

Psychological Impact of Coping Strategies and Nurse Performance During the Covid-19 Pandemic at Naval Central Hospital Dr. Ramelan Surabaya

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ABSTRACT

Background: Coronavirus disease (Covid-19) has become an epidemic that creates a psychological burden for nurses who provide nursing care in health services. The psychological condition of nurses who are not good will affect anxiety, coping strategies, and performance when carrying out nursing care. **Purpose:** This study aims to describe the psychological impact on coping strategies and the performance of nurses in health services. **Methods:** The research design used observational analytic with a cross sectional approach. The population used were nurses who worked in the COVID-19 isolation room at the Naval Central Hospital Dr. Ramelan Surabaya with 54 nurses. The sampling technique is used with total sampling, that is, the entire population is used as a sample in the study. **Results:** The results of the Spearman Rho correlation test have a relationship between the psychological impact of anxiety and the nurse's strategy in dealing with COVID-19 patients (ρ -value = 0.001); there is no relationship between the psychological impact of anxiety and the performance of nurses in dealing with covid 19 patients (ρ -value = 0.08); there is no relationship between the psychological impact of depression and the performance of nurses in dealing with covid 19 patients (ρ -value = 0.064). and there is a relationship between the psychological impact of stress and the performance of nurses in dealing with covid 19 patients (ρ -value = 0.0124); and there is a relationship between the psychological impact of stress and the performance of nurses in dealing with covid 19 patients (ρ -value = 0.0124). **Conclusion:** Psychological impacts do not always affect the performance of nurses, this can happen because nurses have good coping skills, plus nurses have attended seminars and training so that nurses' knowledge and skills have increased. Nurses have also been vaccinated, so nurses' anxiety and fear in treating COVID patients has decreased.

Keywords: Psychological Impact; Coping Strategies; Nurse Performance; Covid-19 Pandemic

INTRODUCTION

Indonesia is one of the countries in the world that is also exposed to the COVID-19 virus at this time. At the time the virus was first detected on March 2, 2020 and announced directly by President Joko Widodo, there was a significant increase with an average of 100 cases per day. The curve for the number of COVID-19 cases has not shown any downward trend at all. Various sources, both from within and outside the country, have predicted that the number of COVID-19 cases in

Indonesia will increase (Telaumbanua, 2020).

Health workers who treat COVID-19 patients are a group with a very high risk of exposure. The probability of medical personnel being infected with COVID-19 is around 3.8%, especially during unprotected initial contact with infected patients. Covid-19 virus infection has a higher transmission and death rate than that caused by Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) (Santoso *et al.*, 2021). Based on the WHO Global

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COVID-19 report, it estimates that there are around 71,919,725 cases worldwide with deaths reaching 1,623,064; America ranks first with 16,245,375 cases, followed by India in second place with a total of 9,932,547 cases, and Brazil in third with a total of 6,927,145 cases (Fagbamigbe *et al.*, 2022).

In Indonesia alone, ranks 19th in the world with a cumulative 629,429 cases and a death rate of 19,111 cases. The Indonesian region with the highest cases occurred in the DKI Jakarta area with a cumulative number of 156,343 (24.6%) cases, followed by East Java with 72,124 (11.3%), West Java with 69,500 cases (Putri, 2020). The impact of the COVID-19 pandemic has caused many losses, including physical health problems, economic inequality, social inequality, and mental disorders. The very fast rate of transmission and the high incidence of death have an impact on nurses' psychological disorders. Psychological illness is a health condition that involves changes in emotions, thoughts, or behavior (Rosyanti & Indriono, 2020).

The impact of psychological disorders that occur in nurses who work in the COVID-19 pandemic room are anxiety, fear, stress, depression, panic, sadness, frustration, and anger. This situation is not only felt by the community, but what is certainly very impactful is the conditions experienced by all health workers such as doctors, nurses, midwives, and other health professionals (Agung, 2020).

The causes of health workers' experiencing anxiety are high job demands, including long working hours in the use of personal protective equipment; the increasing number of patients; the more difficult it is to get social support due to community stigma against frontline officers; personal protective equipment that limits movement; lack of information about long-term exposure of infected people; and fear of frontline workers spreading Covid-19 to friends and family because of their field of work (Fadli, *et al.*, 2020 (a)).

Nursing staff will experience a more severe mental condition due to separation from family, vigilance, fear of transmission and transmission of the COVID-19 virus, and inadequate technical facilities such as lack of personal protective equipment and decreased social support, so nurses find it difficult to maintain conditions regarding mental health. Unhealthy mental conditions will cause mood swings such as irritability, restlessness,

fatigue, and decreased concentration and will disrupt the performance of nurses in providing nursing care (Fadli, *et al.*, 2020 (b)).

METHODOLOGY

Cross-sectional

The research design used analytic observation with a cross sectional approach. Assessment techniques are measured and collected simultaneously, momentarily or only once at a time (at the same time), and there is no follow-up. The population in the study were nurses on duty in the Covid-19 room, namely on the 4th floor, 2nd floor and 3rd floor of the Naval Central Hospital Dr Ramelan Surabaya, totaling 54 people. The sample is a nurse who is physically and mentally healthy (not infected with Covid-19) who works in the Covid-19 room of Naval Central Hospital Dr. Ramelan Surabaya. The sampling technique used is total sampling, namely the entire population as a sample that meets the inclusion and exclusion criteria. Explanations were given orally and in writing. This research has been ethically approved by the health research ethics commission STIKES Hang Tuah Surabaya with number PE/14/I/2022/KEPK/SHT on January 3, 2022.

RESULTS

The table below shows the demographic data of the respondents based on Age and Gender.

1. Demographic Data

Table 1: Characteristics of Respondents

Age	Frequency (f)	Percentage (%)
21 – 25year	18	33.3 %
26 - 30 year	16	29.6 %
31 - 35 year	9	16.7 %
36 - 40 year	5	9.3 %
41 - 45 year	3	5.6 %
46 - 50 year	3	5.6 %
Total	54	100.0 %
Gender	Frequency (f)	Percentage (%)
Man	25	46.3%
Woman	29	53.7%
Total	54	100.0%

2. Psychological Impact

The table below represents the distribution of the psychological impact of nurses in the Covid-19 ward of the Dr. Ramelan Navy Hospital, Surabaya.

Table 2: Effect of Psychological Impact of Nurses in the Covid-19 ward (n=54)

Status	Category	Frequency	Percentage (%)
Depression	Normal	50	92.6%
	Light	4	7.4%
	Moderate	0	0
	High	0	0
	Very high	0	0
Total		54	100%
Anxiety	Normal	38	70.4%
	Light	14	25.9%
	Moderate	2	3.7%
	High	0	0
	Very high	0	0
Total		54	100%
Stress	Normal	53	98.1%
	Light	1	1.9%
	Moderate	0	0
	High	0	0
	Very high	0	0
Total		54	100%

3. Nursing Coping

The table below contains the distribution of coping strategies among nurses at the Dr. Navy Hospital, Ramelan Surabaya.

Table 3: Distribution of Coping Strategies Among Nurses (N=54)

Coping Strategy	Frequency	Percentage (%)
Good Coping Strategy	32	59%
Enough Coping Strategy	21	39%
Less Coping Strategy	1	2%
Total	54	100%

4. Nurse Performance

The table below contains the distribution of Nurse Performance at the Dr. Navy Hospital, Ramelan Surabaya.

Table 4: Nurse Performance (n=54)

Nurse Performance Variables	Frequency	Percentage (%)
Good	51	94.4%
Moderate	3	5.6%
Not enough	0	0
Total	54	100%

5. Psychological Impact

This table shows the relationship between the psychological impact of anxiety and nurses' coping strategies in dealing with Covid-19 patients. The most dominant factors influencing performance were psychological factors like perceptions, attitudes, and personal self-motivation.

Table 5: The Relationship Between the Psychological Impact of Anxiety with Nurses' Coping Strategies in Dealing with Covid-19 Patients

Anxiety	Nurse Coping Strategy							
	Not enough		Enough		Moderate		Total	
Nurse Anxiety	F	%	F	%	F	%	F	%
No anxiety	1	2.3	20	45.5	21	47.7	42	77.7
Mild anxiety	0	0	11	2.3	0	0	11	20.3
Moderate anxiety	0	0	0	0	1	2.3	1	1.8
Total	0	0	22	50	22	50	54	100

Statistical test value Spearman's rho 0.001 ($p \leq 0.05$) ($r = -0.357$) $p = 0.08$

DISCUSSION

1. Demographic Data

Based on table 1 above, there are 25 males (46.3%) and 29 females (53.7%) and the respondents aged 21-25 years were 18 people (33.3%), 26-30 years were 16 people (29.6%), 31-35 years old were 9 people (16.7%), 36-40 years as many as 5 people (9.3%) and 41-45 years as many as 3 people (5.6%).

2. Psychological Impact of Nurse During the Covid-19 Pandemic

The results of data analysis showed that 50 people (92.6%) did not experience depression (normal category), as many as 4 people (7.4%) had mild depression. There were 38 people (70.4%) with normal psychological conditions (not anxious), as many as 14 people (25.9%) experienced mild anxiety and as many

as 2 people (3.7%) experienced moderate anxiety. Stress psychological conditions as many as 53 people (98.1%) did not experience stress (normal), and as many as 1 person (1.9%) experienced mild stress.

These findings can be explained by the fact that most nurses do not experience stress, anxiety, or depression. Some nurses experienced mild anxiety, mild stress, but none experienced depression. One of the factors that causes nurses to not experience disturbing psychological impacts is the support that has been provided by the hospital in terms of health protocols, training, increasing body resistance in the form of vitamins and supplements and vaccination activities and other activities needed by the hospital nurse. For debriefing in the form of training and seminars at any time in the hospital in the form of updates on knowledge about the coronavirus has also been facilitated by the Indonesian National Nurses Association profession, which is carried out every week (Hardiyanti & Permana, 2019).

The condition of a good psychological impact for nurses is also supported by better education, namely that most of the education of nurses is very academic, which allows them to think rationally and broadly. Data on the high level of nurse education shows as many as 30 respondents (55.6%) are D3 graduates, while 23 nurses (42.6%) are S1 graduates. The results of observations in the field show that nurses as the front line are responsive to an incident. What else is related to a pandemic? Nurses tend to access the latest information about COVID-19 so that information and knowledge will increase, and this factor increases the psychological stability of nurses. If nurses have good knowledge, the behavior of preventing COVID-19 is also good, and if nurses are able to protect themselves while working, of course, it will reduce the psychological impact. This condition is in accordance with research conducted by (Purnamasari & Raharyani, 2020) which found that the higher a person's education level, the better the COVID-19 prevention behavior.

In addition to the above factors, the Naval Central Hospital Dr. Ramelan Surabaya, in particular, always updates the standards regarding the handling of COVID in the room. Nurses carry out standard operating procedures for the use of PPE every time to protect themselves from viruses. Nurses are also explained and required to understand infection control guidelines, special equipment, and facilities for the management of

COVID-19 infections. And to support economic activities, an allowance programme has been issued that guarantees the safety of nurses in dealing with this virus, especially in the COVID-19 room. So that nurses will be psychologically prepared so that they can treat patients in the COVID-19 room, there is no need to worry because there is adequate knowledge and care to protect themselves from contracting this virus.

The low psychological impact experienced by nurses can also be caused by nurses having carried out joint vaccinations that have been held by the hospital. Vaccines are one of the most powerful weapons against the coronavirus. The provision of the COVID-19 vaccine is also expected to increase the immunity of nurses so that nurses who work in the COVID-19 room are protected. This is as explained by research (Sari & Sriwidodo, 2020), which states that high vaccine uptake will be very important to achieve individual immunity. The body's immune system contains T cells that are important in protecting against many viral infections through a process known as cellular immunity. Vaccines come from viruses or bacteria that have been weakened with the aim of forming immunity to a certain disease, so that when the disease strikes, the body is ready to fight the disease.

The results of interviews with some nurses who feel they have a mild psychological impact because, on average, they are afraid that this virus will be brought into the house and infect their child partners and parents. Nurses are faced with high-risk thoughts working in the midst of a very high workload pandemic and worry about going home carrying an invisible virus. And with the health protocol provided by the hospital, they finally feel calmer and can still work well.

Conceptually, the psychological impact is mild, for example the stress experienced by nurses is a natural thing to happen and this is influenced by one of them, which is the increased workload in connection with the increase in Covid-19 patients (Rahayu *et al.*, 2020). Other factors that also influence the psychological impact are the fear of being infected with the virus, the uncertainty of when the virus will end and an attitude that is full of continuous preparedness. This condition can cause fatigue, which can be a factor causing the nurse's psychology to be disturbed. Exhausted nurses tend to find it difficult to focus and concentrate. This is in accordance with research (Santoso, 2021), whose research results show that nurses burnout when they see

so many patients being observed or who are positively affected by this virus outbreak.

3. Nurse Performance During the Covid-19 Pandemic

Data on the distribution of nurses' performance during the COVID-19 pandemic in rooms 4, 2nd and 3rd floors of Naval Central Hospital Dr. Ramelan Surabaya is still good. Good nurse performance was as many as 51 nurses (94.4%) and moderate performance was as many as 3 nurses (5.6%). This condition can be explained by the fact that despite the pandemic conditions, nurses continue to work professionally by carrying out nursing care performance well (Wijaya *et al.*, 2022). Nursing care activities, which consist of assessment, diagnosis, planning and evaluation in the room, can still be carried out with predetermined standards without being hampered by the presence of COVID 19, only increasing the workload of nurses on each shift.

At the Naval Central Hospital, Dr. Ramelan Surabaya already has standards as work instructions for nurses in carrying out nursing care. Nursing care standards include standards in assessment, diagnosis, intervention, implementation, and evaluation. The nurses remained consistent by carrying out nursing care according to these standards, namely nursing care standards, standard operating procedures, and ethical standards and responsibilities as nurses in the room. The dominant factor that influences whether nurses can still work well according to work demands is the factor of demands for obligations as employees who must be carried out according to regulations.

Nurse education also has an impact on responsibility and awareness in carrying out the duties of nurses in the room. This educational factor supports knowledge about COVID-19, so nurses are still ready to work with new rules and habits. Nurses with a good education will always try to increase their knowledge more broadly, and the ability and information that nurses have will make it easier for nurses to develop and apply their abilities to carry out nursing care for patients. This is also in accordance with (Dafriani *et al.*, 2022) that the good performance of nurses during the COVID-19 pandemic is related to individual factors, namely demographic factors consisting of age, gender, education, training, rewards, and motivation. Nurses can also work well because they have attended seminars and training regarding COVID-19. This is proven by the answer to

the question "Have you attended the seminar and training?" with 48 people (88.9%). Nurses who have attended training seminars will, of course, have good knowledge and performance.

4. Nurse Coping Strategies in Handling Covid-19 Patients

The results showed that there were 32 good nurse coping strategies (59%), 21 people (39%), adequate coping strategies, and 1 person (2%). From this data, it can be concluded that most of the nurse's coping strategies are good. The results of interviews and observations with nurses who work in the COVID room, that the nurses' coping strategy is good because nurses have various ways to improve coping, such as eating nutritious food, getting enough sleep, and having support and motivation from people and from the hospital for working in the COVID room. Hospital programmes in order to improve services during the COVID pandemic, one of which is a programme to improve nurse coping strategies, including increasing knowledge about virus transmission, giving vitamins, nutritious food, and providing adequate health protocol tools according to existing standards. Nurses with various hospital programmes and with various supports make nurses strong and not easily sick because they have good coping skills and, finally, they are able to adapt to this situation.

The level of anxiety and coping strategies can be influenced by several factors, including age, patient experience undergoing treatment, education level, gender, and social support (Suhamdani *et al.*, 2020). Age affects the experience of nurses in carrying out their duties. With a mature age and long working hours in the COVID room, it will increase the nurse's ability to process emotions and anxiety so that there is no panic when treating patients. Then nurses can accept responsibility for caring for COVID patients and try to learn from the experience. Another factor is prayer, as explained by Daulay (2021), that the strategy of getting closer to God is also considered effective in overcoming the stress faced by the nurses on duty.

Another factor is family support for nurses who are very good, so they still have a good strategy. The results of the analysis of the questionnaire questions about "My husband and family really support me to work in the COVID room" show that 43 respondents said "Yes" (97.7%) and "No" (2.3%). According to Kundari *et al.*, (2020), social support is emotional support for

individuals given by their closest people, including parents, family members, relatives, friends, and the surrounding community, so that the support from the wife or child in the form of support or advice becomes reinforcement to remove the load.

5. The Relationship of Psychological Impact with Nurse Performance

There are 3 factors that influence the performance of nurses in hospitals, including individual factors, psychological factors, and organizational factors. Of the three most dominant factors influencing performance, namely psychological factors consisting of perceptions, attitudes, and personal self-motivation.

Psychological disorders will reduce motivation and reduce concentration power so that it will lead to decreased performance. Psychological disorders of nurses who handle COVID-19 will affect their performance attitudes and motivation at work. This is the same as the results of research by Salawangi, Kolibu, & Wowo, (2018), who found that there was a relationship between motivation and nurse' performance.

Low work motivation, will reduce the desire to work as much as possible, and he will tend to see work as boring and boring, so he works with forced and careless. Good psychology will affect a good attitude and a good attitude is a commitment in nurses that is shown in carrying out nursing care performance as part of their duties and fun activities that can be assessed. A good attitude is an attitude where he wants to do work without being burdened by something that becomes an internal conflict (Rahayu, 2018).

6. The relationship between the psychological impact of anxiety and the nurse's coping strategies Tabulation results

The results of the cross-tabulation show that there is a relationship between the level of anxiety and the nurse's coping strategies in dealing with COVID-19 patients at Naval Central Hospital Dr. Ramelan Surabaya, (ρ value = 0.010 where = 0.05), meaning that

the lower the level of anxiety, the higher the coping strategies nurses can do. The high risk of working in the COVID room requires nurses to maintain themselves consistently so that their immune systems remain healthy, one of which is to remain rational and with good coping strategies. Good nurse coping is the reason nurses can work well even during the pandemic. The ability of nurses to overcome psychological problems, stress, anxiety, and depression can make nurses work better. This is in accordance with the statement of (Yuliarti *et al.*, 2021) which illustrates that the use of a good coping mechanism strategy will analyze the situation, identify problems with the aim of generating alternative actions to solve the problem.

Some efforts that have been made adaptive by nurses are using very good health protocols, including always washing hands, wearing masks and wearing PPE in hospitals according to standards. Nurses are aware that hand washing behavior will help reduce the spread of the virus from patient to nurse or from nurse to patient. This is also a problem-solving technique that can be done by nurses to protect patients so that they can recover quickly and go home. So, it can be said that the nurse thinks of a plan of action that will be taken to speed up the patient's recovery process.

CONCLUSION

Psychological impacts do not always affect the performance of nurses. This can happen because nurses have good coping skills, plus nurses have attended seminars and training so that nurses' knowledge and skills have increased. Nurses have also been vaccinated, so their anxiety and fear in treating COVID patients has decreased.

Conflict of Interest

The authors declare that they have no conflict of interests.

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