemarno Sosroatmodjo Kuala Kapuas. Analytical survey with cross sectional approach. The population in this study were 19 covid nurses at RSUD Dr. H. Soemarno Sosroatmodjo Kuala Kapuas, Central Kalimantan Province totaling 60 people. The sampling technique uses total sampling. Data collection using a questionnaire with the chi square test (p = 0.05). Most of the respondents with mild stress were 28 people (46.7%). good coping mechanisms as many as 40 people (66.7%). There is a relationship between stress levels and the coping mechanism of nurses in dealing with Covid-19 at Dr. H. Soemarno Sosroatmodjo Kuala Kapuas (p value = 0.002)

Keywords: Covid-19, Coping Mechanism, Stress Level

Introduction

According to the World Health Organization (WHO) in 2020, more than 3300 health workers had been infected in early March and by the end of February 22 had died. Stress and anxiety are reactions to threatening and unexpected situations such as in the coronavirus outbreak. In Italy, 20% of health care workers were infected, and some died, in Indonesia in April around 44 medical personnel died. Reports from medical staff describe physical and mental exhaustion, feelings of torment, difficult triage decisions, and the pain of losing patients and colleagues, in addition to the risk of infection. (Rosyanti & Hadi, 2020)

In Indonesia, health workers are facing the corona virus pandemic which is experiencing stress due to the covid 19 outbreak by 55%, the stress level is very heavy 0.8% and light stress is 34.5%. Health

workers who experience depression by 23.5%. very 0.5% depression rate and 11.2% mild depression (Rosyanti & Hadi, 2020)

Stress can be interpreted as a condition that can affect the condition of individuals in carrying out various activities. According to Spielberger, stress is external demands that affect a person, for example objects in the environment or a stimulus that can be harmful. Stress according to Sarafino is an individual condition with the environment leading to an imbalance between physical or psychological demands on a situation with the resources owned by the individual (biological, psychological or social system) (Haryanti et al., 2013)

The nursing profession is vulnerable to stress, especially during the Covid-19 pandemic, the fear of nurses is increasing so that it can cause stress, for example the increased risk of being exposed, infected and possibly infecting their loved ones is also a burden in itself. Many health workers have to isolate themselves from their family and closest people even though they don't have Covid-19, this is a difficult decision and can cause a significant psychological burden on them. The fear of transmission is very reasonable, in addition to the lack of Personal Protective Equipment (PPE) supplies, inappropriate use of PPE Caution can potentially be a way of entry of the virus. The use of PPE is still a risk of transmission of the corona virus through droplets or aerosols from patients who are in the air and enter through gaps formed accidentally by health workers when correcting positions, starting positions, wiping sweat or occurs when removing protective clothing (Rosyanti & Hadi, 2020)

One strategy is to emphasize the importance of transmission control, and to issue a number of documents calling for attention to the mental and physical health of healthcare staff, the need for a series of supports and encouragements, such as providing a place to rest with food and supplies, replenishing protective equipment, medical team reinforcements. , and strengthen security forces to maintain the medical care order. Then, for each hospital, it is important to help deal with tension and reduce the risk of suffering from stress by medical staff. Efforts that can be done in addition to reducing pressure on health workers, namely changes in great work pressure, trauma healing programs, hypnotherapy, and mentoring psychiatrists who routinely carry out psychological refreshments for health workers, should be considered as strategies other than curative strategies that focus on patient's physical recovery (Rosyanti & Hadi, 2020)

Coping mechanism is a way that is done in solving a problem, adapting to changes, and responding to situations that threaten themselves, individual efforts can be in the form of environmental changes that aim to relieve stress faced. The results of previous research on nurses' coping mechanisms found that respondents had positive coping with work stressors, namely (97%). Coping that focuses on problems in general from the results of the study it was found that nurses who showed positive coping were (100%). This is because nurses consider the stressor to be reasonable or low. And

psychologically nurses think the problem is easy to solve, because nurses have high education and a lot of experience. Coping that focuses on emotions from the results of the study, it was found that the nurse's coping was positive, namely 100% (Mundung et al., 2019)

The relationship between nurses' stress levels and coping mechanisms varies greatly depending on the level of stress and conditions that can cause stress. Coping mechanisms are needed by every individual in dealing with stress, one of which is coping in adaptive stress situations that will affect physical and mental conditions, part of the way individuals reduce feelings of depression, stress or conflict is to perform a good self-defense mechanism (Mulaindah & Sahrul, 2017)

The results of the COVID-19 Task Force in Central Kalimantan showed that 629 people were confirmed positive, 349 patients were in treatment, 243 patients recovered, 37 patients died, and 210 people under monitoring.

The results of a preliminary study conducted at RSUD Dr. H. Soemarno Sosroatmodjo Kuala Kapuas the number of nurses working there is 130 people. (Dr. H. Soemarno Hospital Medical Record, 2020). Hospital Dr. H. Soemarno Sosroatmodjo Kuala Kapuas is the 2nd hospital in Central Kalimantan that treats 72 COVID-19 patients. From the results of the preliminary study, it was found that nurses experience fatigue so that this poses a risk of exposure, nurses are also stressed because they have to undergo independent isolation so they cannot meet their families, the lack of complete PPE while on duty also affects, communicating and discussing with other nurses must be 1 distance away. meters so that this is also an obstacle for nurses on duty.

Materials and Methods

This research method uses analytical research methods with a cross sectional design is a research design by measuring or observing at the same time (once) between risk factors/exposure and disease (Hidayat, 2014). Sampling in this study using a total sampling technique is to take all the population based on the characteristics or characteristics of the population that has been known previously. The sample in this case is the covid 19 nurse at the Dr. H. Soemarno Sosroatmodjo Kuala Kapuas, Central Kalimantan Province, totaled 60 people.

There are two instruments in this study, the first is a stress questionnaire using DASS 21, and the second instrument is a coping mechanism questionnaire adopted from Romanan (2009) which consists of 10 statement items. Bivariate analysis in this study used the chi square test. The chi square test is an analytical test used to measure the relationship or influence between variables whether there is a significant relationship or difference or not by using a 95% confidence degree so that if the p value < 0.05 means the statistical calculation results are significant or indicate there is a relationship between the dependent variable with the independent variable and if the p value > 0.05 means that the results of

statistical calculations are not meaningful or there is no relationship between the dependent variable and the independent variable.

Result and Discussion

Table 1. Characteristics of Respondents by Age

No	Age	Frequency	Percentage (%)
1.	20-35 years	25	41,7
2.	>35 years	35	58,3
	Amount	60	100

Based on Table 1. shows that the majority of respondents aged >35 years were 35 people (58.3%) while the few respondents were aged 20-35 years. Most are >35 years old because the nurse who handles it must be a nurse who has experience with a long period of work (Shen et al., 2020)

Table 2. Characteristics of Respondents by gender

No	Gender	Frequency	Percentage (%)
1.	Male	41	68,3
2.	Female	19	31,7
	Amount	60	100

Based on Table 2. the majority of respondents were male as many as 41 people (68.3%) and a few were female as many as 19 people (31.7%). Most of them are men because men are considered to have mild stress levels compared to women (Mulyani et al., 2017)

Table 3. Frequency distribution based on the stress level of nurses in dealing with Covid-19

No	Stress level	Frequency	Percentage (%)
1.	Ringan	28	46,7
2.	Sedang	17	28,3
3.	Berat	15	25
	Amound	60	100

Table 3. shows that there are 28 people with mild stress (46.7%), 17 people with moderate stress (28.3%), 15 people with severe stress (25%).

Table 4. Stress levels by age

No	Age	Stress level			Amount
		Easy	Medium	Hard	
1	20-35 years	11	4	10	25
2	>35 years	17	13	5	35
	Amount	28	17	15	60

Table 4. shows that the most respondents experience mild stress with age >35 years as many as 17 people (48.6%)

Table 5. Stress levels by gender

No	Gender	Stress level			Amount
		Easy	Medium	Hard	
1	Male	19	13	9	41
2	Female	9	4	6	19
	Amound	28	17	15	60

Table 5. shows that the most respondents experience mild stress with male sex as many as 19 people (46.3%)

Table 6. Frequency distribution based on the nurse's coping mechanism in dealing with Covid-19

No	Coping Mechanism	Frequency	Frequency (%)
1.	Good	40	66,7
2.	Low	20	33,3
	Amount	60	100

Table 6. shows that the most respondents experienced good coping mechanisms as many as 40 people (66.7%) and at least 20 people experienced less coping mechanisms (33.3%).

Table 7. Coping mechanism level by age

No	Age	Coping Mechanism		Amount
		Good	Low	
1	20-35 years	17	8	25
2	>35 years	23	12	35
	Amount	40	20	60

Table 7. shows that the most respondents experienced good coping mechanisms with age >35 years as many as 23 people (65.7%).

Table 8. Coping mechanism level by age

No	Gender	Coping Mechanism		Amount
		Good	Low	
1	Male	30	11	41
2	Female	10	9	19
	Amount	40	20	60

Table 8. shows that the most respondents experienced good coping mechanisms with male sex as many as 30 people (73.2%).

Table 9. Bivariate Analysis Results

No	Stress level	Coping Mechanism				Amount		P value
		Good		Low				
		n	%	n	%	n	%	0,002
1	Easy	25	89,3	3	10,7	28	100	
2	Medium	8	47,1	9	52,9	17	100	

| 3 | Hard | 7 | 46,7 | 8 | 53,3 | 15 | 100 |
| | Amount | 40 | 66,7 | 20 | 33,3 | 60 | 100 |

Based on Table 9. Chi Square test results show that the most respondents experienced mild stress with good coping mechanisms as many as 25 people (89.3%) while the least experienced severe stress with good mechanisms as many as 7 people (46.7%).

Chi square statistical test results obtained p value = 0.002. With a value of p < (α = 0.05), it can be concluded that the hypothesis is accepted, which means that there is a relationship between stress levels and the coping mechanisms of nurses in dealing with Covid-19 at RSUD Dr. H. Soemarno Sosroatmodjo Kuala Kapuas

Discussion

Based on table 3. shows that the most respondents experienced mild stress as many as 28 people (46.7%). Table 4. shows that the most respondents experienced mild stress with age >35 years as many as 17 people (48.6%). Most are >35 years old because the nurse who handles it must be a nurse who has experience with a long period of work (Shen et al., 2020). Age is related to a person's tolerance for stress. In adulthood, a person is usually better able to control the stress that occurs compared to childhood and the elderly. The more mature the age will usually show the maturity of the soul, in the sense that the wiser, the more able to think rationally, the more able to control emotions, the more intellectual and psychological he can show, and the more tolerant of views and behaviors that are different from his own (Haryanti et al., 2013). Based on the results of Wichert's research, it was found that workers at an older age tend to experience lower stress compared to younger workers. The experience of stress in older workers is more than that of young workers. The effect of age on stress experienced by workers usually only occurs in certain jobs, especially those related to physical strength and use of the senses (Menon et al., 2015).

Table 5. shows that the most respondents experience mild stress with male sex as many as 19 people (46.3%). This is because men are considered to have mild stress levels compared to women (Mulyani et al., 2017). Gender plays a role in the occurrence of stress. There are differences in responses between men and women when faced with conflict. The female brain has a negative awareness of conflict and stress, in women conflict triggers negative hormones causing stress, anxiety, and fear. While men generally enjoy conflict and competition, even consider that conflict can provide a positive boost. In other words, when women are under pressure, they are generally more prone to stress. Gender affects the stress caused by work. Research in the United States reveals that women have higher stress levels than men. The female brain has a negative awareness of conflict and stress, in women conflict triggers negative hormones causing stress, anxiety, and fear. While men generally enjoy conflict and competition, even consider that conflict can provide a positive boost. In other words, when women are under pressure, they are generally more prone to stress (Mulyani et al., 2017).

The results of this study are in line with research (Mulyani et al., 2017) in Mojokerto district that most of the respondents experienced work stress in the mild category as many as 43 (69.4%) respondents and work stress in the moderate category as many as 19 (30.6%) respondents. This proves that most of the respondents experienced mild stress.

According to researchers stress is a state that is felt, so there is no absolute measure of stress. Stress is very dependent on the perception of each person on what he feels (Stuart, 2013) argues that a person will respond to the emergence of stress, he explained that there are four responses to stress, which include physiological, cognitive, emotional and behavioral responses. The stress response shown in this study is an increase in blood pressure, heart rate, pulse and respiratory system; decreased concentration power, repetitive thoughts; fear, anxiety, anger and so on. Older individuals tend to experience less stress. Older individuals experience more stress because their experience in dealing with stress is better than younger individuals as well as gender, male respondents tend to have less stress than women.

Solutions that can be done Nurses are guided to understand about the pandemic and avoid excessive panic and anxiety. They are advised to seek help from a psychologist if they feel psychological distress. Nurses are advised to familiarize themselves with the work environment and work procedures as soon as possible. Working with colleagues in a harmonious work environment can help relieve psychological stress. They are asked to express emotions by speaking such as taking deep breaths, it is recommended to use it to relieve tension and anxiety. Relaxation exercises are recommended during work shifts under the guidance of a mental health professional. They are advised to communicate with colleagues who have the same experience or feelings, then understand and heal each other.

Based on Table 6. the most respondents experienced good coping mechanisms as many as 40 people (66.7%) and the least experienced less coping mechanisms as many as 20 people (33.3%).

Table 7. shows that the most respondents experience good coping mechanisms with age >35 years as many as 23 people (65.7%) Most are >35 years old because the nurses who handle must be nurses who have experience with a long period of work (Shen et al., 2020).

Age is related to a person's tolerance for stress and the type of stressor that is most disturbing. Adults are usually better able to control stress than children and the elderly (Ramadini & Syafitri, 2018). Age also affects the use of coping mechanisms. The older a person is, the stage of his development of the problem, the better (Brodwin, 2019)

Table 8. shows that the most respondents experienced good coping mechanisms with male sex as many as 30 people (73.2%). Most of the respondents experienced good coping mechanisms because the majority of respondents were male as many as 41 people (68.3%) and a few were female as many as 19 people (31.7%). This is because men are more able to manage coping mechanisms that focus on problem solving and women are more able to manage coping mechanisms that focus on emotions which will be more destructive because they will prioritize feelings rather than problem solving, for example, men are more able to control their angry feelings than women. (Ramadini & Syafitri, 2018). Gender relates to

an individual's sensitivity to his emotions. Men tend to be calmer when faced with problems, in contrast to women who are more prone to panic. This affects how to choose an individual's coping in solving the problem (Samuels, 2013). The male gender is more dominant than the female. Men's coping patterns are more effective than women's because men are also less interested in the type of emotional-focused coping (Samuels, 2013).

The results of this study are in line with research (Mulyani et al., 2017) that the respondents who had adaptive coping mechanisms were 59 people (95.5%) and maladaptive coping mechanisms were 3 (4.8%).

According to researchers, coping mechanisms are processes that individuals go through in adjusting to stressful situations. When nurses are faced with work demands that are a source of stressor and cause a sense of depression, the nurse will take action to solve the problems they face to solve the problem. Therefore, the way that individuals do in solving problems, adapting to changes, responding to threatening situations is called a coping mechanism. If the individual's coping is effective, it can deal with the stressor positively, if the coping is not effective, the individual will face the stressor maladaptively and make the stress worse. Coping mechanisms are good because respondents are able to reduce stress, among others, by crying, laughing, sleeping, issuing curses, doing physical activities and sports, eating, smoking and drinking, withdrawing, limiting relationships with people who have the same problem. If someone is being hit by a serious problem, the coping mechanism used will be different from someone with a mild problem. The behavior of someone who is under severe stress such as a lot of silence and likes to be alone. Severe stress like this must be accompanied by a psychologist. Possible solutions Regular meetings are held to find the source of the nurse's psychological problems and targeted solutions. Most nurses have no work experience in the field of infectious disease and are worried about contracting it at work. Education and training is strengthened accordingly, including use of personal protective equipment, hand hygiene, ward disinfection, medical waste management, and occupational exposure management. If the cure is unsuccessful and the poor critical prognosis of the sick patient causes depression among staff nurses, professional knowledge training is strengthened to deepen understanding of the disease. A professional consulting team was formed, mainly including mental health professionals. Regular remote mental health training and guidance, individual psychotherapy, or appropriate medical interventions are provided to nurses through lectures, group counseling, individual counseling, online platforms, and psychological online.

Based on Table 9. The results of the Bivariate Analysis showed that the respondents experienced mild stress with good coping mechanisms as many as 25 people (89.3%). Chi square statistical test results obtained p value = 0.002. With a value of $p < (\alpha = 0.05)$, it can be concluded that the hypothesis is accepted, which means that there is a relationship between stress levels and the coping mechanisms of nurses in dealing with Covid-19 at RSUD Dr. H. Soemarno Sosroatmodjo Kuala Kapuas

The results of this study are in line with research by (Mulyani et al., 2017) that there is a relationship between stress levels and coping mechanisms used by students of the nursing profession program at the Faculty of Nursing, University of Indonesia.

Stressors can come from various sources, both from physical, psychological, and social conditions and also appear in work situations, at home, in social life, and other external environments (Malisa et al., 2018). This is in accordance with the source of stress according to (Malisa et al., 2018) which says that there are three factors that influence stress. First, personality which refers to behavior, endurance and self-control; second, the environment includes events that occur daily, conflicts and heavy demands and work; third, sociocultural factors that refer to the consequences of cultural acculturation (Mulyani et al., 2017)

Everyone is affected by a stressor called a stimulus. Someone who is often exposed to stressors will result in increased stress. People who are experiencing stress will definitely try to do things that can reduce or eliminate the stress levels they feel, so that stress does not interfere with their lives. The behavior of the coping mechanisms used to deal with stress can be either constructive or destructive (Mulyani et al., 2017).

Stress can develop into a worse thing if left unchecked. This condition will affect a person in responding to stressors as a form of coping mechanism to deal with the problem. Stuart & Sundeen (2000) say that coping mechanisms can be constructive or destructive depending on the influencing factors, both internal and external factors (Haryanti et al., 2013)

The coping mechanism is influenced by internal factors and external factors. Internal factors are factors that come from within the individual itself including age, gender, personality, education, religion, emotional and cognitive culture. While external factors are factors that come from outside the individual including social support, environment, finance and disease. The most influential external factor on the coping mechanism is the social support obtained (Haryanti et al., 2013)

According to Sarafino (2006), individuals perform coping behaviors as an effort to reduce stress. Coping responses that are carried out are very different from one individual to another, because coping is related to individual perceptions and the level of stress they experience. This is in line with the results of research obtained by researchers that the coping mechanism used is influenced by the level of stress experienced (Linda, 2018)

Conclusion

The results of the Bivariate Analysis showed that the respondents experienced mild stress with good coping mechanisms as many as 25 people (89.3%). Chi square statistical test results obtained p value = 0.002. With a value of $p < (\alpha = 0.05)$, it can be concluded that the hypothesis is accepted, which means that there is a relationship between stress levels and the coping mechanisms of nurses in dealing with Covid-19 at RSUD Dr. H. Soemarno Sosroatmodjo Kuala Kapuas

Acknowledgements

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