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Perception of Burnout Syndrome in Healthcare Workers in East Java during Covid-19 Pandemic

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Abstract.
The COVID-19 pandemic has caused health workers to work in situations where there is a lot of pressure and a high risk of COVID-19 infection. Even when the case and transmission of COVID-19 has decreased, health workers still have to work on vaccines and other routine service work. This working situation causes health workers to have a high risk of experiencing burnout syndrome (BOS). The consequences of BOS are exhaustion, decrease in work performance to patients, and inability to complete the given task. Fortunately, with early detection of BOS, the impact of BOS can be reduced. Therefore, the purpose of this study was to identify the BOS perception of health workers. This research was conducted in Kepanjen City which has the most COVID-19 referral hospitals in Malang Regency. This research uses quantitative methods with survey types. Respondents in this study are 562 health workers who are still actively working in three Malang District Hospitals. The research instrument used a BOS scale that was developed by researchers based on the theory of Maslach and Leiter (α = .866). The data analysis technique was carried out using descriptive tests by comparing the hypothetical and empirical mean and SD. The results showed that the BOS rate of health workers in Malang Regency during the COVID-19 pandemic tended to be high.

Keywords: health workers, burnout syndrome, COVID-19

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1. Introduction

In September 2021 to early 2022, COVID-19 cases in Indonesia can be said to have decreased, after previously there was an increase in COVID-19 cases due to the covid delta variant. After almost two years of COVID-19 in Indonesia, health workers in Indonesia are considered to be able to anticipate if there will be a third wave of COVID-19 and other COVID-19 variants. Currently, special rooms for handling COVID-19 in hospitals have also begun to be reduced and are being used to treat other diseases [1]. However, conditions in the field show that despite the decline in COVID-19 cases, health workers in Indonesia must continue to work for 40 hours a week or around 7-8 hours or even more per day to treat patients. Healthcare workers work with the shift

work method also carried out with the rule of two mornings - two afternoons - two nights followed by a break for one or two days [2].

In addition, during work, health workers must also strictly maintain hygiene and follow established health protocols. According to the rules of the Indonesian Medical Association in 2020, health workers on duty and dealing directly with COVID-19 patients must wear Personal Protective Equipment (PPE) for 7-8 hours of working time. Healthcare workers in Indonesia must also continue to work to handle patient complaints for other diseases and actively encourage the Indonesian people to vaccinate (including providing vaccinations to the public) and continue to implement 3M [3].

Demands such as long working hours and a high prevalence of shift work and environmental conditions as described above, put health workers at risk of experiencing burnout syndrome (BOS) [4]. Burnout syndrome (BOS) is a condition of long-term exhaustion and decreased interest in the context of work. In Maslach & Leiter's [5] theory, there are three components of BOS, namely exhaustion, cynicism and inefficacy. Exhaustion is characterized by reduced energy to work, emotional disturbance (mood) and feeling overworked. Cynicism is characterized by negative attitudes, avoidance, impaired relationships with patients or colleagues and decreased responsiveness at work. Meanwhile, inefficacy is characterized by a lack of self-achievement and productivity at work [5]. Measurement of BOS usually uses the Maslach Burnout Inventory (MBI), Oldenburg Burnout Inventory (OLBI) or Shirom-Melamed Burnout Measure (SBMB). Most BOS measures are self-report scales, this way individuals can report their personalities, habits and the level of BOS they personally feel [6].

Individuals who experience BOS usually experience physical exhaustion, emotional exhaustion, depersonalisation (negative or cynical attitude towards patients) and lack of a sense of self-achievement [7]. Healthcare workers who experience BOS will have high levels of work stress, be less effective at doing work, lack motivation to develop their abilities and experience a decrease in work with patients [8]. Another study conducted by Zulkarnain also showed that BOS can also lead to an increased risk of mental disorders, feelings of pressure, increased job dissatisfaction and a high risk of turnover in health workers [9].

Research by Sunjaya, Herawati, and Siregar [10], showed that there was a significant increase in BOS in health workers during the pandemic due to high levels of depression and anxiety. Another study conducted by the Faculty of Medicine from the University of Indonesia also showed that 83% of health workers in Indonesia experienced moderate to severe levels of BOS. There were 82% of health workers who experienced moderate BOS and 1% severe BOS and the rest experienced mild BOS [9]. The increase in BOS

in health workers during the pandemic is due to the 6.062.617 cases of COVID-19 that occurred in Indonesia from 2019 to 2022. The highest case of COVID-19 is in DKI Jakarta province, while East Java is ranked as the fourth highest case in Indonesia. There are 576.832 cases of COVID-19 in East Java Province. Of the 39 cities and regencies in East Java Province, Malang City is ranked third and Malang Regency is ranked fourth [11]. There are 22 referral hospitals provided in Malang city and district. With the most referral hospitals in Malang District being in Kepanjen with 2 referral hospitals, namely Wava Husada Hospital and Kepanjen Regional Hospital [12]. As of July 2022, there have been 26,004 positive cases and 1054 deaths due to COVID-19 in Malang District [13]. The large number of COVID-19 cases and referral hospitals in Kepanjen City can risk increasing BOS in health workers who work in these hospitals.

Currently, many studies have examined anxiety, stress and post-trauma in health workers during the pandemic, but there are still few studies related to BOS. Most research related to BOS in health workers during the pandemic was conducted qualitatively using the literature study method, while quantitative research was carried out before the COVID-19 pandemic and was carried out only in big cities. In fact, the phenomenon of BOS is one of the main problems faced by individuals who work as health workers [14]. So currently there is still no data on the level of BOS in health workers who work in district areas. Most research related to health workers working in districts examines anxiety, the performance of health workers during the COVID-19 pandemic and the implementation of COVID-19 prevention and control in district areas. Thus, research related to the perception of BOS in health workers is important to do, so that we can find out an overview of how BOS events are experienced by individuals. By measuring the perception of BOS, it can be seen how individuals feel exhaustion, whether they feel disturbed when working with patients or colleagues and how the individual's ability to complete work.

Based on the description above, this study aims to describe the perception of BOS felt by health workers working in Kepanjen City, Malang Regency.

2. Literature Review

"Burnout" was first used by Herbert Freudenberger and since then several models of burnout theory have developed. Burnout develops as a response to chronic exposure to work stress. Maslach & Leiter [5] defined burnout syndrome as a response that arises from continuous exposure to work stress. The three dimensions of burnout are

excessive exhaustion, feelings of cynicism and detachment from work, and feelings of ineffectiveness and lack of achievement at work.

Exhaustion is the physical and emotional response to stress and the first sign that someone is having problems at work. Individuals will feel overextended by work demands and experience a reduction in physical and emotional resources. Individuals feel exhausted and energy depleted without having a source to replenish and recover. Individuals also feel a lack of energy to face the day or other problems. In this state individuals may experience mood disorders and even sleep disorders. Cynicism or depersonalisation signifies the intrapersonal context of burnout. This dimension signifies an excessively negative, abusive or avoidant attitude towards various aspects of work. It is usually characterized by impaired relationships with colleagues or clients in terms of a lack of response to work commitments. The individual will have a cold and distant attitude towards work and colleagues. Individuals will engage minimally at work. Cynicism develops as a result of excessive exhaustion and the first self-protective response of ”avoiding problems or thoughts” and protecting oneself from exhaustion and disillusionment with work. If this response is sustained, the individual will develop negative reactions to clients or colleagues. Inefficacy signifies the self-evaluation component of burnout. This component is defined as feelings of incompetence and lack of personal achievement and productivity at work. A decreased sense of self-efficacy is caused by a lack of work resources, social support and opportunities to develop professionally. Individuals will see themselves negatively, lose confidence and may even progress to depression [6].

3. Method

This type of research is quantitative with a descriptive research type. This research method is a survey method, a survey is conducted to obtain data from respondents who are able to represent the population and describe the context of the field under study. This survey method was conducted once on health workers to determine the perception of BOS. This study was conducted in order to describe the variable under study, namely the perception of BOS. Survey data collection was conducted using questionnaires distributed to respondents.

The population in this study was health workers working in East Java. The health workers referred to are individuals who work as (a) medical personnel, (b) clinical psychology personnel, (c) nursing personnel, (d) midwifery personnel, (e) pharmaceutical personnel, (f) public health personnel, (g) environmental health personnel, (h) nutrition

personnel, (i) physical therapists, (j) medical technicians, (k) biomedical engineering personnel, (l) traditional health personnel and (m) other health personnel.

According to the Central Bureau of Statistics of East Java Province, the population of East Java health workers containing doctors, nurses, midwives, pharmacists and nutritionists totalled 100.021 thousand individuals [15]. To determine the number of samples needed in the study, calculations were made using the Slovin formula. The calculation was carried out with a margin of error of 5% or .05. Based on the sample calculation using the Slovin formula, it is known that the number of samples needed in the study is 398 respondents. For samples obtained using non-probability sampling techniques with a form of convenience sampling, where sampling is obtained from respondents who voluntarily agree to become research participants. The sample of the study came from 3 hospitals in Malang Regency and the total sample was 398 health workers.

Burnout syndrome (BOS) in this research was measured using a scale developed by the researcher based on the theory of Maslach & Leiter [5] with three BOS components namely exhaustion, cynicism and inefficacy. The BOS scale developed uses a Likert scale with five answer options, namely 1 (always); 2 (often); 3 (sometimes); 4 (rarely); 5 (never). For unfavorable items, a score of 5 is given in category 1 (always) and decreases to a score of 1 in category 5 (never). The higher the total score obtained by the respondent, the respondent feels very mentally and physically exhausted, often behaves negatively and stays away from patients or colleagues and takes a long time to complete their work. Meanwhile, health workers who have a low BOS score feel they have a lot of energy during and after work, like to interact with patients and colleagues and are able to complete tasks quickly.

The BOS scale developed has 28 valid items (α=.866). Among the items on the questionnaire were ”I feel tired before arriving at work” (exhaustion component), ”It does not take me long to be able to solve problems with my colleagues” (cynicism component) and ”I feel incompetent in completing assigned tasks” (inefficacy component).

Data collection will be conducted using a cross sectional survey technique, where data collection is only done once. This method is carried out to obtain explanations and descriptions related to the research variable, namely burnout syndrome (BOS). This method is carried out by distributing questionnaires or scales that need to be filled out by samples from the population under study. The questionnaire will be distributed via the Google Form link and directly with written questionnaire questions to respondents. in April - July 2022. The results obtained will later be analyzed to present the entire population under study.

The analysis technique used descriptive analysis to determine the level of BOS owned by respondents. Descriptive analysis test was conducted by comparing the mean and standard deviation of hypotheticals with the mean and standard deviation of empirical questionnaire scores. Furthermore, a description of the results of the analysis test was carried out to describe the relationship between burnout syndrome and factors that can affect the level of burnout.

4. Result and Discussion

Based on a total of 562 respondents who work as health workers in hospitals, in general, it can be described as follows (table 1):

Based on table 1, it can be seen that out of 562 respondents 374 female health workers (66.5%) and 188 male health workers (33.5%). Respondents who filled in had an age range of 20 years to 60 years and most were filled in by 21-30 years old (48.8%). There were 169 respondents aged 31-40 years (30%), 90 respondents aged 41-50 years (16%) and 29 respondents aged 51-60 years (5.2%). The type of health worker is seen from the field of health work. Most health workers work as nurses, namely 297 people (52.8%). In addition, there were 61 respondents who worked as other health workers, where they worked in hospitals in administration, services, security and cleaning officers, and ambulance officers (10.9%).

Of the 562 respondents, 417 worked shifts and 145 worked non-shifts. On average, respondents worked for 7 hours a day in 6 working days (67.4%) and 8 hours a day in 5 working days (17.3%). Other health workers worked for 8 to 10 hours in 6 working days (7.5%), 7 to 10 hours a day in 6 working days (3.7%), 7 hours a day in 5 working days (2.5%) and 8 hours a day in 6 working days (1.6%). Then from the marital status data from 562 respondents, it is known that 456 respondents are married (81.1%), 105 respondents are not married (18.8%) and 1 respondent stated that he was divorced (0.2%).

Based on the results of descriptive analysis of research variables in Table 2, it can be seen that the empirical mean score of the burnout syndrome (BOS) variable is 112.95 and the hypothetical mean is 30. This indicates that the level of BOS of health workers who participated as respondents is included in the high category.

The results of the descriptive analysis test in this study indicate that currently most health workers in Kepanjen City, Malang Regency perceive that they experience high BOS. It means that health workers feel that they often experience mental and physical fatigue, such as not having the energy to go to work, not having time to joke with family and not having time to do hobbies. Health workers also feel that they often experience

Table 1: Respondents demographic data.

Demographic	Category	Frequency	Percentages
Gender	Male	188	33.5
	Female	374	66.5
Age	21-30 year	274	48.8
	31-40 year	169	30.0
	41-50 year	90	16.0
	51-60 year	29	5.2
Areas of Work	Medic	24	4.3
	Nursing	297	52.8
	Clinical Psychology	1	0.2
	Public Health	3	0.5
	Environmental Health	4	07
	Medical Engineering	10	1.8
	Traditional health	3	0.5
	Midwifery	48	8.5
	Nutrition	58	10.3
	Pharmacy	41	7.3
	Physical therapy	12	2.1
	Others	61	10.9
Working Hour	7 hours a day in 6 working days	379	67.4
	8 hours a day in 5 working days	97	17.3
	7 hours a day in 5 working days	14	2.5
	8 hours a day in 6 working days	9	1.6
	7 to 10 hours in 6 working days	21	3.7
	8 to 10 hours in 6 working days	42	7.5
Working Hour Types	Shift	417	74.2
	Non-shift	145	25.8
Marital Status	Married	456	81.1
	Unmarried	105	18.8
	Divorce	1	0.2

Table 2: Descriptive Analysis of Research Variables.

Variable	N	Hip. Mean	Hip. SD	Emp. Mean	Emp. SD
Burnout syndrome (BOS)	562	30	35.333	112.95	13.494

problems with colleagues and patients and do not want to involve themselves in

decision-making at work. This high perception of burnout also causes a decrease in work performance and is unable to complete the assigned tasks.

The results of this study are in line with research by Orru et.al [16] on health workers in Europe that during the COVID-19 pandemic there were more than 50% of health workers with high levels of BOS. Research on health workers in India, South Korea and Spain also showed that during the pandemic health workers experienced high BOS. The high BOS is because health workers have encountered many deaths of their colleagues, families and relatives due to COVID-19. The BOS also causes health workers to have a high risk of experiencing secondary traumatic stress and occupational stress. Based on interviews with three health workers working in Kepanjen City, Malang Regency during this study, it was found that not many of their colleagues had died from COVID-19. However, there were many cases where their colleagues and families had to be intensively treated at the hospital due to COVID-19. The respondents also said that when their colleagues had to be intensively treated, they felt that they had to take better care of themselves and their families, which caused the interviewees to be anxious and tired at work; and fear that other new diseases could emerge.

The majority of respondents in this study also worked as nurses (52.8%), indicating that their perceived BOS was high. The results of this study are in accordance with previous research which states that nurses have a higher risk of experiencing BOS than other fields of health workers, this is due to the large number of health workers who care for and treat patients [10]. Meanwhile, other health workers such as psychologists, midwives, medical technicians tend to experience lower emotional exhaustion than nurses and medical personnel [17]. Nurses are also reported to have higher levels of exhaustion, cynicism and inefficacy than other health workers [18][19]. What causes health workers to have a high BOS score is that there are only 3 large hospitals in Kepanjen, Malang Regency. So that many patients are referred to these hospitals, while there are several rooms that need additional volunteers during the COVID-19 pandemic [20]. This has led to increased work demands and fatigue in health workers.

In addition, research shows that the risk of BOS will increase in health workers who work more than 8 hours a day and when there is a change in work duties. The increase in BOS in health workers who have long working hours is due to high cynicism/depersonalisation. Health workers must work to serve patients and work constantly, which can reduce job satisfaction and increase job stress [17]. Long working hours and short holidays cause health workers to experience fatigue, cynicism and decreased work performance. This is due to health workers not having time to recover and rest from the pressure of work [10]. In addition, research shows that health workers

who work shifts have higher levels of BOS compared to health workers who work non-shifts, especially health workers who work day shifts. This is because health workers are busier and serve more patients during the day shift, and are at risk of overwork [22]. Many health workers in Malang Regency Hospital have to work for 7 hours a day in 6 working days (67.4%) and some even work for 10 hours a day. In addition, most health workers in Kepanjen City, Malang Regency also work shifts (74.2%). All health workers in the three hospitals only get 1 to 2 days off causing them to have no time to recover their energy. So the results of this study are in line with previous research that long working hours and shift work cause health workers to perceive themselves as experiencing BOS.

In this study, most respondents were female, namely 374 (66.5%). This means that many female health workers in Kepanjen City, Malang Regency perceive themselves as experiencing BOS. Based on research by Ferry, et.al [21] on health workers in the UK, it states that female health workers have a higher risk of experiencing BOS. Female health workers have a high level of BOS because they often see patients in pain while working, have to take care of the family when at home and are anxious about transmitting COVID-19 in the environment [16]. Other studies have also shown that female health workers are more vulnerable to emotional and physical exhaustion, as well as work stress [18][16].. Based on interviews with several female respondents, it is true that female health workers feel that during the COVID-19 pandemic their work has increased. After work, they have to complete housework, take care of children's and husband's schooling, and prevent their families from being infected by COVID-19.

In this study, it was also found that the high level of BOS experienced by health workers who became respondents in this study may be due to the fact that most respondents were from health workers aged 20-30 years (48.8%) and 31-40 years (30%). The results of this study are in line with previous research which shows that the risk of high BOS tends to be experienced by young health workers who are under 40 years of age. This is because it is difficult to adapt to new situations, still does not have much experience and is still vulnerable to high work pressure [9][10][21]. Young health workers working in hospitals in Malang Regency mostly work for less than five years (48.8%), are responsible for serving patients and often work shifts (74.2%). Meanwhile, health workers aged 40 years and above mostly work in administration and work non-shift. So that it can be one of the reasons why young health workers experience high BOS.

In this study, the majority of health workers were married (81.1%), this shows that many married health workers in Kepanjen City, Malang Regency perceive themselves to experience BOS. Research conducted on health workers in Spain shows that married

health workers have a higher level of BOS compared to those who are not married. This is because in addition to caring for patients, health workers must take care of and worry about the safety of their families, especially children and parents. The level of BOS is also higher in married female health workers than married male health workers [19]. The results in this study are more in line with research by Martínez-López et al [18] that married health workers are more at risk of experiencing BOS than unmarried health workers.

Based on the results of this study, most health workers working in Kepanjen City, Malang Regency perceived themselves as experiencing BOS. Specifically, the high level of BOS illustrates that health workers feel that many are experiencing mental and physical fatigue, cynicism and ineffectiveness at work during the COVID-19 pandemic.

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