

THE EFFECTIVENESS OF NURSES ONLINE ANXIETY HEALING TO OVERCOME NURSES' ANXIETY IN THE COVID-19 PANDEMIC

*Efektivitas Penyembuhan Kecemasan Online Perawat untuk Mengatasi
Kecemasan Perawat di Masa Pandemi COVID-19*

**Susito Susito¹, Raju Kapadia¹, Egidius Umbu Ndeta^{1*}, Suhendra Suhendra¹,
Wulan Deasy Rindayani¹**

¹Jurusan Keperawatan Singkawang, Poltekkes Kemenkes Pontianak

*Email: umbu.mr@gmail.com

ABSTRAK

Pandemi COVID-19 berdampak negatif terhadap kesehatan mental perawat. Kecemasan pada perawat dapat menyebabkan terjadinya kesalahan perawatan yang dapat membahayakan keselamatan pasien. Oleh karena itu, tujuan penelitian ini adalah untuk mengetahui efektivitas Nurses Online Anxiety Healing (NOAH) dengan pendekatan psikologis positif dalam mengatasi kecemasan perawat menghadapi pandemi COVID-19. Desain penelitian yang digunakan adalah Pre-Experiment One Group Pretest-Posttest Design dengan sampel sebanyak 39 perawat yang ditentukan melalui Purposive Sampling. Intervensi yang diberikan kepada responden adalah NOAH dengan pendekatan psikologi positif. Kuesioner Skala Stressor Kerja Perawat (NOSS) digunakan untuk menguji kecemasan. Data yang terkumpul dianalisis dengan teknik Wilcoxon Signed Rank Test dengan Nilai Alpha= 0,05. Hasil pretest menunjukkan mayoritas responden (66,7%) mengalami kecemasan berat; hasil posttest menunjukkan lebih dari separuh responden (51,3%) mengalami kecemasan sedang; dan intervensi tersebut efektif secara signifikan dalam mengatasi kecemasan responden (p-value = 0,001). NOAH dengan pendekatan psikologi positif yang dilakukan secara online dapat mengurangi kecemasan perawat dalam menghadapi pandemi COVID-19, karena metode ini sengaja dibuat dan dirancang untuk menumbuhkan emosi, perilaku, dan kognisi serta kepribadian positif dengan mengurangi gejala negatif.

Kata kunci: COVID-19, kecemasan, perawat

ABSTRACT

The COVID-19 pandemic has negative impact on the mental health among nurses. The anxiety among nurse can cause the incident of care errors which could harm the patient safety. Therefore, this research aimed to determine the effectiveness of Nurses Online Anxiety Healing (NOAH) with a positive psychological approach in overcoming nurses' anxiety in facing the COVID-19 pandemic. The research design was a pre-experiment one-group pretest-posttest design with a sample of 39 nurses determined through Purposive Sampling. The intervention given to respondents was NOAH with a positive psychology approach. The Nurses' Occupational Stressor Scale (NOSS) questionnaire examined anxiety. The collected data was analyzed using the Wilcoxon Signed Rank Test technique with Alpha Value = 0.05. The pretest results showed that the majority of respondents (66.7%) were seriously anxious; posttest results showed that more than half of the respondents (51.3%) were moderately anxious; and the intervention was significantly effective in overcoming respondents' anxiety (p-value = 0.001). The NOAH with positive psychology approach carried out online can reduce nurses' anxiety in facing the COVID-19 pandemic, because this method was deliberately created and designed to foster positive emotions, behavior, cognition and personality by reducing negative symptoms.

Keywords: *anxiety, COVID-19, nurses*

INTRODUCTION

The COVID-19 pandemic announced by the World Health Organization [1] in March 2020 has given rise to a number of serious challenges for Nurse, one of which is anxiety. This can happen because nurses are a large part of the health workers who are closest to COVID-19 patients and are at risk of contracting the virus [2]. Nurses' anxiety is a normal emotional response to threatening and stressful situations such as during the COVID-19 pandemic [3]. A recent meta-analysis study reports that more than 97,000 combined health workers in 21 countries has shown that the prevalence of anxiety in health workers (one of which is nurses) in the moderate category is around 22.1% [4]. Another systematic review and meta-analysis that specifically examined nurses' anxiety during the COVID-19 pandemic found a higher prevalence of anxiety, namely 32% (severe) [5]. In fact, a systematic review and meta-analysis report representing 37 studies has shown a higher prevalence rate of nurse anxiety during the COVID-19 pandemic, namely 37% [6]. Several studies conducted in Indonesia also reported a similar trend. Research by Banna et al. [6], reported that the majority of allied health workers, including nurses, experienced anxiety in the severe category. Another research shows that 51% of COVID-19 nurses experience anxiety disorders [7].

Anxiety is associated with feelings of fear and discomfort as a psychological and physiological condition that can be caused by cognitive, emotional and behavioral factors [8]. These negative feelings can motivate someone to have a negative attitude that rises the emotional tension [9]. Another similar opinion states that psychological anxiety disorders in nurses can have a negative impact, not only on nurses, but also on the health services provided to COVID-19 patients [10]. Even if these negative emotional conditions coincide with poor working conditions and limited resources, they can lead to errors in patient care which can seriously endanger patient safety [11].

One intervention that can be given to people who experience psychological anxiety disorders is healing. Healing interventions are usually used to treat mental health disorders, such as anxiety [12]. This healing therapy has recently begun to be carried out online with a positive psychological approach. This approach is based on increasing people's happiness, perception of life, social responsibility and mental and physical pleasure [13]. This approach allows people to become happier and see the world from a different perspective, ultimately stimulating its potential in every aspect [14]. Through this approach, a person being treated can gain a new momentum and develop the ability to adapt to the difficulties they face [15]. One form of healing with a positive psychological approach is Nurses Online Healing Anxiety (NOAH) which the Pontianak Ministry of Health Polytechnic developed. This application is a kind of online counseling, because it has a feature to connect with a psychologist who usually practices counseling. The application also has a counseling schedule feature and anxiety measurement instruments. Several studies on nurses' anxiety during the COVID-19 pandemic and positive psychological therapy as healing provided to overcome it are very limited. Moreover, research on the effectiveness of NOAH with a positive psychology approach to overcome nurses' anxiety during the COVID-19 pandemic does not appear to have been carried out. This is the main attraction for researchers to conduct research on this theme. The aim of this research is to determine the effectiveness of Nurses Online Anxiety Healing (NOAH) with a positive psychological approach in overcoming nurses' anxiety in facing the COVID-19 pandemic

METODE

This is a pre-experiment research with one group pretest-posttest design. The research population was 944 nurses (taken from four sub-districts in Singkawang (South, East, North, West and Central) [16]. The sample size was calculated using the Slovin formula with a 95% confidence interval and a sample of 39 nurses was obtained. The research inclusion criteria encompassed nurses employed within Singkawang City who demonstrated willingness, comprehension, and availability to participate throughout the intervention period. Conversely, exclusion criteria comprised nurses not employed in Singkawang City, lacking willingness or ability to comprehend and complete the questionnaire, or being unavailable during the intervention period. Implementation of research in 2023, research location in Singkawang City. The sample was determined using purposive sampling.

This research was conducted in two stages, with the first stage starting from July 2023 to November 2023. Subsequently, the second stage commenced from March 2023 to August 2023. The research began by conducting a socialization process with prospective respondents regarding the study and the application NOAH. Upon obtaining consent from the respondents, a pre-test was conducted by registering using NIRA PPNI (membership identification number) and filling out an initial screening via the NOAH application, adopting the Nursing Skills Test Anxiety Scale (NSTAS) questionnaire. After obtaining screening results categorized as mild, moderate, or severe anxiety, respondents were advised to undergo treatment consultation with psychologists available through the application. Consultations with psychologists were conducted three times, each lasting for 1 hour per session. After three consultations, a post-test was administered again. The NOAH intervention utilized a positive psychology approach, although specific components, session duration, and delivery mode were not outlined. Common elements of NOAH interventions include mindfulness practices, stress reduction techniques, and cognitive-behavioral strategies.

Anxiety data was collected using the Nurses' Occupational Stressor Scale (NOSS) questionnaire which contains 38 questions and has a range score 1 - 152 with the following assessment categories: mild (< 36), moderate (36-75), severe (76-125) and panic (> 125). The data was analyzed using the Wilcoxon Signed Rank Test technique with Alpha Value of 0.05. The results of the marginal homogeneity test showed differences before and after the intervention using the NOAH Gen 2 application with p value 0.000 means there is a very significant difference. Research ethics review no 125/KEPK-PK.PKP/III/2022.

HASIL

Characteristic of Respondents

Table 1 showed that majority of respondent female (66,7%) and adult (74,4%). Moreover, most of respondents experienced a severe level of anxiety (66,7%).

Table 1. Demographic Characteristic of Respondents

Variables	n	%
Gender		
Male	13	33,3
Female	26	66,7
Age		
Young adult	10	25,6
Adult	29	74,4
Anxiety level		
Mild	0	0
Moderate	12	30,8
Severe	26	66,7
Panic	1	2,5
Length of Work		
1-3 years	24	20,0
3-5 Years	52	43,3
>5 Years	44	36,7

The Effectiveness of NOAH on Reducing the Anxiety level among Nurse

Nurses' anxiety levels significantly decreased following the NOAH intervention, according to the Wilcoxon Signed Rank Test results (Table 2). Following the intervention, the mean anxiety level for all four categories (mild, moderate, severe, and panic) dropped to 75.46 from 80.51 before. This decrease has a p-value less than 0.05, indicating statistical significance. Nursing staff members' mean anxiety score prior to the intervention was 80.51, with symptoms ranging from mild to panic. As a result of the training, nurses in Singkawang City who were confronting the COVID-19 pandemic in 2022 reported feeling less anxious in all categories. This suggests that the intervention was successful in reducing anxiety levels. Using a positive psychological approach when giving NOAH has demonstrated substantial efficacy in lowering anxiety levels among nurses, in conclusion. This implies how critical it is to put these kinds of therapies into practice in order to help medical professionals manage the psychological effects of pandemic scenarios.

Table 2. Result of Wilcoxon Signed Rank Test

Anxiety	Minimum	Maximum	Mean	SD	p-value
<i>Pretest</i>	39,00	120,00	80,51	15,41	0,001
<i>Posttest</i>	33,00	97,00	75,46	15,53	
Anxiety Level Pretest (Before Intervention)					
	Minimum	Maximum	Mean	SD	
<i>Mild</i>	39,00	120,00	80,51	15,41	
<i>Moderate</i>	39,00	120,00	80,51	15,41	
<i>Severe</i>	39,00	120,00	80,51	15,41	
<i>Panic</i>	39,00	120,00	80,51	15,41	
Anxiety Level Posttest (After Intervention)					
	Minimum	Maximum	Mean	SD	
<i>Mild</i>	33,00	97,00	75,46	15,53	
<i>Moderate</i>	33,00	97,00	75,46	15,53	
<i>Severe</i>	33,00	97,00	75,46	15,53	
<i>Panic</i>	33,00	97,00	75,46	15,53	

PEMBAHASAN

The Anxiety Among Nurse Before Intervention of NOAH

The results of this research identification of nurses' anxiety before being given the NOAH intervention with a positive psychology approach showed that the majority of

respondents (66,7%) experienced anxiety in the severe category or with an average of 80.51. The most important determining factor for nurses' anxiety disorders is COVID-19. This virus has great potential for transmission to nurses [17]. Apart from that, the long and prolonged duration of the pandemic makes nurses feel anxious. Research conducted by Lasalvia et al. (2021) shows that the level of nurse anxiety increased from 2020 (50.1%) to 2021 (55.7%) [18]. Another explanation for this could be the continued mystery surrounding the pathophysiology, mechanism of transmission, and lack of therapy for the COVID-19 virus, which makes nurses who also happen to be among the high-risk populations fearful and anxious [19]. Nurses are at high risk of being exposed to viruses or diseases because of their proximity to patients being treated in health services, even when they work without the burden of the COVID-19 pandemic [20]. Research conducted by Bella et al. [21] shows that health workers, including nurses, are at 8 times higher risk of being exposed to COVID-19 than non-medical workers. Qualitative research conducted by Peng et al. [22] shows that nurses experience anxiety because they work with a real risk of contracting the virus.

Other determinants of nurse anxiety are demographic characteristics such as gender and age [23]. Gender can be a determining factor in the occurrence of anxiety because historically, women have usually reported more honest responses related to anxiety. Apart from that, women are also better able to remember events, interpret, and report themselves than men [24]. The results of this research's identification of the gender of the respondents showed that the majority of them (66.7%) were female. This finding is also consistent with research conducted by Mazanec et al. [25] conducted in November 2020 – January 2021 found that of the nearly 70% of nurses (from a sample of 1009) who experienced anxiety, almost all (92.1%) were female. Age can also be a determining factor in nurses' anxiety during the COVID-19 pandemic, because the older a person is, the more susceptible they are to transmission of the virus [26]. The identification results of this research show that most respondents (71.8%) are in early adulthood (26-35 years). Nurses' early adulthood can be a factor that influences their anxiety during the Covid-19 pandemic, because they still do not have much experience in dealing with anxiety and their coping still needs better formation [27]. This is in line with the research findings of Nasus et al. [28] who reported that nurses who experienced anxiety during the COVID-19 pandemic, especially severe, generally occurred in nurses who were early adults. Surely, other factors were missed from the identification process in this research, such as the availability of Personal Protective Equipment (PPE), knowledge and family status, which according to research conducted by Danu et al. [27], these three factors were stated to be significantly related to nurse anxiety.

The Anxiety Among Nurses After Intervention of NOAH

The results of this research identification of nurses' anxiety in Singkawang in 2022 after being given the NOAH intervention with a positive psychology approach showed that more than half of the respondents (51.3%) experienced anxiety in the moderate category with an average of 75.4615. This decrease in nurses' anxiety was caused by NOAH intervention or therapy with a positive psychological approach given to them. Theoretically, positive psychological intervention as a healing method is a method that is deliberately created and designed to foster positive emotions, behavior, cognition and personality [28] Therefore, if this intervention is given to nurses who experience anxiety mental disorders, it will have a positive effect. Moreover, nurses really need psychological resources to deal with mental health disorders (such as stress and anxiety), especially during the COVID-19 pandemic. This is because their mental and physical burden has increased during the pandemic [29]. These interventions are usually carried out offline, but recently with the increasingly rapid development of the digital world, many of these interventions have been carried out online. Research

conducted by Alexiou et al. [28] reported that online positive psychology interventions given to nurses effectively reduced their anxiety (mean pretest = 8.38 vs mean posttest = 3.56).

The Effectiveness of Nurses Online Anxiety Healing (NOAH) on Reducing Nurses' Anxiety in Facing COVID-19 Pandemic

The statistical analysis results of this research showed that administration of the NOAH with a positive psychological approach is significantly effective in overcoming nurses' anxiety in facing the COVID-19 pandemic (P-value = 0.001). These findings are consistent with the systematic review by Townsley et al. [30], which reported that positive psychology delivered through various methods has promised to increase well-being, including reducing anxiety, for health service workers, including nurses. This intervention can reduce nurses' anxiety in facing the COVID-19 pandemic, because it is designed to improve a person's mental health or psychological well-being by reducing negative emotional symptoms [30]. The systematic review and meta-analysis conducted by Chakhssi et al. [31] also reported that positive psychology interventions provided to non-clinical or non-health populations were effective in improving mental health (including reducing anxiety).

This intervention, in the many methods in circulation, usually consists of several basic aspects: enjoyment, gratitude, kindness, empathy, optimism, strength and meaning. First, the "enjoying" aspect is designed based on the argument that if someone directs their focus on positive events, they will be able to prolong their positive emotions. Second, the "gratitude" aspect is designed to focus attention on the people and things that create positive events and feelings. Third, the "empathy" aspect is designed to strengthen social relationships, where usually good social relationships can increase happiness. Fourth, the "optimism" aspect is designed to emphasize thoughts about the future and create positive expectations. Fifth, the "strength" aspect is designed with the aim of identifying character strengths and using them in new ways. Sixth, the "meaning" aspect is designed with the aim of focusing on a person's understanding and involvement in the meaning of life [31].

Determining an individual's level of anxiety is essential to evaluating their mental health. There are different levels of anxiety, and each has its own unique characteristics: Mild anxiety is the least severe form of anxiety that people may occasionally feel uneasy or concerned about. Mild anxiety can be controlled, but it can still cause bodily symptoms like tightness or restlessness. More frequent and severe worry that can interfere with everyday tasks is a sign of moderate anxiety. Common symptoms include tense muscles, irritability, and irregular sleep habits. Severe anxiety has acute, enduring symptoms that greatly hinder day-to-day functioning. Those who are impacted could find it difficult to stop worrying, have intense bodily symptoms like a fast heartbeat, and steer clear of stressful circumstances. Abrupt, severe episodes of terror or panic attacks are a sign of panic-level anxiety, and they can be quite crippling. Chest ache, lightheadedness, trembling, and a sense of impending doom are among the symptoms. Empirical data is essential for assessing the Nurses Online Anxiety Healing (NOAH) program. Although NOAH appears to have the potential to lessen nurses' anxiety during the COVID-19 pandemic, more thorough research is needed to compare it to other therapies. For example, anxiety levels among nurses exposed to both interventions may be compared in a study comparing NOAH with autogenic relaxation approaches. Researchers can determine the most successful strategy by comparing the results of anxiety assessments conducted before and after the intervention [32].

SIMPULAN

The majority of respondents experienced anxiety in the severe category before being given the NOAH intervention with a positive psychology approach; more than half of respondents experienced moderate anxiety after being given the NOAH intervention with a positive psychology approach, and this intervention was significantly effective in overcoming nurses' anxiety during the COVID-19 pandemic. The NOAH intervention with a positive psychology approach should be used as an intervention for nurses in hospitals or other healthcare institutions to overcome anxiety, especially during the pandemic. The findings of this research have shown its effectiveness in reducing symptoms of anxiety among nurses during the COVID-19 pandemic. In addition, this intervention has the potential to be low-cost and safe to perform. Added to the limited research conducted in 2023, the incidence of Covid 19 has dropped drastically, and nurses are better prepared psychologically.

DAFTAR RUJUKAN

- [1] WHO, "WHO Director-General's Remarks at the Media Briefing on 2019-nCoV on 11 February 2020," 2020. <https://www.who.int/director-general/speeches/detail/who-director-general-s-remarks-at-the-media-briefing-on-2019-ncov-on-11-february-2020>.
- [2] M. Al Maqbali, M. Al Sinani, and B. Al-Lenjawi, "Prevalence of stress, depression, anxiety and sleep disturbance among nurses during the COVID-19 pandemic: A systematic review and meta-analysis," *J. Psychosom. Res.*, vol. 141, p. 110343, Feb. 2021,
- [3] T. A. Gani, P. Wahyuni, and A. Fahrina, *Antologi dari Bumi Paguntaka: COVID-19: Dampak dan Solusi*, vol. 1. Syiah Kuala University Press, 2020.
- [4] Y. Li, N. Scherer, L. Felix, and H. Kuper, "Prevalence of depression, anxiety and post-traumatic stress disorder in health care workers during the COVID-19 pandemic: A systematic review and meta-analysis," *PLoS One*, vol. 16, no. 3, p. e0246454, 2021, doi: 10.1371/journal.pone.0246454.
- [5] A. Varghese, G. George, S. V Kondaguli, A. Y. Naser, D. C. Khakha, and R. Chatterji, "Decline in the mental health of nurses across the globe during COVID-19: A systematic review and meta-analysis," *J. Glob. Health*, vol. 11, p. 5009, Apr. 2021, doi: 10.7189/jogh.11.05009.
- [6] T. Banna, M. Gurning, and V. Sahetapy, "Tingkat Kecemasan Perawat dalam Pelayanan Kesehatan di Masa Pandemi COVID-19 Nurse Anxiety Level in Health Services during a Pandemic COVID-19," *An Idea Heal. J.*, vol. 2, no. 1, pp. 14–19, 2022.
- [7] Iring Tri Amalia, Mansur Sididi, and Sartika, "Gambaran Kecemasan Perawat COVID-19 Di RSUD Haji Makassar Tahun 2021," *Wind. Public Heal. J.*, vol. 3, no. 6, pp. 1089–1097, 2022, doi: 10.33096/woph.v3i6.323.
- [8] Y. Shen, Y. Zhan, H. Zheng, H. Liu, Y. Wan, and W. Zhou, "Anxiety and its association with perceived stress and insomnia among nurses fighting against COVID-19 in Wuhan: A cross-sectional survey," *J. Clin. Nurs.*, vol. 30, no. 17–18, pp. 2654–2664, Sep. 2021, doi: 10.1111/jocn.15678.
- [9] C. Morgado-Toscano, J. Gómez-Salgado, J. J. García-Iglesias, J. Fagundo-Rivera, D. López-López, and R. Allande-Cussó, "Levels of Anxiety and Fear among Nurses During the COVID-19 Pandemic: A Systematic Review," *J. Nurs. Manag.*, vol. 2023, p. 2191984, 2023, doi: 10.1155/2023/2191984.
- [10] S. Maharaj, T. Lees, and S. Lal, "Prevalence and Risk Factors of Depression, Anxiety, and Stress in a Cohort of Australian Nurses," *Int. J. Environ. Res. Public Health*, vol. 16, no. 1, Dec. 2018, doi: 10.3390/ijerph16010061.
- [11] C. C. F. M. Rodrigues, V. E. P. Santos, and P. Sousa, "Patient safety and nursing: interface with stress and Burnout Syndrome," *Rev. Bras. Enferm.*, vol. 70, no. 5, pp.

- 1083–1088, 2017, doi: 10.1590/0034-7167-2016-0194.
- [12] E. Nurliawati, “Self-Healing Therapy Untuk Mengatasi Kecemasan,” *Int. Conf. Islam. Guid. Couns.*, vol. 2, no. 0 SE-Articles, Sep. 2022, [Online]. Available: <https://vicon.uin-suka.ac.id/index.php/icigc/article/view/689>.
- [13] L. Lambert, H.-A. Passmore, and M. Joshanloo, “A Positive Psychology Intervention Program in a Culturally-Diverse University: Boosting Happiness and Reducing Fear,” *J. Happiness Stud.*, vol. 20, no. 4, pp. 1141–1162, 2019, doi: 10.1007/s10902-018-9993-z.
- [14] T. Wu, W. Huang, and Y. Wang, “Effect of positive psychological nursing intervention on anxiety and depression symptoms in elderly patients with parkinson’s disease,” *Int. J. Clin. Exp. Med.*, vol. 13, no. 6, pp. 4337–4345, 2020, [Online]. Available: <https://www.embase.com/search/results?subaction=viewrecord&id=L2004642545&from=export>.
- [15] T. Rashid and M. K. Al-Haj Baddar, “Positive Psychotherapy: Clinical and Cross-cultural Applications of Positive Psychology,” in *Positive Psychology in the Middle East/North Africa: Research, Policy, and Practise*, L. Lambert and N. Pasha-Zaidi, Eds. Cham: Springer International Publishing, 2019, pp. 333–362.
- [16] BPS, “Kota Singkawang Dalam Angka 2022,” 2022, [Online]. Available: http://i-lib.ugm.ac.id/jurnal/download.php?dataId=2227%0A???%0Ahttps://ejournal.unisba.ac.id/index.php/kajian_akuntansi/article/view/3307%0Ahttp://publicacoes.cardiol.br/portal/i/jcs/portugues/2018/v3103/pdf/3103009.pdf%0Ahttp://www.scielo.org/co/scielo.ph.
- [17] J. Serrano, S. Hassamal, S. Hassamal, F. Dong, and M. Neeki, “Depression and anxiety prevalence in nursing staff during the COVID-19 pandemic,” *Nurs. Manage.*, vol. 52, no. 6, pp. 24–32, Jun. 2021, doi: 10.1097/01.NUMA.0000752784.86469.b9.
- [18] A. Lasalvia *et al.*, “The Sustained Psychological Impact of the COVID-19 Pandemic on Health Care Workers One Year after the Outbreak-A Repeated Cross-Sectional Survey in a Tertiary Hospital of North-East Italy,” *Int. J. Environ. Res. Public Health*, vol. 18, no. 24, Dec. 2021, doi: 10.3390/ijerph182413374.
- [19] T. Shanafelt, J. Ripp, and M. Trockel, “Understanding and Addressing Sources of Anxiety Among Health Care Professionals During the COVID-19 Pandemic,” *JAMA*, vol. 323, no. 21, pp. 2133–2134, Jun. 2020, doi: 10.1001/jama.2020.5893.
- [20] J. U. Almazan, A. S. Albougami, and M. S. Alamri, “Exploring nurses’ work-related stress in an acute care hospital in KSA,” *J. Taibah Univ. Med. Sci.*, vol. 14, no. 4, pp. 376–382, Aug. 2019, doi: 10.1016/j.jtumed.2019.04.006.
- [21] A. Bella, M. T. Akbar, G. Kusnadi, O. Herlinda, P. A. Regita, and D. Kusuma, “Socioeconomic and Behavioral Correlates of COVID-19 Infections among Hospital Workers in the Greater Jakarta Area, Indonesia: A Cross-Sectional Study,” *Int. J. Environ. Res. Public Health*, vol. 18, no. 10, May 2021, doi: 10.3390/ijerph18105048.
- [22] X. Peng, Y. Yang, P. Gao, Y. Ren, D. Hu, and Q. He, “Negative and positive psychological experience of frontline nurses in combatting COVID-19: A qualitative study,” *J. Nurs. Manag.*, vol. 30, no. 7, pp. 2185–2193, Oct. 2022, doi: 10.1111/jonm.13481.
- [23] M. Abid, M. Riaz, Z. Bano, T. Parveen, M. Umar Fayyaz, and H. Sadia Qureshi, “Association Between Fear of COVID-19 and Emotional Distress in Nurses With Mediating Role of Socio-Demographic Features,” *Front. Psychol.*, vol. 12, no. October, pp. 1–9, 2021, doi: 10.3389/fpsyg.2021.734623.
- [24] J. Cheng, Y. Liang, L. Fu, and Z. Liu, “Posttraumatic stress and depressive symptoms in children after the Wenchuan earthquake,” *Eur. J. Psychotraumatol.*, vol. 9, no. 1, p. 1472992, 2018, doi: 10.1080/20008198.2018.1472992.
- [25] S. R. Mazanec *et al.*, “Stress, Anxiety, and Growth in Nurses During the COVID-19 Pandemic,” *Online J. Issues Nurs.*, vol. 28, no. 1, pp. 1–14, 2023, doi: 10.3912/OJIN.Vol28No01Man04.
- [26] S. M. Yuniarsih, L. I. Hapsari, and R. Rusdi, “Factors Influencing Anxiety of Health Workers During Pandemic COVID-19,” *Media Keperawatan Indones.*, vol. 4, no. 3, p.

- 218, 2021, doi: 10.26714/mki.4.3.2021.218-225.
- [27] V. Kurniati Danu, O. Suyen Ningsih, and Y. Suryati, "Faktor-Faktor Yang Mempengaruhi Kecemasan Perawat Selama Pandemi COVID-19 Di Kabupaten Manggarai," *Jwk*, vol. 6, no. 1, pp. 2548–4702, 2021.
- [28] E. Alexiou, A. Kotsoni, and A. Stalikas, "The Effectiveness of an Online Positive Psychology Intervention among Healthcare Professionals with Depression, Anxiety or Stress Symptoms and Burnout," *Psychology*, vol. 12, no. 03, pp. 392–408, 2021.
- [29] L. Liu, H. Wu, and T. Sun, "Editorial: Positive Psychology in Healthcare Professionals.," *Frontiers in psychology*, vol. 13. Switzerland, p. 883603, 2022, doi: 10.3389/fpsyg.2022.883603.
- [30] A. P. Townsley, J. Li-Wang, and R. Katta, "Healthcare Workers' Well-Being: A Systematic Review of Positive Psychology Interventions.," *Cureus*, vol. 15, no. 1, p. e34102, Jan. 2023, doi: 10.7759/cureus.34102.
- [31] F. Chakhssi, J. T. Kraiss, M. Sommers-Spijkerman, and E. T. Bohlmeijer, "The effect of positive psychology interventions on well-being and distress in clinical samples with psychiatric or somatic disorders: a systematic review and meta-analysis.," *BMC Psychiatry*, vol. 18, no. 1, p. 211, Jun. 2018, doi: 10.1186/s12888-018-1739-2.
- [32] D. R. Pamungkas, A. S. Sukmawati, R. W. Hidayati, R. Y. S. Subardjo, and L. Cusack, "The use of relaxation techniques to reduce nurses' anxiety levels during COVID-19 Pandemic," *Media Ilmu Kesehat.*, vol. 12, no. 1, pp. 80–86, 2023, doi: 10.30989/mik.v12i1.883.