

RECOMMENDATION ANALYSIS OF MENTAL HEALTH SERVICES FOR HEALTH WORKERS DURING PANDEMIC COVID-19

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Submission date: 02-Aug-2022 03:31PM (UTC+0800)

Submission ID: 1878021818

File name: Bukti_C.26.pdf (434K)

Word count: 5551

Character count: 31410

RECOMMENDATION ANALYSIS OF MENTAL HEALTH SERVICES FOR HEALTH WORKERS DURING PANDEMIC COVID-19

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Analisis Rekomendasi Layanan Kesehatan Mental Bagi Tenaga Kesehatan Pada Masa Pandemi Covid-19

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ARTICLE INFO

Article History:

Received:
November, 16th, 2020

Revised:
From November, 27th,
2020

Accepted:
December, 24th, 2020

Published online:
March, 4th, 2021

ABSTRACT

28 **Background:** Health workers have a higher risk of experiencing mental health problems during the Covid-19 pandemic. This causes the need for the provision of mental health services given the important role of health workers in dealing with Covid-19 and the high psychological burden of health workers while serving patients. **Research objectives:** This study aims to analyze recommendations of mental health services for health workers during the Covid-19 pandemic. **Method:** The method used in writing this article is a literature review. Articles were obtained through the Google Scholar, Science Direct and Pubmed databases published in 2020. Articles reviewed were eight articles. **Results:** Based on the disaster management cycle which consists of response, recovery, dan mitigation stages. The response stage requires identifying risks of mental health problems; the recovery stage can be done by providing psychological support and reward; the mitigation stages can be done by compiling a health care system preparedness and improving the skills of health workers. **Conclusion:** Mental health problems in health workers during the Covid-19 pandemic can be overcome through the provision of health service based on disaster risk management which consists of a response, recovery, and mitigation stages.

Keywords: Mental Healthcare, Health Workers, Covid-19

ABSTRAK

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Latar belakang: Tenaga kesehatan memiliki risiko lebih tinggi mengalami masalah kesehatan mental selama pandemi Covid-19. Hal ini menyebabkan perlunya penyediaan pelayanan kesehatan mental mengingat pentingnya peran tenaga kesehatan dalam menangani Covid-19 serta tingginya beban psikologis tenaga kesehatan selama melayani pasien. **Tujuan penelitian:** Penelitian ini bertujuan untuk menganalisis rekomendasi pelayanan kesehatan mental bagi tenaga kesehatan pada masa pandemi Covid-19. **Metode:** Metode yang digunakan dalam penulisan artikel ini adalah *literature review*. Artikel didapatkan melalui database *Google Scholar*, *Science Direct* dan *Pubmed* yang dipublikasikan pada tahun 2020. Artikel yang direview berjumlah delapan artikel. **Hasil penelitian:** Terdapat berbagai masalah kesehatan mental yang didasarkan pada tahapan *disaster risk management* yang terdiri dari tahap *response*, *recovery*, dan *mitigation*. Upaya yang dapat dilakukan pada tahap *response* adalah identifikasi risiko masalah kesehatan mental; upaya yang dapat dilakukan pada tahap *recovery* adalah pemberian dukungan psikologis, dan *reward*; upaya yang dapat dilakukan pada tahap *mitigation* adalah menyusun *healthcare system preparedness* dan meningkatkan keterampilan tenaga kesehatan. **Kesimpulan:** Masalah kesehatan mental pada tenaga kesehatan selama pandemi Covid-19 dapat diatasi melalui penyediaan layanan kesehatan mental berdasarkan *disaster risk management* yang terdiri dari tahap *response*, *recovery*, dan *mitigation*.

Kata Kunci: Pelayanan Kesehatan Mental, Tenaga Kesehatan, Covid-19

INTRODUCTION

The case of Corona Virus 2019 disease (Covid-19) was first detected at the end of December 2019 in Wuhan City, Hubei Province, China. This case has increased and has began to spread outside Hubei province in the middle of January 2020. The high level of community mobilization on the Chinese New Year holiday becomes the cause why this case is quickly spreading to various regions. Until January 23, 2020, the outbreak had reached other countries with attractive spread throughout the world. On March 11, 2020, WHO declared Covid-19 a global pandemic based on the high spread of cases in various countries (Zu, 2020). Based on data on the development of Covid-19, until 7 November 2020 there were 433,836 positive cases (+4,262 cases from the previous day), 364,417 recovered (83.9% of confirmed), 54,879 in treatment (12.65% of confirmed) and 14,540 died (3,351% of confirmed). Accumulatively, confirmed cases continue to experience a higher increase than the accumulated recovery of Covid-19 patients (Covid-19 Management Task Force, 2020).

The study of the Global Burden of Disease conducted by IMHE (The Institute for Health Metrics and Evaluation) in 2015 revealed convincing data on the map of burden of disease around the world. The years lost due to disability (YLD) data from the study states that six of the 20 types of diseases that are considered the most responsible for causing disability are mental disorders. Contrary to popular belief, the impact of a poor mental health condition is no better than that of infectious diseases and is getting worse every year. (Ridlo, and Zein, 2018)

Several studies have indicated mental health problems for health workers during the Covid-19 pandemic. Lai, J., et al in 2020 conducted a study on anxiety, depression, and insomnia symptoms on 1,830 health workers consisting of 702 doctors and 1,128 nurses. Based on the results of this study, more than 70% of respondents reported experiencing psychological distress, in which female nurses suffered the majority of symptoms of depression, anxiety, and distress. This psychological response occurs since 71.5% of nurses are junior nurses who do not have much work experience. Walton, et al (2020) also explained that the Covid-19 pandemic caused various mental health problems such as acute

stress reactions, moral injury, and posttraumatic stress disorder.

According to Wen, et al (2020), healthcare professionals have a higher risk of experiencing insomnia, anxiety, and depression during the pandemic, which are caused by difficulties in getting work safety. The non-fulfillment of the right to work safety includes a lack of knowledge about the prevention and control of Covid-19 infection, limited personal protective equipment, and an increased workload. Meanwhile, according to Walton (2020) mental health problems in healthcare professionals occur because of concerns regarding to limited contact with family, and dealing with patients with conditions that worsen easily. The provision of mental health services is imperative considering the high risk of health workers in dealing with Covid-19 and the high psychological burden of healthcare professionals while serving patients.

According to BNPB (2020), a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods, which are caused by either natural factors and / or non-natural factors as well as human factors resulting in human casualties, environmental damage, property loss, and psychological impacts. Non-natural disasters are caused by non-natural events such as pandemics and disease outbreaks. Based on this definition, it can be concluded that the Covid-19 pandemic is a form of non-natural disaster. According to APCICT (2011), disasters can be handled using a disaster risk management approach, such as a systematic process through various strategies and policies to reduce the adverse effects of hazards and the possibility of disasters. Disaster risk management consists of a prevention stage to prevent a disaster, response to deal with bad impacts when a disaster occurs, recovery to recover people from the effects of a disaster, and mitigation to reduce disaster risk (APCICT, 2011). The Covid-19 pandemic as a non-natural disaster has a psychological impact on healthcare professionals, which can be overcome using a disaster risk management approach (APCICT, 2011). Thus, this article aims to discuss mental health efforts for health workers during the Covid-19 pandemic, which are based on disaster risk management at the response, recovery and mitigation stages. This issue is considered as important, considering that there are limited studies that discuss efforts to

address mental health problems for healthcare professionals based on the disaster risk management stage.

METHOD

The design employed in this study was a literature review of articles published in 2020. The literature review design was used to obtain information about the object of research being studied in various countries, thus creating comprehensive information. Articles obtained through the Google Scholar database, Science Direct and Pubmed in August 2020 with the keywords "mental health care" or "mental health" and "health worker" and "Covid-19". The selection of articles was based on inclusion criteria, including

Indonesian or English articles, open access articles, healthcare professionals research targets, and cross-sectional or online surveys research design. The researcher does not limit the country of origin of the articles used as references.

The results of the search for articles on the Pubmed database found 3 articles, 44 articles for Science Direct and 98 articles on Google Scholar, thus the total articles were 145 articles. The results of the assessment based on conformity with the inclusion criteria obtained 25 relevant articles. After going through the review process of full text, eight relevant articles were obtained. Below is an outline of the article search results :

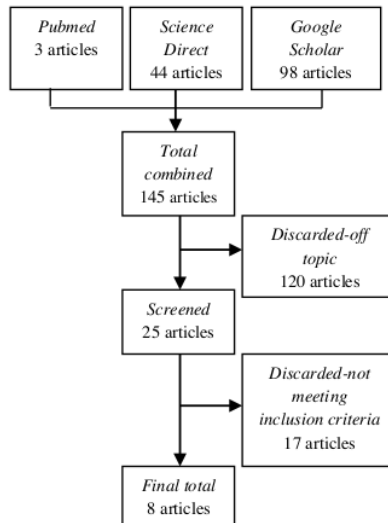


Figure 1. Article Search Results Framework

Based on the search results, all reference articles were published online in 2020. The articles came from China, Italy, Saudi Arabia, the Dominican Republic, Iran, and Nepal. Each

article contains the main information analyzed, which are mental health issues and recommendations for mental health services for healthcare professionals.

RESULTS

The following is literature review Matrix:

Table 1. Literature Review Matrix

No	Authors, Country	Research Design	Respondents	Instruments	Research Findings	Recommendation for Mental Health Services
1.	Xiao, X. et al., China	Cross sectional	958 health workers from 26 provinces in China. 39.5% of the respondents were doctors, 37.5% were nurses, and 54.8% were young graduates.	1. Questionnaires regarding demographic and exposure factors 2. Perceived Stress Scale (PSS-14) 3. Hospital anxiety and depression scale (HAD-scale)	9 55.1% of respondents experienced higher psychological stress than health workers who faced SARS. 54.2% had symptoms of anxiety, and 58% had symptoms of depression. Stress is influenced by position and length of work. Anxiety is influenced by gender, position, level of protection and contact history. Depression is influenced by the level of protection and contact history.	1. Grouping new health workers and female health workers based on work experience to improve practical skills. 2. Psychological education to reduce pressure and develop psychological abilities. 3. Promote Balint Group to develop the ability to face emotional challenges, and improve the quality of medical care. 4. Perform job promotions and provide financial incentives
2.	Temsah, M. H. et al., Saudi Arabia	Survei online	582 health worker in all departments and clinical units of King Khalid University Hospital. 75% of respondents were female with a nurse percentage of 62.4%. 44.8% of respondents from acute care areas (ICU and emergency), 28% of outpatient clinics, and	30 1. Generalized Anxiety Disorder (GAD-7) 2. Anxiety Severity screening tool	41.1% of health workers are more anxious about Covid-19 than MERS-CoV. 41.4% have the same level of anxiety in dealing with MERS-CoV and Covid-19, 17.5% are more stressful in facing MERS-CoV. The frequency of anxiety in transmitting the virus to family and friends was	1. Provide control assessment and preventive measures to ensure the safety of health workers 2. Communicate policy effectively 3. Deliver the right information 4. Manage the workers 5. Manage workload 6. Provide emotional support 7. Provide education and training to prepare health

Table 1. Literature Review Matrix (continue)

No	Authors, Country	Research Design	Respondents	Instruments	Research Findings	Recommendation for Mental Health Services
3.	Tella, M. D. e al., Italia	Survei online	19.4% of general hospital wards. 145 health workers practicing at Piedmont (72 doctors and 73 nurses). 72% are female respondents, and 43% work in the Covid-19 handling unit.	<ol style="list-style-type: none"> 1 <i>Quality of life and health-related Visual Analogue Scales (VAS)</i> 2 <i>State-Trait Anxiety Inventory-Form Y1 (STAIY1)</i> 3 <i>Beck Depression Inventory (BDI-II)</i> 4 <i>PTSD Checklist for DSM-5 (PCL-5) to investigate the presence of PTSS.</i> 	<p>greater (2.71 / 5) than in transmitting the virus to himself (2.57 / 5).</p> <p>Health workers who treat Covid-19 patients experience higher symptoms of depression and PTSS than health workers in other units. Single or unmarried female health workers have a higher risk of developing symptoms of depression. Older female health workers have a higher risk of experiencing PTSS.</p>	<p>workers for pandemic conditions</p> <ol style="list-style-type: none"> 1. Provide psychological care such as cognitive therapy 2. Provide the needs of health workers 3. Provide psychosocial support 4. Identify mental health risks to health workers.
4.	Giusti, E. M. et al., Italia	Cross sectional	330 health professionals working at Istituto Auxologico Hospital.	<ol style="list-style-type: none"> 1. <i>State-Trait Anxiety Inventory—State form</i> 2. <i>Psychological distress: Depression, Anxiety and Stress Scale-21 (DASS)</i> 3. <i>Post-traumatic</i> 	<p>235 health workers (71.2%) had anxiety levels above the clinical limit, 88 health workers (26.8%) had clinical level depression, 103 (31.3%) experienced anxiety, 113 (34.3%) experienced stress, and 121 (36.7%) experienced</p>	<ol style="list-style-type: none"> 1. Setting working hours 2. Giving awards 3. Providing psychological support programs 4. Development of organizational work 5. Skills training 6. Online cognitive attitude therapy 7. Timely monitoring and

Tabel 1. Matriks Literature Review (Lanjutan)

No	Authors, Country	Research Design	Respondents	Instruments	Research Findings	Recommendation for Mental Health Services
5.	Batista, Z. E. et al., Republik Dominika	Tes psikologi	115 doctors from the Dominican Republic aged 23 to 66 years, of which 67.9% were female and 32.1% male.	<p>5 symptoms: <i>Impact of Event Scale Revised-6 items version (IES-6)</i> 3. <i>Maslach Burnout Inventory (MBI)</i></p>	<p>post-traumatic stress. 107 (35.7%) experienced moderate level of burnout, 105 (31.9%) experienced severe emotional fatigue, 46 (14%) had moderate level. 40 (12.1%) had severe depersonalization level, 132 (40.1%) moderate level, and 113 (34.3%) decreased self-achievement.</p>	<p>maintainance to improve healthcare system preparation in the medium and long term.</p>
5.	Batista, Z. E. et al., Republik Dominika	Tes psikologi	115 doctors from the Dominican Republic aged 23 to 66 years, of which 67.9% were female and 32.1% male.	<p>1. <i>Perceived Stress Scale (PSS-14)</i> 2. <i>Emotion Regulation Questionnaire (ERQ)</i></p>	<p>Contact with Covid-19 patients can increase stress on health care providers during the Covid-19 pandemic. This leads to the need for emotional suppression strategies, although this is not related to the use of cognitive re-evaluation.</p>	<p>Create interventions that focus on promoting the flexibility of using Emotion Regulation (ER) strategies to reduce stress levels and possibly develop Post-Traumatic Symptoms.</p>
6.	Shoja, E. et al., Iran	Survei online	495 health workers in Iran	<p>1. <i>Demographic Questionnaire</i> 2. <i>NASA-TLX Questionnaire</i> 3. <i>General Health Questionnaire (GHQ-12)</i></p>	<p>Health workers handling Covid-19 patients significantly had a greater workload and mental health problems than other units (p <0.001). Nurses are</p>	<p>1. Providing psychological interventions for health workers. 2. Planning work shifts based on the psychological characteristics of health workers to reduce workload</p>

Table 1. Literature Review Matrix (Continue)

No	Authors, Country	Research Design	Respondents	Instruments	Research Findings	Recommendation for Mental Health Services
7.	Khanal, P. et al, Nepal	Cross sectional	475 health workers working in Covid-19 response management units in Nepalese health facilities. These health workers include doctors, nurses, pharmacists, diagnostic personnel, paramedics and public health practitioners.	<p>1. Hospital anxiety and depression scale (HADS: 0-21)</p> <p>2. Insomnia severity index (ISI:0-28)</p>	<p>health workers with the highest workload (71 ± 16.13, $p < 0.001$).</p>	<p>3. Attention to macro ergonomic factors to increase motivation, job involvement, job enrichment and work commitment</p> <p>4. Providing financial and social support to increase working spirit.</p>
8.	Zhang, W. et al, China	Survei online	2182 Chinese who are more than 16 years old.	<p>1. The Insomnia Severity Index (ISI)</p> <p>2. The Symptom Check List-revised (SCL-90-R)</p> <p>3. The Patient Health Questionnaire-4 (PHQ-4)</p> <p>4. The Patient Health</p>	<p>Health worker had a prevalence of insomnia (38.4 vs. 30.5%, $p < 0.01$), anxiety (13.0 vs. 8.5%, $p < 0.01$), depression (12.2 vs. 9.5%; $p < 0.04$), somatic symptoms (1.6 vs. 0.4 %; $p < 0.01$), and obsessive Compulsive symptoms (5.3 vs. 2.2%; $p < 0.01$) were greater than that of non-health worker.</p>	<p>1. Providing the adequacy work condition</p> <p>2. Providing the recovery program purposes to support medical practitioners adjusting with the work environment and keeping the mental and physical balance</p> <p>3. Reducing workload</p> <p>4. Increasing job control and reward</p> <p>5. Provision of PPE</p>

Table 1. Literature Review Matrix (Continue)

No	Authors, Country	Research Design	Respondents	Instruments	Research Findings	Recommendation for Mental Health Services
				Questionnaire-2 (PHQ-2)	Health worker have higher total ISI, GAD-2, PHQ-2, and SCL-90-R obsessive-compulsive symptoms ($p \leq 0.01$) scores than non-health worker.	6. Providing intervention via smartphone.

Table 2. Matrix of mental health service recommendations for health workers:

No	Recommendation	Mental Health Efforts	Disaster Risk Management
1.	<ul style="list-style-type: none"> a. Grouping of new health workers and female health workers based on work experience to improve practical skills. (Xiao, X. et al) b. Identify mental health risks to health workers. (Tella, M. D. e al.) 	<ul style="list-style-type: none"> Identification of Risk of Mental Health Problems in Health Workers. Manage work Shift 	
2.	<ul style="list-style-type: none"> a. Managing workloads (Temsah, M. H. et al) b. Setting working hours (Giusti, E. M. et al) c. Planning work shifts based on the psychological characteristics of health workers to reduce the workload, especially in the operation unit, ICU, handling Covid-19 and emergencies (Shoja, E. et al) d. Reducing workload (Zhang, W. et al) 		Response
3.	<ul style="list-style-type: none"> a. Providing the needs of health workers (Tella, M. D. e al.) b. Ensuring adequate support systems such as PPE (Khamal, P. et al) c. Provision of adequate working conditions (Zhang, W. et al) d. Provision of PPE (Zhang, W. et al) e. Delivering the right information (Temsah, M. H. et al) 	Pemberian Dukungan <i>Tangible</i>	
4.	<ul style="list-style-type: none"> a. Psychological education to reduce stress and develop psychological abilities (Xiao, X. et al) b. Provides psychological care such as cognitive therapy (Tella, M. D. e al.) c. Providing psychological support programs (Giusti, E. M. et al) 	Giving psychological support	

Table 2. Matrix of mental health service recommendations for health workers (Continue)

No	Recommendation	Mental Health Efforts	Disaster Risk Management
	<ul style="list-style-type: none"> e. Providing psychosocial support (Tella, M. D. e al.) f. Providing emotional support (Temsah, M. H. et al) g. Online cognitive attitude therapy (Giusti, E. M. et al) h. Create interventions that focus on promoting the flexibility of using emotion regulation (ER) strategies to reduce stress levels and the possibility of developing post-traumatic symptoms (Batista, Z. E. et al). i. Providing psychological interventions for health workers (Shoja, E. et al) j. Reducing stigma (Khanal, P. et al) k. Providing intervention via smartphone (Zhang, W. et al) l. Promote Balint Group to develop the ability to face emotional challenges, and improve the quality of medical care (Xiao, X. et al) m. Provision of a recovery program to support medical personnel to adapt to the work environment and maintain a balance of mental and physical health (Zhang, W. et al). 		Recovery
5.	<ul style="list-style-type: none"> a. Doing job promotions and providing financial incentives (Xiao, X. et al) b. Awarding (Giusti, E. M. et al) c. Providing financial and social support to increase morale (Shoja, E. et al) d. Giving attention to macro ergonomic factors to increase motivation, job involvement, job enrichment, and Work commitment. (Shoja, E. et al) 	Giving Reward	
6.	<ul style="list-style-type: none"> a. Timely monitoring and care to improve healthcare system preparation in the medium and long term (Giusti, E. M. et al) b. Communicating policies effectively (Temsah, M. H. et al) c. Providing control assessment and preventive measures to ensure the safety of health workers (Temsah, M. H. et al) e. Improve job control (Zhang, W. et al) f. Development of organizational work (Giusti, E. M. et al) g. Managing the workforce (Temsah, M. H. et al) 	<p>Creating Healthcare System Preparedness</p>	Mitigation
7.	<ul style="list-style-type: none"> a. Providing education and training to prepare health workers for pandemic conditions (Temsah, M. H. et al) b. Skills training (Giusti, E. M. et al) 	Increase the Skills of Health Workers	

¹⁰ Based on the results of the instrument analysis, the most mental health problems which were examined was anxiety and depression. There were seven instruments to measure anxiety (HAD Scale, GAD-7, Anxiety Severity screening tool, STAI Y1, STAI-S, DASS, HADS: 0-21) and five instruments to measure depression (HAD scale, BDI III, DASS, HADS: 0-21, PHQ-4, PHQ-2). Other instruments were PCL-5, IES-6, PSS-14, DASS, NASA-TLX, MBI, ISI 0-28, ERQ, GHQ-12, and SCL-90-R. Based on the analysis of the article, the most dominant psychological response that occurred in health workers were anxiety, depression, and stress. Other mental health problems experienced by health professionals were depersonalization, PTSD, emotional exhaustion, trauma, moral injury, somatic symptoms, and obsessive-compulsive disorder. According to the results, it can be concluded that during a pandemic, health workers did experience mental health problems, especially anxiety, depression, and stress.

Regarding the psychological responses experienced by health workers, there were various recommendations for mental health services that were important to be implemented. These recommendations can be classified based on the disaster risk management stage which consisted of preparedness, response, recovery, and mitigation (APCICT, 2011). Recommendations at the preparedness stage were not found since the recommendations were given after the Covid-19 pandemic. Recommendations that can be suggested at the response stage were identification of the risk of mental health problems in health workers, work shift arrangements, and provision of tangible support. Recovery efforts that can be performed provided psychological support and gave rewards. Efforts at the mitigation stage were the preparation of healthcare system preparedness and improved the skills of health workers.

DISCUSSION

Law Number 24 of 2007 stated that a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods. These events can be caused by natural factors, non-natural factors, and human factors that result in human casualties, environmental damage, property losses, and

psychological impacts. Thus, it can be concluded that the Covid-19 pandemic is a non-natural disaster that has various impacts, one of them is a psychological impact on health workers. The following are recommendations for mental health efforts for health workers based on disaster risk management:

Response

²⁵ Response is a series of activities performed immediately at the time of a disaster to prevent bad impacts (APCICT, 2011). Based on the results of the article analysis, efforts that can be made at the response stage are the identification of risks to mental health problems in health workers, work shift arrangements, and provision of tangible support, such as provision of PPE and the needs of health workers. These various efforts can ensure the availability of an adequate work environment. Those are performed to minimize the risk of mental health problems for health workers at the beginning of the Covid-19 pandemic.

An increased workload which is followed by pressure to be in traumatic situations such as seeing a patient's death, can increase the risk of mental health problems for health professionals. This condition is often exacerbated by the existence of a work environment that does not guarantee the safety of health workers in carrying out their responsibilities. Hence, the hospital needs to identify the risk factors that can cause mental health problems in health workers.

Work shift arrangements are an important recommendation to maximize productivity and provide adequate rest time for health workers. This arrangement can be based on the psychological characteristics and work experience of health workers (Shoja, E., et al. 2020). Health workers also need tangible support. Tangible support includes listening to complaints from health workers, creating a healthy work environment, job promotion, providing financial support, and rewards according to the needs of health workers. The creation of a healthy work environment is one of the recommendations of ISQua (2020) to ensure the psychological safety of health workers during a pandemic. The various supports are expected to maintain health and increase the morale of health workers.

Recovery

Based on the results of the analysis of the article, efforts that can be made to recover mental health problems in health workers are psychological support and reward. Based on ISQua recommendations, organizations should prepare their staff to deal with future trauma through PFA (Psychological First Aid), which is a response to staff who are suffering or need psychological support. This support includes providing education about the cumulative effects of trauma, stress management training, and psychotherapy (ISQua, 2020).

Psychosocial intervention recommendations during a pandemic must be tailored to the needs without violating physical distancing. The use of online media or hotlines will increase the required psychological encounter. Tele-mental health uses useful information and communication to provide remote mental health services including consultation, evaluation, medical management, and psychotherapy. It cannot be denied that in the future, tele-mental health is a method for providing mental health services that are safe, effective, comfortable, and measurable (Whaibeh, Mahmoud & Naal, 2020). This telemedicine is expected to be able to provide psychological assistance and stress relief efforts both individually and in groups.

According to the analysis of resource needs, training of doctors at public health centers, specialists in other medical services, psychologists and paramedical teams regarding psychological interventions are crucial (De Sousa, et al, 2020). This education and training can help health workers develop experiences, skills, and mental wellbeing during a pandemic (Temsah, M. H et al, 2020). This psychological support needs to be accompanied by the provision of rewards such as incentives, job promotions, and other efforts according to the needs of health workers to increase motivation and work commitment.

Mitigation

Mitigation is a series of efforts to reduce disaster risk (APCICT, 2011). Based on the results of the article analysis, efforts to reduce the risk of mental health problems for health workers are the preparation of a Healthcare System Preparedness and improvement of the skills of health workers. Psychosocial support in disaster management is more important than infection control during an outbreak.

Guidelines for psychosocial services during a pandemic must be issued quickly to facilitate the implementation of interventions as well as an essential implication for disaster preparedness in general during an outbreak (Windarwati, H. D. et al, 2020).

Intervention plans in healthcare system preparedness need to be tailored to the needs of health workers and implemented at the organizational, team, and individual levels. This can support the creation of adequate working conditions, thus the health workers can adapt to the work environment quickly and are able to better maintain a balance of physical and mental conditions (Zhang, W. R, 2020).

RESEARCH LIMITATIONS

This research only reviews articles in English and Indonesian. Future researchers are expected to be able to review articles from more diverse languages with a more comprehensive discussion.

CONCLUSION

Based on the results of the article analysis, mental health problems experienced by health workers are anxiety, depression, stress, insomnia, depersonalization, PTSD, emotional exhaustion, trauma, moral injury, somatic symptoms, and obsessive-compulsive disorder. This problem can be overcome through various recommendations for mental health services at each stage of disaster risk management. The response phase requires identifying risks of mental health problems, arranging work shifts, and providing tangible support to prevent the adverse effects of the pandemic on health workers. Recovery efforts can be performed by providing psychological support and rewards. Mitigation efforts to reduce the risk of health problems can be conducted by preparing healthcare system preparedness and improving the skills of health workers.

SUGGESTION

Policy makers, both from the central government to health services, are expected to work together in creating policies that support the fulfilment of mental health rights for health workers. The policy is expected to be well implemented as well as monitoring, and conducting the evaluation, thus it can resolve

mental health problems for health workers and prevent these problems in the future.

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