

# Factors Associated with Psychological Disorders in Health Workers Specializing in Handling Covid-19 in Several Padang City Government Hospitals

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## Abstract

The 2019 coronavirus disease can be spread quickly and easily, making it a potential pandemic threat. As the number of confirmed cases rises, the mental load of healthcare providers will increase, causing them to feel stressed, anxious, and negatively impacted emotionally. The primary objective of this study is to identify risk factors for mental illness among healthcare workers in Padang, Indonesia, who deal with the COVID-19. The research used an explanatory sequential mixed methods design, beginning with a cross-sectional study to provide a quantitative foundation, then progressing to a more in-depth explanation using qualitative methods. There were a total of 1218 participants in this analysis. Using questionnaires and in-person interviews, we gathered information to analyze using the chi-square with 95% confidence interval and the ANOVA test. 5.2% of healthcare workers handling Covid-19 reported moderate depression, 8.7% reported moderate anxiety, there was no correlation between occupation, interaction, residence, or average length of employment or salary, and there was no difference between the two.

**Keywords:** COVID-19, Health Workers, Psychological Disorders.



## A. INTRODUCTION

The increasing number of reported cases and deaths due to COVID-19 poses a serious threat to the healthcare system. Health care providers must increase their capacity to accommodate the increasing number of COVID-19 patients. Health care providers have been hit hard by resource constraints. Andalas University epidemiologists conducted an initial assessment of the PSBB in the Padang metropolitan area and found that 20.27 percent of confirmed cases were health workers or worked in health agencies. Almost half of all confirmed cases came from hospitals in the Padang city area, with details of 27.03% coming from Semen Padang Hospital, 20.27% from M. Jamil Hospital, and 10.81% from FK Unand Workers, based on the network contact history of confirmed cases based on hospital (Djafri et al., 2020).

Healthcare providers may experience emotional strain due to factors such as the increasing number of confirmed cases, heavy workload, reduced personal protective equipment, extensive media coverage, and drug shortages (Lai et al., 2020) Emotional responses such as stress, worry, and depression is common during the pandemic. Those working in medical fields responding to the epidemic and known to be suffering from high levels of stress, worry, or other negative psychological impacts

will also suffer from similar symptoms for up to a year after the pandemic ends (Blake et al., 2020).

Symptoms of post-traumatic stress (PTSD) are observed to appear several weeks after an outbreak or pandemic. Based on previous events, namely the MERS and SARS outbreaks, psychological pressure on frontline emergency health staff emerged slowly, the psychological pressure that emerged was fear, anxiety, depression, psychological symptoms, post-traumatic symptoms and symptoms that generally occur due to psychological pressure (Mukhtar, 2020).

Instability in adapting to the environment is a characteristic of mental illness. A person's mental health becomes more at risk until he is diagnosed with a psychological disorder due to his inability to manage situations that cause him to experience severe stress. External influences, such as an individual's social situation, can also play a role in the development of mental or psychological problems. Excessive stress occurs when someone is expected to complete or do something beyond their abilities; If this tension is not managed effectively, it can cause mental problems (Putri et al., 2014).

Sixty-three percent of respondents experienced anxiety and sixty-six percent of respondents experienced depression due to the COVID-19 pandemic, based on the results of an online mental health survey through self-examination compiled by the Indonesian Association of Mental Medicine Specialists (PDSKJI) (Ridlo, 2020). More than half of health workers reported experiencing anxiety, based on a survey conducted in April–May 2020 by researchers from the Department of Mental Nursing, Faculty of Nursing, UI and the Research Division of the Indonesian Mental Health Nurses Association (IPKJI). and hopeless so that some people consider suicide as a solution (Winurini, 2020).

Research by Fadli et al in April 2020 proved that the majority (65.2%) of health workers in 3 hospitals and 9 community health centers in South Sulawesi experienced mild anxiety. The results of the analysis show the fact that the level of anxiety of health workers is influenced by the availability of PPE, family status and knowledge (Fadli et al., 2020) Research by Zhu, et al. in 2020 found that factors related to depression, anxiety and stress levels in medical staff were gender, occupation, length of work, living with family. Subsequent research conducted by Quan Dong, et al. in 2020 found that factors related to anxiety, depression and stress levels were gender, income, type of work, history of contamination with positive patients, reactions in the family (Dong dkk., 2020).

China, as the country where the SARS CoV-2 virus was discovered, implemented a lockdown policy for its citizens as an initial response to preventing and controlling COVID-19. The rapid and systematic actions taken by the Chinese government produced results in no more than 3 months. The Chinese Health Commission in Hubei Province on March 25 2020 began to open the lockdown. This policy was implemented after the number of new infections in Hubei had ceased to exist (Kennedy et al., 2020).

Meanwhile, the rate of increase in confirmed cases and deaths due to COVID-19 in Indonesia has not been suppressed. The unitary state system which places the central government as the main stakeholder in disaster matters means that information and policies can only be decided by the central government. Law Number 6 of 2018 concerning Health Quarantine is the basis. In Article 5 Paragraph (1) it is written, "The Central Government is responsible for carrying out Health Quarantine at Entrances and areas in an integrated manner". In fact, Article 11 Paragraph (1) further states, "The implementation of Health Quarantine in Public Health Emergencies is carried out by the Central Government..." Meanwhile, the role of regional governments in this regulation is to be "followers" or can play an active role if they are "involved" by central government (Article 5 Paragraph (2)).

The Indonesian government took the decision to implement PSBB (Large-Scale Social Restrictions) in several regions. PSBB is a central government policy (in collaboration with regional governments) in order to overcome the COVID-19 pandemic by limiting certain activities in an area suspected of being infected. Evaluation of the implementation of PSBB from 21 April to 30 April 2020 in Padang City, after 1 week of PSBB being implemented there was an increase of an average of 4 cases per day with an average increase of 71.5% of cases per week (Djafri dkk., 2020).. Until the data analysis update on April 18 2021, COVID cases in Padang City were still the highest cases in West Sumatra province with a cumulative incidence of 1,810.56 per 100 thousand population (Satuan Tugas Penanganan COVID-19, 2021).

As the number of patients with COVID-19 increases, more and more health resources, including personnel, beds and facilities, are at maximum capacity, with limited resources people will be under greater pressure, especially health workers. The psychological stress experienced by Health workers during the pandemic not only cause fatigue but are detrimental not only to individual well-being but also detrimental to the patient care system. As occurred during the SARS outbreak, the emotions experienced by health workers were associated with high numbers of resignations and poor work performance outcomes (Blake dkk., 2020).

In addition, health workers' mental health problems will interfere with their attention, cognitive function and clinical decision making. The result increases the occurrence of medical errors and incidents, and ultimately puts patients at risk. Therefore, workforce mental health issues in the COVID-19 epidemic have become an urgent public health concern (Zhu et al., 2020).

Based on data on the condition of COVID-19 in the city of Padang which is still high and there is no specific research that discusses psychological disorders: stress, anxiety disorders, depression experienced by health workers who specialize in treating COVID-19 as well as factors related to these psychological disorders, it is necessary Further analysis was carried out regarding factors related to psychological disorders: stress, anxiety disorders, depression in health workers specializing in handling COVID-19 in several Padang city government hospitals. If this problem is not handled quickly and appropriately, it will disrupt the attention, cognitive function

and clinical decision making of health workers. The result increases the occurrence of medical errors and incidents, and ultimately puts patients at risk.

## B. METHOD

This research method is an observational analytical type with an explanatory Sequential Mixed Methods study design. Data collection techniques through primary data and secondary data. Primary data consists of data on length of work, income, place of residence and interactions with positive Covid-19 patients. Meanwhile, secondary data includes data on the number of health workers, gender, contact persons who can be contacted and type of staff at government general hospitals in the city of Padang. The research instruments used were interviews and filling out questionnaires with 173 samples of 1218 people. The instrument that has been filled in with data is then analyzed through a validity test and reliability test. The validity test is used to determine whether the research instrument is valid or not, while the reliability test is used to determine whether the research data conducted at Andalas University Hospital, Dr. M Djamil Padang from July 2021 to August 2023.

## C. RESULTS AND DISCUSSION

### 1. Descriptive Analysis

The frequency distribution of health workers specializing in handling COVID-19 who experience COVID-19 psychological disorders who have moderate levels of anxiety disorders is 8.7% (15 people). Measuring the stress level of health workers specifically handling COVID-19 in Padang City, the results showed that all health workers had stress at normal levels.

Based on the results of these measurements, it appears that there were no cases found that varied in the stress level variable for health workers specifically handling COVID-19 in the city of Padang. Therefore, the dependent variable of stress levels in health workers cannot be continued for bivariate analysis tests.

Meanwhile, the frequency distribution of health workers based on the independent variables previously explained in the operational definition shows that the 173 people sampled in this study were mostly in the nursing staff occupational group, namely 76.3% (132 people). The majority of health workers specializing in handling COVID-19 live with their families, namely 74% (128 people). Health workers who specialize in handling COVID-19 interact directly with COVID-19 patients as much as 94.2%.

Then, the distribution of length of work and total income of health workers specifically handling COVID-19 can be seen in the following table:

**Table 1. Distribution of Length of Work and Income of Health Workers**

Variable	Mean	Min	Max
Length of Work	5,08 years	3 months	22 years
Income	Rp. 9.395.000	Rp. 1.000.000	Rp. 20.000.000

Based on the table, it can be seen that the average length of time health workers have worked in hospitals is 5 years. The average income of health workers is Rp. 9,395,000.

## **2. Relationship between Type of Staff, Place of Residence and Interaction with Patients with Depression in Health Workers Specializing in Handling COVID-19**

The results of the research show the relationship between type of staff, place of residence and interactions with patients with depression among health workers specifically handling COVID-19 in several hospitals in the city of Padang. It is known that as many as 4.9% of 41 medical staff experienced psychological disorders of depression at a moderate level, while 5.3% of 132 nursing staff experienced psychological disorders of depression at a moderate level. The statistical test results obtained a p-value of 0.75 ( $p > 0.05$ ) indicating that there is no statistically significant relationship between the type of staff and depression in health workers specifically handling COVID-19 in several hospitals in the city of Padang.

Moderate depression occurred in 11.1% of 45 health workers who lived alone, while 4% of 128 health workers who lived with their families experienced moderate levels of psychological disorders. The results of statistical tests obtained a p-value of 0.07 ( $p > 0.05$ ) indicating that there is no statistically significant relationship between place of residence and depression in health workers specializing in handling COVID-19 in several hospitals in the city of Padang

As many as 5.5% of the 163 health workers who interacted directly with patients experienced depressive psychological disorders at moderate levels, while all health workers who interacted indirectly with patients experienced depressive psychological disorders at normal levels. The statistical test results obtained a p-value of 0.37 ( $p > 0.05$ ) indicating that there was no statistically significant relationship between interactions with patients with depression among health workers specializing in handling COVID-19 in several hospitals in the city of Padang.

## **3. Relationship between Type of Staff, Place of Residence, Interaction with Patients with Anxiety Disorders in Health Workers Specializing in Handling COVID-19**

The results of the research show a relationship between type of staff, place of residence and interaction with anxiety disorders in health workers specifically handling COVID-19 in several hospitals in the city of Padang, as many as 2.4% of 41 medical staff experienced psychological disorders, anxiety disorders at a moderate level, while 10.6% of 132 nursing staff experienced psychological disorders, anxiety disorders at a moderate level. The statistical test results obtained a p-value of 0.04 ( $p < 0.05$ ) indicating that there is a statistically significant relationship between the type of staff and anxiety disorders in health workers specifically handling COVID-19 in several hospitals in the city of Padang.

Moderate anxiety disorders occurred in 13.3% of 45 health workers who lived alone, while 7% of 128 health workers who lived with their families experienced moderate levels of anxiety disorders. The statistical test results obtained a p-value of 0.36 ( $p > 0.05$ ) indicating that there is no statistically significant relationship between place of residence and anxiety disorders in health workers specializing in handling COVID-19 in several hospitals in the city of Padang.

Moderate levels of anxiety disorders occurred in 9.2% of 163 health workers who interacted directly with patients, while all medical personnel who did not interact directly with patients experienced psychological disorders, anxiety disorders at normal levels. The statistical test results obtained a p-value of 0.31 ( $p > 0.05$ ) indicating that there was no statistically significant relationship between interactions with patients with anxiety disorders among health workers specializing in handling COVID-19 in several hospitals in the city of Padang.

#### 4. Average Length of Work and Income for Health Workers Specializing in Handling COVID-19 Who Experience Depression

The research results show differences in average length of work and income for health workers specifically handling COVID-19 who experience depression in the table below:

**Table 2. Distribution of average length of work and income for health workers specializing in handling COVID-19 who experience depression**

Independent Variable	Depression	n= 173	Mean	SD	SE	p-value
Length of Work	Currently	9	4,01	4,62	1,54	0,64
	Light	18	4,37	5,78	1,36	
	Normal	146	5,23	5,02	0,41	
Income	Currently	9	8,61	2,97	988	0,81
	Light	18	9,25	3,84	905	
	Normal	146	9,46	4,01	332	

Table 2 shows that the average length of work for health workers specializing in handling COVID-19 who experience moderate levels of depression is 4 years, while the length of work for health workers who experience depression at normal levels in hospitals is 5 years. The results of statistical tests obtained a p-value of 0.64 ( $p > 0.05$ ), so it can be concluded that there is no difference in the average length of work for health workers specifically handling COVID-19 who experience depression at normal, mild, moderate and severe levels.

The average income of health workers who experience moderate levels of depression in hospitals is IDR 8,610,000,- while the income of health workers specifically handling COVID-19 who experience normal levels of depression is IDR 9,460,000,-. The statistical test results obtained a p-value of 0.81 ( $p > 0.05$ ), so it can be concluded that there is no difference in the average income of health workers

specifically handling COVID-19 who experience depression at normal, mild and moderate levels.

### 5. Average Length of Work and Income of Health Workers Specializing in Handling COVID-19 Who Experience Anxiety Disorders

The research results show differences in average length of work and income for health workers specifically handling COVID-19 who experience anxiety disorders in the table below:

**Table 3. Distribution of average length of work and income for health workers specializing in handling COVID-19 who suffer from anxiety disorders**

Independent Variables	Anxiety Disorders	n= 173	Mean	SD	SE	p-value
Length of Work	Currently	15	4,86	5,47	1,41	0,87
	Light	16	4,5	5,97	1,49	
	Normal	142	5,17	4,95	0,42	
Income	Currently	15	7,73	1,37	354	0,04
	Light	16	7,84	3,29	823	
	Normal	142	9,75	4,1	344	

Table 3 shows that the average length of work for health workers specializing in handling COVID-19 who experience moderate levels of anxiety disorders is 4.8 years, while the length of work for health workers who experience normal levels of anxiety disorders in hospitals is 5.2 years. The statistical test results obtained a p-value of 0.87 ( $p > 0.05$ ), so it can be concluded that there is no difference in the average length of work for health workers specifically handling COVID-19 who experience anxiety disorders at normal, mild, moderate and severe levels.

The average income of health workers who suffer from severe anxiety disorders in hospitals is Rp. 7,730,000,- while the income of health workers specializing in handling COVID-19 who suffer from anxiety disorders at normal levels is Rp. 9,750,000,-. The results of statistical tests obtained a p-value of 0.04 ( $p < 0.05$ ), so it can be concluded that there is a difference in the average income of health workers specifically handling COVID-19 who experience anxiety disorders at normal, mild and moderate levels.

### 6. Multivariate Candidate Selection

Multivariate analysis is carried out by selecting candidate variables based on the results of bivariate analysis. Variables with a p value  $< 0.25$  can immediately be included as candidate variables in multivariate analysis modelling with the result that there are no independent variables related to the level of depression in health workers specifically handling COVID-19 which fulfill the requirements to be candidates in multivariate modelling whereas anxiety disorders There are 2 independent variables that meet the requirements to be candidates in multivariate modelling. It can be concluded that these variables cannot be continued for multivariate analysis tests.

## 7. Qualitative Data

Informants in this study were guided by the inclusion and exclusion criteria that researchers had previously determined. There were 6 informants in this study who were involved voluntarily and were cooperative in answering questions during the interview process. The longest the research informant worked in one shift was 7 hours. The matrix of causes of psychological disorders in health workers specifically handling Covid-19 is as follows:

**Table 4. Matrix of factors causing psychological disorders for health workers specifically handling COVID-19**

Theme	Sub Theme	Category
Factors causing psychological disorders	The agency where you work	1. Division of shifts and working hours 2. Adequacy of supporting health equipment 3. Salary and incentives provided
	Interactions with patients and families	1. Number of Patient served 2. Severity of the patient's condition 3. Relationship with the patient's family
	Virus contamination	1. Feelings when confirmed for COVID-19 2. Prevent transmission to people closest to you

Factors that cause psychological disorders: depression, anxiety disorders and stress based on interview results are working hours that are too long in shifts. The results of the research interviews related to the division of work shifts and hours as expressed by informants 1, 2, 3, 4, 5, and 6 were that the division of shifts was quite safe because the officers were divided according to their respective hours.

Factors that cause psychological disorders: depression, anxiety disorders and stress based on interview results are inadequate health support equipment when the number of patients entering is very large, so that patients have to wait to enter the room and use the necessary medical equipment. The results of research interviews related to the adequacy of supporting equipment were revealed by informants 1, 2, 3, 4, 5, and 6 as follows: Informants 1, 2, 3 and 4 stated that the health support equipment provided by the hospital was adequate, while informants 5 and 6 stated that the health equipment does not correspond to the number of patients admitted.

Factors causing psychological disorders: depression, anxiety disorders and stress based on interview results are obstacles in the distribution of related medical services due to delays in collecting administrative requirements. The results of research interviews related to receiving salaries and incentives were revealed by informants 1, 2, 3, 4, 5, and 6 as follows: Informants 1, 2, 3, 4, 5 and 6 stated that they were satisfied with the amount of salary and incentives received, while informant 4, 5 and 6 state that there are obstacles related to the disbursement of salaries, incentives and medical services.

Some of the questions asked related to current interactions with patients and families are the number of patients served, the severity of the patient's condition and the relationship with the patient's family. Details regarding this are as follows:

- a. Number of patients served: the number of patients who came was quite large so some had to be referred to other hospitals  
Informants 1, 2, 3 and 4 stated that the number of patients and beds provided was sufficient. Meanwhile informants 5 and 6 stated that there was a spike in the number of patients:
- b. Severity of the patient's condition: the physical condition of the patients who come varies, but the majority of patients come with quite severe conditions  
Informant 1 stated that he sometimes felt sad about the patient's condition, while informants 2, 3, 4 and 6 stated that the condition was quite serious, resulting in the attending doctor and nurse being exhausted and Informant 5 stated that the condition of the patients who came in was quite varied.
- c. Relationship with the patient's family: Some informants received verbal violence from the patient's family  
Informants 1, 4 stated that there were no significant problems with the patient's family, informants 2 and 3 stated that there were several patient families who had difficulty giving the patient an understanding of the COVID-19 protocol, and informants 5 and 6 stated that there were patient families who said rude things while he was working.

Some of the questions asked related to virus contamination were feelings when COVID-19 was confirmed and preventing transmission of the virus to those closest to you.

- a. Feelings when confirmed with COVID-19: The informant felt anxious when he was confirmed positive for the first time  
Informants 1 and 6 stated that they had never been infected with COVID-19, informants 3 and 4 stated that they had no concerns when they were infected with COVID-19, and informants 2 and 5 stated that they were very worried when they were confirmed to have COVID-19:
- b. Preventing transmission to people closest to you: The informant took several steps to prevent transmission  
Informants 1, 3 and 4 stated that there were precautions before entering the house, informant 2 stated that he was forced to live separately from his parents, and informants 5 and 6 stated that he had a special place to stay while serving as a special COVID officer

The results of the study showed that more than half of the health workers specializing in handling COVID-19 in the city of Padang experienced depression at a normal level, while the results of the depression assessment at a moderate level were detected in 5.2% (9 people) of respondents (9 people) of health workers specializing in handling COVID-19. Based on the analysis of the characteristics of respondents who experienced depression at a moderate level, it showed that there were more

respondents from health workers specializing in handling COVID-19 who were female and occurred in the 31-45 years age group.

There are differences in responses between men and women when facing conflict resulting in different tendencies in women and men in facing pressure. Women always make problems complex so they are more susceptible to stress and depression than men (Atmaja & Puspitosari, 2021)

Difficulties encountered when providing services to patients will cause emotional tension when providing services to patients, causing the behavior of service providers to withdraw psychologically and avoid being involved and interacting with patients. Explanations from research informants revealed that patients' serious conditions had quite an impact on the emotional condition of health workers in providing health services. Emotional reactions consist of several types, one of which is depression due to the inability to adapt to the new environment (Diferiansyah, 2015).

Another difficulty encountered by research informants was verbal violence by the patient's family. The shortage in the number of health workers due to being infected with COVID-19 and having to self-isolate has resulted in the number of health workers on duty being disproportionate to the increase in the number of patients arriving. Many COVID-19 patients are treated at one time, causing patients and families to have to wait a long time to receive health services. Situations like this add to the psychological burden on health workers, especially when making decisions about which patients should be prioritized to receive very limited services. There are several patients who have to be referred to other hospitals because there are no available places. The emotional reaction given by the patient's family to the health workers on duty is one of the psychological pressures received by health workers who specifically handle COVID-19. The family's emotional reaction can be in the form of anger, grief, hope and so on.

Mild depression is characterized by a mood that rises and falls easily, feeling anxious and not enthusiastic. Lifestyle changes can usually reduce this type of depression. Mild depression over a long period of time causes inability to work optimally (Santoso dkk., 2018)

Factors associated with the level of depression in health workers specifically handling COVID-19:

a. Type of Employment

The results of statistical tests show that there is no relationship between the type of staff and the level of depression experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.75 ( $p > 0.05$ ). In line with research conducted by Alshekaili dkk., (2020) which found that there was no statistically significant relationship between the type of staff and the level of depression experienced by health workers specifically handling COVID-19 with a p-value of 0.2 ( $p > 0.05$ ) (Alshekaili et al., 2020). In contrast to Lai's (2020) research with a p-value of 0.01 ( $0 < 0.05$ ) and Zhu's (2020) research with a p-value of 0.03 ( $p < 0.05$ ) which proves there is a statistically significant relationship between the type of staff

and the level of depression in health workers specifically handling COVID-19 (Lai et al., 2020; Zhu et al., 2020).

Doctors' specialization causes diversity in their work environment. The work demands faced by doctors and specialists result in long working hours and lack of sleep. Doctors who work in intensive units will usually encounter high mortality rates and difficulties with patient families. This will cause a depressogenic effect on doctors. Work factors related to depression include conflict between career and personal life, role responsibilities, making mistakes, making decisions, and fear of the process. According to self-psychology by Kohut, the importance of exploring individual characteristics, especially those related to work, predisposes doctors to depression. Kohut emphasized that work is part of mental health (Syahrini, 2011).

Depression is associated with several aspects of the work environment, including shift work, long hours, stress, and overcrowding. Depression is more common in shift workers than in individuals with a regular daily schedule (non-shift). Workers who work less than 30 hours per week have higher levels of depression than those who work more than 40 hours per week (Wright, 2007).

Nurses must be able to manage their time and set priorities in order to meet the demands placed on them. However, nurses can reduce their workload with the help of colleagues and superiors. Employees who carry heavy loads without showing signs of mental stress may do so because they are young and/or have a lot of experience, so the tasks they do seem simple (Zulkifli et al., 2019).

#### b. Residence

The results of statistical tests show that there is no statistically significant relationship between place of residence and the level of depression experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.07 ( $p > 0.05$ ). In line with research, Zhu (2020) also found that there was no statistically significant relationship between place of residence and the level of depression that occurs in health workers with a p-value of 0.89 ( $p > 0.05$ ) (Zhu dkk., 2020).

The COVID-19 pandemic requires individuals to reduce interactions with other people, in other words, health workers who live alone are at a greater advantage in terms of preventing transmission of COVID-19 to their family and those closest to them. Health workers specializing in handling COVID-19 feel greater pressure related to their professional obligations. The risk of disease transmission is high and in a short period of time to many other family members, uncertainty regarding new emerging diseases and no specific treatment has been found to cure this virus as well as the large number of colleagues who have died due to COVID-19 add to the feeling of fear for health workers on duty (Maraqqa dkk., 2020).

However, health workers who live with their families can receive family support as a source of strength in facing the pressure and heavy burden they face. Research conducted by (Amelia, 2016) states that the mild level of depression can be influenced by a person's ability or response in managing stress arising from threatening situations which can cause depression (Rahayu dkk., 2021).

### c. Long Time Working

The results of statistical tests show that there is no difference in the average length of work at various levels of depression experienced by health workers specifically handling COVID-19 in the city of Padang with a p-value of 0.64 ( $p > 0.05$ ). This is different from Alnazly's (2020) research with a p-value of 0.0000 ( $p < 0.05$ ) and Zhu's (2020) research with a p-value of 0.00001 ( $p < 0.05$ ) which proves that there is a statistically significant relationship between long time working with depression that occurs in health workers specifically handling COVID-19 with a p-value of 0.00001 ( $p < 0.05$ ) (Alnazly dkk., 2020; dkk., 2020)

The longer someone works, the more experience they gain. Nursalam is of the opinion that the longer the work period, the more experience the nurse will have in providing nursing care in accordance with applicable standards and procedures. Apart from the experience gained from a longer working period, age also influences a person in facing one's work because as a person's age increases, a person's wisdom in making decisions, thinking rationally and controlling emotions and being able to tolerate other people's views increases (Sahertian dkk., 2022).

The existence of good teamwork is a person's strength in facing the difficulties of their work. They can solve difficult problems related to their work with work experience and good teamwork coordination. Health workers who work together with other health workers who have a lot of work experience and good teamwork with colleagues can improve the quality of their work ((Hartono & Perdhana, 2021).

### d. Income

The results of statistical tests show that there is no difference in average income at various levels of depression experienced by health workers specifically handling COVID-19 in the city of Padang with a p-value of 0.81 ( $p > 0.05$ ). In line with research by Zhu (2020), he also found that there was no statistically significant relationship between income and the level of depression that occurs in health workers with a p-value of 0.65 ( $p > 0.05$ ). (Zhu dkk., 2020) In contrast to Samara's research (2021) found a statistically significant relationship between income and depression in health workers specifically handling COVID-19 with a p-value of 0.0001 ( $p < 0.05$ ) (Samara dkk., 2021)..

Judging from the amount received by each group of health workers specifically for handling COVID-19 through Minister of Health Decree number 447 of 2020, the Indonesian government in dealing with COVID-19 has established a policy by providing incentives to health workers who treat COVID-19 patients as a form of appreciation for their dedication. and their hard work. So, it can be assumed that respondents in the study were satisfied with the incentives provided by the Indonesian government so that there were no problems related to the relationship between the income received by health workers specializing in handling COVID-19 and psychological disorders.

The satisfaction of health workers specializing in handling COVID-19 with the amount of incentives provided by the government is a protective factor against the incidence of depression in health workers specializing in handling COVID-19 in several pocket houses of the Padang city government.

e. Interaction with Patients

The results of statistical tests show that there is no relationship between interaction with patients and the level of depression experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.37 ( $p > 0.05$ ). In line with research conducted by Alshekaili (2020) with a p-value of 0.2 ( $p > 0.05$ ) and research by Zhu (2020) with a p-value of 0.48 ( $p > 0.05$ ) which proves there is no relationship which is statistically significant between interactions with patients with depression in health workers specifically handling COVID-19 (Alshekaili dkk., 2020; Zhu dkk., 2020). Different from the results of Lai's (2020) study with a p-value of 0.000001 ( $p < 0.05$ ) which proves that there is a significant relationship between interactions with patients and depression that occurs in health workers specifically handling COVID-19 (Lai et al., 2020).

Health workers who interact directly with positive confirmed cases of COVID-19 have a higher risk related to the length of exposure time and health workers' discipline in using Personal Protective Equipment (PPE). Research by Elbay proves that health workers who work day to night shifts have a greater risk of experiencing depression, anxiety disorders and stress compared to health workers who only work day or night shifts (Rumeysa et al., 2020).

The research results showed that more than half of the health workers specializing in handling COVID-19 in the city of Padang experienced anxiety disorders at a normal level, while the results of the assessment of anxiety disorders at a moderate level were detected in 8.7% of respondents (15 people) health workers specializing in handling COVID-19. Based on an analysis of the characteristics of respondents, anxiety disorders at a moderate level are more common in health workers specifically handling COVID-19 who are female and in the age group 31-45 years.

Anxiety disorder is an individual's emotional condition regarding an unclear object which is characterized by feeling confused, worried, feeling helpless and unable to concentrate. The results of the interviews found that there were other factors outside the quantitative factors studied that caused anxiety disorders in health workers specifically handling COVID-19. The factors found include a surge in patients occurring at the same time which increases the risk of exposure to COVID-19.

Apart from that, health workers also felt anxiety when they were first exposed to COVID-19. The rapid and unpredictable transmission of COVID-19 makes health workers who are on the front lines of handling COVID-19 in hospitals feel more afraid of transmitting COVID-19 to family and friends. Health workers specializing in handling COVID-19 will also feel very guilty if they transmit the virus to those closest to them, because it relates to their responsibility and professionalism (Dong et al., 2020)

Factors related to the level of anxiety disorders in health workers specifically handling COVID-19:

a. Type of Employment

The results of statistical tests found a relationship between type of staff and anxiety disorders in health workers specifically handling COVID-19 in the city of Padang with a p-value of 0.04 ( $p < 0.05$ ). In line with research conducted by Lai (2020) which found a significant relationship between the type of staff and anxiety disorders in health workers with a p-value of 0.01 ( $p < 0.05$ ) (Lai et al, 2020)) Huang's research results (2020) also shows that there is a statistically significant relationship between the type of staff and anxiety disorders that occur in health workers specifically handling COVID-19 with a p-value of 0.001 ( $p < 0.05$ ). (Huang et al., 2020) This is different from Pan's research. (2020) found that there was no relationship between type of staff and anxiety disorders that occurred in health workers specifically handling COVID-19 with a p-value of 0.16 ( $p > 0.05$ ) (Pan et al, 2020).

As the front guard in handling the COVID-19 pandemic, for nurses being infected with the virus is the most fearful thing, apart from the symptoms it will cause, one of the most dangerous factors is transmitting the virus to family or other close people. However, having a person's knowledge and experience related to the problem being faced results in a reduction in the anxiety felt by a person Kurniati Danu dkk., 2021)

The grouping of medical personnel, namely doctors, dentists and specialist doctors, is assumed to be the cause of the insignificant relationship between type of work and mental health disorders in health workers specializing in handling COVID-19 in several hospitals in the city of Padang. This is because several hospitals in Padang City, such as Dr. M. Djamil and Andalas University Hospital, the workload of specialist doctors is lightened by the presence of residency doctors who carry out direct monitoring of patients. However, previous research shows that the ratio of the number of lung specialist doctors in Indonesia is 0.84, which means that Indonesia still lacks specialist doctors in treating COVID-19 (Meliala et al., 2021).

b. Residence

The results of statistical tests show that there is no statistically significant relationship between place of residence and the level of anxiety disorders experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.36 ( $p > 0.05$ ). In line with the results of research conducted by Huang (2020) which found that there was no statistically significant relationship between the variable of residence and anxiety disorders that occurred in health workers specifically handling COVID-19 with a p-value of 0.118 ( $p > 0.05$ ) (Huang dkk., 2020).

The fear of transmitting the virus to their families and their worries about who will meet their personal and family needs if they are infected are one of the causes of anxiety experienced by health workers who specialize in handling COVID-19 (Danu et al., 2021). The rapid and rapid transmission of COVID-19 The unexpected situation has made health workers who are on the front lines of handling COVID-19 in hospitals feel more afraid of transmitting COVID-19 to family and friends. Health workers specializing in handling COVID-19 will also feel very guilty if they transmit the virus

to those closest to them, because it is related to their responsibility and professionalism (Dong et al., 2020).

Individuals who are in a stressful situation and are trying to overcome the situation need support. Family is one form of social support for health workers. Family is the most comfortable place for someone to face all life's problems, share happiness and a place where hopes for a better life grow. Family support has an important role in supporting health service staff from all backgrounds in dealing with the psychological impact of the pandemic (Halawa, 2020).

c. Long Time Working

The results of statistical tests show that there is no difference in the average length of work with various levels of anxiety disorders experienced by health workers specifically handling COVID-19 in the city of Padang with a p-value of 0.87 ( $p > 0.05$ ). In line with the results of research conducted by Huang (2020) which found that there was no statistically significant relationship between length of work and anxiety disorders that occurred in health workers specifically handling COVID-19 with a p-value of 0.125 ( $p > 0.05$ ) (Huang et al., 2020). This is different from Alshekaili's research (2020) which found a statistically significant relationship between interactions with patients with anxiety disorders in health workers specifically handling COVID-19 with a p-value of 0.004 ( $p < 0.05$ ) (Alshekaili et al., 2020).

The length of time working at a health agency cannot affect the level of stress, anxiety and depression of health workers. Reports from health workers specifically regarding handling the COVID-19 pandemic, training and adequate preparation in dealing with patients in accordance with established guidelines and protocols can reduce stress levels and anxiety disorders ((Maraqa et al., 2020).

The differences in statistical test results obtained in this study were also supported by research informants' explanations in in-depth interviews that the majority of health workers assigned to special rooms for handling COVID-19 in hospitals were health workers who had previously been assigned to Intensive Care Unit (ICU rooms). So that health workers are used to working under pressure and dealing with emergency conditions that occur in the Intensive Care Unit (ICU).

d. Income

The results of statistical tests show that there are differences in average income at various levels of anxiety disorders experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.04 ( $p < 0.05$ ). In contrast to research conducted by Zhu (2020) and research by Deminanga (2021), it was found that there was no statistically significant relationship between opinions and psychological disorders in health workers specifically handling COVID-19 19 (Deminanga dkk., 2021; Zhu dkk., 2020).

An insufficient amount of income each month will create stressors for each member because work and income will become a support system for mental health. The lower the income level, the higher the stress level. Low income is assumed to be one of the factors that causes depression, anxiety disorders and stress in health workers specifically handling COVID-19 19 (Que et al., 2020).

e. Interaction with Patients

The results of statistical tests show that there is no relationship between interactions with patients and the level of anxiety disorders experienced by health workers specializing in handling COVID-19 in the city of Padang with a p-value of 0.31 ( $p > 0.05$ ). In line with the research results of Buselli (2020) with a p-value of 0.486 ( $p > 0.05$ ) and research conducted by Huang (2020) with a p-value of 0.308 ( $p > 0.05$ ) which proves that there is no statistically significant relationship between interactions with patients with anxiety disorders that occur among health workers specifically handling COVID-19 (Buselli dkk., 2020; Huang dkk., 2020) is different from Liu's (2020) research which found a statistically significant relationship between interactions with patients with anxiety disorders in health workers specifically handling COVID-19 with a p-value of 0.0007 ( $p < 0.05$ ) (Liu dkk., 2020).

The results of research on medical personnel in China show that on average medical personnel experience anxiety due to direct care or direct contact with infected patients. The emergence of nurses' feelings of anxiety if they are infected with the virus due to direct contact with COVID-19 patients is related to the inadequate availability of PPE (Fadli dkk., 2020).

The results of the research informant's presentation stated that the availability of PPE for health workers specifically handling COVID-19 in several government hospitals in Padang City could be said to be sufficient. Therefore, health workers do not express anxiety regarding the availability of PPE when interacting directly with patients.

The results of research on stress levels among health workers specifically handling COVID-19 in Padang City found that all health workers had stress at normal levels. Support from colleagues and policy makers and rewards in the form of incentives provided by the government are protective factors that have led to controlled stress levels in health workers specifically handling COVID-19 in several hospitals in Padang City.

Research informants explained that they were satisfied with the equal distribution of work shifts for all health workers on duty as well as support from the head of the room and the hospital director in the form of healthy food supplies and vitamins provided by the hospital as a form of support for health workers on duty. Apart from that, to prevent stress related to the transmission of COVID-19 to family and those closest to them, the government has also placed health workers specializing in handling COVID-19 in 1 residence in the form of a hotel which is located separately from residential areas. The Indonesian government also provides large incentives for health workers specifically to handle COVID-19. Through Minister of Health Decree number 447 of 2020, the Indonesian government in dealing with COVID-19 has established a policy by providing incentives to health workers who treat COVID-19 patients as a form of appreciation for their dedication and hard work.

Sources of stress known as "stressors" are stress triggers in individuals so that individuals receive stimulation and encouragement resulting in stress. Sources of stress (stressors) can be categorized into three types, namely life events (life events),

chronic strain (chronic tension) , and daily hassles (everyday problems) ((Lumban Gaol, 2016)

The results of interviews with research informants showed that all research informants were satisfied with the distribution of work shifts. The conclusion of the interview results is related to working hours, the average work shift for health workers specializing in handling COVID-19 in several government hospitals in Padang City is 3-6 hours or 18-36 hours in one week. Wijono's (2006) research found that workers who experienced low work stress had working hours each week between 37 and 40 hours, while moderate work stress had working hours each week between 61 and 71 hours. High work stress has a number of working hours per week between 41 and 60 hours. The results of this research concluded that health workers tend to experience stress at normal levels due to the fair distribution of shifts and working hours which is felt by health workers specifically handling COVID-19.

#### **D. CONCLUSIONS**

The Covid-19 pandemic has given its own color to the world of health, causing various psychological disorders for health workers which have an impact on the provision of services in health institutions. The frequency distribution in this study, which includes dependent and independent variables, shows that more than half of the number of health workers experience depression and anxiety disorders at normal levels, and all health workers specifically handling COVID-19 experience stress at normal levels. Apart from that, it is also known that more health workers specifically handling COVID-19 are nurses, more than half of the health workers interact directly with patients, the average length of work for health workers specifically handling COVID-19 is 5.08 years, the average income for health workers specializing in handling COVID-19 in several hospitals in Padang City Rp. 9,395,000 and most of the health workers specializing in handling COVID-19 live with their families.

Then, in the aspect of the relationship between the independent variable and the dependent variable, information was obtained, namely: First, there is no relationship between type of staff, interaction with patients, length of work, income and place of residence and the level of depression that occurs in health workers specifically handling COVID-19 in several hospitals. in the city of Padang. Second, there is no relationship between interaction with patients, length of work, and place of residence and the level of anxiety disorders that occur in health workers specifically handling COVID-19 in several hospitals in the city of Padang. Third, there is a relationship between the type of staff and anxiety disorders and there are differences in average income at various levels of anxiety disorders that occur among health workers specifically handling COVID-19 in several hospitals in the city of Padang.

Researchers hope that the results of this research can provide ideas for every health worker to always maintain their psychology in good condition and provide the best service to patients. Apart from that, this research can also be used as a basis for making decisions for health agencies when dealing with pandemic situations in the future.

## ACKNOWLEDGEMENT

The researcher would like to thank all parties who have helped complete this research, which the researcher cannot mention one by one.

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