



Psychosocial Aspects of Healthcare Workers during the Covid-19 Pandemic: A Scoping Review

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Abstract. The transmission of COVID-19 could have physical, psychological and social impacts, especially on healthcare workers. As healthcare workers, nurses were often faced with situations that made their work more difficult and were at risk for infection due to the transmission of COVID-19. This scoping review used a 5-stage methodology developed by Arksey and O'Malley which aimed to identify psychosocial impacts on healthcare workers. This review used 4 databases including PubMed, Springer, Sagejournals, Science Direct which were limited to 2019-2021. The total study obtained 731 articles, meanwhile, only 7 articles met the criteria. The inclusion criteria of articles selection were in full-text form, population of healthcare workers, English and original articles. From the 7 articles obtained, it was mentioned several psychological and social disorders among healthcare workers, including major depressive disorder, generalized anxiety disorder, panic, post traumatic stress disorder and substance use disorder. Anxiety, depression, somatization, moderate-high levels of anxiety, depression, fear, acute stress disorder and coping, self-efficacy, insomnia, being the target of community rejection, discrimination, and stigmatization could affect health services. Therefore, healthcare workers as the front line who faced the risk of psychological and social disorders directly, needed special attention that could affect the quality of health services.

Keyword: COVID-19, psychosocial, healthcare workers

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INTRODUCTION

Corona virus disease or Corona virus disease 2019 (Covid-19) is an infectious disease caused by the newly discovered corona virus [1]. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment [2]. The Covid-19 virus is a disease with a fast transmission time. Globally, Covid 19 has 88,383,771 confirmed cases and 1,919,126 deaths. In Indonesia, the number of

COVID 19 cases continues to increase every day. Based on data as of 3-10 January 2021 there were 818,386 confirmed cases of COVID-19 with 23,947 deaths [3].

Healthcare workers are among the high-risk groups for exposure to the virus. China reported infection among 3,387 health workers, while 22 healthcare workers (0.6%) died from the disease. Likewise, Italy (20.0%), Spain (14.0%), and France (more than 50 deaths among healthcare workers) reported very high rates of infection among healthcare workers [4].

Healthcare workers are faced with situational factors that can make their job more difficult and are at risk of experiencing psychosocial disorders. The effect of psychosocial risks on healthcare workers is on dissatisfaction with their work, a greater perception of health problems and a higher level of emotional stress or social problems related to their profession which can lead to a decrease in the quality of service and care for patients and their families [5].

The impact of the spread of COVID-19 can have physical, psychological and social impacts. This virus attacks the immune system, so that the health condition quickly decrease and the patient's condition will get worse if he has comorbidities [6]. Health care providers (HCP), especially general practitioners, who are involved in patients affected by Covid-19 are also more susceptible to stigmatization and the COVID-19 pandemic can also cause stigmatizing factors such as fear of isolation, racism and discrimination [7].

From several articles obtained by researchers, there has been no specific explanation regarding the handling of health workers who experience psychosocial disorders during the COVID-19 pandemic. And this article only reviews the psychosocial aspects of health workers. Researchers used a scoping review to summarize the evidence of the impact of covid on psychosocial aspects of health workers during the COVID-19 pandemic..

OBJECTIVE

The study aimed to describe the psychosocial impacts on healthcare workers during the Covid-19 pandemic.

METHOD

Study Design

This study used a scoping review with the methodology developed by Arksey and O'Malley. The followed five steps were identified clear and objective research questions; identified relevant articles; selection of articles, data extraction; and data graphing, organizing, summarizing, analyzing, and reporting data [8].

Identifying research question

This review looks for several psychosocial aspects that arise in health workers during the COVID-19 pandemic.

Identifying relevant studies

This scoping review identifies information from articles obtained by researchers that discuss psychosocial aspects of health workers during a pandemic. Researchers searched online journal databases such as PubMed, Springer, Sagejournals, Science Direct for relevant articles from 2019-2021, health worker population. All searches were limited to search only English articles, full text, original articles with main content related to the impact and psychosocial aspects of healthcare workers during Covid-19. Search study articles used advance searching online strategy, medical subject titles were searched by using "OR / AND". Keyword: ("coronavirus" OR "COVID-19") AND ("health-care workers" OR "Health-care provider") AND ("Psychosocial" OR "mental health").

Selecting Articles

This review takes an article in English that discusses several psychosocial aspects that arise in health workers during the COVID-19 pandemic. Researchers apply several Inclusion and Exclusion Criteria. This study took articles whose respondents were healthcare workers, journals for 2019-2021, use English, original articles with incomplete article exclusion criteria in describing the research methodology, and is not available in full text.

Study Identification and Selection

The process of identification and search was carried out using prisma.

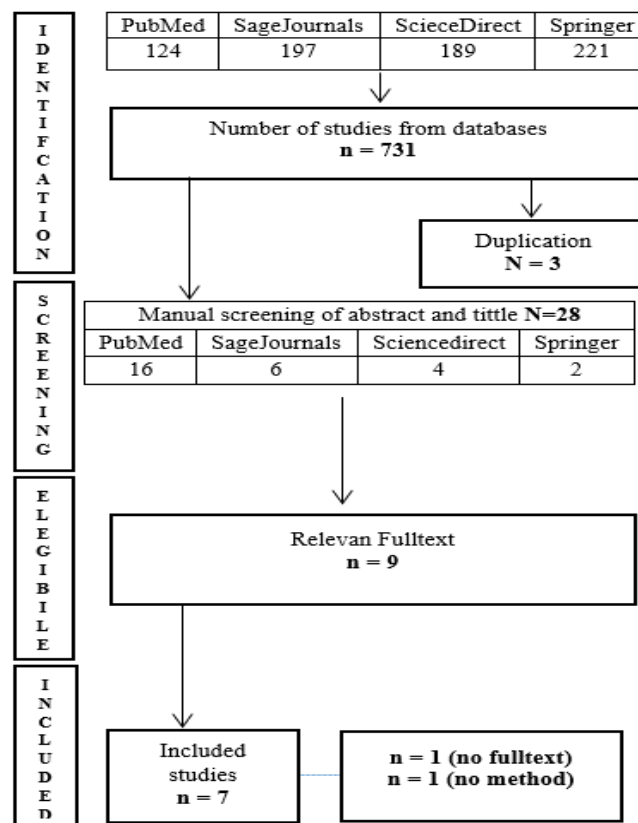


Figure 1. Prisma diagram

Data Extraction from Attached Studies

After article selection, each of the 7 full-text articles selected was read several times comprehensively by the researcher to capture all relevant information and ensured that no information was overlooked. Paper was built by extracting findings that were relevant to the questions asked.

RESULT

Study characteristics

A total of 731 articles were taken from PubMed (124 articles), SageJournals (197 articles), Springer (221 articles) and ScienceDirect (189 articles). From the 731 articles, 7

were determined from the results of matching titles with manual abstracts and title screening techniques. After removing duplicate articles, each article abstract was evaluated by the researcher for relevance according to predefined inclusion criteria.

After the researcher selected and extracted from each article obtained, a detailed description of the name of the researcher, title, research design, respondent characteristics, research results along with the strengths and limitations of the study were shown in table 1.

Researchers had reviewed as many as 7 articles. The research conducted came from several different countries with a total of 15,202 respondents, almost 80% female, on average married and directly exposed to Covid-19. All articles were studies that explained the psychosocial aspects of healthcare workers during the Covid-19 pandemic, the following would describe the results of the following analysis ([9], [10], [11], [12], [13], [14], [15]).

Covid-19 occurred at almost all over the world. Mental health was very important in the current pandemic era. Healthcare workers were very vulnerable to experience psychosocial disorders because of high risk of being exposed to the corona virus. Lack of personal protective equipment (PPE) and human resources caused working hours were longer and the management was complicated.

Psychological Impact

Covid-19 could cause several disorders of the psychosocial aspects of health workers, including major depressive disorder (MDD), generalized anxiety disorder (GAD), panic, post traumatic stress disorder (PTSD), substance use disorder (SUD), anxiety, depression, somatization and nurses also reported moderate and high levels of anxiety, depression, and fear [12] [10] [9].

The majority of nurses experienced acute stress disorder (ASD) due to the COVID-19 pandemic, so they were at risk for moderate and high predisposition of PTSD. More than a third of nurses also suffered significant psychological distress. These include acute stress disorder (ASD) and coping self-efficacy. More specifically, younger nurses were more prone to experience psychological distress than the older ones [14].

Social Impact

People affected by this pandemic were subjected to get rejection, discrimination and stigmatization [11]. Medical healthcare workers had a higher prevalence of insomnia and obsessive-compulsive symptoms during the COVID-19 outbreak [12]. Psychological distress caused by nature illness, quarantine, repetitive work, fear of more epidemics, fear of being at work, sleep problems and fear of more deaths [15].

Handling steps and available resources for COVID-19 were relatively low and the health impact of their work was high [13]. On average, respondents said that they experienced moderate levels of fatigue and high levels of fear. About half of the nurses reported moderate and high work fatigue, as shown in emotional exhaustion, depersonalization [9].

From the several problems that arose, it could lead to several problems for health workers regarding excessive workload, excessive working hours, high work pressure, lack of holidays, increased work, emotional workload and lack of disease information available for healthcare workers, must wear complicated personal protective equipment, quarantine, fear of more outbreaks, fear of being at work, sleeping problems and fear of more deaths, all lead to a lack of quality of care in health service places [17]

DISCUSSION

The results of the scoping review showed that there were several psychosocial aspects caused by Covid-19, included fatigue, anxiety, and depression. In the context of less certain and effective at the time of COVID-19 treatment, wearing PPE was the most effective way to

prevent infection, especially for healthcare workers. Nurse resilience could reduce the negative impact of work-related stress and prevent poor psychological health outcomes among nurses thereby improved the mental health of nurses [18].

Health workers should have restrictions on their freedom, for example not being allowed to go out into public places, being isolated from the community and separated from their families. More than a third of the population stated that they would avoid health workers for fear of contracting COVID-19 [19].

Medical healthcare workers infected with COVID-19, in developed countries with high Covid prevalence rates, were experiencing enormous work pressure, such as an increase in unfavorable psychiatric outcomes due to sudden spikes in patients, overwork, inadequate self-protection from contamination, frustration at not providing optimal care to patients and isolation. Meanwhile, in developing countries, the spike in COVID cases tend to trigger acute anxiety, skin irritation and stress among doctors and nurses. This may be gotten worse by the inadequate supply of hand hygiene kits in hospitals [20].

The psychological effects that were often encountered due to COVID-19 were fear and worry about the health of their selves and their loved ones, changes in sleep and eating patterns, lack of concentration, worsening chronic health problems, and increased use of alcohol, tobacco / cigarettes and other drugs [21].

Revealed mental disorders and those directly related to the pandemic were mostly manifested by states of anxiety, panic, obsessive disorders related to hand hygiene, reasoned disinfection and infertility could be excessive and dangerous [22]. Covid-19 could significantly reduce the quality of sleep of young adults so that increased their negative emotions, especially stress and anxiety. Individuals with better sleep quality or lower frequency showed a decrease in PTSD morbidity rates during the COVID-19 outbreak [23].

A the time of the MERS outbreak in 2015, the result of assessment of the psychological impact on hospital workers, medical staff who MERS-related showed the highest risk for symptoms of post-traumatic stress disorder even after being in a quarantine home [24]. A high prevalence of anxiety, depression and insomnia existed among medical staff who were exposed to COVID-19. The higher probability and intensity of exposure to COVID-19 patients, the greater the risk of suffering mental disorders experienced by healthcare workers [25].

At the time of the Covid 19 pandemic, healthcare workers reported feeling insecure for fear of being infected and potentially carrying the virus. Nurses experienced an increase in workload under stressful and distressing conditions, as well as an increase in autonomous decision-making by medical staff [26].

In the absence of an organized prehospital emergency care system, inadequate emergency rooms, ICU beds and ventilators, many of these patients would be at risk of significant morbidity and mortality. In addition, the limitation of the availability of infection prevention items, for example isolation rooms, N95 masks, etc had the potential to cause the spread of disease to healthcare workers and other patients throughout the health care system [27]

CONCLUSION

Frontline healthcare workers face the risk of immediate mental and social consequences as a result of providing health care to patients with COVID-19. In order to better solve the psychosocial problems of various layers of society, the government must develop a model of psychosocial crisis prevention and intervention together with healthcare workers and other stakeholders. And information about pandemics needs to be provided. Psychosocial preparedness with special mental organization arrangements for future pandemics is certainly necessary

Table 1 Studies Characteristic

Author, Year	Title	Objective	Design	Participant	Setting	Result
Zhang et al, 2020 [12]	Mental Health and Psychosocial Problems of Medical Health Workers during the COVID-19 Epidemic in China	To identify the psychological manifestations caused by Covid 19 and to see the prevalence and factors that contribute to insomnia, anxiety, depression, obsessive compulsive symptoms, somatization symptoms and phobias.	cross-sectional	Respondents in this study were 2,182 in China through online surveys Non-medical health worker (n = 1,255) medical health workers (n = 927) In this study, respondents who were more than 16 years old were allowed to join the online survey	Beijing China	Medical staff had a higher prevalence of insomnia when compared to non-medical health workers, namely (38.4 vs 30.5%, p <0.01), anxiety level (13.0 vs 8.5%, p <0.01), depression (12.2 vs. 9.5%; p < 0.04), somatization (1.6 vs. 0.4%; p <0.01), and obsessive-compulsive symptoms (5.3 vs. 2.2%; p <0.01). The health clinicians also had higher total ISI scores, GAD-2, PHQ-2, and SCL-90-R with obsessive-compulsive symptoms (p ≤ 0.01).
Alonso et al, 2020 [10]	Mental health impact of the first wave of COVID-19 pandemic on Spanish healthcare workers: A large cross-sectional survey	To identify the significant prevalence of mental disorders among health workers in Spain	Multi senter observasio nal kohort	Respondents in the study: 9,138 health workers sample of 18 services from 6 Autonomo Communities in Spain institutions (i.e., Andalusia, the Basque Country, Castile and Leon, Catalonia, Madrid, and Valencia	Spain as many as 6 institutions, namely Andalusia, the Basque Country, Castile and Leon, Catalonia, Madrid, and Valencia	A total of 9,138 health workers participated. The prevalence of screen positive disorder was the most common: 28.1% MDD; 22.5% GAD, 24.0% Panic; 22.2% PTSD; and 6.2% SUD. Overall 45.7% presented at this time and as much as 14.5% had mental disorders at this time.
Hu et al, 2020 [9]	Frontline nurses' burnout, anxiety, depression, and fear statuses and their associated factors during the COVID-19 outbreak in Wuhan, China: A large-scale cross-sectional study	To assess mental health (burnout, anxiety, depression, and fear) and related factors among nurses who cared for COVID-19 patients in Wuhan, China	Cross sectional	Respondents in this study were frontline nurses who cared for Covid patients, namely 2,014 nurses from 2 hospitals in Wuhan China	2 hospitals in Wuhan China	On average, respondents said they experienced moderate levels of fatigue and high levels of fear. About half of the nurses reported moderate and high work fatigue, as shown in emotional exhaustion which was around 60.5%, depersonalization was 42.3%, and personal achievement was 60.6%. The nurse each reported moderate and high levels of anxiety, depression, and fear. The majority of nurses (n = 1,910, 94.8%)

						had one or more skin lesions, and 1,950 (96.8%) nurses expressed willingness to work at the forefront.
G. Shahrour and L. A. Dardas, 2020 [14]	Acute stress disorder, coping self-efficacy and subsequent psychological distress among nurses amid COVID-19	To know the prevalence of ASD and predictors of psychological distress in nurses in Jordan	Cross sectional	Respondents in the study were 448 Jordan nurses	Jordania	The majority of nurses (64%) said they had ASD due to the COVID-19 pandemic and were at risk for PTSD predisposition. More than a third of nurses or as much as 41% also suffered from significant psychological distress.
Giménez-Espert, 2020 [13]	Psychosocial Risks, Work Engagement, and Job Satisfaction of Nurses During COVID-19 Pandemic	To analyze nurses' perceptions of COVID-19, especially regarding actions, resources, and their impact on daily work. Also, to analyze the psychosocial risks of these professionals and the relationship between the perception of COVID-19 and this risk.	descriptive correlational	Respondents in the study sample used were 92 nurses from 2 hospitals in Valencia and 74 were women aged 24-63.	spanyol	satisfaction was negatively correlated with role conflict ($r = -0.547$; $p < 0.01$) and psychosomatic problems ($r = -0.380$; $p < 0.01$). Role conflict also positively correlated with interpersonal conflict ($r = 0.271$; $p < 0.05$). Regarding the COVID-19 related variables, highlight that resources, size and information were correlated among them, in a very strong and positive way; especially resources with size ($r = 0.839$; $p < 0.01$) and measures with information ($r = 0.776$; $p < 0.01$). However, none of these three variables had a significant correlation with the impact of COVID-19. Finally, among the stronger correlations between psychosocial risk variables and variables associated with COVID-19, it was known that resources ($r = 0.474$; $p < 0.01$), size ($r = 0.483$; $p < 0.01$) and information ($r = 0.558$; $p < 0.01$) had a positive correlation with job satisfaction. Also, resource ($r = -0.312$; $p < 0.01$), size ($r = -0.462$; $p < 0.01$), and information ($r = -0.529$; $p < 0.01$) were negatively correlated with role conflict. In addition, workload had a positive correlation with job insecurity ($r = 0.292$; $p < 0.01$), and psychosomatic

						problems ($r = 0.369$; $p < 0.01$), and negatively with job satisfaction ($r = -0.364$; $p < 0.01$) and related resources for COVID ($r = -0.271$; $p < 0.05$), measurement ($r = -0.232$; $p < 0.05$) and information ($r = -0.408$; $p < 0.01$).
Nochaiwong et al, 2020 [11]	Mental health circumstances among health care workers and general public under the pandemic situation of COVID-19 (HOME-COVID-19)	To identify short- and long-term mental health status and psychosocial responses to the COVID-19 outbreak in a sample of national healthcare workers and the general population in Thailand.	Cross sectional	Respondents in this study, the sample used in this study were 1.310 healthcare workers including doctors, nurses, dentists, pharmacists, psychologists, physiotherapists, case managers and paramedics who worked in hospitals in Thailand.	Thailand	Depressive symptoms was 50.4%, 44.6% anxiety, 34.0% insomnia, and 71.5% distress. It was not surprisingly, frontline healthcare workers were associated with a higher risk of depression (OR, 1.52; 95% CI, 1.11-2.09; $P = .010$), anxiety (OR, 1.57; 95% CI, 1.22-2.02; $P < .001$), insomnia (OR, 2.97; 95% CI, 1.92-4.60; $P < .001$), and distress (OR, 1.60; 95% CI, 1.25- 2.04; $P < .001$).
Alizadeh et al, 2020 [15]	Psychological Distress among Iranian Health-Care Providers Exposed to Coronavirus Disease 2019 (COVID-19): A Qualitative Study	The aim of this study was to explore the psychological distress experienced by Iranian healthcare providers in the first few weeks of the coronavirus outbreak.	Qualitative	Respondents in this study were 18 healthcare workers consisted of nurses and doctors who were exposed to Covid 19	Iran	The results of this study found that there were several obstacles and challenges for healthcare workers who were exposed to COVID-19 and caused psychological distress. Some of these problems were related to the nature of the disease, others to social and organizational demands

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