

Original Article

# The Relationship Levels of Clinical Nurses with Anxiety Level of Nurses in The Particular Isolation Room Covid 19 Islamic Hospital Darusyifa' Surabaya

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**ABSTRACT**

**Background:** At the beginning of 2020, the whole world was shocked by the phenomenon of the Corona Virus (Covid19) pandemic which caused panic everywhere. Hundreds of thousands of people were infected and thousands more died. This really creates anxiety for all humans, especially anxiety for health workers in particular. This study aims to determine the relationship between the level of clinical nurses (PK) and the anxiety level of nurses in the Special Isolation Room (RIK) COVID-19 Darussyifa' Islamic Hospital Surabaya


**Methods:** This study uses an observational approach with a cross sectional research design. The research population is the Nurse in the Special Isolation Room (RIK) COVID-19 Darussyifa' Islamic Hospital Surabaya. The sample size of the study was all nurses in the special isolation room of the Darusyifa Islamic Hospital, Surabaya, amounting to 27 nurses. The independent variable is the level of nurses, and the dependent variable is the level of anxiety. The research instrument is a questionnaire. Data analysis used multiple linear regression test.


**Results:** The results showed that there are 6 levels of clinical care levels, namely Pre PK and Level 1,2,3,4,5. Based on the results of the univariate analysis, it is known that the level of clinical nurses has a relationship with the level of anxiety in the COVID-19 workspace, as evidenced by the sign value obtained 0.027, which means that  $p < 0.05$ , it means that there is a relationship between the level of clinical nurses and the anxiety level of nurses in the special isolation room.

**Conclusion:** that is, there is a relationship between the level of clinical nurses with the level of anxiety. There is a need for procedures to reduce the risk of anxiety in isolation nurses.

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## Introduction

Stroke is a state of neurological deficit that occurs when some brain cells die due to impaired blood flow due to blockage or rupture of blood vessels in the brain. The phenomenon that occurs is that stroke patients suffer from persistent neurological deficits that interfere



with their daily life activities so that it can cause paresis of upper limb complications in patients because it can cause motor control disorders in stroke patients resulting in loss of coordination, body balance ability and the ability to maintain certain positions. In addition, stroke survivors experience hemiparesis and 55%-75% have limitations in upper extremity functioning and motor function of both upper and lower extremities is often impaired, leading to limitations on functional mobility (Broderick et al., 2018; Guo, Qian, Wang, & Xu, 2019).

*World Health Organization* states that stroke is the second leading cause of death in the world after heart disease (WHO, 2018). Stroke is also the second global cause after heart disease in 2020 and the fifth leading cause of death in the United States with a total of 129,000 per year. Stroke sufferers in the United States aged between 55-64 years as many as 11% have silent cerebral infarction, the prevalence increases to 40% at the age of 80 years and 43% at the age of 85 years. In Indonesia, the prevalence of stroke has increased from 7% in the 2018 Basic Health Research to 10.9% in the 2020 Basic Health Research (Kemenkes RI, 2020). The prevalence of stroke in Indonesia based on diagnosis by health workers is 7 per mile and those diagnosed by health workers or symptoms are 12.1 per mile, the prevalence of stroke based on diagnosis by health workers and symptoms is highest in South Sulawesi (17.9%), DI Yogyakarta (16.9%), Central Sulawesi (16.6%), followed by East Java at 16 per mile (Riskesdas, 2018). The prevalence of stroke in the city of Surabaya also increased in 2007–2013. In 2007 the prevalence of stroke in Surabaya was 0.7% then in 2013 it increased by 16.2% (Depkes RI, 2013). According to the results of the 2013 Riskesdas survey, the number of stroke sufferers was 507 patients in the province of East Java, and the highest percentage of stroke sufferers was in the city of Surabaya, and data on the dependency level of the elderly due to stroke was 39.53% depending on the total and 7.63% depending on moderate. in meeting daily needs.

Stroke is a disruption of the blood supply to the brain which usually occurs due to the rupture of a blood vessel or a blockage due to a blood clot. This causes disruption of the supply of oxygen and nutrients in the brain to the occurrence of damage to brain tissue. Stroke is a rapid development of focal or global clinical signs caused by disturbances in brain function with symptoms that occur within 24 hours or more and can cause death (WHO, 2020). Stroke patients will experience weakness on one side of the body/hemiparesis, hand and foot weakness in stroke patients will affect muscle contraction. Reduced muscle contractions are caused by reduced blood supply to the hindbrain and midbrain, so that it can inhibit the main conduction between the brain and the spinal cord (Ryan et al., 2021; Tofani et al., 2022). *Theory care* defines *self-care* or self-care as the continuing contribution of adults to their existence, health, and well-being. Orem said that *self-care* is a personal activity to maintain and maintain health and also prevent complications from diseases experienced by individuals. Stroke has a long-term impact on the life of a person with a stroke, which is characterized by signs and symptoms that appear and interfere with health. *Self care* in stroke is an important factor in controlling the disease.

Based on a preliminary study conducted by researchers, at the Islamic Hospital Darus Syifa' Surabaya from January to March 2022 as many as 103 stroke patient clients were treated in inpatient rooms and as many as 82% (84 patients) experienced hemiparesis. Interventions in stroke patients who experience hemiparesis are carried out in the form of passive ROM exercises for approximately 10 minutes once in the inpatient period guided by a physiotherapist where the implementation involves the patient's family, with the hope that the family will be more optimal in providing psychological support or support for the client.

and can be done on the client after discharge from the hospital.

Researchers also obtained data that the success rate of ROM (*Range of Motion*) therapy to increase the degree of muscle strength was still not optimal, namely 87% (73 patients) with a muscle strength scale of 1-2 when discharged from the hospital.

One solution to improve muscle strength in stroke patients is a combination of mirror therapy and *range of motion*. Mirror therapy is one of the new therapeutic methods in rehabilitation that focuses on moving healthy limbs. Mirror therapy is done by looking at and moving healthy limbs in front of a mirror and sick ones behind a mirror (*bilateral training*) and mirror therapy can reduce pain and improve motor function of the upper extremities in stroke patients (Weber, Nilsen, Gillen, Yoon, & Stein, 2019; R.-Z. Yuan et al., 2021). That mirror therapy can improve muscle strength movement in stroke patients. While *range of motion* (ROM) is carried out to maintain or improve the level of perfection of the ability to move joints normally and completely to increase muscle mass and muscle tone, giving ROM exercises early can increase muscle strength because it can stimulate the motor units involved, there will be an increase in strength. muscles (Birinci, Kaya Mutlu, & Altun, 2022; Hekim, Çolak, & Bonab, 2023; Louw et al., 2017; Tekeoglu Tosun, Ipek, Razak Ozdincler, & Saip, 2021). ROM has an effect on increasing the strength of the respondent's hands and feet and the loss of stroke patients if not treated immediately will result in permanent disability (Potter & Perry, 2017).

Based on the description above, it is interested to conduct a study "The Effect of Combination of Mirror Therapy and ROM (*Range Of Motion*) Based *Self Care Theory* on Muscle Strength in Stroke Patients in the Inpatient Room of RSI Darus Syifa' Surabaya".

## Methods

The research design used is non-experimental, namely the design or research design that is correlational, namely research conducted to determine the relationship between two variables (Nursalam, 2015; Sugiono, 2011). The design of this research is a *cross sectional study* with an observational approach, that is, the research is only done by observing and measuring variables at a certain time. This research was conducted on 15-17 February 2021 in the Covid 19 Special Isolation Room at Darusyifa Islamic Hospital Surabaya using a sample of 27 nurses. The sampling technique used is total sampling, so that the entire population is used as a sample. The researcher's exclusion criteria were not included in the research sample. The technique used in this study is a survey technique using a goggle form by including a number of 18 question items, including questions about the characteristics of nurses (name and tenure, education, and type of certificate held) and questions about nurses' anxiety as many as 14 items. Analysis of the data in this study using *multiple linear regression correlation test*. The research has obtained a letter of ethics from the UNUSA Research Ethics Institute.

## Results

Table 1. The frequency distribution of clinical nurses in Darusyifa Islamic Hospital Surabaya

No	Categories	Frequency	%
1	Pre-Clinical Nurse	2	7.4%
2	Clinical Nurse 1	15	55.6%
3	Clinical Nurse 2	7	25.9%
4	Clinical Nurse 3	3	11, 1%
5	Clinical Nurse 4	0	0
6	Clinical Nurse 5	0	0
	Total	27	100



The clinical nurse level variables in this study were categorized into 5 levels, namely pre-clinical nurse, clinical nurse I, clinical nurse II, clinical nurse III, and clinical nurse IV. Based on the level of Clinical Nurses in table 4.1, it is known that 2 nurses (7.4%) with pre-clinical nurses, 15 nurses (55.6%) with clinical nurse levels of 1, 7 nurses (25.9%) with 2 clinical nurses, 3 nurses (11.1%) with clinical nurses 3, while clinical nurses 4 and five totaled 0 nurses.

Table 2. Frequency distribution of anxiety levels

No	Categories	Frequency	%
1	Mild	21	77.8%
2	Moderate	2	7.4%
3	Saver	3	11.1%
4	Panic	1	3.7%

The level of anxiety in this study was categorized into mild anxiety, anxiety moderate anxiety, severe anxiety and panic Based on the level of anxiety in table 4.2 it is known that 21 (77.8%) nurses with mild anxiety levels, 2 nurses (7.4%) with moderate anxiety levels, 3 nurses (11.1%) with moderate levels of anxiety. severe anxiety, and 1 nurse (3.7%) with a level of panic.

Table 3. The partial relationship of each clinical nurse level to the anxiety level of nurses at Darusyifa Islamic Hospital Surabaya

Variable	SE	t	P value
Pre-Clinical Nurse	0.640	2.037	0.54
Clinical Nurse 1	0.367	1.373	0.184
Clinical Nurse 2	0.364	0.927	0.364
Clinical Nurse 3	-0.756	-1.692	0.105

From the table above, it can be explained that the relationship between each level of clinical nurse where the clinical nurse level has a level of anxiety about covid 19 is evidenced by a sig value of 0.054 which means that it has very weak strength, at level 1 clinical nurses it is proven that a sig value of 0.184 which means that the strength of the relationship is very weak, for clinical nurses at level 2 it is proven that the sig value is 0.364, which means the strength of the relationship is weak and at level 3 clinical nurses, the sig value is 0.105, which means the strength of the relationship is very weak. Based on the description above, there is a relationship between the level of clinical nurses and the level of anxiety.



Table 4. Simultaneous relationship between clinical nurse levels and nurses' anxiety level at Darusyifa Islamic Hospital Surabaya

Variable	F	ANOVA
Anxiety Level	3.381	0.027
Predictors: Pre PK, PK 1, PK 2, PK 3		

The results of the univariate analysis showed that the p value was 0.027, which means  $p < 0.05$ , it means that there is a relationship between the level of clinical nurses and the anxiety of nurses in the Covid19 special room at Darusyifa Hospital Surabaya.

## Discussion

This study was obtained from the majority of respondents who belong to the category of clinical nurses. The level of clinical nursing in this study was calculated from the beginning of the nurse working until the research was carried out. Clinical authority is an important element in creating a work environment that encourages professional autonomy to increase patient satisfaction, reduce fatigue and workload. The application of clinical authority based on career path is one way to reduce work overload that causes *burnout* in nurses ((Setiawan & Suwardianto, 2021; Sunartono, 2021). In Pre-clinical, the competence is to carry out nursing care and apply ethical, legal and sensitive principles in nursing care under the auspices of supervision. Meanwhile, clinical nurses level 1,2,3,4,5 are competent in performing nursing care and applying ethical, legal and sensitive principles in nursing care independently.

Based on research conducted at the Darus Syifa' Surabaya Islamic Hospital, the results showed that most of them experienced mild anxiety as much as 21 (77.8%), and 2 nurses (7.4%) with moderate anxiety levels, 3 nurses (11.1%) with severe anxiety level, and 1 nurse (3,7%) with panic level. The cause of anxiety experienced by nurses is a workload that is too heavy, where nurses have to take nursing actions for Covid patients. The results showed that the anxiety experienced by respondents in the form of anxiety, vigilance, and tension increased but nurses were still able to focus on carrying out their nursing actions. Mild anxiety is related to tension in daily life. This anxiety causes individuals to be alert and increase their perceptions (Herdiani et al., 2021; Stuart, 2007).

Based on this research, it was found that the clinical pre-nurse level had a level of anxiety about covid 19, which was evidenced by a sig value of 0.054 which means that it has very weak strength, for clinical nurses level 1 it is proven that a sig value of 0.184 means that the strength of the relationship is very weak, for clinical nurses. level 2 is proven by the value of sig 0.364 which means the strength of the relationship is weak and at level 3 clinical nurses the value of sig is 0.105 which means the strength of the relationship is very weak. The cause of anxiety experienced by nurses is because the workload is too heavy where nurses have to deal with many patients with a diagnosis of infectious disease where the risk of transmission to the nurse herself is also great.

The results of the univariate analysis showed that the p value was obtained at 0.027, meaning  $p < 0.05$ , so there was a relationship between the level of clinical nurses and the level of anxiety in the special isolation room for COVID 19 Darus Syifa' Hospital Surabaya. This study proves that there is a relationship between the level of pre-clinical nurses and the level of anxiety of nurses. The existence of a relationship in this study is supported by (Ain, 2021; Intan, 2021; Nursalam, 2015, 2017) which states that a long working period will make nurses have more work experience so that they are accustomed to existing threats, one of which is to determine The clinical nurse level is the nurse's tenure. so that it is clear that it can reduce or reduce the risk of nurses' anxiety in providing nursing care. The results of previous studies that nurses' anxiety levels during the pandemic that occurred in China ranged between low and moderate using the SAS (self-rating anxiety scale) scale where nurses in China were better able to control the negative emotions that arise within them. Meanwhile, the current research results at RSI Darus Syifa' show that there is a relationship between the level of the career path and the level of anxiety where the higher the level of the career path, the lower the level of anxiety with the results of the Spearman's test. Anxiety can have an impact on the performance and services of nurses (Elvita, 2021; Lestari, 2021; Tissa, 2021)..

## Conclusion

There is a relationship between the level of clinical nurses with anxiety levels. Suggestions for further researchers to add samples so that they are more diverse and explore factors that cause mild anxiety levels so that they can be applied in all health services during the pandemic to reduce burn out and maintain immunity.

## Authors Contributions

The authors collaborated closely on all aspects of the research, with one member overseeing study design and implementation, another member contributing to data analysis and interpretation, and a third member assisting with literature review and manuscript drafting. All authors have contributed to and endorsed the final manuscript.

## Conflicts of Interest

We certify that this research was carried out without any conflicts of interest, ensuring that the data collected and analyzed were free from external biases and solely based on empirical evidence.

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