

Psychological Analysis of Healthcare Workers During Covid-19 in Indonesia; Systematic Review and Meta-Synthesis

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ABSTRACT

Healthcare workers (HCw) are at the forefront of treating infectious diseases. The excessive workload on Covid-19 HCw adds to the level of fatigue and psychological burden that existed before the Covid-19 pandemic. HCw knowledge of the likelihood of infection can affect their mental and physical stress levels, so they will experience common symptoms including trauma, fear, anxiety, and insomnia caused by excessive fear of infection. This study aims to summarize most research articles that discuss the description and influence of psychology on health workers throughout Indonesia during the Covid-19 pandemic. This study uses a systematic method of qualitative review (meta-synthesis). High levels of stress, depression, anxiety, and insomnia symptoms were found in Indonesia. The results also showed the influence of gender, education, and contact with patients on the incidence of psychological problems in health workers. Providing positive support and preparing psychiatric personnel in hospitals and/or other healthcare settings can reduce the impact of psychology on healthcare workers.

Keywords: Psychology, stress, depression, HCw, covid-19

INTRODUCTION

Many lives have been lost due to the Covid-19 pandemic, according to the latest records from the World Health Organization (WHO), there have been more than 6 million deaths and more than 570 million positive cases of Covid-19.¹ As society experiences health, social, and economic impacts, mental health is bound to be affected as well. Many feel anxious, especially in some cases of Covid-19. Researchers have identified that mental health problems, especially in health workers, can be triggered or exacerbated during the pandemic, increasing the risk of suicide due to excessive anxiety.²

Due to the high rate of spread of Covid-19, the tasks that must be carried out by health workers are piling up and this is not balanced with the availability of personal protective equipment and adequate benefits. As a result, many health workers decided to resign from their positions.³ Factors that can cause mental disorders in health workers include improper use of Personal Protective Equipment (PPE), infected family members, and inadequate hospital facilities and infrastructure,

such as lack of facilities for washing hands and so on.⁴

Healthcare workers (HCw) play the role of servants who are at the forefront of providing care for infectious diseases⁵, the overburden of workload for Covid-19 HCw exacerbates burnout levels and psychological burdens that already existed before the covid-19 pandemic.⁶ The knowledge that HCw have about the high risk of infection can affect their mental and physical stress levels. They can experience common symptoms, such as trauma, fear, anxiety, and insomnia caused by excessive fear of the possibility of infection.⁷ Workloads that are too heavy will have an impact on psychology, especially causing work stress in HCw.⁸

Some countries report stress levels in HCw that vary from mild to severe. Research conducted in India, clinically reported the prevalence of stress in health workers at 78.9%.⁹ Research conducted in China reported stress levels in HCw were relatively mild with a prevalence of 29.8%.¹⁰ The reported level of clinical anxiety by HCw in Turkey during the Covid-19 pandemic reached only 33%¹¹,

Meanwhile, the results of a study in Libya showed that as many as 56.3% of HCW had significant levels of anxiety.¹² In the results of other studies, it was found that the prevalence of depression was high with a presentation of 77.5%, and insomnia or sleep disorders with a presentation of 50.3%.¹³ The results of other studies show that the prevalence of insomnia in health workers is quite high, which is 75%.¹⁴

Based on research in Indonesia, the prevalence of depression, anxiety, and insomnia in health workers reached 52.1%, 57.6%, and 47.9%¹⁵ respectively. Risk factors that cause psychological events in health workers include; excessive workload during the pandemic, fear of contracting and negative stigma about the Covid-19 virus.¹⁶ Some of the findings of psychological impact make researchers interested in conducting research in Indonesia.

HCW are the main strength of health service facilities (Fasyankes) in providing medical services. Therefore, it is expected that Fasyankes management will be able to evaluate the psychological status of HCW to improve intervention and health care.¹⁷ In the context of the Covid-19 outbreak that has had an impact on various sectors, it is important to pay attention to the psychological vulnerability of workers, especially HCW who are on the front line in handling this outbreak.¹⁸ Thus, the purpose of this study is to summarize research articles that discuss the impact of psychology on healthcare workers throughout Indonesia during the Covid-19 pandemic.

METHOD

In this study, literature review was used with a qualitative systematic reviews method (meta synthesis). The method can be interpreted as a data integration technique used to obtain new theories or a more comprehensive understanding.¹⁹ This method is also important to be applied to summarize several studies so that they are used as a research conclusion based on keywords in several selected scientific articles. Reporting of literature search results in this study using The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). This reporting can be used to report on systematic literature reviews research and prove to readers that the literature can be accounted for its authenticity.²⁰

Search strategy

Meta-synthesis methods were used in this study to analyze national and international scientific journals using various keywords and abstracts, such as "Impact psychological during Covid-19", "Psychological HCWs", "HCWs Covid-19", "Stress", "Anxiety", "Depression", "Insomnia", and others relevant to the research topic. Articles that meet the inclusion criteria will be screened, namely: 1) conducted in Indonesia; 2) a minimum sample of 50 people; 3) describe the level of psychology, such as stress, insomnia, depression, anxiety, and explain the causes and prevention of psychological effects. The journals analyzed are journals published in the 2020-2022 time frame. Journal searches are conducted through websites such as Google Scholar, Sinta, Garuda, and Scopus.

Study selected

After obtaining scientific articles, researchers filtered out duplicate articles using the Mendeley Desktop application version 1.19.8. Then, researchers choose articles based on abstract clarity, keywords, and titles relevant to the topic to be discussed. Researchers chose Mendeley Desktop because it is more flexible and has more internal space than others. Studies that meet the criteria based on article search results will be saved and filtered again based on their research methods. The selection of studies on the SINTA and GARUDA databases is done manually on the website because there is no automatic database retrieval available on both site. Both databases are selected to adjust articles in Indonesia to be standardized or not. Researchers will also continue to report the number of search results in figure 1 which has been added up all searches if there are no duplicate articles.

RESULT AND DISCUSSION

A total of 1207 scientific articles were searched by researchers, from 27 studies in Indonesia related to the topics discussed. Of these, researchers managed to filter 10 relevant articles and then carried out data sorting and content analysis on several articles. This process is done by coding the data and determining the content analysis of several articles that have been selected. Complete information about the search results can be seen in Figure 1.

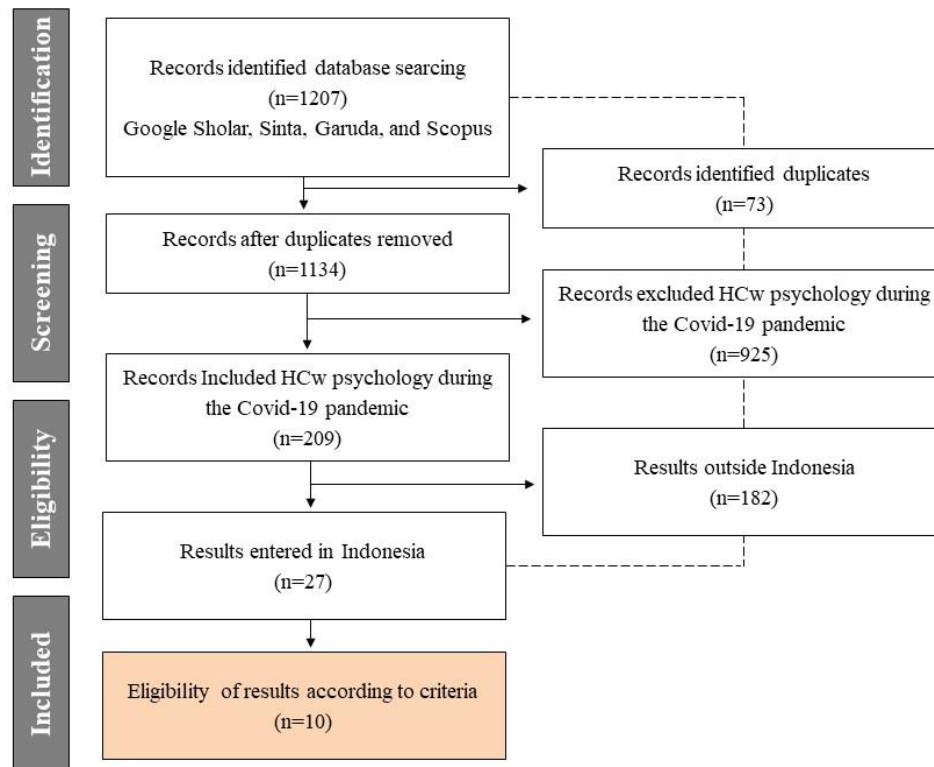


Figure 1. Article Review Flow Using PRISMA

A literature review conducted by researchers found several articles that fit this study. Eight research articles relevant to the topic were analyzed for research results. All

articles filtered are from previous research conducted in Indonesia. The total number of samples is 3.446 HCw spread across various regions of Indonesia. The results of the study will be described according to the table below:

Table 1. Article Search Results

Researchers & Years	Place & Sample of Research	Research Title	Research Results
Pasaribu & Ricky, 2021	Lampung (75 Nurses)	<i>Tingkat Stres Perawat Terkait Isu Covid-19</i>	<ul style="list-style-type: none"> High-stress level (71.85%) Gender, age, and education influence stress levels
Hanggoro et al., 2020	Pontianak (384 Physician, Nurses & Public Health)	<i>Dampak Psikologis Pandemi Covid-19 pada Tenaga Kesehatan: A Studi Cross-Sectional di Kota Pontianak</i>	<ul style="list-style-type: none"> Anxiety, depression, and insomnia are various factors related to psychology HCw who are close contacts perceive the possibility of exposure, and suspicion of Covid-19 have the opportunity to experience psychological problems.
Deminanga et al., 2021	Jakarta (167 HCw)	<i>Faktor-Faktor Kecemasan Tenaga Kesehatan Selama Pandemi Covid-19</i>	<ul style="list-style-type: none"> Gender & age are factors that can influence anxiety Getting married & having children is a protective factor against anxiety The income level of health workers has no relationship to anxiety
Sitanggang et	Bali (635	Determinants of Mental	<ul style="list-style-type: none"> Mental health status is relatively

Researchers & Years	Place & Sample of Research	Research Title	Research Results
al., 2021	Physician)	Health and Practice Behaviors of General Practitioners During Covid-19 Pandemic in Bali, Indonesia: A Cross-sectional Study	<p>standard with the prevalence of depression at 13.2%, anxiety at 19.7%, and stress at 11%</p> <ul style="list-style-type: none"> • This research is different from the results of other studies in Indonesia
Solon et al., 2021	Mamasa (50 HCw)	<i>Dampak Beban Kerja Terhadap Tingkat Stres Pada Tenaga Kesehatan Selama Masa Pandemi Covid 19</i>	<ul style="list-style-type: none"> • Moderate stress 56% and 33.3% were at high-stress levels • There is a relationship between workload and stress events in HCw
Endah et al., 2020	Indonesia (682 HCw)	Determinants Psychological Distress Of Indonesian Health Care Providers During Covid-19 Pandemic	<ul style="list-style-type: none"> • Gender, age, work provider, and workplace affect anxiety levels • Gender, work provider, and marriage affect healthcare worker stress levels • There is a relationship between the workplace and the level of depression • The most dominant variable for levels of anxiety, stress, and depression is gender.
Iskandarsyah & Shabrina, 2021	West Java (200 HCw)	Mental Health, Work Satisfaction and, Quality of Life Among Healthcare Professionals During the Covid-19 Pandemic in an Indonesian Sample	<ul style="list-style-type: none"> • Some fears and/or concerns that arise in health workers include; fear of transmitting the virus, its impact on families, isolation and isolation, personal safety, & social stigma. • Encouragement and encouragement to health workers include; religion, social support, professional responsibility, following protocols, and a positive attitude of accepting possible future events.
Marthoenis et al., 2021	Indonesia (491 Nurses)	Investigating the burden of mental distress among nurses at a provincial Covid-19 referral hospital in Indonesia: a crosssectional study	<ul style="list-style-type: none"> • Prevalence of moderate to severe incidence of depression • Nurses who are temporarily contracted are more stressed than nurses who are already working permanently • Nurses who were struggling financially during the pandemic were significantly associated with stress, depression, and anxiety.
Setiawati et al, 2021	Surabaya (227 HCw)	Anxiety and Resilience of Healthcare Workers During COVID-19 Pandemic in Indonesia	<ul style="list-style-type: none"> • The high incidence of anxiety among healthcare workers during Covid-19 • The lower the resistance, the higher the anxiety rate experienced by healthcare workers.
Muliantino, et	Indonesia (535	Psychological	<ul style="list-style-type: none"> • Anxiety, stress, and depression

Researchers & Years	Place & Sample of Research	Research Title	Research Results
al 2021	Nurses)	Responses Among Indonesian Nurses In The Outbreak Of Covid-19 Pandemic	mostly occur in emergency departments and Covid-19 isolation rooms <ul style="list-style-type: none"> Nurses who carry out treatment on Covid-19 patients have a higher chance of stress, anxiety, and depression.

Based on Table 1 above, it was found that there were medium-high levels of stress, depression, anxiety in Indonesia during the Covid-19 pandemic. Anxiety affects income, personal resilience, gender, age, work providers, and workplaces. The incidence of depression in health workers is related to income, workplace, and gender. Some of the fears of health workers during the pandemic are fear of transmitting the virus to their families,

fear of Covid-19 death and isolation, personal safety, and fear of social stigma in the community.

Based on the results of the study in table 1, researchers also found several factors that affect the impact of psychology and factors that can inhibit the impact of health care psychology, including in table 2.

Table 2. Inhibiting Factors and Influence of the Impact of HCw Psychology

Impact of Psychology	Influence	Retardant
Stress	Gender, education, workload, employment contract, and age	
Anxiety	Close contacts, gender, age, work services, and workplace	Religion, social support, professional responsibilities, a positive attitude towards what happens in the future, and following health protocols
Depression	Workplace, fear of contracting, and suspicion of Covid-19	
Insomnia	Gender, fear of contracting, and suspicion of Covid-19	

From the results of Table 1, it was found that income level and/or financial hardship did not influence the psychological impact on health workers. In addition, the results found that factors such as getting married and having children in particular can prevent anxiety levels, although there are other inhibiting factors listed in Table 2.

This study is of the view that stress levels are related to a person's gender because female health workers have twice the chance of experiencing higher levels of stress compared to male HCw.^{30,31} A woman has a greater contribution to her household than a man.³² Some HCw involved in caring for Covid-19 patients has a high chance of experiencing stress.³³ HCw who have a high chance of stress is related to their level of education.¹⁷

HCw who are on the front lines of handling Covid-19 must be monitored continuously to minimize stressful events³⁴, because stress can affect care in patients³⁵, and can also affect work productivity.³⁶

The results also found a relationship between anxiety levels and a person's gender.

This study is in line with previous research suggesting that gender, education, and contact history are associated with anxiety levels.¹⁷

Excessive anxiety will affect patient care carried out by HCw,³⁵ because some HCw who treat Covid-19 patients openly admit to being anxious and depressed during the pandemic.³⁷

Some findings on the level of depression experienced by healthcare workers during the Covid-19 pandemic are that almost half of the healthcare workers experience depression while treating patients,³⁸ Other results show that the level of depression in healthcare workers during the Covid-19 pandemic is quite high,³⁹ so it needs special attention. The degree of depression is closely related to the workplace and close contact with Covid-19 patients. Health workers who work in emergency rooms have higher rates of depression compared to those who work in other rooms. Depression occurs because of their concern about close contact in the work environment.⁴⁰

The number of insomnia cases in healthcare workers based on research from⁴¹

found that from 5 journals searched, about 38% of health workers had insomnia symptoms. Research from¹³ found that the rate of insomnia in women was greater compared to men, with about 50.4% of respondents complaining of insomnia symptoms. Other studies have also found that the risk of insomnia increases due to decreased education. In addition, healthcare workers who work on night shifts have a greater risk of insomnia, which is exacerbated by their fear due to direct contact with Covid-19 patients.⁴²

Following health protocols is part of preventing stress in HCw. Those who had received special training on health protocols had a lower chance of experiencing stress compared to those who had not received training.^{43,44} Caregivers who have parents or children also get more positive support to reduce their psychological levels.⁶ In addition to several factors that can affect the psychological level of HCw, some studies suggest the use of special psychiatrists in hospitals,⁵ so that HCw can feel psychologically protected.

CONCLUSION

Several regions in Indonesia reported a psychological impact, especially on the high incidence of stress, anxiety, depression, and insomnia during the Covid-19 pandemic. Stress, anxiety, and insomnia affect gender. Insomnia also affects night shifts in this case the work environment. The incidence of depression in health workers affects the fear of close contact with Covid-19 patients. Some studies have also found that positive support from family can reduce the psychological impact on health workers. This finding can be used as a reference by stakeholders to pay more attention to the psychological impact experienced by health workers. Some suggestions that can be done are to provide positive support and prepare psychiatrists in hospitals and/or other health care places. Healthcare workers are also expected to be able to reduce their levels of stress, anxiety, depression, and insomnia through visits and personal consultations at the nearest psychiatrist.

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