Differences in Anxiety Levels of COVID-19 before and after COVID-19 Vaccination in Health Workers at RSUD Prof. Dr. W.Z. Johannes Kupang

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ABSTRACT

Introduction: Health workers as the front line in dealing with COVID-19 experience a higher psychological impact. One way to deal with the COVID-19 pandemic apart from implementing health protocols is to get vaccination. The vaccination is expected to be able to reduce the spread of COVID-19 and provide protection, especially for health workers who work in the front lines.

Material and Methods: This study is an observational analytic study with a cross-sectional design conducted on health workers at RSUD Prof. Dr. W.Z. Johannes Kupang. The sampling technique used is simple random sampling, the number of respondents is 100 respondent, who meet the inclusion criteria. Bivariate analysis using Wilcoxon test.

Result: From the 100 respondents, 91% had no anxiety, 9% had mild-moderate anxiety about COVID-19 before vaccination. After the COVID-19 vaccination 97% had no anxiety, and 3% had mild-moderate anxiety. None of the respondents experienced severe to very severe anxiety/panic. The results of bivariate analysis obtained p value = 0.058 ($p > 0.05$). There was no significant difference between anxiety before and after because most of the respondents did not experience anxiety, but there was a decrease in anxiety from mild-moderate to none of anxiety.

Conclusions: There is no significant difference between the level of anxiety about COVID-19 before and after the COVID-19 vaccination among health workers at RSUD Prof. Dr. W.Z Johannes Kupang

Keywords : Health Workers, Vaccine, Anxiety, COVID-19, Kupang

INTRODUCTION

The World Health Organization (WHO) in March 2020 announced a pandemic caused by a new type of virus, namely Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) whose disease is called Coronavirus disease 2019 (COVID-19).[1] This virus was first reported to have occurred in Wuhan, China's Hubei Province at the end of December 2019.At first the transmission and cause of this disease is not known with certainty. The number of infected people continued to increase in a short time and eventually this virus spread to all regions of the world and was announced a pandemic by WHO.[2]

Health workers as the front line in dealing with the COVID-19 pandemic experience a higher psychological impact, because they are worried about their own health and are also afraid of transmitting it to their families.[3] Lack of supplies of Personal Protective Equipment (PPE) for health workers, stigmatization and social rejection from the community because they are considered to have contact with patients infected with COVID-19 are factors that cause anxiety for medical personnel during the COVID-19 pandemic.[1]

COVID-19 is a new disease that at the beginning of the pandemic, the characteristics of the disease, the mode of transmission, prevention and treatment were still being studied. The high rate of transmission of COVID-19, as well as the number of morbidity and mortality due to COVID-19, creates anxiety for health workers.[4] One way to deal with the COVID-19 pandemic apart from implementing health protocols in accordance with WHO guidelines is to carry out a vaccination program. Vaccination is considered as one of the effective ways to deal with the COVID-19 pandemic.[5] The aim of the COVID-19 vaccination include reducing morbidity and mortality due to COVID-19, reducing transmission of COVID-19, and achieving herd immunity in the community. Herd immunity can be formed if the coverage of the vaccination program is high and evenly distributed throughout the region.[6]

Vaccination coverage of 70% is needed to achieve herd immunity in less than 1 year.[7] Vaccination is carried out in 4 stages. Health workers who work on the front lines are a priority in receiving the first phase of the vaccine. The vaccination program is expected to be able to reduce the rate of spread of COVID-19 and provide protection, especially for health workers who work on the front lines.[6,8] Factors that make health workers have a high urge to be vaccinated include older age, have comorbid diseases, positive attitude and belief in the COVID-19 vaccine, anxiety about being infected with COVID-19 and fear of risks caused by COVID-19, contact with a patient with suspected or

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confirmed COVID-19.[9]

Based on the description above about the COVID-19 pandemic, the anxiety that occurs in health workers who work on the front lines, as well as the government's COVID-19 vaccination program to tackle the COVID-19 pandemic, the researchers are interested in conducting a study entitled Differences in Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination in Health Workers at Prof. Dr. W.Z Johannes Kupang hospital.

MATERIAL AND METHODS

This research was conducted in health workers at the isolation room for COVID-19, ICU, NICU, and IGD at Prof. Dr. W.Z. Johannes Kupang hospital in September-October 2021. Respondent data was collected online by filling out a questionnaire via a google form.

This type of research uses an observational analytic method using a cross sectional study method. Each subject only took one measurement or data collection at the time of the study.[10] In this study, one measurement was carried out to determine the level of anxiety about COVID-19 before and after receiving the COVID-19 vaccination on health workers at Prof. Dr. W.Z. Johannes Kupang hospital.

The sampling method used is probability sampling, namely simple random sampling. This sampling technique provides equal opportunities for each member of the population to be sampled in the study, random sampling is carried out without looking at the strata in the population. Anxiety level assessment used the Zung Self Anxiety Scale (ZSAS) questionnaire. Data analysis in this study used the Wilcoxon test. Variable data scale is ordinal.

RESULTS

Based on table-1, it is known that the characteristics of the most respondents are female (77%), age 30-39 years (54%), the nursing profession is the most (84%), the most respondents are from the emergency room (40%), the latest education is D3 (51%), marital status (73%) is married, a history of handling COVID-19 patients (91%), health workers do not have a positive COVID-19 history (61%).

Based on table-2, it is known that the level of anxiety in health workers before receiving vaccination was not experiencing anxiety 91 respondents (91%) and mild-moderate anxiety levels 9 respondents (9%) and none had severe to very severe/panic.

Based on table-3, it is known that the level of anxiety in health workers after receiving the COVID-19 vaccination were not anxious as many 97 respondents (97%) and mild-moderate anxiety levels were 3 respondents (3%) and no one had severe to very severe anxiety/panic.

Based on table-4 regarding bivariate analysis, the value of $p = 0.058$ ($p > 0.05$). The p value is significant if $p < 0.05$

Characteristics	Frequency (n=100)	Persentase (%)
Gender		
Male	23	23
Female	77	77
Age		
20-29 years	18	18
30-39 years	54	54
40-49 years	25	25
≥ 50 years	3	3
Profession		
Doctor	16	16
Nurse	84	84
Workspace		
Isolation (Komodo)	19	19
Isolation (Anggrek)	13	13
ICU	11	11
NICU	17	17
IGD	40	40
Education		
D3	51	51
D4/S1	12	12
Ners	19	19
S2	3	3
Doctor	15	15
Marital Status		
Married	73	73
Not Married	27	27
Contact with Patient COVID-19		
Yes	91	91
No	9	9
Positive COVID-19 history		
Yes	39	39
No	61	61

Table-1: Characteristics of Respondents

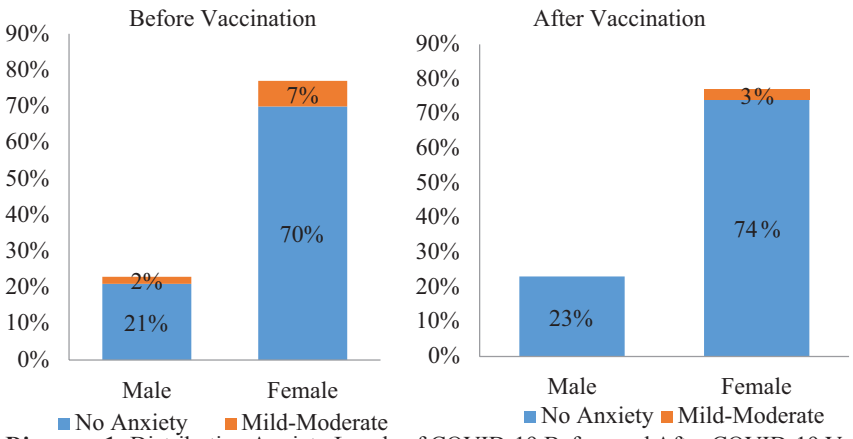

Diagram-1: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Gender Characteristics

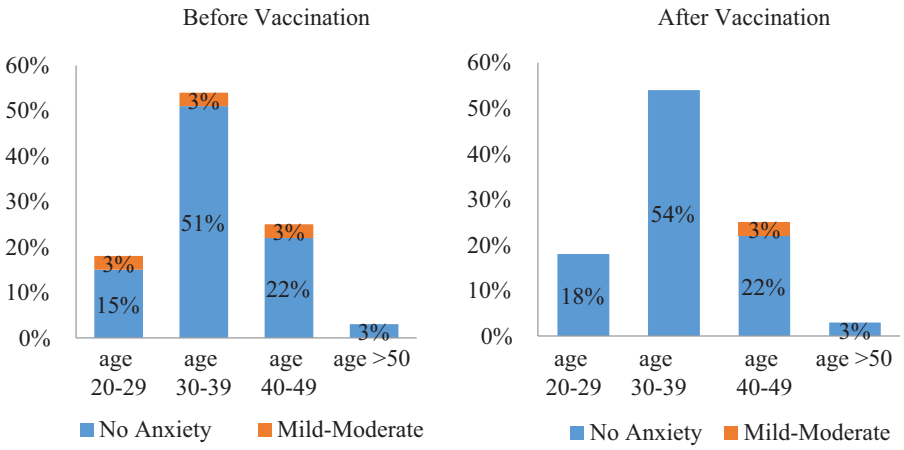

Diagram-2: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Age Characteristics

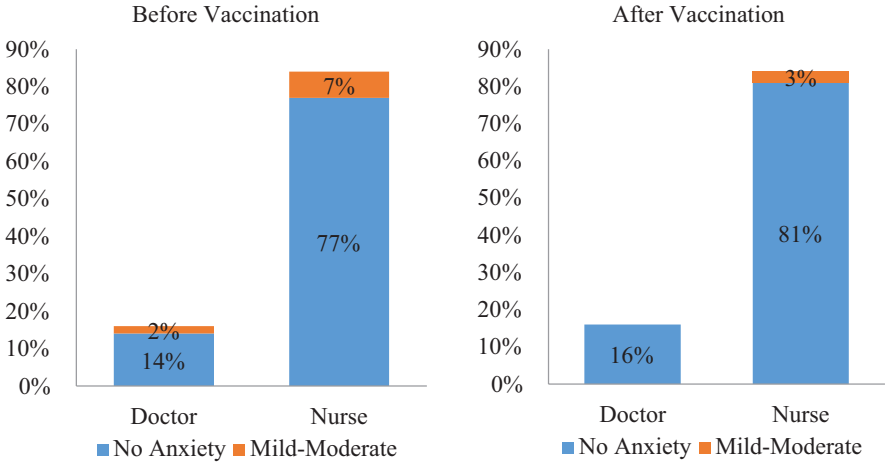

Diagram-3: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Profession Characteristics

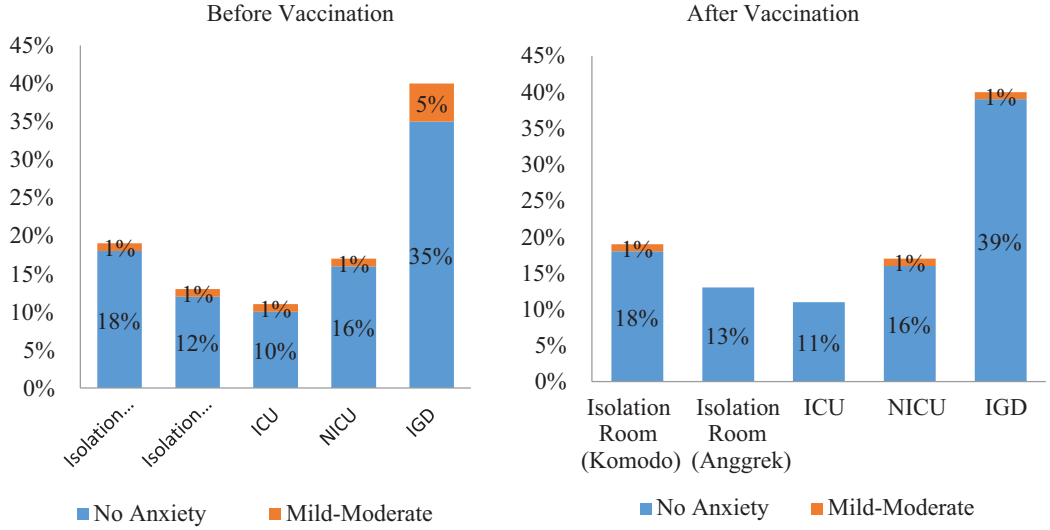

Diagram-4: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Workspace Characteristics

so it can be concluded that there is no significant difference between anxiety levels on COVID-19 before and after the COVID-19 vaccination in health workers at Prof. Dr. W.Z Johannes Kupang hospital.

Distribution of Anxiety Levels on COVID-19 Before and After COVID-19 Vaccination Based on Characteristics of Respondents.

Based on diagram-1, the level of anxiety is mild-moderate before and after the COVID-19 vaccination is more mostly experienced by female respondents.

Based on diagram-2, the level of anxiety was mild-moderate before COVID-19 vaccination as many as 3 respondents

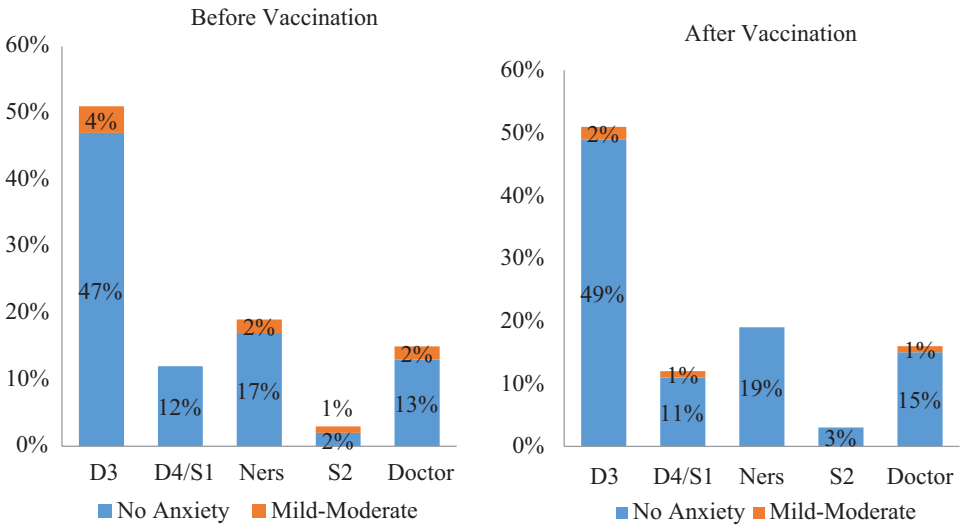

Diagram-5: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Last Education Characteristics

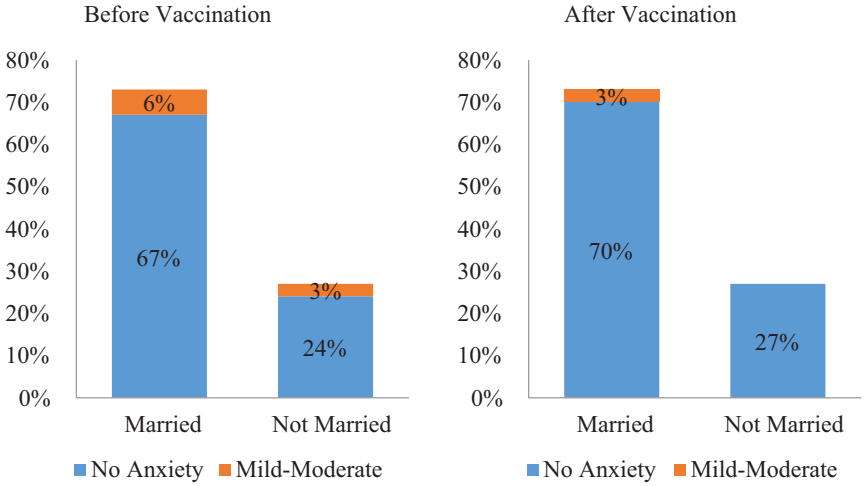

Diagram-6: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Marital Status Characteristics

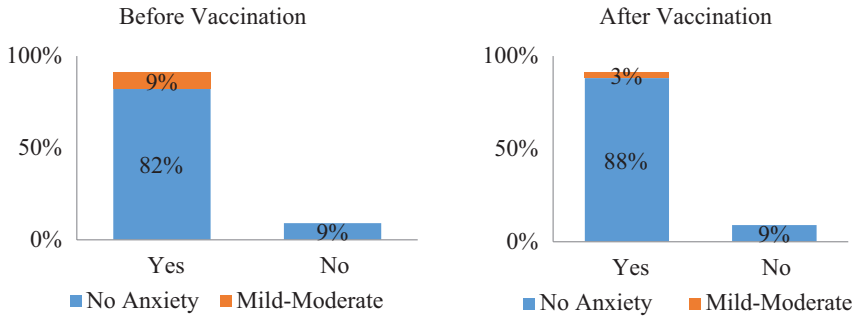

Diagram-7: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Characteristics Contact with Patient COVID-19

in each age group 20-29 years, age 30-39 years, age 40-49 years. The level of anxiety after vaccination according to age characteristics, anxiety mild-moderate experienced by the age group 40-49 years 3 respondents (3%) and the normal level of anxiety most experienced by respondents in the age group 30-39 years with a percentage of 54 respondents (54%).

The distribution of anxiety levels before vaccination based on professional characteristics on diagram-3 was mild-moderate anxiety experienced by nurses with the most 7 respondents (7%). The level of anxiety before vaccination was based on the workspace, the data on diagram-4 showed that the level of anxiety was mild-moderate most in the emergency room with 5 respondents (5%). Based on the characteristics of the latest education on diagram-5, the level of mild-moderate anxiety before vaccination was the most at the level of

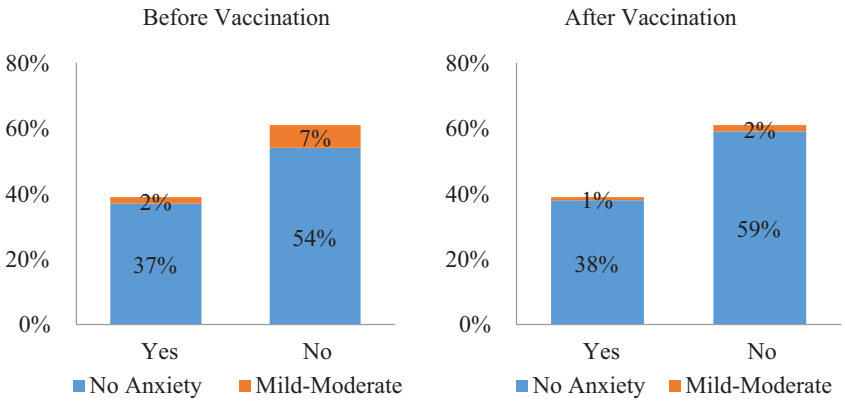

Diagram-8: Distribution Anxiety Levels of COVID-19 Before and After COVID-19 Vaccination by Characteristics Positive COVID-19 history

Anxiety Levels	N	%
No Anxiety	91	91
Mild-Moderate	9	9
Severe	0	0
Very Severe/Panic	0	0

Table-2: Distributions of Anxiety Levels about COVID-19 Before Receiving COVID-19 Vaccination in Health Workers.

Anxiety Levels	N	%
No Anxiety	97	97
Mild-Moderate	3	3
Severe	0	0
Very Severe/Panic	0	0

Table-3 : Distributions of Anxiety Levels about COVID-19 After Receiving COVID-19 Vaccination in Health Workers.

Anxiety before vaccination	Anxiety after vaccination		Total	Nilai p
	No Anxiety	Mild-Moderate		
No Anxiety	89	2	91	0,058
Mild-moderate	8	1	9	
Total	97	3	100	

Table-4: Bivariate Analysis of Differences in Anxiety Levels of COVID-19 Before and After Vaccination in Health Workers

Diploma (D3) graduates as many as 4 respondents (4%).

Based on diagram-6, the level of mild-moderate anxiety is mostly experienced by married respondents. After vaccination there was a decrease in the level of mild-moderate anxiety in the respondents. Based on diagram-7, the level of mild-moderate anxiety is more in respondents who have a history of handling COVID-19 patients. Based on diagram-8, the level of mild-moderate anxiety is more experienced by respondents who didn't have a confirmed history of COVID-19.

DISCUSSIONS

Based on the characteristics of the respondents, in this study most of them were female. According to the diagram-1, mild-moderate level of anxiety was more experienced by female respondents. This is because women are more sensitive to their feelings, so they are more likely to feel anxiety. While men are mentally stronger against something that is considered threatening to him.[11] This is in line with research by Hassannia et al (2020) that female health workers experience higher levels of anxiety than men.[12]

Level of Anxiety after vaccination there was a decrease in anxiety at the age of 20-29 years, age of 30-39 years, while at the age of 40-49 years there was no decrease in anxiety levels. This could be due to different perceptions about vaccines. Anxiety can also caused an older age will be at risk of experiencing severe symptoms due to COVID-19 and complications due to COVID-19.[13] Characteristics of respondents based on the profession in diagram-3, the level of mild-moderate anxiety is more common in nurses than doctors. This is different from research conducted by Anugrah (2021) that there is no difference in the level of anxiety of health workers between doctors and nurses, because doctors and nurses have the same risk of being exposed to COVID-19.[14]

Characteristics of respondents based on the latest education, the level of anxiety is most common in the last Diploma (D3) education compared to others, where a higher level of education can affect a person's coping mechanism in dealing with problems so that will affect the level of anxiety. Higher education also influences a person to better understand the information obtained.[15]

Diagram-6 shows that anxiety of COVID-19 before vaccination, it was more experienced by health workers who were married and had a history of handling COVID-19 patients. These results are consistent with research by Liu et al (2020) that health workers who are married are more anxious because they are afraid of transmitting it to family members.[16] Health workers who treat COVID-19 patients feel more anxious because of the higher risk than health workers who didn't treat COVID-19 patients.

Diagram 4 also shows that anxiety about COVID-19 before vaccination, it was more experienced by health workers who worked in the emergency room. This can be caused because the emergency room is the first line in dealing with emergency patients without knowing whether the patient is confirmed to be COVID-19 or not, so that health workers have higher anxiety of exposure to COVID-19. This is in line with Dian's research (2020), that health workers who work in the emergency room have higher anxiety than other rooms, it is found that the self-efficacy of health workers who work in the emergency room is lower than other rooms because of the perceived risk of exposure.[17]

Based on the results of the bivariate analysis in table-4, there is no significant difference between the level of anxiety about COVID-19 before and after COVID-19 vaccination in health workers at Prof. Dr. W.Z Johannes Kupang hospital. This can be influenced because most of the respondents in this study, did not experienced anxiety. The level of anxiety experienced by respondents was at a mild-moderate level of anxiety and no one experienced a level of severe anxiety and very severe/panic.

The absence of anxiety experienced by respondents in this study can occur because respondents have good resilience. Resilience is the ability to adapt and survive in difficult situations that have the potential to affect physically and mentally.[18] This is supported by research conducted by Setiawati et al (2020) which showed a significant correlation between the level of resilience and anxiety of health workers during the COVID-19 pandemic in Indonesia.[4]

The higher a person's level of resilience, the lower the level of anxiety experienced, and conversely.[4] Resilience in health workers is needed in the COVID-19 pandemic situation so that physical and mental conditions remain balanced for optimal service.[19] One aspect of resilience is self-efficacy.[4] Research conducted by Xiong et al (2020) showed low self-efficacy in health workers in China. Low self-efficacy levels have a negative relationship with anxiety levels. This means that the lower the self-efficacy, the higher the level of anxiety experienced, and vice versa.[20]

Research conducted by Dian (2020), shows that health workers, namely nurses at the Prof. Dr. W.Z Johannes Kupang hospital has high self-efficacy and has a significant effect on anxiety levels during the COVID-19 pandemic. The higher the self-efficacy of health workers, the lower the level of anxiety experienced, and vice versa.[17] This is the factor that causes most of the respondents in this study not experience anxiety. The results showed that the respondents before the COVID-19 vaccination did not experience anxiety to a mild-moderate level of anxiety. This is in line with Dian's research in October-November 2020, namely the anxiety of nurses during the COVID-19 pandemic at Prof. Dr. W.Z Johannes Kupang hospital did not experience anxiety to mild-moderate anxiety.[17]

Another factor that can affect the anxiety of health workers is the use of personal protective equipment (PPE). Research by Lestari et al (2021) shows that one of the factors that influence the anxiety of health workers, namely nurses is related to information and training on the use of personal protective equipment. Lack of information and training on the use of personal protective equipment, can increase the anxiety of health workers on duty.[21] Health workers trust in the use of personal protective equipment affects the level of anxiety while on duty during the COVID-19 pandemic.[22]

Based on the information that the authors got from the head of the COVID-19 isolation room during the study, the health workers at the Prof. Dr. W.Z. Johannes Kupang hospital has received information and training on the use of personal protective equipment in handling COVID-19 patients. This could be one of the factors causing the absence of anxiety in the health workers in this study. Through information and training on the use of personal protective equipment for health workers, health workers can feel safer while on duty.

Vaccination is an effort to overcome the COVID-19 pandemic. Health workers who work at the forefront of dealing with COVID-19 are a top priority in the vaccination program. The Indonesian government requires COVID-19 vaccination, in order to achieve herd immunity of 70%.[6] Vaccination has the benefit of reducing morbidity and mortality due to COVID-19. Health workers who work at the forefront will feel more protected so that it affects the fear of being exposed to COVID-19 which causes anxiety in health workers.

The results showed that the respondents experienced a decrease in anxiety after receiving vaccination. Mild-moderate anxiety experienced before vaccination was 9 respondents (9%) and mild-moderate anxiety after vaccination was 3 respondents (3%). This is supported by research conducted by Francisco et al (2021) showing that COVID-19 vaccination has a significant effect on a persons mental health, that there is a decrease in psychological disorders in the depresi and anxiety in people who have received the first dose of vaccination.[23]

This can also be influenced by the high intention of health workers to receive COVID-19 vaccinations, because they are aware of the dangers of COVID-19.[9] Health workers in Indonesia are a top priority in receiving COVID-19 vaccinations for working on the front line. Research conducted by Nicholas et al (2020) shows that the majority of health workers in Asia including Indonesia, receive the COVID-19 vaccination because of their perceived vulnerability.[24]

There are respondents who experience anxiety of COVID-19 after receiving a vaccination, which could be due to the fact that a person can still be infected with COVID-19 after getting vaccinated.[25] Nevertheless, the benefits of vaccination are very important. Research shows that the COVID-19 vaccine can reduce the risk of disease severity due to COVID-19, hospitalization, and death.[26] The existence of a COVID-19 vaccination can reduce the psychological burden of health workers working on the front lines because they feel protected compared to the initial pandemic before vaccination COVID-19.[27] Given the importance of the benefits of vaccination, health workers should become promoters to invite and educate the public about

the importance of vaccination. High and even coverage of vaccination is needed so that herd immunity can be achieved in the community.

CONCLUSION

a. The level of anxiety about COVID-19 before receiving the COVID-19 vaccination was 91 respondents (91%) did not experience anxiety and 9 respondents (9%) had mild-moderate anxiety.

b. The level of anxiety about COVID-19 after receiving the COVID-19 vaccination was not experiencing anxiety as many as 97 respondents (97%) and experiencing mild-moderate anxiety as many as 3 respondents (3%)

c. There is no significant difference between anxiety about COVID-19 before and after COVID-19 vaccination with $p = 0.058$ or ($p>0.05$).

Suggestion

a. Respondents are expected to be able to manage anxiety levels so that they do not develop into severe and very severe anxiety/panic levels and for respondents who do not experience anxiety, they can maintain self-management so that psychological conditions remain in optimal condition in providing services during the COVID-19 pandemic.

b. For further researchers, they can examine other factors that cause anxiety in health workers, as well as examine differences in the level of anxiety about COVID-19 before and after vaccination in the society.

REFERENCES

1. Kaligis F, Indraswari MT, Ismail RI. Stress during COVID-19 pandemic : mental health condition in Indonesia. Med J Indones [Internet]. 2020;29(4):436–41.
2. Nasus E, Tulak GT. Tingkat Kecemasan Petugas Kesehatan Menjalani Rapid Test Mendeteksi Dini COVID 19. 2021;6(1):94–102.
3. Ahmad AS, Baharuddin R. Faktor yang Mempengaruhi Kecemasan pada Tenaga Kesehatan Dalam Upaya Pencegahan Covid-19. J Pendidik Keperawatan Indones. 2020;57–65.
4. Setiawati Y, Wahyuhadi J, Maramis MM, Atika A. Anxiety and Resilience of Healthcare Workers During COVID-19 Pandemic in Indonesia. J Multidiscip Healthc. 2021;14.
5. Kementerian Kesehatan Republik Indonesia dan WHO. COVID-19 Vaccine Acceptance Survey in Indonesia. Minist Heal WHO. 2020;1(1):1–8.
6. Kemenkes RI Dirjen P2P. Keputusan Direktur Jenderal Pencegahan dan Pengendalian Penyakit Nomor Hk.02.02/4/1/2021 tentang Petunjuk Teknis Pelaksanaan Vaksinasi dalam Rangka Penanggulangan Pandemi Corona Virus Disease 2019 (COVID-19). Kementeri Kesehat RI [Internet]. 2020;4247608(021):114.
7. Nadia S. Kebijakan Pelaksanaan Vaksinasi COVID-19. Direktorat Jenderal Pencegah dan Pengendali Penyakit Kementeri Kesehat. 2020;
8. Kemenkes RI. Vaksinasi Covid-19 Lindungi Diri, Lindungi Negeri. Kementeri Kesehat RI. 2021;9:22–50.
9. Galanis PA, Vraka I, Fragkou D, Bilali A, Kaitelidou D. Intention of health care workers to accept COVID-19 vaccination and related factors: a systematic review and meta-analysis. medRxiv. 2020;
10. Sandu Siyoto MAS. Dasar Metodologi Penelitian. Ayup, editor. Kediri; 2015. 1–124 p.
11. Rahma Y. Gambaran Tingkat Kecemasan Perawat yang Mempunyai Lansia di Masa Pandemi COVID-19 di RSUP Dr. M.Djamil Padang Tahun 2020. J Nurs andalas Univ. 2021;1–98.
12. Hassannia L, Taghizadeh F, Moosazadeh M, Zarghami M, Taghizadeh H, Dooki AF, et al. Anxiety and Depression in Health Workers and General Population During COVID-19 Epidemic in IRAN : A Web-Based Cross-Sectional Study. 2020;0–2.
13. Kurniawan V, Ningsih O, Suryati S. Faktor-Faktor yang Mempengaruhi Kecemasan Perawat Selama Pandemi COVID-19 di Kabupaten Manggarai. J Wawasan Kesehat. 2021;6(1):21–31.
14. Anugrah AD. Gambaran Tingkat Kecemasan Tenaga Kesehatan di Masa Pandemi COVID-19. 2021;
15. Irawati, Erwin, Nauli FA. Gambaran Tingkat Kecemasan Tenaga Kesehatan Dalam Menangani Pasien Pada Saat Pandemi COVID-19. JOM FKp. 2021;8(1):19–26.
16. Liu C-Y, Yang Y-Z, Zhang X-M, Xu X, Dou Q-L, Zhang W-W, et al. The prevalence and influencing factors in anxiety in medical workers fighting COVID-19 in China : a cross-sectional survey. Cambridge Univ Press. 2021;1–7.
17. Samadara DA, Setianingrum ELS, Ratu K, Wungouw HPL. The Correlation of Self-Efficacy with Anxiety Nurses from RSUD Prof . Dr . W . Z . Johannes and RSUD S . K . Lerik in the Pandemic COVID-19 at Kupang City. Int J Contemp Med Res. 2021;8(4).
18. Gheshlagh RG, Sayehmiri K, Ebadi A, Dalvandi A, Dalvand S, Maddah SSB, et al. The relationship between mental health and resilience: A systematic review and meta-analysis. Iran Red Crescent Med J. 2017;19(6).
19. Sadati AK, Lankarani MHB, Lankarani KB. Risk Society , Global Vulnerability and Fragile Resilience ; Sociological View on the Coronavirus Outbreak. Shiraz E-Med J. 2020;7–8.
20. Xiong H, Shuanglian Y, Lin Y. The Psychological Status and Self-Efficacy of Nurses During COVID-19 Outbreak: A Cross-Sectional Survey. Inq (United States). 2020;57(201).
21. Lestari I, Nursalam N, Nastiti AA. Analysis of Factors Affecting Nurse Anxiety During Pandemic Covid-19. Psychiatry Nurs J. 2021;3(1):15.
22. Astin A, Paembonan A. Faktor yang Berhubungan dengan Tingkat Kecemasan Perawat dalam Penanganan Pasien COVID-19 di Rumah Sakit Siloam Makassar. J Keperawatan Florence Nightingale. 2021;4(1):31–5.
23. Perez-Arce F, Angrisani M, Bennett D, Darling J, Kapteyn A, Thomas K. COVID-19 vaccines and mental distress. PLoS One [Internet]. 2021;16(9 September):1–11.
24. Chew NWS, Cheong C, Kong G, Phua K, Ngiam JN, Tan BYQ, et al. An Asia-Pacific study on healthcare workers' perceptions of, and willingness to receive, the COVID-19 vaccination. Int J Infect Dis [Internet].

2021;106:52–60.
25. Cucunawangsih C, Wijaya RS, Lugito NPH, Suriapranata I. Post-vaccination cases of COVID-19 among healthcare workers at Siloam Teaching Hospital, Indonesia. Int J Infect Dis [Internet]. 2021;107:268–70.
26. Miller J, Williamson L. COVID-19 cases , hospitalizations , and deaths by vaccination status in Montana , February 7 , 2021 — September 4 , 2021. Mont Dep Public Heal Hum Serv. 2021;610:1–5.
27. Sugihara G, Hirai N, Takei N, Takahashi H. COVID-19 vaccination and mental health in hospital workers. Brain Behav. 2021;(July):10–1.

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