



Anxiety of Health Workers in the Prevention and Management of Covid-19 in Sidrap Regency

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Abstract

The spread of Covid-19 disease has reached epidemiological criteria which need to be declared a pandemic because it has infected more than 100,000 people in 100 countries. The purpose of this study was to determine the criteria for anxiety levels in health workers in the prevention of covid-19. In carrying out their duties, most of health workerd experienced anxiety due to lack of personal protective equipments and family safety. This study uses a a cross sectional survey design and cluster random sampling techniques with 80 respondents. The results showed that the average health workers 52 respondets (65.0%) had experienced mild anxiety, 11 respondents (13.8%) had experienced moderate anxiety, and 2 respondents (2.5%) had experienced severe anxiety and 15 respondents (18.8%) who didn't experienced anxiety. The contributing factor is the lack of personal protective equipment, so the health workers worried to transmitted the corona virus to their family. They also felt stigmatized because they felt related to patients infected by the virus. In addition, the patients honesty when visited health services, many of them keep it a secret of a visit history to the plague area or areas that have suffered many cases of Covid-19.

INTRODUCTION

Covid-19 is an infectious disease caused by a new type of coronavirus with common symptoms of fever, weakness, coughing, spasms and diarrhea (Repici et al., 2020; WHO, 2020). In December 2019, a number of patients with mysterious pneumonia were reported for the first time in Wuhan, China (Phelan, Katz, & Gostin, 2020). This virus has been named with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and its relative disease is called coronavirus 2019 (Covid-19) by the World Health Organization which has been stinging the world since the beginning of 2020 (Yuliana, 2020). The spread of

Covid-19 disease has reached the epidemiological criteria needed to be declared a pandemic because it has infected more than 100,000 people in 100 countries (Remuzzi, 2020).

Based on data from the World Health Organization (WHO) as of April 6, 2020 the number of sufferers in the world was 1,276,302 infected with Covid-19. Of the 1.2 million positive cases of corona, 69,527 Covid-19 patients have died and 264,048 people have recovered. The highest number of positive Covid-19 cases in the world is in the United States (337,646 positive corona cases; 9,646 died; 17,582 recovered), Spain (131,646 positive corona cases; 12,641 died; 38,080 people

recovered), and Italy (128,948 who are positive of corona cases; 15,887 positive cases) died; 21,815 healed) (WHO, 2020).

In Indonesia, the latest data on the number of corona virus positive cases (Covid-19) released to date on April 6, 2020, still shows an increase. The mortality rate of Covid-19 patients also continues to grow. 2,491 were positive and 192 people (7.70%) recovered from the number of positive sufferers. While those who died on April 6, 2020 were 209 people (8.39%) (WHO, 2020). Based on data from the Crisis Center of the Ministry of Health (2020) the highest number of sufferers or cases in DKI Jakarta Province was 1,232 positive cases, with 99 fatalities and 65 people recovering, West Java Province with the second position with 263 positive cases, 29 dead and 13 recovering, and East Java in the third position with 189 positive cases, 14 died and 38 recovered. While South Sulawesi Province occupies the sixth position with 113 positive cases, 6 died and 19 recovered (Ministry of Health of the Republic of Indonesia, 2020).

The highest incidence in the Province of South Sulawesi in Makassar City was 49 positive cases, 125 Patients Under Treatment (PDP), 373 People Under Surveillance (ODP) with 16 people dead (8 positive and 8 Patients Under Treatment) and 44 people recovered (11 positive and 13 Patients Under Treatment). The second most cases of Gowa Regency were 12 positive cases, 34 PDPs, 114 People under Surveillance with 2 people died in Patients Under Treatment cases and 7 people recovered (4 positive and 3 of Patients Under Treatment). While Sidrap Regency ranks fourth with 8 positive cases, Patients Under Treatment of 20 people, People Under Surveillance 50 with no cases of death and 3 people recovered (2 positive and 1 of Patients Under Treatment) (Provincial government of South Sulawesi, 2020).

The incidence of Covid-19 cases continues to grow so that health workers as the front line are increasingly depressed because of the increased workload. This can cause health workers to experience increased anxiety when dealing with patients suffering from positive Covid-19 plus the lack of Personal Protective Equipment (PPE) in their place of work. Anxiety is an uncertain and helpless feeling felt by a person so that he always feels concern for himself (Stuart, 2016). Panic and fear are part of the emotional aspect, whereas mental or cognitive aspects are disturbances to attention, worry, irregularity in thinking, and feeling confused (Ghufroon & Risnawita, 2014). So from the Covid-19 incident, health workers

felt depressed and worried about providing services.

According to the study of Lai et al (2020) about health workers at risk of experiencing psychological disorders in treating Covid-19 patients, the results showed that there were 50.4% of respondents had symptoms of depression and 44.6% had symptoms of anxiety due to feeling depressed. The cause of health workers experiencing anxiety is the high work demands, including long work hours as the number of patients increases, it is increasingly difficult to get social support because of the community's stigma of frontline staff, self-protection tools that limit movement, lack of information about long-term exposure to people infected people, and fear that front-line officers will spread Covid-19 to friends and family because of their line of work (IASC, 2020). Therefore, the purpose of this study is to provide an assessment of the anxiety level of health workers in providing health services related to the examination, treatment, and when providing education to patients with Covid-19 in the environment of Sidrap Regency.

METHOD

This research was conducted at a health service in Sidrap Regency, which is a hospital and Public health center, starting on March 27 to April 4, 2020. The research method uses cross sectional survey design with cluster random sampling techniques. The number of samples in this study were 80 health workers randomly taken at each health service site both Hospital and Public health center in Sidrap Regency who were active in the prevention of Covid-19.

This study focuses on looking at the level of anxiety of health workers in providing services to patients of Covid-19 by using the instrument of Zung-Self Anxiety Rating Scale (ZSAS) that has been tested for validity and reliability on the value of Alfa Cronbach's 0.682 with 25 the number of anxiety questions that are valid using a Likert scale. The minimum limit score on the anxiety questionnaire is 25 and the maximum limit score is 125 with a criterion score of 25-50 symptoms of no anxiety, 51-75 symptoms of medium, 75-100 symptoms of being moderate, and 101-125 symptoms of severe anxiety. Data analysis was performed using SPSS statistical software version 20.0 (IBM Corp) which was presented in the form of distribution tables and graphs on age, gender, availability of personal protective equipment, family status, and anxiety levels.

RESULTS AND DISCUSSION

Based on Table 1 results obtained from 80 respondents of health workers who felt mild anxiety 52 people (65.0%), moderate anxiety 11 people (13.8%), and severe anxiety 2 people (2.5%) and those who did not experience anxiety 15 people (18.8%). From these results it shows that the availability of personal protective equipment for health workers is still very poor in carrying out their duties, where 66 people (82.5%) and health workers with family status are 50 people (62.5%). This is what makes health workers experience different levels of anxiety, in

addition to the honesty of patients when examining affect anxiety problems with the results of 41 people (51.2%) who stated patients were not honest when visiting health services.

Table 2 shows that the data of health professionals with a nursing profession were more dominant in carrying out tasks for co-19 prevention in Sidrap Regency as many as 44 (55.0%) people with an average anxiety level experienced mild anxiety 28 people (35.0%), moderate anxiety 7 people (8.8%), 1 person (1.3%) severe anxiety, and 8 people did not experience anxiety (10.0%). Other professions are 21 midwives (26.3%) with

Table 1. Frequency distribution based on age, gender, availability of personal protective equipment, knowledge, family status, honesty of patients, health workers, and anxiety levels.

Variable	Frequency	%
Ages		
21-25 years old	18	22.5
26-45 years old	59	73.8
46-50 years old	3	3.8
Gender		
Male	48	60.0
Female	32	40.0
Availability of PPE		
Sufficient	14	17.5
Insufficient	66	82.5
Knowledge		
Good	62	77.5
Enough	18	22.5
Family status		
Married	50	62.5
Not married yet	30	37.5
Patient Honesty		
Honest	39	48.8
Dishonest	41	51.2
Kinds of Health Workers		
Doctor	5	6.3
Nurse	44	55.0
Midwife	21	26.3
Health analyst	3	3.8
Pharmacist	3	3.8
Public health	4	5.0
Anxiety Level		
No anxiety	15	18.8
Mild anxiety	52	65.0
Moderate anxiety	11	13.8
Severe Anxiety	2	2.5

Table 2. Frequency distribution of anxiety levels by type of profession in health workers.

Kinds of Health Workers	Anxiety Level								Total	
	No anxiety		Mild anxiety		Moderate anxiety		Severe anxiety			
	n	%	n	%	n	%	n	%	n	%
Doctor	1	1.30	3	3.80	1	1.30	0	0.0	5	6.30
Nurse	8	10.0	28	35.0	7	8.80	1	1.30	44	55.0
Midwife	2	2.50	16	20.0	2	2.50	1	1.30	21	26.3
Health analyst	1	1.30	1	1.3	1	1.30	0	0.0	3	3.80
Pharmacist	1	1.30	2	2.5	0	0.0	0	0.0	3	3.80
Public health	2	18.8	2	18	0	0.0	0	0.0	4	5.0

an average of 16 mild anxiety (20.0%). While the profession of doctors as many as 5 people (6.30%) with a more dominant level of anxiety experiencing mild anxiety was 3 people (3.80%). This shows that of several health workers there are 3 health professionals, namely doctors, nurses, and midwives who experience more anxiety because they have more work or direct contact with patients both positive and still in surveillance.

Of the 80 health workers in Table 3 there were 62 respondents (77.5%) with good knowledge about co-19 prevention and 18 people (22.5%) who were quite well-informed. Although the knowledge of average health workers in Sidrap Regency is good, there are still many who experience anxiety with mild categories of 40 people (50%) and even to the point of anxiety of 2 people (2.5%). This is influenced by several factors, namely the problem of lack of availability

of personal protective equipment, family status, and honesty of the patient during the examination. These factors are obtained from the results of a questionnaire that has been answered by health workers who are respondents.

Based on Table 3 shows that 66 (82.5%) health workers stated that the availability of personal protective equipment was not sufficient to carry out the task of covid-19 prevention in Sidrap District, so that 41 people (51.2%) experienced mild anxiety, 10 people (12.5%), 2 people (2.5%) experienced severe anxiety, and there were 13 people (16.3%) did not experience anxiety. While 14 (17.5) health workers stated that the availability of personal protective equipment in their workplaces was sufficient for their needs but there were still some experiencing mild anxiety 11 (13.8%) and moderate anxiety 1 (1.3%) health workers.

Table 3. Frequency distribution of anxiety levels based on knowledge, availability of Personal Protective Equipment, patient honesty, and family status of health workers.

Variable	Anxiety Level								Total	
	No anxiety		Mild anxiety		Moderate anxiety		Severe anxiety			
	n	%	n	%	n	%	n	%	n	%
Knowledge										
Good	12	15.0	40	50.0	8	10.0	2	2.5	62	77.5
Enough	3	3.8	12	15.0	3	3.8	0	0.0	18	22.5
Availability of PPE										
Sufficient	2	2.5	11	13.8	1	1.3	0	0.0	14	17.5
Insufficient	13	16.3	41	51.2	10	12.5	2	2.5	66	82.5
Honesty of the patient										
Honest	6	7.5	30	37.5	3	3.8	0	0.0	39	48.8
Dishonest	9	11.5	22	27.5	8	10.0	2	2.5	41	51.2
Family status										
Married	10	12.5	32	40.0	7	8.8	1	1.3	50	62.5
Not married yet	5	6.3	20	25.0	4	5.0	1	1.3	30	37.5

The statement of the health workers who were respondents during the examination, 41 people (51.2%) of the health workers stated that many people who came to check themselves in the health service were still many who closed themselves related to the history of the plague visitation, so that there were some health workers experiencing mild anxiety was 22 people (27.5%), medium anxiety 8 people (10.0%), moderate anxiety 2 people (2.5%), and 9 people (11.5%) do not experience anxiety. Health workers who are married as many as 50 people (62.5%) with mild anxiety levels are 32 people (40.0%) and medium anxiety is 7 people (8.8%). While health workers who are not married yet as many as 30 people (37.5%) with mild anxiety 20 people (25.0%). These results indicate that health workers with families are more likely to experience anxiety because when they treat or examine positive patients and patients in monitoring, health workers are worried that they will transmit the Covid-19 corona virus to their family and close friends (Table 3).

Coronavirus or covid-19 is a single, encapsulated, non-segmental, positive RNA virus strain that can be deactivated by disinfecting containing chlorine, lipid solvent with 56 °C for 30 minutes, non-ionic detergent, formalin, and chloroform (Yuliana, 2020; Zhu et al., 2020). The most common symptoms that occur in SARS-CoV-2 called Covid-19 are fever, weakness, cough, and diarrhea (Remuzzi, 2020). Other symptoms are shortness of breath, this symptom is an acute respiratory distress syndrome. After septic shock, metabolic acidosis and coagulation dysfunction will result in death with a reported mortality rate of 3.5% (PDPI, 2020).

Human-to-human transmission occurs mainly through direct contact or droplets (Heymann, 2020; Zhu et al., 2020). The higher risk of transmission is about 1 meter (about 3 feet) from an infected person (Repici et al., 2020). The maximum distance to avoid the virus is about 2 meters from patients or sufferers (Razai et al, 2020). So that health workers who carry out examination of covid-19 patients are required to use a complete personal protective equipment (PPE), in order to avoid exposure to the covid-19 virus (WHO, 2020). According to Sukaldo et al. (2017) work safety for health workers in hospitals, one of which is the use of PPE. PPE includes gloves, medical masks, goggles or face shields, and protective clothing, as well as special procedures, respirators (for example N95 or FFP2 standard or equivalent) and aprons (WHO, 2020).

Based on the results of this study indica-

te that the average respondent answered that the availability of PPE in the location where they provide services to co-19 patients is still lacking, 66 people (82.5%) and respondents who have the availability of PPE are fulfilled as many as 14 (17.5%) . Comparison of complete PPE (N95 masks / surgical masks, eye protection / google, face shields, headgear, and most importantly a hazmat shirt) with the number of health workers assigned to prevent Covid-19 both in hospitals and community health centers in Sidrap District. namely 3 to 10, because they stated that it was very difficult to get PPE (85.5%). They carry out their duties with modest personal protection, such as plastic raincoats used as personal protective clothing because hazmat suits that conform to medical standards are very limited and are equipped with one mask to be used in a day. This was obtained from several statements of health workers both from hospitals and public health centers in the environment of Sidrap Regency. Though they treat patients under supervision and positive patients Covid-19 so it must be protected by safety. Health care workers as the frontline who are directly involved in the diagnosis, treatment and care of Covid-19 patients have a higher risk of experiencing anxiety symptoms due to lack of PPE, although until now no one has been exposed and even died in carrying out their duties and responsibilities.

This result is in line with the research of Cheng et al. (2020) which states that out of 13 participants experienced anxiety because protective supplies had not been fulfilled when taking action on patients. Health workers are a group that is very susceptible to covid-19 infection because they are at the forefront of case management, therefore they must be equipped with complete PPE according to WHO protocol so that anxiety is reduced.

The results of this study indicate that the anxiety of health workers serving in health services experiences different levels of anxiety, namely mild anxiety 52 people (65.0%), moderate anxiety 11 people (13.8%), severe anxiety 2 people (2.5%), and not experiencing anxiety were 15 people (18.8%). Based on the results of the answers from the questionnaire the average health worker felt uneasy and thought that something bad had happened to them, because it was due to the lack of available personal protective equipment so that health workers were worried that they would transmit the Covid-19 corona virus to their family and close friends.

Lai et al (2020) in their research used a survey-based study of mental health of 1,257

health care workers caring for Covid-19 patients in 34 hospitals in China. The result, most of them reported symptoms of depression 50%, anxiety 45%, insomnia 34% and psychological stress 71.5%. The results of other studies during the acute SARS outbreak, there were 89% of health workers who were at high risk of experiencing symptoms of psychological disorders, one of them was anxiety (Chua et al., 2004). In overcoming mental health problems of health workers, it is necessary to intervene by forming a medical team in psychological treatment (Cheng et al., 2020). The psychological response experienced by health workers to the pandemic of infectious diseases is increasing because it is caused by feelings of anxiety about one's own health and the spread of the family.

Health workers who were respondents in this study, were more dominant who were already married with 50 people (62.5%) while those who were not married yet were 30 people (37.5%). This is one of the factors they experience anxiety because when treating positive patients with Covid-19 or conducting checks on people who have symptoms of Covid-19, health workers are worried that they will transmit the Covid-19 corona virus to families. They also feel stigmatized because they feel they are related to patients infected with the virus. This virus can move quickly from human to human through direct contact (Li et al., 2020; Rothe et al., 2020).

Health workers are worried that they will transmit the corona virus (Covid-19) to families, especially that they cannot carelessly make contact with spouses, children or other family members (Shanafelt, Ripp, Sinai, & Trockel, 2020). Health workers who treat Covid-19 patients are very vulnerable to being infected with the virus and cannot, like the general public, protect themselves at home. They must risk their lives dealing with patients of the corona virus with a very large risk of transmission. Not only that, they also have to live apart from families and loved ones for weeks to avoid broader virus transmission. These medical officers are not only anxious in treating patients with the Covid-19 corona virus, but are always thinking about the availability of personal protective equipment which is still lacking for now.

CONCLUSION

Health workers are the frontline in the prevention and treatment of Covid-19 in Indonesia and especially in the Sidrap Regency of the Province of South Sulawesi, which is constantly experiencing additional cases of People Under

Surveillance (ODP), Patients Under Treatment (PDP), and positive patients with Covid -19. From the results of the study found that average health workers experience anxiety in carrying out tasks in the category of mild anxiety. This is due to the limited personal protective equipment (PPE), so that health workers are now worried that they will transmit the Covid-19 corona virus to family and even to close friends. They also feel stigmatized because they feel they are related to patients infected with the virus. In addition, the honesty of patients when visiting health services is still a lot of secrecy of the history of visits to the plague area or areas that have suffered a lot of covid-19 cases.

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