

MENTAL HEALTH OF HEALTH WORKERS DURING COVID-19 PANDEMIC: WHAT KIND OF SYSTEM SUPPORT THEY NEED?

Faizatul Ummah, Nahardian Vica Rahmawati, Muhamad Ganda Saputra
and Nihayatul Munaa

Faculty of Health Sciences, Universitas Muhammadiyah Lamongan,
Lamongan Regency, Indonesia

Abstract. This study aimed to determine the relationship between spiritual support and social support with the mental health of frontline health workers during September to November 2021 which was under the COVID-19 pandemic. This study used a cross-sectional analytical research method. The research samples were frontline health workers in the Lamongan Regency area, using purposive sampling. The variables of social support, spiritual support, and mental health were measured once using a questionnaire via a google form. Data were analyzed by bivariate (chi-square) and multivariate with logistic regression. The results showed that 64.2% of respondents had good spiritual support; 52.8% had good social support; and 50.9% had good mental health. The results of the bivariate analysis showed that there was a relationship between mental health and spiritual support ($p=0.001$), and between mental health and social support ($p=0.005$). The results of multivariate analysis show that spiritual support has significant association with mental health (aOR 8.372; 95% CI: 2.359-29.716, $p=0.001$) while the social support has not (aOR 1.266; 95% CI: 0.465-3.443, $p=0.644$). It is very important that during this COVID-19 pandemic, health workers, especially those on the front lines, receive good spiritual and social support so that their mental health remains good which will affect their physical health and work productivity.

Keywords: social support, spiritual support, mental health, health worker, COVID-19

Correspondence: Faizatul Ummah, Faculty of Health Sciences, Universitas Muhammadiyah Lamongan, Jl. Plalangan Plosowahyu Km. 03, Lamongan, Indonesia
Tel: +62 85815785920 E-mail: faizatul_ummah@umla.ac.id

INTRODUCTION

The World Health Organization (WHO) declared the corona virus outbreak a pandemic on 11 March 2020 (WHO, 2020). This declaration was made considering the level of spread of the corona virus increased significantly in several countries and was sustainable globally. At the time the COVID-19 pandemic was announced, the corona virus had infected more than 118,000 people in 114 countries including Indonesia. (WHO, 2020)

The corona virus disease 2019 (COVID-19) outbreak can be stressful for many people. WHO and the United Nations (UN) stated that the COVID-19 pandemic that occurred in the world was feared to increase the risk of a global mental health crisis. Devora Kestel, Head of the WHO's Department of Mental Health, said the world must be prepared to see an increase in mental health problems, including among children, young people and health workers (WHO, 2020). Doctors and other health workers who help deal with COVID-19 are included in the group with a higher risk of experiencing stress as a result of this crisis. Prior studies on the impact of COVID-19 on health workers show a high level of distress (72%), with very high levels of depression (50%), anxiety (45%), and insomnia (35%); symptoms were more severe in those with longer patient contact (Yella and Dmello, 2022; Sese, 2022; Karagöl and Törenli Kaya, 2022). These findings highlight how important it is to be more sensitive in dealing with the distress experienced by health workers (Huang *et al*, 2020).

The burdens that are directly faced by medical personnel are enormous pressure, high risk of infection and death, inadequate protection, lack of contact with family (separation from family due to work demands and isolation), witnessing traumatic scenes including patients who are in critical condition (dead), lack of reinforcement and replacements, patients with negative emotions, discrimination and negative stigma such as rejection by the local community and burnout (Sese, 2022). Some other concerns are worrying the family, namely worrying about bringing the virus home. This high burden and worry will certainly affect mental health, including

increasing levels of stress, anxiety, and depression. Prolonged stress can also be a trigger for physical pain, the body will feel tired physically and emotionally (Yella and Dmello, 2022).

Good stress management is needed for health workers so that they can still think clearly and still feel prosperous both physically and mentally, so that they can continue to help others in crisis situations like this (Ahmad *et al*, 2022). Mental health during the COVID-19 pandemic needs separate handling because it has changed several aspects of life, including social distancing, quarantine and self-isolation, activities at home, panic buying as well as the changes in handling at health facilities. Conditions that change so quickly, for an indeterminate length of time, as well as constant news, cause changes in mental health (Ahmad *et al*, 2022).

Medical personnel and support staff on the front lines are in dire need of more complex support, related to the workload and high risk experienced (Herwati and Munaa, 2021). The support system, including social support and spiritual support, is important and very useful for reducing anxiety, depression, and symptoms of bodily disorders for people who experience stress at work. People who have high social support will experience positive things in their lives, have high self-esteem and a better self-concept, and lower anxiety. Likewise, spirituality promotes healthy and positive relationships with various aspects of life, such as mental and physical health, subjective well-being, life satisfaction and overall quality of life (Ahmad *et al*, 2022).

World Health Organization estimated that in the first year of the COVID-19 pandemic the prevalence of mental health problems is high especially for health workers worldwide in 2020. The prevalence of major depressive disorder (MDD) is 27.6% (95% CI: 25.1-30.3) and that of anxiety disorders (AD) is 25.6% (95% CI: 23.2-28.0) (WHO, 2022). Research in China found that 186 of the 511 health workers (36.40%) had depression; the depression scores were higher in nurses than in doctors (Fang *et al*, 2021). In another study conducted in 230 health workers at the forefront, 53 (23.04%) experienced anxiety while 63 (27.39%) experienced stress disorders.

The incidence of anxiety was more common in nurses (26.88%) than doctors (14.29%); anxiety scores were also higher in nurses than doctors (Huang *et al*, 2020). This is because nurses are the frontline workers who spend longer time with patients.

Mental health problems in the workplace need to be an important and main focus in every organization or institution, including hospitals as providers of comprehensive health services. Mental health problems of hospital employees, especially health workers as providers of direct services to patients, will have an impact on hampering work productivity (Herwati and Munaa, 2021). This study aimed to provide solutions to mental health problems for health workers in hospitals, especially those related to the support system by testing the support system variables that contribute to the mental health of health workers during the COVID-19 pandemic, namely spiritual support and social support.

MATERIALS AND METHODS

This research used analytic with cross sectional study design. The study was conducted in the Lamongan City from September until November 2020. The participants of this study were all 106 nurses who were frontline health workers in the Lamongan District drawn by purposive sampling. Independent variables were spiritual support and social support while the dependent variable was mental health. The instruments for this study was Social Support Questionnaire Short Form developed by Sarason *et al* (1983) for measuring social support variable. For measuring spiritual support, the questionnaire developed by Sinaga (2019) was used. This instrument was already tested for validity and reliability with the level validity >0.361 and alpha coefficient was 0.919. Mental health variable was measured using the questionnaire from Aziz *et al* (2015) and has been tested for validity and reliability in the level 0.888. This instrument aim to seek both positive and negative mental health. Positive mental health measured general positive

feeling, emotional condition, love and satisfaction of life, while the negative mental health indicators were anxiety, depression, lack control of behavior and negative emotion. The questionnaire was distributed via google form.

Spiritual support, social support and mental health are categorized using mean as a comparison. The 'Good' category was when the values were more than the mean of the variable analyzed. In opposite, the 'Not good' category was when the values were less than the mean.

Data were analyzed by univariate, bivariate with chi square and multivariate with logistic regressions. Data analysis used the Statistical Package for the Social Sciences (SPSS) version 16.0 for window (IBM, Chicago, IL). The significance level of this study was set at p -value of <0.05 .

This study obtained ethical approval from the Research Ethics Committee Universitas Muhammadiyah Lamongan, Approval No. 236/EC/KEPK-S2/10/2020.

RESULTS

A total of 106 nurses in Lamongan City were participated in this survey. Table 1 shows most of them are female (66.10%), adolescents between 20-30 years (71.69%) and graduated from vocational nursing education (86.79%). In addition, more than half of them (52.83%) were already married and have children. Most of the nurse work in hospital which has more complex of job description and they have high experience of becoming a nurse.

From Table 1, it can be seen that status of social support, spiritual support and mental health of half of the nurse were in good condition and the other half are not.

The results of the bivariate analysis (Table 2) with the chi square test show that there is significant relationship between spiritual support and mental health ($p=0.001$), and significant relationship between social support and mental health ($p=0.005$).

Meanwhile, the results of multivariate analysis (Table 3) with logistic regression showed that spiritual support has significant association with mental health (aOR = 8.372; 95% CI: 2.359-29.716, $p=0.001$). In contrast, the social support did not has the significant assosiation on mental health (aOR = 1.266; 95% CI: 0.465-3.443; $p=0.644$).

Table 1
Respondents' characteristics (N = 106)

Characteristic	Frequency <i>n</i> (%)
Sex	
Male	36 (33.9)
Female	70 (66.1)
Age	
20-30 years	76 (71.69)
31-40 years	26 (24.53)
41-50 years	2 (1.89)
≥51 years	2 (1.89)
Education	
Vocational	92 (86.79)
Undergraduated	12 (11.32)
Graduated	2 (1.89)
Marital Status	
Married	56 (52.83)
Unmarried	50 (47.17)
Parital Status	
None	48 (54.72)
1 or 2 children	38 (35.85)
More than 3 children	10 (9.43)

Table 1 (cont)

Characteristic	Frequency <i>n</i> (%)
Work place	
Hospital	74 (69.81)
Primary care	0 (0.00)
Private clinic	14 (13.21)
Other healthcare	18 (16.98)
Experience	
Less than a year	24 (22.64)
1 until 5 years	52 (49.06)
5 until 10 years	10 (9.43)
More than 10 years	20 (18.87)
Spiritual support*	
Good	68 (64.20)
Not good	38 (35.80)
Social support*	
Good	56 (52.80)
Not good	50 (47.20)
Mental health*	
Good	54 (50.90)
Not good	52 (49.10)

*Spiritual support, social support and mental health are considered 'Good' when the values are more than the mean of the variable analyzed while the 'Not good' category is when their values are less than the mean of the variable.

Table 2

Bivariate analysis of spiritual support and social support on mental health

Variable	Mental health, <i>n</i> (%)		OR (95% CI)	<i>p</i> -value
	Good	Not good		
Spiritual support*				
Good	36 (52.94)	32 (47.06)	9.563 (3.058 - 29.906)	<0.001
Not good	4 (10.53)	34 (89.47)		
Social support*				
Good	28 (50.00)	28 (50.00)	3,167(1.375 - 7.291)	0.005
Not good	12 (24.00)	38 (76.00)		

*Spiritual support, social support and mental health are considered 'Good' when the values are more than the mean of the variable analyzed while the 'Not good' category is when their values are less than the mean of the variable.

CI: confidence interval; OR: odds ratio

Table 3

Multivariate analysis of spiritual support and social support on mental health

Variable	B	aOR (95% CI)	<i>p</i> -value
Spiritual support	2.125	8.372 (2.359 - 29.716)	0.001
Social support	0.236	1.266 (0.465 - 3.443)	0.644

aOR: adjusted odds ratio; B: Beta (standardized coefficient); CI: confidence interval

DISCUSSION

Religion is a source of support for someone who has weakness, raises the spirit to be healthy for people who are sick, or can also maintain health to achieve prosperity. Spiritual needs are basic needs of every human being. If someone is sick, or in a state of sadness, stress, being under pressure and danger, then the relationship with God is getting closer, considering that someone in such a condition becomes weak in every way, no one can raise him except the creator. In addition to providing peace, and motivation at work, the spiritual aspect can help lift the spirit from adversity (Yalle and Dmello, 2022).

The results of this study are consistent with previous research conducted by Karagol and Törenli Kaya (2022) who showed that spiritual support was needed in improving mental health, enthusiasm for life, and quality of life. Mental health is not only being realized by self-acceptance, but also a family, spiritual and social support. It is because individuals who receive high support will become optimistic individuals and are better able to adapt to problems. Research by Abdala *et al* (2015) also stated that 75% of the studies under his review showed a positive relationship between spiritual engagement and quality of life/health-related quality of life in older adults in all areas (mental, social and physical). Likewise, research by Abdala *et al* (2015) - also states that people who are able to identify their spiritual beliefs positively will use these beliefs to deal with situations positively so that they will find meaning and purpose in life that will improve their quality of life.

Humans are holistic beings who have biological, psychological, social, and spiritual needs. Spiritual needs are one of the eternal needs and as a source of higher strength, especially in critical situations. The COVID-19 pandemic has caused confirmed cases, people at risk such as health workers, and even almost everyone to feel fear, loneliness and social isolation, and are threatened with death. Therefore, they feel that spiritual needs and spiritual support are urgent needs that must be met. Spirituality is a life

improvement factor and a coping resource to deal with adversity in a better way. The intensity of a stronger relationship with God Almighty will increase hope and peace of mind so that it can reduce or even eliminate mental health problems such as anxiety and stress, which in turn also has an impact on physical health, namely increasing immunity to disease (Heidari *et al*, 2020; Roman *et al*, 2020). Therefore, health workers who have good spiritual support and a high level of spirituality will have better mental health than those whose spiritual support is not good, especially during the COVID-19 pandemic where they experience a high workload and are very at risk of contracting it.

Psychologists and other mental health professionals often say, social support is information or feedback from others that shows that a person is loved and cared for, valued, and respected, and is involved in a network of reciprocal communication and obligations (Sese, 2022). Social support is the resources provided by others to individuals that can affect the welfare of the individual concerned. Furthermore, social support is a helpful action that involves emotions, providing information, instrumental assistance, and positive assessment of individuals in dealing with their problems (Karagol and Törenli Kaya, 2022). Social support can come from a spouse or partner, family members, friends, social and community contacts, group friends, church or mosque congregation, and co-workers or superiors at work (Heidari *et al*, 2020). This support is related to work success, positive self-image, self-esteem, self-confidence, motivation and mental health.

However, it seems that the results of this study are not consistent with the results of previous studies which state that there is a relationship between social support and mental health such as depression, and loneliness (Fang *et al*, 2021; Yella and Dmello, 2022; Karagol and Törenli Kaya, 2022). Social support can reduce anxiety, depression, and symptoms of bodily disorders for people who experience stress at work (Karagol and Törenli Kaya, 2022). People who have high social support will experience positive things in their lives, have better self-esteem and self-concept, and lower

anxiety. Herwati and Munaa (2021) also stated that social support can be effective in overcoming psychological stress in difficult and stressful times. Social support also helps strengthen immune function, reduce physiological responses to stress, and strengthen functions in response to chronic disease.

The absence of a relationship between social support and mental health in this study may be due to perceived support which is an important aspect of social support but was not considered in this study. Perceived support is not related to activated support or the support that is actually given by the support provider. That is, even though they feel they have given support, it doesn't necessarily mean that the recipient feels supported. Therefore, in order to understand the process of social support, it is necessary to clarify the role of personal relationships in the giving, receiving and evaluation of social support (Sese, 2022). The measurement of perceived social support is divided into two types, namely the perception of the support that exists today and has been accepted in the past and the perception of the support available in the future, if needed (perceived social support availability). Research by Yella and Dmello (2022) shows that perceived support availability is most associated with good health and adjustment to stressful experiences.

The relationship between social support and health can be seen as a direct relationship, where people who receive social support are more likely to maintain health (direct effect hypothesis). In addition, social support protects a person only when he is stressed, so it has no effect if no stress occurs (stress-buffering effect hypothesis). Looking at Table 1, more than a half of the frontline health workers have good mental health (psychological well-being), so the social support provided does not have a significant effect.

From bivariate analysis, it shows that there is a significant association between social support and mental health, but when it comes to multivariate analysis together with spiritual support, the result shows that social support does not have an association with mental health ($p=0.644$). Even tough,

health workers who receive good social support are 1.3 times more likely to have good mental health compared to health workers who do not receive social support (aOR = 1.266; 95% CI: 0.465-3.443, $p=0.644$). The results of this study are in line with the results of other studies which state that the higher the score of social support obtained, the lower the mental health score or the better mental health ($B=0.26$; 95% CI: -0.32 to -0.20) (Ghafari *et al*, 2021), although social support has an indirect effect on mental health as measured using the Symptom Checklist - 90 (SCL-90) score Social Emotional (SE) = 0.019, 95%CI: -0.156 to -0.084) (Hou *et al*, 2020). Looking at the results of this study, it is important that during the COVID-19 pandemic, health workers, especially those on the front line, get good spiritual and social support so that their mental health remains good because mental health will affect physical health and work productivity.

In Summary, there is significant correlation between spiritual support and mental health, while for social support and mental health there is no significant correlation. Spiritual support and social support together are not significantly related to the mental health of frontline health workers during the COVID-19 pandemic. Health workers who receive good spiritual support have an eight times chance of having good mental health compared to health workers who lack spiritual support and health workers who receive good social support are 0.9 times more likely to have good mental health compared to health workers who receive less social support. It is recommended that spouses or partners, family members, social and community contacts, group friends, co-workers and superiors at work to provide good spiritual and social support to health workers who are on the front lines during the COVID-19 pandemic.

CONFLICT OF INTEREST DISCLOSURE

No potential conflict of interest was reported by the authors.

REFERENCES

- Abdala GA, Kimura M, Koenig HG, Reinert KG, Horton K. Religiosity and quality of life in older adults: literature review. *Life Style J* 2015; 2 (2): 25-51.
- Ahmad S, Yaqoob S, Safdar S, *et al.* Burnout in health care workers during the fourth wave of COVID-19: a cross sectional study from Pakistan. *Ann Med Surg* 2022; 80: 104326.
- Aziz R, Wahyuni EN, Wargadinata W. The contribution of gratitude and forgiveness on mental health development in the work place, 2017 [cited 2022 Aug 22]. Available from: URL: <https://ojs2.e-journal.unair.ac.id/JPKM/article/view/3154/3170> [in Indonesian]
- Fang XH, Wu L, Lu LS, *et al.* Mental health problems and social supports in the COVID-19 healthcare workers: a Chinese explanatory study. *BMC Psychiatry* 2021; 21: 34.
- Ghafari R, Mirghafourvand M, Rouhi M, Osouli Tabrizi S. Mental health and its relationship with social support in Iranian students during the COVID-19 pandemic. *BMC Psychol* 2021; 9: 81.
- Heidari M, Yoosefee S, Heidari A. COVID-19 pandemic and the necessity of spiritual care. *Iran J Psychiatry* 2020; 15: 262-3.
- Herwati I, Munaa N. The effect of workload on nurse's work stress during the COVID-19 pandemic at Sondosia Bima Hospital. *Int J Sci Res* 2021; 10: 722-6.
- Hou T, Zhang T, Cai W, *et al.* Social support and mental health among health care workers during coronavirus disease 2019 outbreak: a moderated mediation model. *PLoS One* 2020; 15: e0233831.
- Huang JZ, Han MF, Luo TD, Ren AK, Zhou XP. Mental health survey of medical staff in a tertiary infectious disease hospital for COVID-19. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi* 2020; 38: 192-5. [in Chinese]

- Karagöl A, Törenli Kaya Z. Healthcare workers' burn-out, hopelessness, fear of COVID-19 and perceived social support levels. *Eur J Psychiatry* 2022; 36: 200-6.
- Roman NV, Mthembu TG, Hoosen M. Spiritual care - 'A deeper immunity'- a response to COVID-19 pandemic. *Afr J Prim Health Care Fam Med* 2020; 12: e1-3.
- Sarason IG, Levine HM, Basham RB, Sarason BR. Assessing social support: the Social Support Questionnaire. *J Pers Soc Psychol* 1983; 44: 127-39.
- Sese JC. Finding my joy: fighting nurse burn-out. *J Emerg Nurs* 2022; 48: 644-6.
- Sinaga EJQ. The relation between spiritual support and quality of life in elderly in Simarmata Village Samosir City, 2019 [cited 2021 Jan 13]. Available from: URL: <https://repository.stikeselisabethmedan.ac.id/wp-content/uploads/2019/08/ENDANG-JOIS-QUARTIN-SINAGA-032015067.pdf> [in Indonesian]
- World Health Organization (WHO). WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020, 2020 [cited 2021 Feb 24]. Available from: URL: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- World Health Organization (WHO). Mental health and COVID-19: early evidence of the pandemic's impact: Scientific brief, 2 March 2022, 2022 [cited 2022 Aug 22]. Available from: URL: <https://apps.who.int/iris/rest/bitstreams/1412184/retrieve>
- Yella T, Dmello MK. Burnout and sleep quality among community health workers during the pandemic in selected city of Andhra Pradesh. *Clin Epidemiol Glob Health* 2022; 16: 101109.