

Health Issues Among Healthcare Workers During COVID-19 Pandemic: A Psychosomatic Approach

Felix F. Widjaja, Hamzah Shatri, Rudi Putranto

Department of Internal Medicine, Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital, Jakarta, Indonesia.

Corresponding Author:

Hamzah Shatri, MD. Division of Psychosomatic and Palliative Care, Department of Internal Medicine, Faculty of Medicine Universitas Indonesia - Cipto Mangunkusumo Hospital, Jakarta, Indonesia. email: hshatri@yahoo.com.

ABSTRAK

Tenaga kesehatan sebagai garda terdepan dalam melawan pandemi COVID-19 harus menjaga kesehatan dirinya. Tingginya tekanan dan tuntutan dari sistem kesehatan akan memengaruhi kesehatan dan juga moralitas mereka. Karena itu, pendekatan psikosomatik harus digunakan untuk menjaga kondisi mereka dalam keadaan baik. Kombinasi antara pendekatan biologis, psikologis, dan sosial berperan dalam perlindungan diri terhadap infeksi SARS-CoV-2. Aspek biologis yang dimaksud adalah alat pelindung diri, nutrisi, dan waktu istirahat/tidur. Distres psikologis juga terbukti berpengaruh pada sistem imunitas tubuh; dan relaksasi mental dan manajemen waktu kerja dapat mengurangi distres ini. Usaha dari semua pihak juga diperlukan untuk menjaga moralitas dari tenaga kesehatan. Aspek sosial seperti penyediaan tempat istirahat, dukungan dari keluarga, dan usaha meniadakan stigmatisasi juga akan mempengaruhi kesehatan psikologis. Karena itu, pendekatan psikosomatik penting untuk menjaga kesehatan para tenaga kesehatan.

Kata kunci: COVID-19, psikosomatik, tenaga kesehatan.

ABSTRACT

Healthcare workers as the front-liner to fight COVID-19 pandemic, need reassurance of their safety. The stress and the demands from the healthcare system can affect their health as well as the morality. Hence, psychosomatic approach should be used to keep their condition in good shape. The combination between biological, psychological, and social approaches may affect their vulnerability from SARS-CoV-2 infection. The biological aspect includes personal protective equipment, nutrition, and resting/sleeping time. The psychological distress is shown to affect the immune system; and mental relaxation and management of work shift may reduce the distress. There should be an effort from the stakeholders to keep the morality of the healthcare workers. The social aspect such as providing place to live, having supportive family members, and avoiding stigmatization also improve their psychological health. In conclusion, psychosomatic approach is important to keep the healthcare workers healthy.

Keywords: COVID-19, psychosomatic, healthcare worker.

INTRODUCTION

Healthcare workers are the front-liner who face this COVID-19 pandemic. Even before this pandemic, healthcare workers had higher stress than other workers in industries.¹ Currently, they

do not work only for the COVID-19 cases, but also many other cases that need to be taken care of. This pandemic surely boost the tremendous stress because working with personal protective equipment are a burdensome, along with fear

being infected him-/herself and other family members.² Moreover, there are uncertainty about who is being infected (in fact many patients are asymptomatic) and uncertainty of the results of the COVID-19 medication (in fact there is still no proven medication).³ It is estimated that 3,000 healthcare workers have been infected COVID-19 in China and among them 22 have died.⁴ In Indonesia, it is noted that at least 40 healthcare workers have died. This fact may also lower the morality of other healthcare workers. Meanwhile, patients overload also add more burden for the healthcare workers.

In COVID-19 pandemic, the work demands for healthcare workers are high along with no proven medication and the excessive number of patients furthermore hinder recommended work shifts. This high-strain work increases the risk of psychosomatic symptoms.⁵ Regarding this situation, psychosomatic medicine plays an important role in keeping the healthcare workers healthy because it put a basis on biopsychosocial model and has interdisciplinary approach to health by seeing not only biological aspect but also psychological and social as well.⁶ Although, it is difficult to separate these domains, we tried to describe each domain to improve health condition of healthcare workers. This approach is needed to protect the healthcare workers in every aspect; biological, psychological, and social aspects.

BIOLOGICAL ASPECTS

Healthcare workers surely need personal protective equipment as directed by World Health Organization (WHO).⁷ Centers for Disease Control and Prevention (CDC) has explained in detail how the respirators N95 masks should be used in every condition of this pandemic.⁸ WHO stated respirator N95 to be used for healthcare workers providing direct care to COVID-19 patients in settings where aerosol-generating procedures are frequently taken place.⁷ CDC recommends in conventional capacity strategies, the use of N95 respirators are needed to protect from both airborne and fluid hazards, moreover in crisis strategies, the extended use (up to 6 hours) and re-use of N95 may be implemented. N95 should be prioritized for healthcare workers

with the highest potential exposures including doing aerosol generating procedures, while the direct patient care done within 1.8 meters of symptomatic patient should be proceeded using facemask.⁸ WHO put a precaution on respirator reprocessing methods because the methods have not been validated by good research. The favorable methods are vapor of hydrogen peroxide and ethylene oxide, meanwhile the use of UV radiation is questionable since the UV ray may not reach inner materials of the respirator.⁸

Healthcare workers should ensure good nutrition including micro- and macro-nutrients. All the nutrients are necessary for cell proliferation and plays key component of the immune response including protein (nucleotides), lipids (cell membrane), and carbohydrate (ATP production), and also micronutrients (Fe, folic acid, Zn, and Mg).⁹ Vitamin A affects innate immunity and vitamin E is related with lymphocyte proliferation. The role of vitamin D in COVID-19 has gained a higher interest. Vitamin D may induce macrophages to produce anti-microbial peptides.¹⁰ It may reduce pro-inflammatory cytokines and have a preventive effect on interstitial pneumonitis in mouse model.¹⁰ Grant, et al.¹¹ proposed to give the people who at risk of COVID-19 to take 10,000 IU/day of vitamin D3 for a few weeks followed by 5,000 IU/day with target of 25(OH) D concentrations to 40 - 60 ng/ml. Moreover, further study needs to be done to implement this as recommendation. Another review mentioned vitamin C as a potential prophylactic agent for COVID-19 pneumonia.¹² Meanwhile, the evidences of vitamin C supplementation to prevent pneumonia are weak.¹³

Next, healthcare workers should have good sleeping habit and hinder any prolonged shift. A prospective study comprising 56,953 female nurses showed in those who had sleeping time ≤ 5 hours had a 1.7 relative risk (95% CI: 1.06 - 1.82) of pneumonia than 8-hours sleepers, meanwhile there was also a 1.5 relative risk (95% CI: 1.04 - 1.84) of pneumonia in ≥ 9 -hours sleepers.¹⁴ It was also shown that longer duty hours linked to higher incidence of COVID-19 in healthcare workers. Moreover medical or surgical high-risk procedures contribute to a higher risk for being

infected by COVID-19 and all the healthcare workers in high-risk department would be infected if they worked 15 hours per day.¹⁵ It has been known that high-risk procedures such as nebulizer medications, intubation, suctioning, chest physiotherapy, and aerosol-generating procedures has been associated with higher risk (RR: 2.9; 95% CI 1.42 - 5.87) of clinical respiratory infection in healthcare workers.¹⁶ It is also important to keep reminding healthcare workers to do hand hygiene to avoid COVID-19 infection.¹⁵

PSYCHOLOGICAL ASPECTS

Psychological distress has been known to be associated with body immune system. Immune system, particularly innate immune system has been crucial to protect the body from viral infections.¹⁷ Immune system alterations are shown in reduction in number of T cells, T-helper cells, T-cytotoxic, and natural killer cell; reduction of IgA in saliva and serum IgM; and increase of serum IgG and IgA.¹⁸ In influenza cases, psychological impairment may impact wellness, such as lowering antibody response in persons receiving influenza vaccine and related with high event rate of acute respiratory distress syndrome.¹⁹

COVID-19 patients may experience anxiety, depression, guilt, stigma, and anger.²⁰ This work-related distress may lead to more workplace violence for the healthcare workers that would resulted on workers' health.²¹ Hence, this work distress should be dealt with to improve their health. A meta-analysis in 2014 showed that mind and body therapy, such as meditation, yoga, Tai Chi, Qi Gong would lower inflammation marker C-reactive protein significantly, but not for IL-6 and TNF- α .²²

Ruotsalainen, et al.²³ in Cochrane Database of Systematic Reviews showed physical relaxation (massage) and mental relaxation (meditation) reduced stress effectively for healthcare workers. Moreover, they also explored about the change in work shift and they found that having weekend breaks had good effect in reducing stress compared to continuous schedules in intensive care staff. Meanwhile, attending physician or resident, especially an internal medicine

residents are advised to have two-week rotation rather than four-week rotation because it would reduce physician burnout.²⁴ Reducing burnout would reduce the anxiety symptoms in healthcare workers.²⁵ Positive psychological capacities (self-efficacy, optimism, hope, and resilience) may also lessen stress and anxiety.²⁶ Exercise also has positive effect to reduce depression and anxiety.²⁷ Interestingly, however, anxiety had shown to have a positive effect that would lead people to do hand-hygiene more often.¹⁹

In COVID-19 pandemic, healthcare workers may also experience in moral injury that will lead to mental health problems.²⁸ Moral injury is originally a military term and is defined as "the psychological distress that results from actions, or the lack of them, which violate someone's moral or ethical code".²⁸ This is more like a guilty feeling and shameful experience that lead to blaming oneself or her/his supervisors for the failure she/he had. These may lead to mental health problems and even suicidal ideation. Early support by team leaders may be made by holding a regular remote discussion with other staffs so the leaders may observe the staff who is likely to have burnout.²⁸ A hotline to support psychological issue may also help the healthcare workers to get psychological support or if necessary psychopharmacologic medication for a few days.³

SOCIAL ASPECTS

Another thing we can learn from Singapore to face COVID-19 pandemic is Singapore Government tried to hear the problems directly from the healthcare workers and offer a support.² A lesson from China that the healthcare workers were afraid to transmit the virus to their family and the hospital provides a room to live.²⁹ Hence, it is favorable action that in some areas, Indonesia Government has also tried to provide living spaces to help the front-liners. This social support is important to improve the moral hence the health of healthcare workers. Social support from the society, particularly friends or family members, would also help healthcare workers in reducing anxiety and stress and improving self-efficacy.³⁰ Social relationship improves mood, positive emotions, and self-efficacy.³⁰

Meanwhile, there is a need to enhance the knowledge of the community about the COVID-19. In Indonesia, there were healthcare workers that were rejected by their neighborhood. The stigmatization and fear of the disease need to be avoided. Misinformation would result in improper behavior that may have impacts on health system and economics, so called *fearnomic*.³¹

WHO recommends healthcare workers to taking care of themselves physically and mentally through positive act and they should also realize that as a human being they may also be tired physically and mentally.³² They should seek for help if they feel something wrong. The limited number of healthcare workers should be in good condition to ensure the healthcare system does not collapse to face the pandemic.

CONCLUSION

In conclusion, being healthy is an interaction between biological, psychological, and social aspects. Healthcare workers need to use this psychosomatic approach to keep them healthy in the midst of this COVID-19 pandemic.

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