Psychological impact among health workers in effort to facing the COVID-19 in Indonesia

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Submission date: 08-Sep-2021 11:18AM (UTC+0700)

Submission ID: 1643535483

File name: health_workers_in_effort_to_facing_the_COVID-19_in_Indonesia.pdf (296.58K)

Word count: 5740 Character count: 27801

International Journal of Public Health Science (IJPHS)

Vol. 10, No. 1, March 2021, pp. 181~188

ISSN: 2252-8806, DOI: 10.11591/ijphs.v10i1.20524

Psychological impact among health workers in effort to facing the COVID-19 in Indonesia

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Article Info

Article history:

Revised Jun 17, 2020 Revised Dec 18, 2020 Accepted Jan 2, 2021

Keywords:

Health worker Mental health Pandemic Psychological impact

ABSTRACT

The coronavirus disease (COVID-19) pandemic in Indonesia has a psychologid19 impact among health workers who are working in hospital and caring for patients with positive COVID-19. This study aimed to examines the psychological impact among health workers in effort to facing the coronavirus pandemic (COVID-19) in Indonesia. Snowball sampling technique was employed to 28 er the sample in the eight islands. The health workers were responded to the depression anxiety stress scales (DASS-42) questionnaire, with the total of 644 respondents. The results of this study showed that about 65.8% of respondents experienced anxiety due to COVID-19 outbreak, There were 3.3% experienced extremely severe anxiety and 33.1% experienced mild anxiety. Whereas those experienced stress due to COVID-19 outbreak were 55%, extremely severe stress levels were 0.8% and mild stress were 34.5%. Health workers who experienced depression were 23.5%. There were 0.5% with very severe depression and mild depression was 11.2%. There is a closed correlation between anxiety (r=0.152 p=0.000), stress (r=0.086 p=0.029), and depression (r=0.111 p=0.005), to the worried of being alienated if infected coronavirus (COVID-19). The Indonesian government has to handle the anxiety, stress and depression that occurs in health workers in particular and can provide protection to medical personnel so that they do not feel alienated by those

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1. INTRODUCTION

On December 31, 2019, the WHO China Country Office reported a case of pneumonia of unknown etiology in Wuhan City, Hubei Province, China [1]. On January 7, 2020, China identified pneumonia as a new type of coronavirus (coronavirus disease, COVID-19) [2-3]. On 30 January 2020 WHO has designated the public health emergency of international concern (KKMMD/PHEIC) [4-5]. The increasing number of

Journal homepage: http://ijphs.iaescore.com

COVID-19 cases was quite quickly and there has been spreading across the countries [6]. As of March 25, 2020, a total of 414,179 confirmed cases with 18,440 deaths (CFR 4.4%) were reported, which cases were reported in 192 countries/regions [7-9]. Among these cases, there were already several health workers who were reported infected [10-11]. On March 2, 2020, Indonesia reported two COVID-19 confirmed cases. As of March 25, 2020, Indonesia has reported 790 COVID-19 confirmed cases from 24 Provinces: Bali, Banten, DIY, DKI Jakarta, Jambi, West Java, Central Java, East Java, West Kalimantan, East Kalimantan, Central Kalimantan, South Kalimantan, Riau Islands, West Nusa Tenggara, South Sumatra, North Sulawesi, Southeast Sulawesi, South Sulawesi, Lampung, Riau, North Maluku, Maluku and Papua. Areas with local transmissions in Indonesia are DKI Jakarta, Banten (Tangerang Regency, Tangerang City), West Java (Bandung City, Bekasi Regency, Bekasi City, Depok City, Bogor Regency, Bogor City, Karawang Regency, Java East (Malang Regency, Magetan Regency and Surabaya City) and Central Java (Surakarta City) [12].

Pandemic of COVID-19 outbreak causes feeling worried, and understanding of mental health status is urgently needed for the communi [13, 14]. Previous research has stated that deep and a broad of psychological impact on level of individual, community, and international during an outbreak of infection [15]. On the individual level, people tend to experience worried of being sick or dying, feelings of 33 plessness, and stigma [16, 17]. In China the results of the study stated 53.8% had a positive effect on psychological impact as a moderate or severe outbreak; 16.5% reported symptoms of moderate to severe depression; 28.8% 3 orted symptoms of moderate to severe anxiety; and 8.1% reported moderate to 30 ere stress levels [18]. They were older, female, more highly educated, with a higher risk perception of severe oute respiratory syndrome (SARS), lower levels of anxiety, contact history, and with it similar symptoms SARS is more likely to take precautionary measures against infection [3]. Besides, Lijung et al. Strengthened that service poviders such as health workers affected by virus in Wuhan experienced psychological health disorders [19]. Work-related stress is a potential cause for health workers. It is associated with anxiety including various activities both depression to face death in the growing society, long work shift, and a lot of work demands in dealing with COVID-19 patients, those are important indicator of psychological fatigue [20, 21]. Health workers are influential and needed during the COVID-19 outbreak and they are one of the most vulnerable to contracting this very deadly disease.

The experience of health workers in dealing with COVID-19 has many effects on mental health stress, anxiety, and depression. It is not only experienced in the short term but also has a long-term impact and the value of effective support [22]. It is necessary to take an effective action in a timely manner to address and protect the mental health of health workers. Based on previous research related to middle eastern respiratory syndrome (MERS), health workers tend to believe that such actions help protect mental health [23]. In addition, to reduce psychological damage to health workers, both nurses, doctors and other health workers, Indonesian government needs to provide a program so that this research becomes a reference in makin [24] e program.

Therefore this study aimed to examines the psycholog 13 impact among community in effort to facing the coronavirus pandemic (COVID-19) in Indonesia. This study also aimed to determine the prevalence of symptoms, stress risk factors, anxiety and depression in maintaining the psychological well-being of people in Indonesia.

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RESEARCH METHOD

2.1. Respondent

The online survey was conducted among health worker in several regions namely Java and the islands, Sumatra and the islands, Kalimantan, Sulawesi, Bali, Nusa Tenggara, Maluku and Papua, then they were encouraged to share it with others.

2.2. Data collection

This study used a cross-sectional survey design to determine psychological responses during the COVID-19 pandemic by using questionnaii 31 hrough online anonymously. Sampling technique in this study uses snowball to the community and health workers during the COVID-19 pandemic.

2.3. Procedure

When the Indonesian government annual ced to the public of Indonesia to do social distancing then the researcher invited prospective respondents to fill out a questionnaire through Google Form, before that the researchers were doing validity and reliability test of the questionnaire. The results of the validity test show the value of r-table 0.254 is smaller than the value of r-count which means valid, and reliability using Cronbach's alpha shows the value of 0.958 meaning reliable. Respondent who gave feedback were 644. Data collection was carried out for seven days (01-07 April 2020) distributed to eight islands in Indonesia covering

Java, Sumatra, Kalizintan, Sulawesi, Bali, Nusa Tenggara, Papua and Maluku after the President of Indonesia declared COVID-19 outbreak as a health emergency and was a concern of the Indonesian government.

2.4. Ins siment

Mental health status was measured uses the Depression, Anxiety and Stress Scale (DASS-42) and the score calculation was based on previous research. Questions 1, 3, 5, 8, 13, 14, 15, 20, 24, 35, 36, 40, 41, and 42 form the stress subscale. Subscale scores of total depression are divided into normal (0-10), mild stress (11-18), moderate stress (19-26), severe stress (27-34), and extremely severe stress (35-42). Questions 4, 9, 11, 12, 18, 19, 25, 29, 30, 32, 34, 37, 38, and 39 form the anxiety subscale. The total anxiety subscale score is divided into normal (0-6), mild anxiety (7-9), moderate anxiety (10-14), severe anxiety (15-19), and extremely severe anxiety (20-42). Questions 2, 6, 7, 10, 16, 17, 21, 22, 23, 26, 27, 28, 31, and 32 form the depression subscale. The total depression subscale score is divided into normal (0-9), mild depression (10-12), moderate depression (13-20), severe depression (21-27), and extremely severe depression (28-42). DASS was previously used in research related to severe acute respiratory syndrome (SARS).

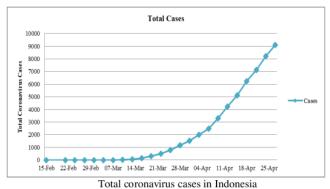
2.5. Analysis test

Descriptive statistics are used to calculate sociodemographic characteristics, while univariate tests were used to find the relationship of social responses with levels of anxiety, stress and depression to the coronavirus pandemic (COVID-19) uses the spearman rank with a significance level of p<0.005 and uses a simple multivariate linear regression SPPS 21.

3. RESULTS

3.1. Development of the COVID-19 pandemic from 01 March-10 April 2020

Figure 1 shows the development trend of the coronavirus pandemic (COVID-19) in Indonesia from March and April 27, 2020 totaling cases 9096 [24], on April 1, 2020 the Indonesian government announced a state of health emergency. The number of confirmed cases, positive, people recovered, and death cases continue to increase.



Total colonavirus cases in magnesia

Figure 1. Cases of the coronavirus pandemic (COVID-19) in Indonesia from March to April, 2020

3.2. Characteristics of respondents based on gender, age, domicile, occupation, education, income

Table 1 shows the characteristics of respondents which included gender, age, domicile, occupation, education and income. Among the 644 samples the most gender was female 484 (74.2%) compared to 160 male respondents (24.8%). The majority of respondents were from Java Island with 1372 (60.7%).

3.3. The psychological impact among health in effort to facing the coronavirus pandemic (COVID-19) in Indonesia

Table 2 shows data related to the psychological impact anxiety among health workers in effort to facing the coronavirus pandemic (COVID-19) from a total of 664 respondents of health workers, there were 213 (33.1%) with mild anxiety and there were 21 (3.3%) very severe anxiety. Table 3 reveals data related to the psychological impact stress among health workers in effort to facing the coronavirus pandemic (COVID-

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ISSN: 2252-8806

19), the dat 16) owed that respondents mild stress 222 and extremely severe stress level five (0.8%). Table 4 shows data related to the psychological impact of depression on health workers in an effort to deal with the coronavirus pandemic (COVID-19), as many as 72 respondents (11.2%) experienced mild depression and very severe depression three (0.5%).

[12]		
Table 1. Characteris	stics of	respondents
Variable	Total	Percentage (%)
Gender		
Male	160	24.8
Female	484	75.2
Age		
20-29	208	32.3
30-39	252	39.1
40-49	154	23.9
>50	30	4.7
Domicile		
Sumatera and islands	69	10.7
Java and islands	436	67.7
Bali and Nusa Tenggara	80	12.4
Kalimantan	17	2.6
Sulawesi	29	4.5
Maluku and Papua	13	14.4
Education		
Senior High school	19	26.7
Diploma	225	17
S1/Bachelor	319	42,2
S2/Postgraduate	80	11.7
S3/Doctor	1	0.7
Income (IDR)		
<500,000	3	0.5
500,000 - <1,000,000	11	1.7
1,000,000 - < 1,500,000	23	3.6
1,500,000 - <2,000,000	45	7
≤2,000,000	63	9.6
	502	78

Table 2. Univariate data of the psychological impact anxiety among health workers in effort to facing the coronavirus pandemic (COVID-19)

			y levels				
Variable	Normal	Mild	Moderate	Severe	Extremely severe	Statistic	p
Gender							
Male	69 (43.1)	49 (30.6)	28 (17.5)	10 (6.2)	4 (2.5)	0.103	0.009
Female	152 (31.4)	164 (33.9)	120 (24.8)	31 (6.4)	17 (3.5)		
Age							
20-29	55 (26.2)	74 (35.2)	58 (27.6)	14 (6.7)	9 (4.3)		
30-39	89 (35.6)	80 (32)	55 (22)	16 (6.4)	10 (4)	-0.136	0.001
40-49	63 (40.9)	50 (32.5)	30 (19.5)	9 (5.8)	2(1.3)		
>50	14 (46.7)	9 (30)	5 (16.7)	2 (6.7)	0 (0)		
Domicile							
Sumatera and islands	19 (27.5)	24 (34.8)	21 (30.4)	2(2.9)	3 (4.3)		
Java and islands							
Bali and Nusa Tenggara	166 (38.1)	136 (31.2)	96 (22)	28 (6.4)	10(2.3)		
Kalimantan	20 (25)	30 (37.5)	20 (25	6 (7.5)	4 (5)	0.042	0.289
Sulawesi							
Maluku and Papua	4 (23.5)	9 (52.9)	1 (5.9)	0(0)	3 (17.6)		
	5 (17.2)	12 (41.4)	7 (24.1)	4 (13.8)	1 (3.4)		
	7 (53.8)	2 (15.4)	3 (23.1)	1 (7.7)	0 (0)		
Education							
Senior High School	5 (27.8)	8 (44.4)	4 (22.2)	1 (5.6)	0 (0)		
Diploma	71 (31.7)	71 (31.7)	59 (26.3)	16 (7.1)	7 (3.1)	-0.097	0.014
S1/Bachelor	105 (32.7)	108 (33.6)	73 (22.7)	22 (6.9)	13 (4)	-0.097	0.014
S2/ Postgraduate	40 (50)	25 (31.2)	12 (15)	2(2.5)	1(1.2)		
S3/Doctor	9 (56.2)	5 (31.2)	1 (6.2)	0(0)	1 (6.2)		
Income (IDR)							
<500,000	2 (16.7)	4 (33.3)	5 (41.7)	1 (8.3)	0 (0)		
500,000 - <1,000,000	7 (30.4)	6 (26.1)	5 (21.7)	3 (13)	2 (8.7)	0.170	0.004
1,000,000 - <1,500,000	8 (17.8)	15 (33.3)	17 (37.8)	3 (6.7)	2 (4.4)	-0.179	0.000
1,500,000 - <2,000,000	12 (19.7)	21 (34.4)	19 (31.1)	4 (6.6)	5 (8.2)		
≥2,000,000	192 (38.2)	167 (33.2)	105 (20.3)	30 (6)	12(2.4)		

Tabel 3. Univariate data of the psychological impact stress among health workers in effort to facing the coronavirus pandemic (COVID-19)

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	Stress Levels						
Variable	Normal	Mild	Moderate	Severe	Extremely severe	Statistic	p
Gender							
Male	81 (50.6)	54 (33.8)	20 (12.5)	4(2.5)	1 (0.6)	0.075	0.057
Female	209 (43.2)	168 (34.7)	91 (18.8)	12(2.5)	4(0.8)		
Age							
20-29	87 (42.4)	75 (35.7)	41 (19.5)	7 (3.3)	0 (0)		
30-39	103 (41.2)	89 (35.6)	45 (18)	9 (3.6)	4 (1.6)	-0.110	0.005
40-49	82 (53.2)	48 (31.2)	23 (14.9)	0 (0)	1 (0.6)		
>50	18 (60)	10 (33.3)	2 (6.7)	0 (0)	0 (0)		
Domicile							
Sumatera dan kepulauan	29 (42)	29 (42)	9 (13)	1(1.4)	1(1.2)		
Jawa dan kepulauan							
Bali dan Nusa Tenggara	208 (47.7)	148 (33.9)	66 (15.1)	12(2.8)	2(0.5)		
Kalimantan	30 (37.5)	25 (31.2)	25 (31.2)	0(0)	0 (0)	0.042	0.289
Sulawesi							
Maluku dan Papua	8 (47.1)	5 (29.4)	1 (5.9)	1 (5.9)	2 (11.8)		
-	8 (27.6)	13 (44.8)	7 (24.1)	1(3.4)	0 (0)		
	7 (53.8)	2 (15.4)	3 (23.1)	1 (7.7)	0 (0)		
Education							
SMA/Sederajat	3 (16.7)	7 (38.9)	7 (38.9)	1 (5.6)	0 (0)		
Diploma	104 (46.4)	82 (36.6)	32 (14.3)	3 (1.3)	3 (1.3)	-0.061	0.12
S1	135 (42.1)	107 (33.3)	66 (20.6)	11 (3.4)	2 (0.6)	-0.001	0.12
S2	47 (58.8)	26 (32.5)	6 (7.5)	1(1.2)	0 (0)		
S3	1 (100)	0 (0)	0 (0)	0 (0)	0 (0)		
Income (IDR)							
<500,000	2 (16.7)	5 (41.7)	5 (41.7)	0(0)	0 (0)		
500,000 - <1,000,000	10 (43.5)	6 (26.1)	6 (26.1)	1 (4.3)	0 (0)	0.170	0.00
1,000,000 - <1,500,000	8 (17.8)	15 (33.3)	17 (37.8)	3 (6.7)	2 (4.4)	-0.179	0.00
1,500,000 - <2,000,000	12 (19.7)	21 (34.4)	19 (31.1)	4 (6.6)	5 (8.2)		
≥2,000,000	242 (48.1)	176 (35)	71 (14.1)	11 (2.2)	3 (0.6)		

Tabel 4. Univariate data of the psychological impact depression among health workers in effort to facing the coronavirus pandemic (COVID-19)

			ion levels				
Variable	Normal	Mild	Moderate	Severe	Extremely severe	Statistic	p
Gender							
Male	129 (80.6)	14(8.8)	16 (10)	0(0)	1 (0.6)	0.053	0.180
Female	364 (75.2)	58 (12)	60 (12.4)	0(0)	2(0.4)		
Age							
20-29	151 (71.9)	28 (13.3)	29 (13.8)	0(0)	2(1)		
30-39	194 (77.6)	27 (10.8)	29 (11.6)	0(0)	0 (0)	-0.075	0.058
40-49	126 (81.8)	13 (8.4)	14 (9.1)	0(0)	1 (0.6)		
>50	22 (73.3)	4 (13.3)	4 (13.3)	0(0)	0 (0)		
Domicile							
Sumatera and islands	53 (76.8)	8 (11.6)	8 (11.6)	0(0)	0 (0)		
Java and islands							
Bali and Nusa Tenggara	342 (78.4)	43 (9.9)	48 (11)	0(0)	3 (0.7)		
Kalimantan	55 (68.8)	16 (20)	9 (11.2)	0(0)	0 (0)	0.054	0.169
Sulawesi							
Maluku and Papua	12 (70.6)	1 (5.9)	4 (23.5)	0(0)	0 (0)		
	21 (72.4)	3 (10.3)	6 (17.2)	0(0)	0 (0)		
	10 (76.9)	1(7.7)	2 (15.4)	0(0)	0 (0)		
Education							
Senior High School	12 (66.7)	3 (16.7)	3 (16.7)	0(0)	0 (0)		
Diploma	161 (71.9)	29 (12.9)	33 (14.7)	0(0)	1(0.4)	-0.123	0.002
S1/ Bachelor	247 (76.9)	38 11.8)	34 (10.6)	0(0)	2(0.6)	-0.123	0.002
S2/ Postgraduate	72 (90)	2(2.5)	6 (7.5)	0(0)	0 (0)		
S3/Doctor	1 (100)	0(0)	0 (0)	0(0)	0 (0)		
Income (IDR)							
<500,000	8 (66.7)	2 (16.7)	2 (16.7)	0(0)	0 (0)		
500,000 - <1,000,000	15 (65.2)	4 (17.4)	4 (17.4)	0(0)	0 (0)	0.150	0.000
1,000,000 - <1,500,000	33 (73.3)	4 (8.9)	8 (17.8)	0 (0)	0 (0)	-0.159	0.000
1,500,000 - <2,000,000	33 (54.1)	14 (23)	12 (19.7)	0(0)	2 (3.3)		
≥2.000.000	404 (80.3)	48 (9.5)	50 (9.9)	0(0)	1 (0.2)		

Correlation of social responses among health workers in effort to facing the coronavirus pandemic (COVID-19) (Worried loss of livelihood, Worried of Alienation, Worried of infected and infecting)

Correlation analysis were shown in Table 5 associated with panic when hearing information from online media (r=0.248, p 0.000), and worry of being alienated (r=0.152, p 0.000) the correlation coefficient was quite strong on the level of anxiety. Besides, worrying become contagious (r=0.112, p 0.004), and worry being excluded (r=0.111, p 0.005) the correlation coefficient was quite strong on the level of depression.

Simple Linear Regression Analysis

Table 6 showed a simple linear regression analysis of social responses among health workers in effort to facing the coronavirus pandemic (COVID-19), the social responses that most influence on anxiety, stress and depression are people panic while listening to information from online media with the results of anxiety (R² 0.058, AR² 0.057, B (95% CI) 0.242), stress (R² 0.040, AR² 0.038, B (95% CI) 0.199) and depression (R² 0.014, AR² 0.013, B (95% CI) 0.120).

Table 5. Correlations of social responses among health workers in effort to facing the coronavirus pandemic

(CC)VID- 29					
Ci-1 P	Anx	iety	Stress		Depression	
Social Responses	R	p	R	p	R	p
Worried of being infected and infecting	0.079	0.046	0.002	0.952	0.007	0.863
Worried of being alienation	0.152	0.000	0.086	0.029	0.111	0.005
Panic while listening to information from online media (television, radio, newspaper and other media)	0.248	0.000	0.199	0.000	0.112	0.004

^rCoefficient correlation

Table 6. Simple linear regression analysis of social responses among health workers in effort to facing the

coronavirus pandemic (COVID-19)										
Social response	6	Anxie	Anxiety		Stress			Depression		
	\mathbb{R}^2	AR ²	B(95%CI)	\mathbb{R}^2	AR ²	B(95%CI)	\mathbb{R}^2	AR^2	B(95%CI)	
Worried of being infected and infecting	0.004	0.003	0.066	0.000	0.002	0.002	0.12	0.002	0.110	
Worried of being alienation	0.021	0.019	0.114	0.008	0.007	0.091	0.009	0.008	0.096	
panic while listening to information from online media (television, radio, newspaper and other media)	0.058	0.057	0.242	0.040	0.038	0.199	0.014	0.013	0.120	

4. DISCUSSION

Coronavirus has many impacts on the psychological response of the health workers. This study showed that 65.8% respondents of health workers in Indonesia experienced anxiety due to the COVID-19 outbreak, there were 3.3% experienced extremely severe anxiety and 33.1% experienced mild anxiety. Health workers who working in hospital that caring of patients with COVID-19 stated more experienced psychological disorders and almost two times had the risk of experiencing anxiety disorders than non-clinical staff [25]. Whereas those experienced stress due to the COVID-19 outbreak were 55%, extremely severe stress levels were 0.8% and mild stress were 34.5%. Health workers who experienced depression were 23.5%. Extremely severe depression rate 0.5% and mild depression 11.2%.

Generally known that SARS-CoV-2 is very contagious and spreads rapidly, health worke 26 n the frontline had a risk to be infected so that significantly increasing the workload. In addition they are afraid of bringing the virus to their families and inability of health workers to deal with critical patients [26]. The more burdens of health workers, the greater they will not be able to do their duty, it can caused anxiety and stress [1(119)].

The results of this study showed that there is a closed corelation between anxiety (r=0.152 p=0.000), stress (r=0.086 p=0.029), and depression (r=0.111 p=0.005) and depression (r=0.111 p=0.005), to the worried of being alienated if infected coronavirus. The more obstacles they experienced the greater they are unable to achieve their aspirations. Then there will be tension in themselves and caused anxiety and stress [25, 27]. As we know that in China, health workers are striving as the frontline to fight coronavirus and protect people [28, 29].

Based on result of simple linear regression analysis test on social responses among health workers in effort to facing the coronavirus pandemic (COVID-19), the social responses that most influence on anxiety, stress and depression are people panic while listening to information from online media with the results of anxiety (R² 0.058, AR² 0.057, B (95% CI) 0.242), stress (R² 0.040, AR² 0.038, B (95% CI) 0.199) and depression (R² 0.014, AR² 0.013, B (95% CI) 0.120). The Indonesian government has provided of health workers a place for lodging and even provide food and vitamins for health workers to reduce the

Public Health Sci. ISSN: 2252-8806

psychological impact. Every hospital is very important to help overcome the problem of tension that occurs in health workers that include anxiety, stress and depression responses.

In addition to the fear of transmitting the infection to colleagues and family members coupled with the dilemma of applying for sick leave in an already strained healthcare sector, many healthcare workers develop burnout and may experience a sense of intense fear, stigmatization and ostracism when displaying physical symptoms suggestive of the virus infection, which often leads to negative psychological pain [30, 31]. This phenomenon has already been described in the studes during the current COVID-19 outbreak [28] as well as previous Ebola crisis [32]. In addition, research conducted at the time of the SARS outbreak showed that health workers who worked in emergency rooms had a higher risk of experiencing polarumatic stress disorder (PTSD) compared to health workers who were in wards [33]. Health workers in an emergency were at a higher risk for developing post traumatic stress disorder [34].

This research can be a reference to the Indonesian government to handle anxiety, stress and depression that occur in health workers in particular and can provide protection to medical personnel so that they do not feel alienated by those around them. In addition, the government must provide full support to health workers as the frontline in handling COVID-19 in Indonesia.

Our research also has some limitations. First, compared with face to face interviews, self-reporting has certain limitations. Second, the study is cross-sectional and does not track the efficacy of psychological services. Due to changes in posttraumatic mental health, dynamic observation is necessary. A randomized prospective study could better determine correlation and causation. Third, a larger sample size is needed to verify the results.

5. CONCLUSION

About 65.8% respondents of health workers in Indonesia experienced anxiety due to COVID-19 outbreak 19, there were 3.3% experienced extremely severe anxiety and 33.1% experienced mild anxiety. While 55% of health workers experienced stress due to COVID-19 outbreak, extremely severe stress levels were 0.8% and experienced mild stress 34.5%. Health workers who experienced depression were 23.5%. Severe details sion is 0.5% while mild depression is 11.2%.

The results of this study showed that there is a closed correlation between anxiety (r=0.152 p=0.000), stress (r=0.086 p=0.029), and depression (r=0.111 p=0.005), to the worried of being alienated if infected coronavirus. We recommend to the Indonesian government must handle the anxiety, stress and depression that occurs in health workers in particular and can provide protection to medical personnel so that they do not feel alienated by those around them.

ACKNOWLEDGEMENTS

We gratefully acknowledge the \$32 ort of the Muhammadiyah University of Surabaya, University of Gresik, Jenderal Achmad Yani Cimahi Institute of Health Sciences, Mataram Institute of Health Sciences, Tri Mandiri Sakti Bengkulu Institute of Health Sciences.

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