The Psychological Condition of Healthcare Professionals during the COVID-19 Pandemic at a Referral Hospital in Southeast Sulawesi, Indonesia

Asbath Said[1]*, Asri Dwi Novianti[1], Sartini Risky[2]

[1]Department of Nursing, Faculty of Health Science, Mandala Waluya University, Kendari, Indonesia; [2]Department of Public Health, Faculty of Health Science, Mandala Waluya University, Kendari, Indonesia

Abstract

BACKGROUND: The significant increase in positive cases of COVID-19 in Indonesia has increased the number of health care personnel, nurses, and physicians who have been exposed to the virus, which raises the psychological burden on health professionals.

AIM: This study aims to analyze the relationship between the psychological responses of health professionals and anxiety/depression in the hospital using the Fear of COVID-19 scales and the hospital anxiety and depression scale, respectively.

METHODS: The method is quantitative with a cross-sectional survey, which uses an online questionnaire involving about 207 health professionals working at the COVID-19 referral hospital.

RESULTS: The result of the Pearson correlation test showed that the highest fear level of health professionals against COVID-19 was 41.5%, while the highest anxiety and depression levels are at the usual level of 76.3% and 60.4%, respectively. There was a direct relationship between the fear of COVID-19 and anxiety or depression, with significant values of 0.000 or 0.026, respectively.

CONCLUSIONS: The study showed the significance of the psychological state of health professionals during a pandemic. Therefore, the government must provide mental support to health professionals through counselling and more accurate and up-to-date information.

Introduction

The emergence of the novel coronavirus also known as COVID-19 started in Wuhan in China [1], which caused a significant impact on all aspects of human life, such as massive economic downturns, job losses, adaptation to all aspects of life, and even death [2]. The World Health Organization declared COVID-19 a global epidemic on March 11, 2020. In addition, this virus is capable of developing and spreading between humans, which led to 27 million cases and 900,000 deaths worldwide from reports in December 6, 2020 [3].

The signs and symptoms of COVID-19 are observed in acute respiratory disorders, such as fever, cough, and shortness of breath, at an average incubation period of 5–6 days and a maximum of 14 days. COVID-19 can cause pneumonia, acute respiratory syndrome, kidney failure, and even death in severe cases. In most cases, the symptoms range from fever to difficulty in breathing, and X-rays reveal extensive pneumonia infiltrates in both lungs [4].

The first two COVID-19 cases were reported on March 2, 2020. Subsequently, there were 1285 cases in 30 provinces in March 29, 2020. The most prevalent regions were Jakarta, West Java, Banten, East Java, and Central Java with 675, 149, 106, 90, and 63 cases, respectively [4].

Health care providers who treat COVID-19 patients were at risk of developing anxiety and depression. Furthermore, they were the group most at risk of developing psychiatric symptoms during the pandemic, due to risk factors such as being female and working on the frontlines [5].

According to a study of 109 nurses, where intensive care was provided for COVID-19 patients in Canada, they experienced clinical concern (23%), probability (13%), and significant concern (38%) in the form of post-traumatic stress disorder symptoms, as well as mild to slightly severe depression (57%), anxiety (67%), and stress (54%). During the interview, anxiety, worry, distress, and fear are all identified as symptoms of psychological distress [6].

A study involving 115 health workers at a tuberculosis treatment center in Anhui, China revealed that about 36.4% of respondents (mostly nurses) experienced depression while providing treatment

for COVID-19 [7]. In Singapore, another study was conducted using 3.075 health workers from different departments. The results showed that 31.8% and 40.7% experienced depression and anxiety, respectively, using HADS questionnaire [8]. Furthermore, a study was conducted by DASS21 questionnaire using 491 nurses aged between 31 and 56. The results showed that 8.5% experienced depression and anxiety simultaneously, while 6.3% expressed depression only, which varied from fair to acute [9].

The primary stressors for health workers were personal safety concerns, family members, and patient deaths [10]. Lai *et al.* (2020) conducted a study involving 1257 COVID-19 health workers from 34 hospitals in China, where symptoms of depression, anxiety, sleeplessness, and depression were observed in majority of the population, especially female nurses and health professionals on the front lines. Therefore, psychological assistance or intervention was required [11].

There has been no consideration of the mental health of health workers who treat COVID-19 patients, such as professional associations, health service agencies, or even individual nurses, because they are overburdened with patient care to the point where their mental health becomes disturbed. Therefore, there is the need for interventions and recommendations to resolve this dilemma since health workers will provide optimal service to patients when they are mentally and physically healthy.

Subsequently, this study is not concurrent with previous studies since the use of FCS-19 is still very finite. Such study is specialized for hospitals where personal protective equipment is still limited.

The purpose of this study is to analyze the relationship between psychological responses of health workers on anxiety and depression in hospitals using the Fear of COVID-19 scale and the hospital anxiety and depression scale (HADS).

Methods

Research design

The method is quantitative with a cross-sectional survey approach, and it uses an Indonesia-translated questionnaire namely the COVID-19 Fear Scale [12] (FCV-19S). Furthermore, it is an Indonesian version that comprises seven scale items manufactured to gauge the fear of COVID-19. The validation has been examined with a Cronbach value of (FCV-19-I) 0.819 with good internal reliability [12]. Meanwhile, the reliability for anxiety and depression scale (HADS) has been examined with coefficient value kappa of 0.076 and 0.681 for sub-scale of anxiety and depression [13].

The Fear of COVID-19 scale [12] and the HADS [13] were used in this study, as well as a questionnaire translated to Indonesian.

Data collection technique

The samples were health workers from Kendari referral hospital including nurses, doctors, midwives, and other health professionals. The sampling technique employed was convenience (non-probability) sampling, and the data were collected online using Google Forms, which required the use of informed consent at the start of the online questionnaire, including an explanation, purpose, participants, anonymity, and volunteer's response.

This study was conducted according to the Helsinki's Declaration and was approved by The Human Subject Review Board, Mandala Waluya University (Number: 025/KE-UMW/XI/2020) before the survey. Furthermore, the data of the respondents were saved on a personal computer, which was only accessed by the observer.

An online questionnaire was distributed to 207 respondents who are health workers between the 12th to the 18th of December, 2020.,

Results

This study included 207 health workers from the COVID-19 referral hospital in Kendari, Southeast Sulawesi. The demographics comprised 162 females and 45 males at 78.3% and 21.7%, respectively. The majority of the respondents were between the ages of 21 and 30 years at 48.8% and 92.8%, respectively, as demonstrated in Table 1.

Table 1 shows the percentage of the anxiety level of respondents. The highest anxiety is at the normal level of 125 respondents (60.4%), and the lowest at the severe level of 5 respondents (2.4%).

Then, for the percentage of respondents' depression levels, the highest is in the normal category of 158 respondents (76.3%) and the lowest is in a severe category of 2 respondents (1.0%).

Based on the research results, the highest fear is in the quiet fear category of 86 respondents (41.5%) while the lowest is a very fear category of 6 respondents (22.2%) (Table 1).

Furthermore, the data normality test is carried out to determine the type of statistical analysis used. The Kolmogorov–Smirnov test was used to test for normality. The results showed that the data distribution was skewed based on the 3 variables examined. Therefore, the non-parametric

Table 1: Respondent characteristics

Characteristics of Respondents	n	%
Sex		
Male	45	21.7
Female	162	78.3
Education Level		
S2	1	0.5
S1	187	90.3
D3	19	9.2
Marital Status		
Married	63	30.4
Single	144	69.6
Age		
21–30 years old	101	48.8
31–40 years old	28	13.5
41–50 years old	30	14.5
>50 years old	48	23.2
Profession		
Nurse	192	92.8
Midwife	8	3.9
Doctor	2	1
Other health workers	5	2.4
Anxiety Level		
Normal	125	60.4%
Mild	54	26.1%
Moderate	23	11.1%
Severe	5	2.4%
Depression Level		
Normal	158	76.3%
Mild	39	18.8%
Moderate	8	3.9%
Severe	2	1.0%
Fear Level		
Not fear	8	3.9%
Less fear	61	29.5%
Quite Fear	86	41.5%
Fear	46	22.2%
Very Fear	6	2.9%

Spearman correlation test was carried out, as shown in Table 2.

Table 2: Correlation of depression, anxiety, and fear of COVID-19

			Depression	Anxiety	Fear
Spearman's Rho	Depression	Correlation Coefficient	1.000	0.196**	0.154*
		Sig. (2-tailed)	0.00	0.005	0.026
		N	207	207	207
	Anxiety	Correlation Coefficient	0.196**	1.000	0.374**
		Sig. (2-tailed)	0.005	0.00	0.000
		N	207	207	207
	Fear	Correlation Coefficient	0.154*	0.374**	1.000
		Sig. (2-tailed)	026	0.000	0.00
		N	207	207	207

*Correlation is significant at the 0.05 level (2-tailed).

According to Table 2, the correlation coefficient between depression and fear of COVID-19 was 0.154 based on the Spearman correlation test, which indicated that there was a low degree of association between depression and the fear of COVID-19. Furthermore, the correlation coefficient was positive, which indicated a unidirectional relationship between the two variables. Therefore, there was an increased fear of COVID-19 in depressed health care workers. Table 2 showed that the significant 2-tailed value for depression and the fear of COVID-19 was 0.026, which indicated that there was a significant relationship between depression and the fear of COVID-19 at a significant value <0.05.

The result of the Spearman correlation test showed that the correlation coefficient between anxiety and the fear of COVID-19 was 0.374. Furthermore, this implied that there was a strong relationship between anxiety and the fear of COVID-19. The relationship between the two variables was unidirectional since the correlation coefficients were positive. Therefore, there was an increased fear of COVID-19 in anxious health workers. Table 2 showed that the Significant 2-tailed value between anxiety and the fear of COVID-19 was 0.000, which indicated a relationship between anxiety and the fear of COVID-19 at a significant value <0.05.

Discussion

The COVID-19 epidemic started in Indonesia for more than a year, infecting and killing a large number of people and instilling fear in everyone, including health-care workers [10], [14]. During the pandemic, there was a health crisis, which increased the risks in hospitals [15]. Furthermore, there was a significant increase in the number of patients admitted to hospital, which increased the work pressure on healthcare workers [16]. Health care workers were anxious and uncomfortable while in the hospital due to the high number of their colleagues who have died from COVID-19 and the fear of transmitting the virus to their families [16].

According to a study conducted by (Tan et al., 2020) on 500 health workers in two hospitals in Singapore, 68% are anxious at work during the pandemic[17]. Similarly, a study conducted on 544 health workers from 21 provinces in Indonesia by (Sanjaya et al., 2021) discovered that 28.1% and 22.8% experience anxiety and depression, respectively [14].

In this research with the HADS scale, from 207 respondents, 23.7% of the respondents experience depression from mild to severe levels. During the pandemic, exciting things became unappealing, and people no longer cared about their beauty as much as they used to. However, in this study, 60.4% of anxiety is typical, and 76.3% do not experience depression, which could be related to pandemic adaptability and resilience since the data collection is completed at the end of 2020. This study was supported by psychological endurance in which people can be recovered from negative emotion [18] and back to normal life [19].

According to Bozdag and Ergun, 2020, 214 health workers in several hospitals in Turkey showed improved psychological resilience while working during the COVID-19 pandemic, such as improved sleep quality and pleasant feelings [20].

The fear of COVID-19, on the other hand, is still slightly high. According to the findings, 41.5% of the respondents are quite fear, 22.2% are fear, 2.9% are very fearful, and 29.5% are less fear.

The COVID-19 pandemic has been occurring for more than 1 year, and health workers are still experiencing negative stigma and social rejection [21]. This contributes to the fear of health workers [22]. Moreover, this study on COVID-19 and other mental

issues such as anxiety, depression, fatigue, and stress showed that the disease susceptibility can cause fear and anxiety to nurses. The level of their performance will be affected when this occurs [23], [24].

As demonstrated by Spearman correlation analysis values of 0.000 and 0.026, the presence of anxiety and depression symptoms, respectively, described in this study shows a significant relationship with fear of COVID-19. This conclusion indicates that psychological distress, anxiety, and depression, are still felt by health workers, since they are related to their profession, particularly nurses who are at the forefront of caring for COVID-19 patients. Therefore, they are physically and psychologically motivated to provide quality nursing care to patients [17], [25].

Another study on nurses in Pakistan found that the fear of COVID-19 causes secondary trauma and psychological stress [26]. The most common mental changes associated with health workers include fear, anxiety, and depression, which were more intense during the pandemic since they were on the front lines trying to reduce the outbreak [27]. The performance level of health workers was significantly higher than before the pandemic [28]. Furthermore, they lacked self-defense equipment [29] and were plagued by negative issues with less support from mental health professionals [30], [31].

Further study is recommended to ascertain the direction of the significant correlation between the fear of COVID-19, anxiety and depression, as well as to determine how the fear of COVID-19 may affect the practice of health protocol measures. In addition, it is recommended that this further study employs the use of samples from several referral COVID-19 hospitals.

Conclusion

According to this study, there was a significant association and a direct relationship between the fear of COVID-19, anxiety and depression among health workers during the pandemic. Therefore, health workers require special attention and assistance to ensure that they are always physically and psychologically healthy to deliver excellent health services to the community.

Acknowledgments

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