

OVERVIEW OF THE CAUSES OF ANXIETY FOR HEALTH WORKERS IN HOSPITALS DURING THE COVID-19 PANDEMIC: SYSTEMATIC REVIEW

Noelio Auxilio Pedro Martins, Levi Anatolia S. M. Exposto, Santiago Jorge Pereira, Rogerio Fontes
Universidade da Paz, Dili, Timor-Leste
Email: noelmartins1997@gmail.com, bebretelevi@yahoo.com,
boruanan729@gmail.com, rogeriofontes643@gmail.com

Abstract

Health workers play an important role in handling COVID-19 which has to deal with patients who continue to arrive, claiming many lives and even uncertain when it ends, so they experience psychological problems including anxiety. High anxiety can make the body's resistance decrease as a result of the risk of contracting COVID-19. Knowing the description of the causes of anxiety experienced by health workers in hospitals during the COVID-19 pandemic. This research design is literature review with a systematic review approach. Secondary data sources in the form of articles are taken from three data bases (PubMed, ProQuest and Google Scholar). The criteria for articles reviewed are a publication period of 5-10 years, in Indonesian and English, original articles and available in full text. Articles that deserve to be reviewed are 10 articles, namely two in Indonesian and eight articles in English. The factors causing anxiety of health workers are mostly social factors. The dominant biological factors causing anxiety are age and sex. The psychological factor causing anxiety is the frequency of suspected infection either health workers themselves, family or colleagues. Social factors causing anxiety are the availability of PPE, both social and hospital support and the position of health workers in the workplace (frontline). The causes of anxiety in hospitals are biological factors, psychological factors and social factors. Therefore, health care workers improve their ability to provide services and work in accordance with established operational standards so as to reduce anxiety experienced.

Keywords: anxiety; health workers in hospitals; covid-19 pandemic

INTRODUCTION

Coronaviruses are a large family of viruses that cause deadly diseases. There are at least two types of *coronavirus* that cause severe symptoms such as *Middle East Respiratory Syndrome (MERS)* and *Severe Acute Respiratory Syndrome (SARS)*. The risk of death of SARS cases is 10% death, MERS is 35%, while the coronavirus is only 3% (Larassaty, 2020). The World Health Organization (WHO) has officially declared the COVID-19 coronavirus a pandemic (Sebayang, 2020). This disease has

disturbed the world because of the rapid and cross-country increase in the number of cases. Total COVID-19 cases as of September 19, 2020, globally confirmed 30.9 million cases with 960 thousand cases of death (CFR 3.10%). The highest number of COVID-19 cases in the United States is 6.9 million cases with 203 thousand deaths (CFR 2.93%). COVID-19 cases in Indonesia are 240,687 people with 9,448 deaths (CFR 3.93%) (Bramasta, 2020). The number of COVID-19 cases in Central Java Province was confirmed at 19,531 cases with 1,790 deaths (CFR 9.17%). The data shows that the COVID-19 mortality rate in Indonesia (3.93%), especially Central Java Province (9.17%), exceeds the world CFR (3.10%) (Tanggap COVID-19 Prov Jateng, 2020). Patients positive for coronavirus (Covid-19) infection can have severe and burdensome symptoms if they have comorbidities or comorbidities (Farid, 2020).

The patient died preceded by comorbidities and COVID-19 worsened the body's resistance (Kemenkes, 2017). COVID-19 causes death in people with serious pneumonia (14%), in respiratory and multiorgan system failure (5%). The fatal ratio of COVID-19 in patients with cardiovascular disease (eg ischemic heart disease, stroke, heart disease due to high blood pressure) is 10.5%, the ratio of corona patients over the age of 80 years confirmed to die is 14.8% (Ridhoi, 2020). Groups with a very high risk of exposure to COVID-19 are health workers who care for COVID-19 patients, especially health workers (Hamdi, 2020).

Health workers play an important role and are at the forefront of handling COVID-19. They must be ready to be placed in any condition and anywhere. Power health is required to provide extra services for patients at risk of exposure to COVID-19. The surge in cases has put health workers under great pressure for a long time (Raharjo, 2020). In addition, the workload of health workers becomes irrational (Asmara, 2020). Health workers do extra emotional work and have to suppress their own feelings. They have to deal with COVID-19 coronavirus patients who continue to arrive, claiming many lives and even uncertain when it ends. This creates psychological problems for health workers (Arif, 2020). Psychological problems experienced include stigmatization, depression and anxiety (Chen, et.al., 2020).

Anxiety is indicated by the vague worry felt by a person with feelings of uncertainty and helplessness (Stuart, 2014). The psychological response experienced by health workers to infectious disease pandemics is increasing because it is caused by feelings of anxiety about one's own health and the spread of families. Panic and fear are part of the emotional aspect, while the mental or cognitive aspect is the emergence of disturbances to attention, worry, irregularity in thinking, and feeling irregular, so that from this Covid-19 incident, health workers feel depressed and worried (Chen, et.al., 2020). Excessive anxiety can have a detrimental impact on the mind and body and can even cause physical illness (Cutler, 2014). High anxiety can make the body's resistance decrease, so health workers are at risk for contracting COVID-19 (Passarella, et.al, 2020). Excessive anxiety and not treated quickly and well can have an adverse effect on the quality of care (Liu, et. al, 2020). Mental health problems are also reported to affect the attention, understanding, decision-making, and ability of health workers (Kang, et. al, 2020). The impact of anxiety experienced by health workers in dealing with COVID-19 can be prevented by knowing early the cause of anxiety itself.

The causes of anxiety experienced by a person include biological, psychological and social factors (Stuart, 2014; Kaplan dan Sadock, 2015). Social factors cause health workers, especially health workers, to experience anxiety, one of which is due

to high job demands, including long working hours, the number of patients increases, the more difficult it is to get social support because of the stigma of society against frontline workers (*Inter-Agency Standing Committee (IASC), 2020*). Many health workers have anxiety disorders, because they not only bear the workload, high risk of infection, and prolonged fatigue, thus leading to an increased risk of infection, therefore, it is very necessary for health workers and policy makers to pay attention to protection factors and successful adaptation processes to the conditions of the Covid-19 pandemic for health workers (Taghizadeh,et.al, 2020). Factors that also influence anxiety in health workers are biological and psychological factors. Biological factors that cause anxiety in health workers include self-protective equipment that limits movement, lack of information about long-term exposure to infected people (*Inter-Agency Standing Committee (IASC), 2020*). Psychological factors that cause health workers to experience anxiety include fear that frontline workers will transmit Covid-19 to friends and family because of their field of work (*Inter-Agency Standing Committee (IASC), 2020*).

RESEARCH METHODS

The research design that will be used in this study is *literature review with a systematic review approach*. The keywords in this *literature review* are "COVID Health Care Worker Anxiety", "Coronavirus Health Care Workers Anxiety", *COVID nurse anxiety*", "*COVID Medical Workers Anxiety*" and "COVID-19 Anxiety Healthcare Workers ". Secondary data sources in the form of articles or journals using data bases are *PubMed, ProQuest* and *Google Scholar*. Criteria for selected journals, one year journal publication period in 2020, Indonesian and English, health workers in hospitals, *Google scholar, PubMed, Proquest with plagiarism-free conditions, original research articles (not research reviews) and available full text, causes of anxiety experienced by health workers in hospitals during the COVID-19 pandemic*.

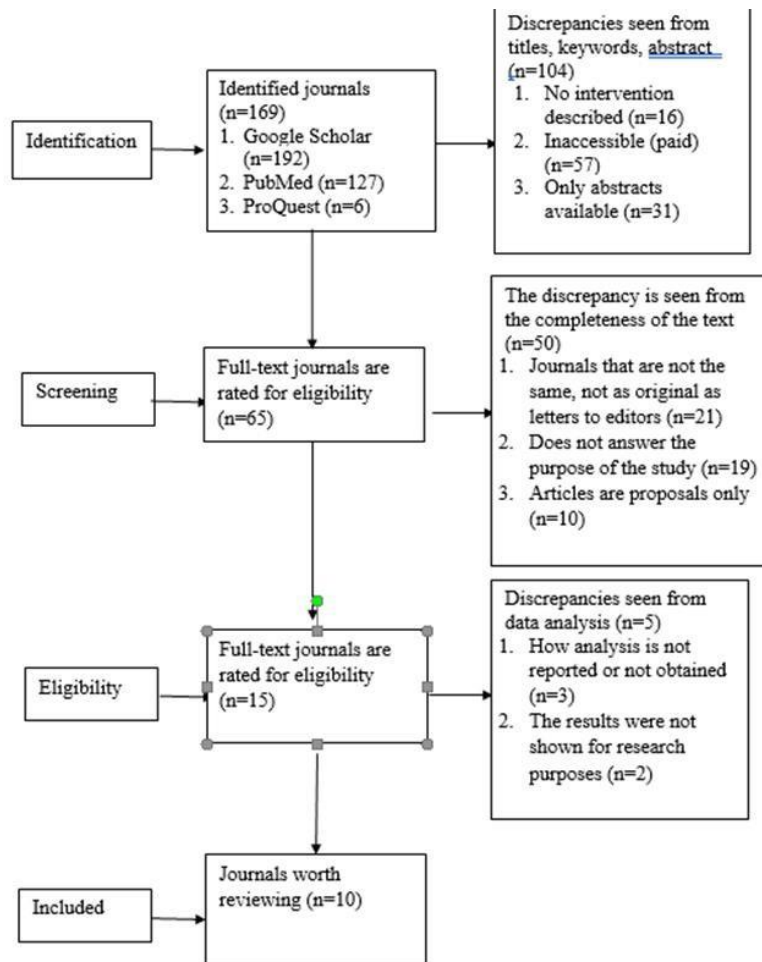


Figure 1. Article Search Process

RESULT AND DISCUSSION

The results of the review article show that the factors causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic are mostly social factors. The results of the review article show that the biological factors causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic are age, family status, gender, marital status, personal resilience, suspected signs and symptoms. The results of the review article show that psychological factors that cause anxiety experienced by health workers in hospitals during the COVID-19 pandemic are patient honesty, self-efficacy, frequency of suspected infection, frequency of suspected family infection, frequency of suspected colleagues infected, vulnerability to emotions, conflicts with colleagues / patients. The results of the review article show that social factors that cause anxiety experienced by health workers in hospitals during the COVID-19 pandemic are the availability of PPE, knowledge, types of labor professions, work status of health workers, types of hospitals, positions at work (frontline), direct contact with the patient, hospital position, type of patient treated, position at work, length of service, working time/length of hours, social support, organizational support (hospital), position at work, behavior of people around.

The factors causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic are mostly social factors. Social factors that cause anxiety in health workers in hospitals during the COVID-19 pandemic include the availability of PPE, knowledge (Fadli, *et.al*, 2020), Types of Health Worker Professions, Status of Health Workers (Yang et al., 2020), type of hospital, position at work (*frontline*) (Lai, J., *et.al*, 2020), direct contact with the patient, hospital position (Hubei), type of patient treated (Liu, Yang, dan Zhang, 2020), Position at work (Rossi et al., 2020), Working period, working time / length of working hours (Li et al., 2020), social support, organizational support (RS) (Labrague & De los Santos, 2020), posisi di tempat work, availability of PPE, behavior of people around (Huang et al., 2020), PM-3 (Zhao et al., 2020).

The biological factors that cause anxiety experienced by health workers in hospitals during the COVID-19 pandemic are most age, family status (Fadli, *et.al*, 2020), gender (Lai, J., *et.al*, 2020), age, gender (Rossi et al., 2020), gender, age, Marital status (Li et al., 2020), Personal resilience (Labrague & De los Santos, 2020), age, suspected signs and symptoms (Huang et al., 2020) and age (Zhao et al., 2020). The causes of anxiety experienced by a person include biological factors (Stuart, 2014). Biological factors are more often associated with genetic factors, because genetic factors have an important role in the development of anxiety disorders. In addition, a number of neurotransmitters and norepinephrine in the brain also play a role in anxiety disorders. The biological contribution explains anxiety derived from family genetic influences and the influence of neurotransmitters in the brain. The three main neurotransmitters associated with anxiety are norepinephrine, serotonin and *Gamma-Aminobutyric Acid* (GABA). Biological factors include genetic predisposition, irregularity in neurotransmitter function, and abnormalities in brain pathways that signal danger (Nevid, 2015).

One of the biological factors causing the most anxiety experienced by health workers in hospitals during the COVID-19 pandemic is age. Age had an influence on anxiety ($p = 0.030$), with almost all ages either ≤ 30 years (39.1%) or >30 years (26.1%) experiencing mild anxiety (Fadli, *et.al*, 2020). Young age is the age when the brain develops by cell division, the formation of new connections between cells, and breaking connections that are not needed at the cellular level. Brain development is very important to be able to perform its functions optimally, one of its functions is to control anxiety (Nevid, 2015).

The biological factor that causes anxiety experienced by health workers in hospitals during the COVID-19 pandemic is most gender. Gender factors have an influence on anxiety ($p = 0.001$), where male health workers who experience anxiety as many as 66 people (22.5%) while female as many as 299 people (31.0%) (Lai, J., *et.al*, 2020). Anxiety occurs more in women. Women have high levels of anxiety due to excessive autonomic nerve reactions with increased sympathetic systems, increased norepinephrine, increased release of cotelamine, and abnormal serotonergic regulatory disorders (Kaplan dan Sadock, 2012).

The psychological factor that causes anxiety experienced by health workers in hospitals during the COVID-19 pandemic is patient honesty (Fadli, *et.al*, 2020), efikasi diri (Suhamdani, *et.al*, 2020) and the frequency of suspected infection, the frequency of suspected family infection, the frequency of suspected colleagues being infected (Yang et al., 2020), susceptibility to emotions (Huang et al., 2020) and conflicts with colleagues/patients (Zhao, *et.al*, 2020). The causes of anxiety

experienced by a person include psychological factors (Stuart, 2014). Viewed from the aspect of psychoanalysis, anxiety can arise due to unconscious impulses (for example: sex, aggression, and threats) that enter the conscious. Ego debriefing mechanisms that are not entirely successful can also generate floating anxiety. Shift reactions can result in phobic reactions. Anxiety as an emotional conflict that occurs between two elements of personality, namely the id and the superego. The id represents instinctual drives and primitive impulses, while the superego reflects conscience and is controlled by cultural norms. The ego and I, mediate the demands of these two opposing elements, and the function of anxiety is to remind the ego that there is danger (Kaplan dan Sadock, 2015).

Social factors that cause anxiety in health workers in hospitals during the COVID-19 pandemic include the availability of PPE, knowledge (Fadli, *et.al*, 2020), Types of Health Worker Professions, Status of Health Workers (Yang et al., 2020), type of hospital, position at work (*frontline*) (Lai, J., *et.al*, 2020), direct contact with the patient, hospital position (Hubei), type of patient treated (Liu, Yang, dan Zhang, 2020), Position at work (Rossi et al., 2020), Working period, working time / length of working hours (Li et al., 2020), social support, organizational support (RS) (Labrague & De los Santos, 2020), position at work, availability of PPE, behavior of people around (Huang et al., 2020), PM-3 (Zhao et al., 2020). The causes of anxiety experienced by a person include social factors (Stuart, 2014). Emotions can occur due to frustration, pressure, conflict or circumstances that he thinks are not liked by others who are trying to pass judgment on his opinions. Anxiety arises from feelings of fear of disapproval and interpersonal rejection. Anxiety is also associated with the development of trauma, individuals with low self-esteem are especially prone to severe anxiety (Stuart, 2014). Social factors include stimulation, reward or punishment, motivation, family, peers, stress, love, affection, quality of interaction.

CONCLUSION

The factors causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic are mostly social factors. The biological factors that cause anxiety experienced by health workers in hospitals during the COVID-19 pandemic are most age, and gender. The most dominant psychological factor causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic is the frequency of suspected infection, both health workers themselves, family and colleagues. The most dominant social factors causing anxiety experienced by health workers in hospitals during the COVID-19 pandemic are the availability of PPE, both social and hospital support and the position of health workers in the workplace (*frontline*).

Health workers should increase compliance in the use of personal protective equipment and establish good relationships with patients and colleagues so that emotions can be controlled, physical immunity is maintained and mental in handling patients with COVID-19 so that health workers' anxiety can be controlled. Health workers should improve spirituality in accordance with their beliefs, improve the ability to provide services and work in accordance with established operational standards so as to reduce anxiety experienced.

BIBLIOGRAPHY

- Arif, A. (2020, April). Perawat Pasien Covid-19 Rawan Alami Tekanan Psikologis Karena Beban Kerja. *Ayosemarang.Com*.
- Asmara. (2020). *Banyak Dokter Tumbang, Jam Kerja Tenaga Medis Bakalan Diatur*. Cnbc Indonesia.
- Bramasta. (2020). *Update Covid-19 Di Dunia 20 September: 30,9 Juta Infeksi | 10 Negara Dengan Kasus Terbanyak*. Kompas.Com.
- Chen, Zhou, Dong, Qu, Gong, Han, Qiu, Wang, Liu, Wei, Xia, Yu, Zhang, & Zhang, L. (2020). Epidemiological And Clinical Characteristics Of 99 Cases Of 2019 Novel Coronavirus Pneumonia In Wuhan, China: A Descriptive Study. *Lancet* . 395 (10223): 507–513. [https://doi.org/10.1016/S0140-6736\(20\)30211-7](https://doi.org/10.1016/S0140-6736(20)30211-7)
- Cutler, H. (2014). *Seni Hidup Bahagia*. (Alih Bahasa: Alex Tri Kantjonowidodo). Gramedia Pustaka Utama.
- Fadli, Safruddin, Ahmad, Sumbara Dan Baharuddin, S. Dan B. (2020). Faktor Yang Mempengaruhi Kecemasan Pada Tenaga Kesehatan Dalam Upaya Pencegahan Covid-19. *Jurnal Pendidikan Keperawatan Indonesia*, 6(1), 57-65. <https://doi.org/10.17509/Jpki.V6i1.24546>
- Farid. (2020). *5 Penyakit Penyerta Penyebab Kematian Pasien Covid-19*. Cnn Indonesia.
- Hamdi, I. (2020). *Anies Ingatkan Soal Dokter Dan Perawat Berisiko Tertular Corona*. Tempo.Co.
- Huang, L., Wang, Y., Liu, J., Ye, P., Chen, X., Xu, H., Qu, H., & Ning, G. (2020). Factors Influencing Anxiety Of Health Care Workers In The Radiology Department With High Exposure Risk To Covid-19. *Medical Science Monitor*, 26(1), 1-9. <https://doi.org/10.12659/MSM.926008>
- Inter-Agency Standing Committee (Iasc), I.-A. S. C. (2020). *Iasc Guidelines On Mental Health And Psychosocial Support In Emergency Settings*. Iasc.
- Kaplan & Sadock, K. &. (2012). *Buku Ajar Psikiatri Klinis*. Ed Ke- 2. Egc.
- Kaplan Dan Sadock, K. Dan. (2015). *Synopsis Of Psychiatry: Behavioral Sciences/Clinical Psychiatry. 11th ed*. Lippincott Wolterskluwer.
- Kemenkes, R. (2017). *Laporan Perkembangan Hiv/Aids 7 Penyakit Menular Seksual (Pims) Triwulan I Tahun 2017*. Ditjen P2p.
- Labrague, L. J., & De Los Santos, J. A. A. (2020). Covid-19 Anxiety Among Front-Line Nurses: Predictive Role Of Organisational Support, Personal Resilience And Social Support. *Journal Of Nursing Management*, 28(7), 1653-1661. <https://doi.org/10.1111/Jonm.13121>
- Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., & Li, R. (2020). Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed To Coronavirus Disease 2019. *Jama*, 2(2), 1-12.
- Larassaty, L. (2020). *Fakta Virus Corona Covid-19, Baca Supaya Kita Menjadi Rasional Menghadapinya*. Health.Grid.Id.
- Li, R., Chen, Y., Lv, J., Liu, L., Zong, S., Li, H., & Li, H. (2020). Anxiety And Related Factors In Frontline Clinical Nurses Fighting Covid-19 In Wuhan. *Medicine*, 99(30), E21413. <https://doi.org/10.1097/Md.0000000000002143>
- Liu, C., Yang, Y., & Zhang, X. (2020). *The Prevalence And Influencing Factors In Anxiety In Medical Workers Fighting Covid-19 In China : A Cross-Sectional Survey*.

- Nevid, J. S. (2015). *Psikologi Abnormal Edisi Kelimajilid 1*. Erlangga.
- Passarella, Amalia, Septadina, Ubaya, Prasetyo, Exaudi Dan Malik, Dan M. (2020). *Kumpulan Ide Desain Menghadapi Virus Corona*. Unsri Press.
- Raharjo. (2020). *Kelelahan Dan Stres Dialami Oleh Para Tenaga Medis*. Merahputih.Com.
- Rossi, R., Succi, V., Pacitti, F., Lorenzo, G. Di, Marco, A. Di, Siracusano, A., & Rossi, A. (2020). *Mental Health Outcomes Among Frontline And Second-Line Health Care Workers During The Coronavirus Disease 2019 (Covid-19) Pandemic In Italy*. 2019(5), 3-6. <https://doi.org/10.1001/jamanetworkopen.2020.10185>
- Sebayang, R. (2020). *Who Nyatakan Wabah Covid-19 Jadi Pandemi, Apa Maksudnya?* Cnbc Indonesia.
- Stuart. (2014). *Buku Saku Keperawatan Jiwa (5th Ed.)*. Egc.
- Suhamdani, H., Wiguna, R. I., Hardiansah, Y., & Sadam, L. M. (2020). Hubungan Efikasi Diri Dengan Tingkat Kecemasan Perawat Pada Masa Pandemi Covid-19 Di Provinsi Nusa Tenggara Barat. *Bali Medika Jurnal*, 7(2), 70-78.
- Tanggap Covid 19 Prov Jateng, T. C. 19 P. (2020). *Sebaran Kasus Covid-19 Di Jawa Tengah*. Tanggap Covid 19 Prov Jateng.
- Yang, X., Zhang, Y., Li, S., & Chen, X. (2020). Risk Factors For Anxiety Of Otolaryngology Healthcare Workers In Hubei Province Fighting Coronavirus Disease 2019 (Covid - 19). *Social Psychiatry And Psychiatric Epidemiology*, 2019(0123456789). <https://doi.org/10.1007/S00127-020-01928-3>
- Yuliani Dan Aini, F. (2020). Kecemasan Ibu Hamil Dan Ibu Nifas Pada Masa Pandemi Covid-19 Di Kecamatan Baturraden. *Jurnal Sains Kebidanan*, 2(2), 11-14.
- Zhao, S., Cao, J., Sun, R., Zhang, L., & Liu, B. (2020). Analysis Of Anxiety-Related Factors Amongst Frontline Dental Staff During The Covid-19 Pandemic In Yichang, China. *Bmc Oral Health*, 20(1), 1-8. <https://doi.org/10.1186/S12903-020-01335-9>

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