Strategies for Supporting Healthcare Workers' Resilience and Mental Health During A Pandemic: A Scoping Review

Eka Oktavianto*, I Made Moh. Yanuar Saifudin, Gani Apriningtyas Budiyati

Nursing Study Program, STIKes Surya Global, Yogyakarta 55194, Indonesia

*E-mail: ekaoktavianto12@stikessuryaglobal.ac.id

Abstract

As a group, health workers are at risk of experiencing stress and mental health problems at work, which may negatively affect their resilience. This study assessed the effectiveness of mental health support strategies for health workers during the COVID-19 pandemic. This scoping review followed the Preferred Reporting Items for Systematic Reviews and Meta-analyses guidelines in searching through three journal databases, such as: EBSCO, Scopus, and PubMed. The quality of the studies was assessed with the Crowe Critical Appraisal Tool, and the results of the review emerged from a process of synthesis that identified common themes. The search yielded five main articles. The results of the synthesis process inspired several recommended strategies to support the resilience and mental health of health workers during a pandemic, including personal management, psychoeducational, and counselling approaches. It is important to work in partnership with stakeholders and across sectors to derive the maximum benefit from these interventions.

Keywords: health workers, mental health, pandemic, resilience

Abstrak

***Strategi untuk Mendukung Resiliensi dan Kesehatan Mental Tenaga Kesehatan saat Pandemi:* Scoping Review.** *Tenaga kesehatan adalah kelompok dengan risiko mengalami masalah kesehatan mental, seperti stress, di tempat kerjayang dapat berdampak negatif pada ketahanan/resiliensi. Tinjauan literatur ini bertujuan untuk menilai efektifitas strategi pendukung kesehatan mental tenaga kesehatan selama pandemi* COVID-19. Scoping review *dilakukan dengan menggunakan* PRISMA guidelines *dalam melakukan pencarian pada tiga* database *jurnal, yaitu* EBSCO, Scopus *dan* PubMed. *Kualitas studi dinilai dengan* Crowe Critical Appraisal Tool. *Hasil ulasan diformulasikan melalui proses narasi berulang dari hasil sintesis untuk mengidentifikasi tema umum. Pencarian pada tiga* database *menghasilkan lima artikel utama. Melalui proses sintesis, didapatkan beberapa strategi yang diketahui efektif dalam meningkatkan kesehatan mental tenaga kesehatan. Strategi yang dimaksud dapat berupa manajemen pribadi, kegiatan konseling bersama ahli, dan pelatihan/pendidikan terkait manajemen stres. dukungan* stakeholder *dan lintas sektor menjadi hal yang penting untuk memaksimalkan manfaat intervensi.*

Kata Kunci: *tenaga kesehatan, kesehatan mental, pandemi, resiliensi*

Introduction

Evidence shows that healthcare workers are a group at risk for short- and long-term mental health problems during an infectious disease pandemic. The factors affecting mental health during a pandemic include burnout syndrome, depression, post-traumatic stress disorder, anxiety, increased family responsibilities, increased workload, decreased access to necessary tools and equipment, guilt, uncertainty, and a-dapting to unfamiliar workplaces or schedules (Centers for Disease Control [CDC], 2019; Chinvararak et al., 2022; Houghton et al., 2020; Shanafelt et al., 2020).

During a pandemic, healthcare workers may experience concerns about the risk of being infected with an infectious disease, which negatively affects the mental health of staff, the quality of care provided to patients, and the capacity of the healthcare system to respond to in-

creased care needs during the pandemic (Kang et al., 2020). The symptoms that may be experienced by health workers include stress, anxiety, reduced motivation, fatigue, sadness, depression, and difficulty sleeping or concentrating. This situation can result in unhealthy behaviors, such as drug and alcohol abuse, that may contribute to a decreased ability to function in the workplace. In addition, these unhealthy behaviors may be associated with impaired family functioning and domestic violence, further exacerbating depression, anxiety, and stress and negatively affecting the ability to function in the workplace. Healthcare workers with mental health problems may have high rates of absenteeism (Robertson et al., 2020).

Stress at work can negatively affect healthcare workers' resilience, but personal development and learning to adapt have the potential to build resilience and enhance the ability to cope with stressful situations in the future. Strategies to maintain resilience in the workplace may incorporate relationship development (e.g., through mentoring) and maintaining a healthy work-life balance (CDC, 2019; Robertson et al., 2020).

Healthcare workers throughout the world have had to deal with challenges, such as increasing patient mortality, growing healthcare demands, medical supply shortages, and tremendous physical and emotional stress. Furthermore, the duration of this unpredictable crisis and the extent of its effect on normal life remain unknown. Health statisticians anticipate that COVID-19 will continue to be a public health disaster in the future. Aside from the acute challenges caused by this crisis, the ripple effect of postponed medical procedures, research, and clinic visits will continue to put strain on healthcare workers and the health system in the future. It is becoming easier, however, to find information on topics such as the epidemiology of the disease, its etiology, and infection control and prevention (Sorbello et al., 2020).

The current understanding is that healthcare workers need resilience to handle difficult situations. Although workplace resilience is drawing more attention, the topic of resilience among healthcare professionals needs further research, particularly in relation to employee retention. Recently, more attention has been given to the concept of developing *resilience*, defined as the ability to resist the disruption of regular functioning by expecting and preparing for a painful experience. Furthermore, it has been proposed that resilience may be a key distinguishing characteristic between health workers who experience burnout and those who do not (Fox et al., 2018; Schreiber et al., 2019; Walsh, 2015).

Future healthcare crises will induce the same psychological pain as the present pandemic. To address this psychological anguish, it is critical that measures be developed and implemented to promote healthcare workers' resilience (Heath et al., 2020). Several interventions promote resilience among healthcare workers to prevent the development of ill health among them, such as relaxation, stress management, psychological services, regular rest, healthy eating, adequate physical activity, support from family and coworkers, controlling maladaptive coping strategies, limiting the use of online social media, and encouraging the expression of gratitude (Baskin & Bartlett, 2021; Verbeek et al., 2019).

It is necessary to pay attention to the potential long-term impact on healthcare workers. Healthcare providers can implement strategies such as rotating employees, partnering experienced and inexperienced employees, monitoring work breaks, offering flexible schedules, and providing social support. This study assessed the effectiveness of strategies to support the resilience and mental health of healthcare workers during the COVID-19 pandemic. The results provide further recommendations of effective strategies for healthcare institutions to maintain the mental health of health workers on the front line in the pandemic era.

Methods

This study adopted a scoping review method

based on the Joanna Briggs Institute's JBI Manual of Evidence Synthesis to address the pre-determined objectives (Peters et al., 2020) by discovering and synthesizing representative literature to establish new frameworks and views on the chosen topic. The process includes (1) defining the purpose, (2) defining inclusion criteria, (3) defining a strategy for seeking, selecting, and extracting articles, (4) analyzing evidence, (5) presenting results, and (6) summarizing the evidence.

Three authors (IMMYS, GAB, and EO) simultaneously searched the selected databases, namely PubMed, EBSCO-Medline, and Scopus. The search was limited to articles published in English in the past five years for which the full text was available. The authors also established inclusion criteria for the selecting articles: (a) the article described strategies/interventions to support the mental health and/or resilience of health workers, and (b) the study design was an observational or clinical trial. The exclusion criteria were letters, abstracts, and research taking the form of a review.

The strategy to determine search terms for articles was based on the population/patient, intervention, comparison, and outcome (PICO) method and used the following parameters: *population*: professional health workers, intervention; *technique/intervention*: to support mental health and resilience; *comparison*: no comparison; and *outcome*: mental health and resilience. These PICO parameters yielded the following search terms: ("healthcare professional," OR nurse OR doctor OR midwife OR "healthcare worker") AND ("mental health promotion" OR "mental health intervention" OR "resiliency promotion" OR "resiliency intervention") AND (stress OR depression OR resilience OR "quality of life" OR "burnout syndrome"). Data synthesis was performed by extracting important attributes in the articles, which were then elaborated into structured points, including sample size, type of intervention, time of observation, measurement, and study result. Table 1 shows the results of the synthesis.

Before the data extraction process, the quality of the articles was reviewed using the Crowe Critical Appraisal Tool (CCAT) to determine the suitability of their content. A CCAT assessment is conducted by looking at the points yielded by each of eight categories to disqualify research articles that earn a high score overall but a very low score in a given category. The form consists of 8 categories and 22 items, each category having a possible score between 0 and 5, which is awarded based on the item descriptors presented. The more descriptors checked, the higher the score. However, the evaluation is not solely based on the descriptors, as the importance of each item is also taken into account. To calculate the total CCAT score as a percentage, the sum of the eight category scores is multiplied by a maximum score of five and then divided by 40. The CCAT assessment ensures that each category is considered to avoid a high overall score masking poor performance in specific areas. Neglecting to assess each category would result in poor performance in one or more areas being hidden by the overall score. Ultimately, the appraiser's judgment determines the entire appraisal procedure (Crowe, 2013).

Results

The Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) 2020, by Page et al. (2021), guided the search for articles, which returned five articles as the main sources of this paper. Figure 1 shows the PRISMA flow diagram. All the studies were conducted in different places, including the USA (Nathan et al., 2021), Portugal (de Pinho et al., 2021), Germany (Mache et al., 2017), Australia (Rees et al., 2020), and Spain (Blanco-Donoso et al., 2021).

The studies varied in their sample size (13–821), study design, measures, and recommended strategies. Table 1 shows the descriptive characteristics of the five included studies, while Table 2 provides the results of the article quality assessment. The average total score for each assessment category is close to the maximum
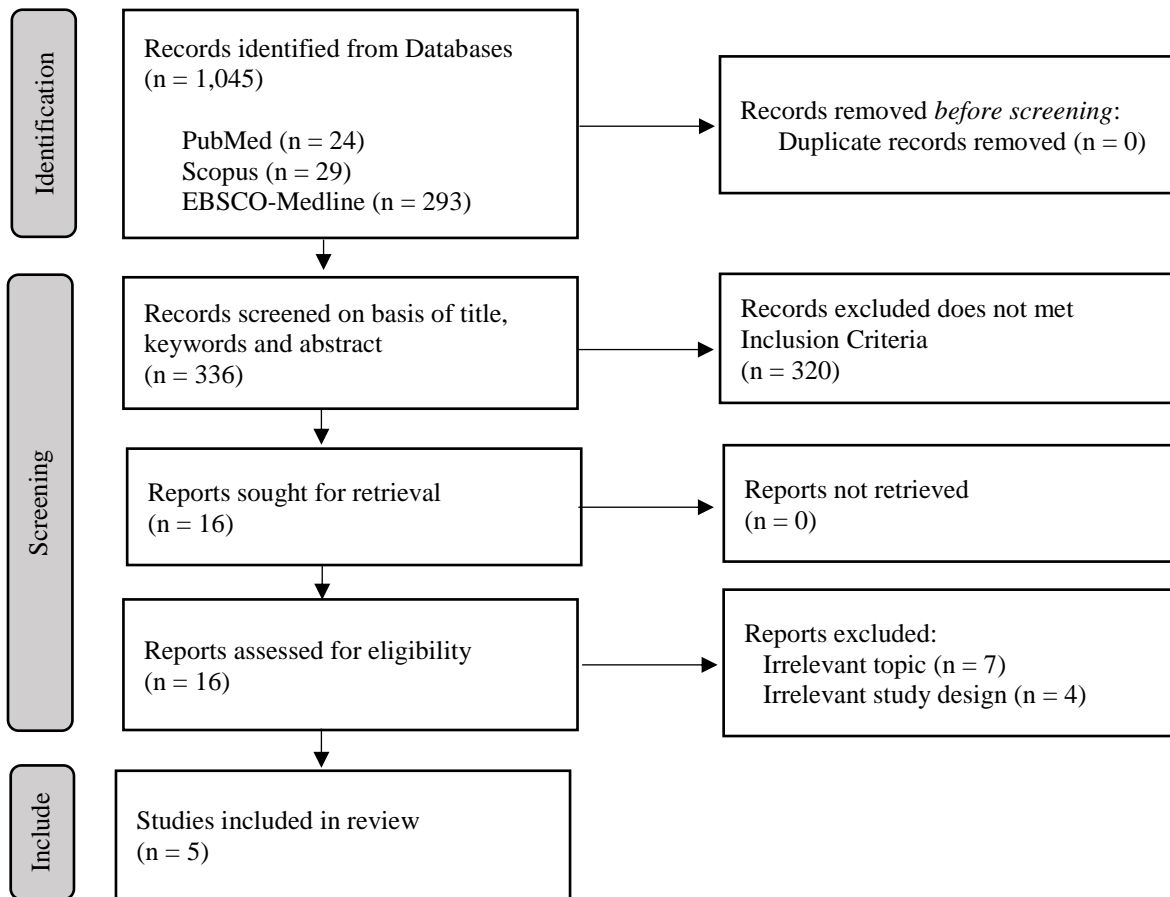
Figure 1. Literature Search Flow Based on the PRISMA Guideline

score, with scores representing better results the closer they are to 5 for each assessed point. Thus, the five articles are of suitable quality.

Discussion

This study assessed the effectiveness of strategies to support the mental health of healthcare workers during the COVID-19 pandemic. The findings reveal that training programs that support mental health and resilience effectively improve the emotional health of healthcare workers. The most recent research, however, focuses on counseling, psychoeducational therapies, and mindfulness-based therapy, which may be used to lessen the psychological toll that the COVID-19 crisis has had on all healthcare workers.

The results of the synthesis identify several strategies that are known to be effective in im-

proving the mental health of health workers. These may take the form of personal management, including taking breaks during shift changes, initiating and maintaining a healthy diet, maintaining mineral water consumption, exercising, employing self-relaxation techniques, engaging in recreational activities, maintaining social relationships with family and friends, expressing emotions constructively, and avoiding hoax information related to COVID-19. In addition, counseling activities with experts and training/education related to stress management are known to have good effectiveness (Blanco-Donoso et al., 2021; de Pinho et al., 2021; Nathan et al., 2021; Rees et al., 2020).

Stress management training can be provided to improve the mental health of nurses and other health workers, and offering an understanding of mental health efforts is a crucial element in

Table 1. Characteristics of the Articles

Author, Year, and Country	Design	Sample Size	Recommended Strategies	Study Result
de Pinho et al., 2021 Portugal	Cross-sectional	821 clinical nurses	Mental health literacy promotion	Nurses who followed the strategies had less stress and used more strategies to improve mental health than other nurses.
Mache et al., 2017 Germany	Pilot study of randomized control trial	80 doctors	Work-related self-care strategies, problem-solving techniques, solution-focused counselling	The intervention group showed lower work stress and emotional exhaustion than the control group.
Nathan et al., 2021 USA	Pilot study	32 doctors	Stress management and resiliency training	Respondents who received weekly text messages showed a significant increase in mindfulness awareness and had lower stress levels compared to those who did not receive text messages.
Rees et al., 2020 Australia	Sequential mixed-methods study	13 doctors	Mindful self-care and resiliency program	A majority of doctors showed a decrease in fatigue and stress after joining the program. Qualitative data show that that respondents had good self-awareness, reflection, and self-care after joining the program. The respondents also reported increased social interaction.
Blanco-Donoso et al., 2021 Spain	Mixed methods design	22 health workers	Acceptance and commitment (ACT) stress management	The experimental group showed a significant reduction in their levels of depression and stress compared to the control group.

increasing resilience and reducing burnout in a pandemic. The results of the study suggest that nurses who have received mental health training have a high level of resilience when facing stressful situations, in this case the pressure of the COVID-19 pandemic. The results of Blanco-Donoso et al.'s research, which evaluated the Acceptance and Commitment (ACT) based stress management training implemented for one month, reveal a decrease in stress and depression levels in nurses working in the intensive care unit (ICU) (Blanco-Donoso et al., 2021; de Pinho et al., 2021).

Nathan et al. (2021) tested the six-hour of Stress Management and Resiliency Training for Residents (SMART-R) program, which sends the healthcare workers text messages that teach relaxation, appropriate coping techniques, and awareness of stress. Health workers who received weekly messages had higher awareness

and resilience than those who did not receive messages. The authors suggest implementing this intervention in addition to stress management training intervention. Ultimately, de Pinho et al. (2021) argue that hospital managers should prioritize mental health improvement support for healthcare workers who have not received specialized mental health training. Furthermore, de Pinho et al. (2021) also stated that both during and even after pandemic conditions, it is necessary to continually remain alert to the emergence of symptoms of depression and anxiety resulting from stress during the pandemic.

Rees et al. (2020) evaluated the Mindful Self-Care and Resiliency program on six doctors in the Australian outback. The program, which comprised four hours of face-to-face engagement and a video conference follow-up, promotes participants' self-awareness and ability to reflect, be more relaxed, and interact with other

people. The authors found that six of the seven doctors experienced a decrease in burnout and psychological stress.

High levels of stress and depression in healthcare workers existed long before the COVID-19 pandemic, but the pandemic has made it increasingly clear that healthcare workers' emotional stress is a real problem. Effective intervention requires a comprehensive approach that is able to integrate various complementary and interrelated aspects. The severity of the COVID-19 pandemic is exposing healthcare workers to a unique cause of stress, which requires healthcare institutions to respond and support their workers in new and innovative ways (Hall et al., 2020; Irfan et al., 2020; Vizheh et al., 2020).

Workplace administrators and managers need to ensure that health workers can actively use available resources. Generally, despite the pandemic, health workers are known to experience high rates of mental health problems but show reluctance to seek help. To carry out professional responsibilities during difficult workplace-related events, such as death and illness, healthcare providers frequently disregard their emotions and adopt an impersonal attitude, which can damage their long-term emotional well-being (Bohlken et al., 2020; Shanafelt et al., 2020).

The reluctance of health workers to seek mental health assistance reflects concerns over stigma in the workplace and negative professional consequences (Chirico et al., 2021; Wessely & Gerada, 2013). This behavior was demonstrated by health workers during the COVID-19 pandemic as shown in the inadequate use of psychological support resources by hospital staff (Huffman et al., 2021; Krystal et al., 2021). A study found a low awareness among health workers about the use of mental health improvement services provided by healthcare institutions; health workers stated that they preferred hospital managers to prioritize resources that met their physical needs over their psychological well-being (Cheng et al., 2012).

The impact of persistent stressors causes many health workers to experience chronic stress, but the availability of mental health professionals for healthcare workers has proven beneficial in promoting treatment-seeking behavior. In addition, ensuring the sustainability of the intervention is a very important mechanism that merits consideration. Managers of healthcare institutions must have the infrastructure to identify people with mental problems related to stress and similar factors. People can strengthen long-term resilience by following healthy lifestyle, diet, and exercise habits as well as by re-engaging in activities that bring them a greater sense

Table 2. CCAT Result

No.	Author	Preliminaries	Introduction	Design	Sampling	Data collection	Ethical matters	Results	Discussion	Total (/40)	Total (%)	Summary
1	de Pinho et al., 2021	4	3	4	3	3	4	4	4	29	73	Fair
2	Mache et al., 2017	4	4	3	4	4	4	4	3	30	75	Good
3	Nathan et al., 2021	4	4	4	4	3	4	4	3	30	75	Good
4	Rees et al., 2020	4	4	4	4	4	4	4	4	32	80	Good
5	Blanco-Donoso et al., 2021	4	3	4	3	3	4	4	4	29	73	Fair

of personal meaning (Croghan et al., 2021; Gray et al., 2021; Spoorthy et al., 2020; Tan et al., 2020).

There is currently insufficient experimental data to report on strategies for boosting healthcare workers' resilience (Delgado et al., 2017; National Academies of Sciences, Engineering, and Medicine, National Academy of Medicine, & Committee on the Future of Nursing 2020–2030, 2021). Managers of healthcare workers can evaluate the emotional state of those working on their units on an individual basis. Healthcare worker managers or leaders should remind staff members that they are allowed to communicate their feelings and concerns in an open manner to destigmatize obtaining help for mental health challenges (Tomlin et al., 2020). Encouraging the expression of appreciation is another method that may be effective in fostering individual healthcare personnel resilience (Kim et al., 2019).

Tomlin et al. (2020) describe the COVID-19 pandemic's stages and the steps that healthcare organizations can take to help their staff become more resilient based on the stage of the pandemic. The stages include the preparation phase, pre-phase, initial/core phase, and longer-term phase of the pandemic. During the preparation phase, it is necessary for managers to comprehend the requirements of their workforce and identify if any team members may be more susceptible than others to experiencing mental health issues. Additionally, during the pre-phase, team grounding plays a vital role. This involves recognizing the emotional and cognitive information shared within a group, acknowledging it, and utilizing it to create an agenda for discussion. Furthermore, in the initial/core phase, effective communication will be crucial. It is important to deliver timely, precise, and evidence-based information about the virus and the hospital's response, including worst-case scenarios. Finally, longer-term phase, after the COVID-19 pandemic has subsided, organizations are expected to evaluate what happened and how they responded to it.

The results present some beneficial mental health and resilience programs and may be useful to hospital managers when managing healthcare workers. Despite our best efforts, our review has significant limitations that must be considered, for instance, a paucity of sources and bias in the selected publication and reports, including selection bias that occur when the inclusion and exclusion criteria are not applied consistently, and reviewer bias that occur when the reviewers have pre-existing beliefs or preferences that influence the interpretation of the evidence, as these aspects may impact both the quality and quantity of the studies and constrain this study's conclusiveness.

Conclusion

The COVID-19 pandemic has made it clear that mental health problems in healthcare workers are real. It represents a turning point to accelerate the progress needed to reduce stigma and expand access to mental health support for health workers. Future healthcare crises will continue to cause psychological distress among healthcare personnel, so it is imperative to develop and implement strategies to strengthen healthcare workers' resilience to alleviate this psychological suffering. To ensure that healthcare workers feel valued and heard, organizations may need to hire additional support staff or reallocate staff, change their revenue distribution, revise reimbursement and compensation models through negotiations with internal and external stakeholders, and take other actions.

Due to the present success in slowing COVID-19's spread in many countries, there is now more time and opportunity to be proactive in putting measures into place that will improve, restore, and preserve health workers' resilience now and in the future. The current literature on techniques for mitigating the psychological problem caused by the pandemic may be useful for healthcare professionals while also exploring proactive holistic measures.

It is of paramount importance to conduct studies

to assess the effectiveness of interventions in supporting the resilience and mental health of health workers during a pandemic. Further studies should be carried out with proper planning, including development, peer review, and planning for follow-up. Given that many health workers will experience stress and anxiety, it is important to work with stakeholders and across sectors to derive the maximum benefit from interventions.

Acknowledgements

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