

STRESS AND COPING STRESS DURING THE COVID-19 PANDEMIC (A COMPARATIVE STUDY BETWEEN PHYSICIANS AND NURSES AT RSUD X IN SOUTHEAST SULAWESI PROVINCE)

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ABSTRACT

In dealing with health problems due to the COVID-19 pandemic, medical personnel and nurses are at the forefront of providing health services. Medical personnel and nurses who work are at a higher risk of contracting COVID-19, experience a heavier workload, and feel more stressed from caring for patients who are confirmed positive for COVID-19. This study aims to determine the difference between stress and coping with stress during the COVID-19 pandemic between medical personnel and nurses at RSUD X Southeast Sulawesi Province. According to Sharma et al [14] there are five factors that are interconnected and in accordance with the stress of COVID-19 syndrome, namely COVID danger and contamination, COVID socioeconomic consequences, COVID xenophobia, COVID traumatic stress, and COVID compulsive checking. This research uses quantitative research methods, with a comparative type. Sampling in this study using purposive sampling technique. This study took 226 participants consisting of 69 physicians and 157 nurses who worked during the COVID-19 pandemic at RSUD X Southeast Sulawesi. The results of this study indicate that there is a difference in stress on physicians and nurses who work during the COVID-19 pandemic with a Significance value of stress (Sig) of $p = 0.000 (< 0.05)$, and Significance value of coping stress (Sig) of $p = 0.000 (< 0.05)$.

Keywords: Stress, coping stress, physicians, nurses, covid-19

1. PREFACE

Coronavirus 2019 (COVID-19), which is an outbreak with a respiratory infection, was first reported by the World Health Organization in China on December 31, 2019. On March 11, 2020, this outbreak was declared a pandemic, and became a threatening disease. Indonesia is one of the affected countries. On March 2, 2020, Indonesia announced the first confirmed case of COVID-19, which has so far spread to all provinces in Indonesia, one of which is Southeast Sulawesi Province.

The number of positive confirmed cases of COVID-19 in Y City, Southeast Sulawesi continues to increase. As of June 2021, the number of positive cases of COVID-19 in Southeast Sulawesi has reached 12,193 cases. Efforts to reduce the number of positive cases of COVID-19 require public participation in implementing the health protocols regulated in the new normal policy guidelines. Community participation requires positive knowledge, attitudes, and behaviors. The community has a big role in breaking the chain of transmission. One of the causes of the increasing spread of COVID-19 in Southeast Sulawesi, can be caused by people, especially in Y City, ignoring health protocols. The Decree of the Minister of Health of the Republic of Indonesia concerning the Designation of Referral Hospitals for the Management of Certain Emerging Infectious Diseases, stipulates 132 hospitals in 34 provinces throughout Indonesia to become Referral Hospitals for Corona cases. RSUD X is a referral center hospital in the Y City area, Southeast Sulawesi.

In dealing with health problems due to the COVID-19 pandemic, medical personnel and nurses are at the forefront of providing health services, medical personnel and nurses who work in the ER (Emergency Unit) are at higher risk of contracting COVID-19, experience a heavier workload, and feel more stressed because of caring for patients who are confirmed positive for COVID-19. In a pandemic situation such as this, stress responses related to anxiety include fear of infection, fear of coming into contact with objects or surfaces that may be contaminated, and fear of strangers who may carry infectious disease Mertens. Stress is also defined by Lazarus and Folkman, as a relationship between an individual and the environment, which is judged by the individual as being burdensome or exceeding a person's abilities and endangering his or her well-being. Medical personnel and nurses have an important role in the treatment of patients, so they are required to use Personal Protective Equipment (PPE) every day as the best protection. According to Yuan et al. the use of PPE every day can cause discomfort, characterized by difficulty breathing, heat, dizziness, and nausea. The use of Personal Protective Equipment (PPE), the lack of certain medicines, the full size of the COVID-19 isolation room due to the surge in patients, and significant changes in social life are factors that trigger stress for medical personnel and nurses.

According to Taylor one of the factors that are interrelated and in accordance with the stress of COVID-19 syndrome is the COVID Socioeconomic Consequences, namely concerns about socioeconomic costs during the pandemic. For example, losing your job, worrying about your personal finances, worrying about disruptions in the supply chain or inventory. Some researchers suspect that medical personnel and nurses are increasingly disturbed by conflicting thoughts about the balance between their role as health care providers and family duties. This can lead to guilt, because when working during an emergency, their families have a higher potential for contracting COVID-19. According to Iqbal and Chaudhuri psychological pressure from the surrounding environment, namely social stigmatization is also one of the factors causing stress to medical personnel and nurses who treat COVID-19 patients.

Based on the phenomenon and its impact, it is necessary to find a solution to deal with stress on the medical personnel and nurses. The solution that can be done is to control the stressor. According to Lazarus, it is every effort made by individuals in overcoming an unpleasant, pressing, or threatening situation or situation is referred to as coping. Lazarus and Folkman define coping stress as a response to stress, which is when individuals try to cope with stressful situations that are judged to cause a mismatch between the demands and the resources they have.

The results of previous studies conducted by Du et al. and Zhu et al. showed a different percentage of stress between medical personnel and nurses during the COVID-19 pandemic in Wuhan, China. Nurses show a higher level of stress than medical personnel or other health workers. In the study of Du et al., measuring depression, anxiety, and stress in several professions in Wuhan, China, one of which is a doctor and nurse. In measuring depression, anxiety, and stress, this study used the DASS-21 measuring instrument, which assesses dysphoria, hopelessness, life devaluation, self-deprecation, lack of interest/involvement, anhedonia and inertia. The results of this study indicate that the stress level for doctors in the category of low stress to moderate stress is (87.3%), and those included in the high stress category are (12.5%). While in the group of nurses who are included in the category of low stress to moderate stress of (89.1%), then those who are included in the category of high stress are (10.9%). This study also measured coping strategies through control data for all professions, and showed that the most frequently used coping strategies were taking protective measures (washing hands, wearing masks, taking one's own temperature, etc.).

In measuring the source of stress in health workers based on control data, the most dominant is the fear of transmitting the COVID-19 virus to families.

In the study of health workers at Tongji Hospital, Wuhan, China, uses the Event Scale-Revised Questionnaire (IES-R) to measure subjective distress caused by a traumatic event, the Patient Health Questionnaire-9 (PHQ-9) to measure depression, and the 7-item Generalized Anxiety Disorder (GAD-7) to measure anxiety. The results of this study indicate that the stress level on nurses is higher (74.9%) when compared to doctors (16.1%) and other health workers (9.0%). In measuring the source of stress in health workers based on control data, the common factors that influence anxiety, depression, and stress are women, have a chronic disease, have a history of mental disorders, have worked 10> years, and are afraid of transmitting the COVID-19 virus to their families. Then the research conducted in Indonesia by Narsullah et al. on health workers in Indonesia during the COVID-19 pandemic experiencing very severe anxiety as much as 3.3% and 33.1% experiencing mild anxiety. The results of this study also show that stress on health workers in Indonesia during the COVID-19 pandemic experienced stress as much as 55%, very severe stress level 0.8% and mild stress 34.5%, and experienced depression as much as 23.5%. In its measurement, this study uses the Depression Anxiety and Stress Scale (DASS-42).

Based on the description of the data above, it can be concluded that the discomfort of wearing personal protective equipment (PPE), limitations of PPE, being away from family, fear of transmitting disease to the family, excessive working hours, social stigma from the community such as rejection, threats of expulsion, away from the nurse's family, and violence are some of the causes of violence. A source of stressors for medical personnel and nurses during the COVID-19 pandemic. However, based on the available evidence in cases of social stigma and violence that occurred during the COVID-19 pandemic in Indonesia, it tends to apply only to groups of nurses. Meanwhile, there is no research evidence that shows the existence of social stigma such as rejection, or threats of expulsion that occurred to medical personnel in Indonesia during the COVID-19 pandemic.

Then, based on differences in the results and background descriptions of previous studies conducted by Du et al., Zhu et al., and Nasrullah et al. none of them have used a stress measuring instrument that measures aspects of COVID-19. Then these two studies did not explain specifically about the source of stress between physicians and nurses during the COVID-19 pandemic. Then in the research of Zhu et al. and Nasrullah et al., neither measuring nor explaining stress coping between physicians and nurses. Therefore, the authors are interested in looking at the stress or pressure between physicians and nurses during the COVID-19 pandemic by using a stress measuring instrument that measures aspects of COVID-19, as well as looking at the stress coping strategies used. So, this study aims to determine the difference between stress and coping with stress during the COVID-19 pandemic between physicians and nurses at RSUD X, Southeast Sulawesi Province.

2. RESEARCH METHOD

Respondents

The characteristics of the subjects in this study were physicians and nurses who handled COVID-19 patients at RSUD X, Southeast Sulawesi Province. This research was conducted without limiting religion, gender, and race.

Instrument

This research uses quantitative research methods, with a comparative type. The instruments used in this study were the stress questionnaire from Taylor et al. and the stress coping questionnaire from Lazarus and Folkman. The equipment needed in this research is a paper containing a foreword, informed consent, a questionnaire, a pen, a laptop, and the SPSS program. The instrument used in this research is a stress questionnaire and stress coping. The sampling technique used in this research is the purposive sampling technique.

Procedure

The preparations carried out in this research are to determine the title for the research and to look for research variables that are associated with the current phenomena. Researchers look for references in the form of books, research journals, articles, theses, and news from the internet. The researcher determined the target hospital to become a research participant, namely RSUD X Southeast Sulawesi Province. Researchers try to find a measuring instrument that will be used to obtain data that is in accordance with the objectives of this study. The researcher asked permission from the related thesis supervisor before borrowing the Covid Stress Scale and The Ways of Coping measurement tools from the research and measurement center section of the Untar Psychology Faculty. Researchers distributed questionnaires directly assisted by the Human Resource team from RSUD X Southeast Sulawesi Province. Data from questionnaires that have been filled out by participants will be processed statistically using the Statistical Product and Service Solutions (SPSS) program. The data analysis technique used is comparative, namely Mann Whitney U. In addition, the researchers conducted item reliability tests, normality tests, and several additional tests.

3. RESULT AND DISCUSSION

Stress Variable

The description of stress data between physicians and nurses using a scale of 0-4 has a hypothetical mean of measuring instrument, which is 2. The empirical mean value is greater than the hypothetical mean, which is 2, indicating that physicians and nurses have stress or pressure regarding COVID Danger and Contamination, COVID Socioeconomic Consequences, COVID Xenophobia, COVID traumatic stress symptoms, and high COVID compulsive checking during the COVID-19 pandemic. In knowing the tendency of the stress variable during the pandemic, the researcher made a categorization based on the total score obtained by the subject. Based on the categorization of the total score the average stress or pressure on physicians during the COVID-19 pandemic was in the medium category (53.6%), while the average stress or pressure on nurses was in the high category (70.1%).

Coping Stress Variable

The description of stress coping data between medical personnel and nurses using a scale of 1-5 has a hypothetical mean of measuring instrument, namely 3. The empirical mean value is greater than the hypothetical mean, which is 3, indicating that medical personnel use the Problem Focused Coping - Planful Problem Solving, Problem Focused Coping strategy - Seeking Social Support, Emotion Focused Coping - Self Control, Emotion Focused Coping - Escape Avoidance, and Emotion Focused Coping - Positive Reappraisal in dealing with stress during the COVID-19 pandemic. Meanwhile, nurses in dealing with stress during the COVID-19 pandemic, tend to use the Problem Focused Coping-Seeking Social Support and Emotion Focused Coping - Self Control strategies.

Comparative Test of Stress and Coping Stress

Assumption or normality test using one sample K-S on stress and coping stress variables produces $p < 0.05$ which means that the data are not normally distributed. So in a comparative test using Mann Whitney U.

In the results of the comparative test calculation, the stress variable between physicians and nurses obtained a significance value (Sig) of $p = 0.000 < 0.05$. Then the coping stress variable obtained a significance value (Sig) of $p = 0.026 < 0.05$. This shows that there are differences in stress and coping stress between physicians and nurses during the COVID-19 pandemic at RSUD X Southeast Sulawesi Province.

Table 1

Comparative Test of Stress and Coping Stress

	Stress	Coping Stress
<i>Mann Whitney U</i>	$p = 0.000$	$p = 0.026$

Comparative Test of Stress and Coping Stress Based on Gender

The results of the different test using the Mann Whitney U method showed that stress and stress coping in terms of gender did not show any difference. In the stress variable through the Mann-Whitney U test, the p-value = 0.343 (> 0.05), while the stress coping variable shows the p-value = 0.566 (> 0.05), which means there is no significant difference.

Sources of Stress

The description of sources of stress between physicians and nurses uses a descriptive model. Based on control data obtained from 69 doctors, 8 (11.6%) of them admitted that they had been exposed to the COVID-19 virus. Then, 60 doctors (87.0%) of them felt uncomfortable or disturbed when wearing Personal Protective Equipment (PPE) when working, and 19 doctors (27.5%) felt burdened by changes in working hours during the COVID-19 pandemic. Then 44 (63.8%) doctors who lived with their families during the COVID-19 pandemic, showed a fear of transmitting the disease to their families as many as 44 (63.8%), and 26 (37.7%) of them felt burdened because they had to be away from their families. In addition, 16 (23.2%) doctors have received unfair treatment from the public due to their profession, and 16 (23.2%), and 69 (100.0%) data show that there are no doctors who have experienced physical/verbal violence from the community. while at work.

Based on the results of control data reviewed from 157 nurses, 11 (7.0%) of them claimed to have been exposed to the COVID-19 virus. Then, 126 nurses (80.3%) of them felt uncomfortable or disturbed when wearing Personal Protective Equipment (PPE) when working, and 127 nurses (80.9%) felt burdened by changes in working hours during the COVID-19 pandemic. Then as many as 84 (53.5%) nurses who lived with their families during the COVID-19 pandemic, showed a fear of transmitting disease to their families, and felt burdened by having to be away from their families. In addition, 131 (83.4%) nurses had experienced unfair treatment from the community due to their profession, and felt excluded. Finally, 120 (76.4%) nurses have experienced physical/verbal violence from the community, while at work, and felt that it interfered with their work productivity.

The results of the overall data analysis show that there are differences in stress and coping stress between physicians and nurses during the COVID-19 pandemic at RSUD X, Southeast Sulawesi Province. Based on research data obtained regarding the picture of the average stress or pressure on physicians during the COVID-19 pandemic, it shows that they are in the moderate stress category, while the average stress or pressure on nurses during the COVID-19 pandemic is in the high category. The results of this study are supported by research from Du et al. [10] and Zhu et al. showing different percentages of stress between medical personnel and nurses during the COVID-19 pandemic in Wuhan, China. The results of research from Du et al. showed that the stress level of physicians in the low to moderate stress category was (87.3%), and those included in the high stress category (12.5%). While in the group of nurses who are included in the category of low stress to moderate stress of (89.1%), then those who are included in the category of high stress are (10.9%). Meanwhile, the results of research from show that nurses have a higher stress level (74.9%) when compared to physicians (16.1%) and other health workers (9.0%).

In their measurement, Du et al. used DASS-21, while Zhu et al. used the Event Scale-Revised Questionnaires (IES-R), which means that these two studies did not use a stress measurement tool that measures aspects of COVID-19. Despite obtaining the same results, the research of Du et al., Zhu et al. with this study, differs in the use of measuring tools, so the advantage of this study is to measure and show stress or pressure between physicians and nurses in the COVID-19 aspect. In the processing results of the test, the difference in coping stress showed a significance value (Sig) of $0.026 < 0.05$, which means that there was a significant difference in coping stress between physicians and nurses during the COVID-19 pandemic (study at RSUD X Southeast Sulawesi Province).

Based on the categorization of the total score obtained by medical personnel, it shows a higher average in the use of problem focused coping and emotion focused coping, in dealing with stress during the COVID-19 pandemic, compared to nurses. Then, based on the empirical mean values obtained for each sub-dimension, there are several sub-dimensions that dominate between physicians and nurses. The sub-dimensions that dominate the medical personnel are the use of Problem Focused Coping - Planful Problem Solving, Problem Focused Coping - Seeking Social Support, Emotion Focused Coping - Self Control, Emotion Focused Coping - Escape Avoidance, and Emotion Focused Coping - Positive Reappraisal, while the sub-dimensional -Dimensions that dominate in the nurse group are Problem Focused Coping - Seeking social support, and Emotion Focused Coping - Self Control. It can be concluded that physicians and nurses use both coping strategies, namely problem focused coping and emotion focused coping in dealing with stress or pressure during the COVID-19 pandemic, but in their use, there are several sub-dimensions that dominate between physicians and nurses. As according to Carver, individuals can choose more than one coping strategy. However, under certain circumstances one strategy tends to dominate.

When compared with research from Du et al. , this study also measured coping strategies through control data in all professions, and showed that the most frequently used coping strategies were taking protective measures (washing hands, wearing masks, measuring one's own temperature, etc.). based on the measurement tool The Ways of Coping by Lazarus and Folkman, it is included in Problem Focused Coping - Planful Problem Solving, which is in line with one of the dominant coping strategies used by physicians. By looking at the different percentages of stress between physicians and nurses, and looking at the differences in the use of coping strategies that are used by medical personnel but not used by nurses, it can be assumed that the coping strategies Problem Focused Coping - Planful Problem Solving, Emotion Focused Coping - Escape Avoidance, and

Emotion Focused Coping - Positive Reappraisal, effective in dealing with stress during the COVID-19 pandemic.

The existence of differences in stress and coping with stress between groups of medical personnel and nurses can also be assumed by differences in sources of stress in terms of social stigma, violence, use of PPE, and excessive working hours between medical personnel and nurses that occurred during the COVID-19 pandemic. As the results obtained regarding the source of stress in the nurse group, it shows that the source of stress for nurses is dominated by social stigma, violence, working hours, and the use of PPE. A total of 131 (83.4%) nurses admitted that they had received unfair treatment from the community due to their profession, and felt excluded. The results of this study are also supported by a survey conducted in 2050 nurses throughout Indonesia by researchers from the UI Faculty of Nursing in collaboration with the Indonesian Mental Health Nurses Association in early April 2020, proving that there is a rejection of nurses who have been reported by the media, such as not being allowed to return to their home. residence. Real forms of perceived refusal include the threat of eviction, people around avoiding by closing their house fences/doors when they see nurses, and people staying away from nurses' families.

Then, 120 (76.4%) nurses claimed to have experienced physical/verbal violence from the community, while at work, and felt it interfered with their work productivity, as based on Detik.com there were 7-8 cases of nurse violence in Indonesia throughout 2020-2021 namely in Samarinda, Cianjur, Ambon, Semarang, Lampung, Aceh, and South Sumatra, as well as several other cases of violence reported at the provincial level but not yet recorded by the center. Then, as many as 127 nurses (80.9%) felt burdened by changes in working hours during the COVID-19 pandemic and 126 nurses (80.3%) of them felt uncomfortable or disturbed when wearing Personal Protective Equipment (PPE) when working. This is in line with Dedy Afrizal's statement in [14], regarding the condition of nurses in almost all areas dealing with COVID-19 experiencing fatigue because the rule for nurses working hours from 8 hours to 4 hours does not apply to regions.

Meanwhile, in the doctor group, the source of stress is dominated by the use of PPE and the family. A total of 60 physicians (87.0%) of them felt uncomfortable or disturbed when wearing Personal Protective Equipment (PPE) while working. As according to Yuan et al., the use of PPE every day can cause discomfort, characterized by difficulty breathing, heat, dizziness, and nausea. Then as many as 44 (63.8%) physicians who lived with their families during the COVID-19 pandemic, 44 (63.8%), showed a fear of transmitting the disease to their families, and 26 (37.7%) of them felt burdened by being away from their families. Some researchers also suspect that medical personnel and nurses are increasingly disturbed by conflicting thoughts about the balance between their role as health care providers and family duties. this can lead to guilt, because when working during an emergency, their families have a higher potential for contracting COVID-19 Buselli et al.

The advantage of this study is that researchers measure stress or pressure between physicians and nurses in the COVID-19 aspect, considering that previous studies by Du et al. and Zhu et al. did not use stress measurement tools containing aspects of COVID-19. This study also measures the stress coping strategies used by physicians and nurses during the COVID-19 pandemic, so this could be a contribution to previous research. However, in addition to this, the researcher also has limitations in this study that can be improved in future research. First, that future research can review things that have not been controlled in this study, including stress in terms of professional level among physicians, status of how long they have worked, and completeness of hospital facilities such as lab availability etc. Second, the research was carried out in a very limited time, so the search for supporting theories regarding stress during a pandemic is still very limited.

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the analysis and processing of data in this study, it shows that there are differences in stress and coping stress between physicians and nurses. This means showing that medical personnel and nurses have differences regarding the stress or pressure experienced during the COVID-19 pandemic, in the sense of danger and fear of being contaminated by COVID, socioeconomic, xenophobia related to the COVID virus, stress trauma to the COVID virus, and conducting regular checks. compulsive during COVID. It also shows that physicians and nurses have differences in using problem focused coping and emotion focused coping in dealing with stress experienced during the COVID-19 pandemic.

Advice for physicians and nurses working during the COVID-19 pandemic, physicians and nurses should choose stress coping strategies Problem Focused Coping - Planful Problem Solving, Emotion Focused Coping - Escape Avoidance, and Emotion Focused Coping - Positive Reappraisal, effective in dealing with stress during the COVID-19 pandemic. The Indonesian government is advised to pay more attention to working hours, to physicians and nurses. This can be done by creating a scheme that allows more doctors to be involved in treating COVID-19, and not just certain physicians. This can increase the amounts of resources in dealing with COVID-19 patients, so that physicians and nurses have more time to rest, as well as overwork during the COVID-19 pandemic. It is also hoped that the government can provide legal protection or carry out firm and precise communication to the public to protect physicians and nurses during this COVID-19 pandemic. That way, the social stigma and violence that occurred to physicians and nurses who worked during the COVID-19 pandemic, especially in the regions, could be overcome.

Hospitals are also advised to make a schedule scheme in dealing with excessive working hours, this can also reduce the intensity of exposure to COVID-19 in physicians and nurses. Hospitals can also provide counseling services as a first step in dealing with stress for physicians and nurses during the COVID-19 pandemic. The public is also advised to pay more attention and support physicians and nurses during the COVID-19 pandemic by breaking the chain of transmission of COVID-19 by protecting themselves, such as administering vaccines, complying with health protocols, namely washing hands, wearing masks, and keeping a distance.

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