

# Anxiety Level and Nurses' Work Motivation during the Covid-19 Pandemic

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## Abstract

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**Background:** Nurses faced heightened psychological challenges during the COVID-19 pandemic, with anxiety emerging as a common response to increased workload, high-risk environments, and professional demands. Anxiety may diminish nurses' motivation to work effectively.

**Objective:** This study aimed to determine the relationship between anxiety levels and the work motivation of nurses during the COVID-19 pandemic at Aikmel Public Health Center.

**Methods:** The design study used a quantitative analytical observational with cross sectional approach. The number of samples was 50 respondents obtained by using the total sampling technique. The questionnaire used in this research was the Hamilton Anxiety Rating Scale (HARS) and Multidimensional Work Motivation Scale (MWMS). Statistical analysis used the Spearman Rank test with a 95% confidence level ( $\alpha = 0.05$ ).

**Results:** Most nurses experienced moderate anxiety, as many as 28 people (56.0%) and most nurses had good motivation as many as 29 people (58.0%). Statistical analysis showed a significant correlation between anxiety levels and work motivation ( $r = 0.376$ ;  $p = 0.007$ ).

**Conclusion:** There is a significant relationship between anxiety levels and nurses' work motivation during the COVID-19 pandemic. Lower anxiety levels are associated with higher motivation, suggesting the importance of psychological support for nurses in crisis situations.

**Keywords:** Anxiety level; covid-19; nurses; work motivation

## Introduction

Covid-19 is an infectious disease caused by a newly discovered type of coronavirus (WHO, 2020). It was first identified in Wuhan, China, in December 2019 and had never been previously known before the outbreak. On March 11, 2020, the World Health Organization (WHO) declared Covid-19 a global pandemic due to its rapid spread and severity (WHO, 2020). A pandemic refers to a health problem, generally a disease, that rapidly increases in frequency and spreads across a large area (Akbar, 2018).

Globally, as of January 12, 2021, 222 countries had been infected by Covid-19, with 89,707,115 confirmed cases and 1,940,352 deaths (CFR 2.2%). Of these, 183 countries were categorized as local transmission areas, including Southeast Asia, which recorded 846.8 thousand cases on the same date. The United States reported the highest number of confirmed cases globally, while Indonesia had the highest number of Covid-19 cases in Southeast Asia (WHO, 2020). In Indonesia, as of July 5, 2021, there were 2,313,829 confirmed cases, 1,942,690 recoveries, and 61,140 deaths. The pandemic has led to serious health, social, and economic impacts across the country.

The effects of Covid-19 are not limited to urban areas but have also reached remote regions, including East Lombok, West Nusa Tenggara Province. Local reports indicated 3,063 Covid-19 cases, with 3,013 recoveries, 48 deaths, and 2 individuals still in isolation as of October 29, 2021 (Germas, 2021). Clinically, the most reported symptoms include fever and respiratory difficulties. In severe cases, Covid-19 can lead to pneumonia, acute respiratory

distress syndrome (ARDS), kidney failure, and even death (Ministry of Health, 2020). The rapid transmission, high mortality rate, and absence of definitive therapy have caused widespread panic among the public and health workers.

Nurses, as frontline healthcare providers, are among those most affected. According to WHO (2020), nursing is the largest healthcare profession in the world, with approximately 27.9 million practitioners. Due to the nature of their duties—direct contact with patients, managing infection control, and working in high-risk environments—nurses are particularly vulnerable to infection and psychological distress. This includes not only risk to their own health but also the potential risk to family members (Alwani et al., 2020).

One of the most common psychological responses in this context is anxiety, an emotional condition marked by discomfort, helplessness, and uncertainty (Annisa & Ildil, 2016). It can manifest through both physiological (e.g., trembling, increased heart rate) and psychological symptoms (e.g., panic, inability to concentrate).

Work motivation, meanwhile, plays a crucial role in professional performance. It refers to the internal drive that stimulates, directs, and maintains work-related behavior toward goal achievement (Hasibuan in Sutrisno, 2016; Siagian in Sutrisno, 2016).

Based on preliminary observations conducted at the Aikmel Health Center on January 15, 2022, out of 10 interviewed nurses, 5 reported minimal anxiety when serving Covid-19 patients, 3 reported feeling anxious, and 2 reported high anxiety levels. These findings suggest varied psychological responses that may influence work motivation.

A prior study by Ariasta and Handayani (2019) at Dr. Soeratno Gemolong Hospital also found a relationship between nurses' anxiety levels and their work motivation. This context provides the basis for the current study, which aims to examine the relationship between anxiety levels and the work motivation of nurses during the Covid-19 pandemic at Aikmel Health Center.

## Methods

### Study Design

The design study using quantitative analytical observational with cross sectional approach.

### Samples/Participants

The study population consisted of all nurses working at Aikmel Public Health Center in 2022. The sampling technique in this study used total sampling. The sample from this study was all nurses at the Aikmel Health Center in 2022, which was 50 people. The data was obtained directly from the Aikmel Health Center.

### Instruments

The instruments used in this study were the Hamilton Anxiety Rating Scale (HARS) questionnaire, and the Multidimensional Work Motivation Scale (MWMS) questionnaire. The Hamilton Anxiety Rating Scale (HARS) questionnaire is a questionnaire used to measure anxiety. This questionnaire was adopted from Ramdan's (2019) research entitled "Reliability and Validity Test of the Indonesian Version of the Hamilton Anxiety Rating Scale (HARS) to Measure Work-related Stress in Nursing". This questionnaire has been tested for validity and reliability. The results of the validity test using the Pearson correlation test were the values ranging from 0.527 – 0.727 while the results of the reliability test using the Cronbach alpha test were 0.756 (Ramdan, 2019). This questionnaire consists of 14 question items which include feelings of anxiety, tension, fear, sleep disturbances, intelligence disorders, feelings of depression, somatic (muscle) symptoms, somatic (sensory) symptoms, cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, urological symptoms, autonomic symptoms, and behaviors in interviews. The score of each answer choice includes, no symptoms score 0, mild symptoms score 1, moderate symptoms score 2, severe symptoms score 3, and severe symptoms score 4. Anxiety score interpretation were: 1) Score <17: mild anxiety; 2) Score 18-24: moderate anxiety; 3) Score >25: severe anxiety.

The Multidimensional Work Motivation Scale (MWMS) questionnaire was used to measure work motivation. The Multidimensional Work Motivation Scale has been validated in seven languages and nine countries with CFI up to 0.94 at an alpha coefficient of 95%. This

scale was developed by Gagne et al and released in 2014. This scale consists of 19 items which include motivation, social external regulation, external regulatory materials, introspective regulations, identified regulations and intrinsic motivation. This questionnaire was then developed again by Wardani (2017). The development of the scale by changing sentences tailored to the subject of this study such as "I enjoy my work". This questionnaire was again tested for validity and reliability. The validity test results ranged from 0.380-0.742 and the reliability was 0.854 (Wardani, 2017). In addition, this work motivation scale is in the form of a likert scale which consists of 7 scores, namely Not at All (1), Very Little (2), Little (3), Enough (4), Agree (5), Strongly Agree (6), and No Doubt (7). Motivation score interpretation were: 1) Score 19-76: poor motivation; 2) Score 77-133: good motivation.

### Data Collection

The researcher applied for a research permit to the East Lombok BAPPEDA and then to the East Lombok Health Office and the Aikmel Health Center. After obtaining approval from the Director of the Aikmel Health Center, data collection began in August 2022. The researcher explained the procedures and objectives of the study to prospective respondents. After the explanation, the researcher provided an informed consent sheet. If the prospective respondent agreed to participate, they signed the informed consent. Once consent was given, the researcher distributed the demographics questionnaire, the Hamilton Anxiety Rating Scale (HARS), and the Multidimensional Work Motivation Scale (MWMS) to be completed by the respondents.

### Data Analysis

Data analysis in this study is univariate analysis and bivariate analysis. Univariate analysis was used to determine individual characteristics based on several variables descriptively using frequency distribution and proportions, including age, gender, education, anxiety level and work motivation. Bivariate analysis was conducted in this study to determine the relationship between independent variables (anxiety level) and dependent variables (work motivation) using *the Spearman Rank test* with a meaning limit ( $p < 0.05$ ). If the value of  $p < 0.05$  means that there is a meaningful relationship between the independent variable and the dependent variable, if the value is  $p > 0.05$ , it means that there is no relationship between the independent variable and the dependent variable (Dahlan, 2018).

### Ethical Considerations

This research obtained research permission from Sekolah Tinggi Ilmu Kesehatan Hamzar Lombok Timur with number: 170/Spm/STIKZAR/VIII/2022. There were three ethical principles that were firmly adhered to in conducting this research, namely informed consent, confidentiality and anonymity.

## Results

### Characteristics of respondents

Table 1 presents the characteristics of respondents. Most participants were aged 24–32 years accounting for 22 (44.0%) respondents, female which were 39 (78.0%) respondents, and mostly had education level of bachelor degree in Nursing, accounting for 24 (45%) respondents.

Table 1. Distribution of Respondents

Respondent Characteristics	f	%
Age		
24-32	22	44.0
33-41	20	40.0
42-50	4	8.0
51-59	4	8.0
Gender		
Male	11	22.0

Female	39	78.0
Education		
Bachelor	24	48.0
Diploma IV	3	6.0
Diploma III	23	46.0
Total	50	100

Table 2 shows that majority of respondents experienced moderate anxiety, accounting for 28 (56.0%) respondents. This distribution indicates that more than half of the nurses experienced moderate psychological distress during the pandemic, while only a small proportion faced severe anxiety.

Table 2. Frequency Distribution of Anxiety Levels

Anxiety Level	f	%
Mild	16	32.0
Moderate	28	56.0
Severe	6	12.0
Total	50	100

Table 3 presents data on work motivation. Majority of respondents had good work motivation, which was 29 respondents (58.0%). This suggests that despite the challenges posed by the pandemic, the majority of nurses maintained a positive level of motivation in their professional roles.

Table 3. Frequency Distribution of Work Motivation

Anxiety Level	f	%
Good	29	58.0
Poor	21	42.0
Total	50	100

Table 4 displays the cross-tabulation of anxiety levels and work motivation. Among respondents with mild anxiety ( $n = 16$ ), 12 (75.0%) had good motivation and 4 (25.0%) had poor motivation. Of those with moderate anxiety ( $n = 28$ ), 17 (60.7%) had good motivation and 11 (39.3%) had poor motivation. All 6 respondents (100%) with severe anxiety reported poor motivation. The Spearman Rank test revealed a significant correlation with a  $p$ -value of 0.007 ( $p < 0.05$ ) and a correlation coefficient  $r = 0.376$ , indicating a moderate negative correlation between anxiety level and work motivation. These findings imply that as nurses experience higher levels of anxiety, their work motivation tends to decrease, with the most notable drop observed among those with severe anxiety.

Table 4. The Relationship between Anxiety Level and Nurses' Work Motivation During the Covid-19 Pandemic

Anxiety Level	Work Motivation				Total	P-Value	r	
	Good		Poor					
	f	%	f	%				
Mild	12	24,0	4	8,0	16	32,0	0,007	0,376
Moderate	17	34,0	11	22,0	28	56,0		
Severe	0	0,0	6	12,0	6	12,0		
Total	29	58,0	21	42,0	50	100,0		

## Discussion

### Anxiety Level

A univariate analysis based on anxiety in this study showed that most respondents experienced moderate anxiety. The results explain that most of the nurses who worked at the Aikmel Health Center during the Covid-19 pandemic experienced moderate anxiety. The results of this study are not in line with the research conducted by Banna, *et al* (2022) which aims to determine the level of anxiety of nurses in health services during the Covid-19 pandemic. From the results of the study, it was found that 13 people (7.2%) were not anxious, 37 people were mildly anxious (20.6%), 59 people were moderately anxious (32.8%) and 71 people were severely anxious (39.4%). From these results, it is explained that most nurses experience severe anxiety.

These results are also not in line with research conducted by Laut, *et al* (2021) which aims to determine the level of anxiety of nurses in dealing with the Covid-19 pandemic during the adaptation period to new habits. From the results of the study, it was found that there was no anxiety, as many as 7 people (5.4%), mild anxiety as many as 117 people (90.7%), moderate anxiety as many as 4 people (3.1%), and severe anxiety as many as 1 person (0.8%). The results explain that most nurses experience mild anxiety.

There are several factors that can affect the level of anxiety of nurses in handling Covid-19 patients, namely trust factors in the use of personal protective equipment, age, and marital status (Astin & Paembonan, 2021). According to Kaplale, *et al* (2021) in their research results also explained that factors that can affect the anxiety of health workers in efforts to prevent Covid-19 are age and knowledge about Covid-19.

### Work Motivation

A univariate analysis based on work motivation in this study showed that majority of respondents had good motivation. These results indicate that most nurses at the Aikmel Health Center during the COVID-19 pandemic demonstrated good motivation. These results are in line with research conducted by Yanti, *et al* (2020) which aimed to find out the picture of the motivation of nurses to work during the Covid-19 pandemic in Bali. From the results of the study, it was found that nurses had good work motivation, as many as 102 people (52.8%) and nurses who had less work motivation as many as 91 people (47.2%). The results of the research by Yanti, *et al* (2020) explain that most nurses during the Covid-19 period have a good motivation to work.

These results are not in line with the research conducted by Arif, *et al* (2021) which found that the number of respondents who had poor work motivation was 13 (22.41%), 43 (72.42%) had sufficient work motivation and 3 people (5.17%) had good work motivation. The motivation of nurses in caring for Covid-19 patients is influenced by several factors, namely age, marital status and work environment situation such as the availability of adequate policies and personal protective equipment.

One of the factors that can affect nurses' work motivation is the condition of the work environment. Comfortable environmental conditions accompanied by complete facilities are a dream for employees (Khaerisman, *et al* ., 2021). Based on the results of Tonggo's research, *et al* (2017) also explained, factors that can affect nurses' work motivation are salary/wages, interpersonal relationships and supervision.

### The Relationship between Anxiety Level and Nurses' Work Motivation during the Covid-19 Pandemic at the Aikmel Health Center

The results of bivariate analysis in this study showed that there was a relationship between the level of anxiety and the work motivation of nurses during Covid-19 at the Aikmel Health Center. Also, the relationship between anxiety level and nurses' work motivation has sufficient relationship strength. The results of this study are in line with the research conducted by Ariasti & Handayani (2019) which aims to determine the relationship between anxiety level and nurse work motivation at dr. Soeratno Gemolong Hospital. From the study, it was found that there was a significant relationship between the level of anxiety and the work motivation of nurses with a *p value* of 0.001 and a correlation coefficient value of 0.552.

The results of this study are also in line with research conducted by Baharudin & Rosa (2022) which aims to determine the effect of anxiety and burnout on nurses' work motivation in

the era of the Covid-19 pandemic. From the study, it was found that there was an effect of anxiety on the work motivation of nurses in the era of the Covid-19 pandemic. Anxiety has a negative and significant effect on the motivation of medical workers. The results of this study are also in line with the research conducted by Alhakami & Omar (2018) which explained that there is a negative correlation between the level of work motivation and anxiety and this study also proves that nurses have a high score of work motivation with a low anxiety level score.

Anxiety is tension, insecurity, and worry arises because it is felt that something unpleasant will happen. A person experiences anxiety due to the accumulation of problems faced that cause tension and worry. Anxiety as a manifestation of tension and worry will make individuals feel insecure and uncomfortable in carrying out an activity (Maramis, 2015).

## Conclusion

This study concludes that there is a significant relationship between anxiety levels and the work motivation of nurses during the Covid-19 pandemic. Specifically, higher anxiety levels are associated with lower motivation, while lower anxiety levels correspond to higher motivation. These findings highlight the importance of addressing nurses' mental health, particularly during health crises. Hospital management should consider implementing regular psychological assessments, stress reduction programs, and supportive work environments to help reduce anxiety among nurses. Additionally, the development of targeted psychological interventions such as counselling, mindfulness training, or peer support systems may be effective in maintaining and enhancing nurses' work motivation during times of prolonged stress.

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