JURNAL KEPERAWATAN TERPADU

(Integrated Nursing Journal)

[***http://jkt.poltekkes-mataram.ac.id/index.php/home/index***](http://jkt.poltekkes-mataram.ac.id/index.php/home/index)

***p-ISSN: 2406-9698 (Print)***

***e-ISSN: 2685-0710 (Online)***

**THE RELATIONSHIP OF NURSE COMPETENCE WITH PREPAREDNESS IN THE COVID-19 PANDEMIC**

Irwan Budiana1, Krispina Owa2, Yoseph Woge3, Raimunda Woga4

1234Polytechnic Ministry of Health Kupang, East Nusa Tenggara Province, Indonesia

\* Correspondent Author: budianairwan89@gmail.com

**ABSTRACT**

The prevention and control of the Covid-19 pandemic disaster that has been carried out so far still has various forms of challenges so that positive cases of Covid-19 have the potential to continue to increase every day. One of the ways to handle the Covid-19 pandemic disaster in hospitals is by nurses who have competencies that have been set according to standards. The purpose of this study was to determine the relationship between nurse competence and preparedness in dealing with the Covid-19 pandemic disaster at the Regional Hospital of Ende Regency, East Nusa Tenggara Province. Methods This research uses a quantitative design method with a correlational analytic approach. The technique of determining respondents used purposive sampling method. Data processing using the data analysis test in this study was carried out using the Spearman Rank correlation test with the help of the SPSS Forwindows 19.00 program.The results of the Spearman Rank variable test of knowledge, attitude and skills variables have no significant relationship to preparedness in dealing with non-natural disasters Covid 19 with a value (p-value > 0.05) which is 0.097 for the p-value of the knowledge variable, 0.188 for the p-value attitude variable and 0.720 p-value for skill variable. Meanwhile, the direction of the relationship between the three variables has a unidirectional nature in accordance with the positive value of the correlation coefficient, and for the level of the relationship between the three variables, namely the knowledge variable has a moderate level of relationship (0.308), the attitude variable has a very weak relationship level (0.247) and the skill variable has a very weak relationship level (0.068). The competence of nurses as part of the Covid 19 pandemic response team needs to be improved in the hope of minimizing casualties and greater material and non-material losses.

Keywords: Preparedness, Nurses, Competence, Covid 19

**INTRODUCTION**

Corona Virus Disease 2019 or what is often called Covid-19 is one of the main health problems in the world. On January 30, 2020, the World Health Organization (WHO) declared Covid-19 a Public Health Emergency of International Concern (KKMMD /PHEIC) and on March 11, 2020, WHO again declared the Covid-19 outbreak a pandemic. The increasing number of cases and the very fast and significant spread in various parts of the world are the main reasons for the designation of Covid-19 as a PHEIC or pandemic. As of April 18, 2020, globally, 2,240,191 confirmed cases were reported in 181 countries with 153,822 deaths and 568,3433 recoveries (Johns Hopkins, 2021)

Meanwhile in Indonesia, on March 31, 2020, the government established a health emergency status through presidential decree (Keppres) number 11 of 2020 concerning the determination of a Covid-19 public health emergency and on April 13, 2020, the government again issued Presidential Decree number 12 concerning the determination of non-natural disasters for the spread of Covid-19. 19 as a national disaster. Similar to the determination of the status of a pandemic or PHEIC, the two presidential decrees were motivated by an extraordinary increase in Covid-19 cases which had an impact on increasing the number of victims and property losses, expanding the coverage of areas affected by the disaster, as well as having implications for broad socio-economic aspects. According to data from the Task Force for the Acceleration of Covid-19 Handling on April 20, 2021, there were 6,760 positive cases, 747 recovered cases, 590 deaths, 176,344 people with monitoring, 12,979 patients with supervision and people without symptoms) whose number has increased. The number of cases spread across 34 provinces and 221 regencies/cities throughout Indonesia (Gugus Tugas Covid-19 RI, 2021)

The impact of non-natural disasters such as the Covid-19 pandemic is to reduce the quality of life of the population in various sectors of life (economic, social and public health). The most severe impacts that occurred due to the Covid-19 pandemic disaster were patients dying or requiring intensive care, increasing the risk of infectious diseases, damage to health facilities, and water supply systems. Meanwhile, the long-term impacts include an increase in insufficient food, which affects the level of fulfillment of the nutritional needs of disaster victims. Evacuation of residence (shelter) that does not meet health requirements can reduce the body's resistance which if not addressed immediately will cause problems in the health sector. Meanwhile, health services are experiencing problems due to damage to health facilities, inadequate equipment, quantity or type of medicine and limited health personnel and operational funds. (PPK-LIPPI, 2015)

The Indonesian government, both central and regional, has so far issued many policies or regulations that are directly related to efforts to prevent and control the spread of Covid-19, including policies related to reducing the impact of Covid-19. The policy is in the form of the formation of a task force for the acceleration of handling Covid-19 as stated in Presidential Decree number 07 of 2020 and Presidential Decree number 21 of 2020 concerning large-scale social restrictions in the context of accelerating the handling of Covid-19. In addition to the two Presidential Decrees, there are many policies or regulations at the regional level, all of which aim to break the chain of transmission of Covid-19. Likewise with other efforts carried out by the community and other non-governmental institutions independently. In its implementation, prevention and control of the spread of Covid-19 can be in the form of regulation or education about the importance of maintaining distance between individuals (Physical distancing), conducting examinations (Rapid testing), promoting clean and healthy living behavior (washing hands, nutritious intake, adequate rest and routine activities or sports) using masks when outside the home and other efforts. In addition, previously in dealing with disasters that often occur in Indonesia by building a disaster management system, starting from ratifying Law number 24 of 2007 on disaster management, establishing a national disaster management agency, as well as increasing the allocation of the national budget for disaster management. In large-scale disasters, Indonesia needs international emergency assistance, coordination of national and international actors in maximizing the implementation of disaster management for the community with a planned, integrated, coordinated, and comprehensive mechanism. (Maarif, 2012)

As one of the countries prone to disasters, strengthening the role of the Indonesian government and the community is important to carry out joint efforts in a guided manner to anticipate worsening conditions due to disasters, such as implementing an early warning system and conducting disaster preparedness training. Nurses as the front line in a health service have a big responsibility and role in handling daily emergency patients as well as during the COVID-19 pandemic as it is today. The exact percentage of the number of nurses involved in disaster management in hospitals or in the community is not known for certain. Until now, the need for nurses to handle disaster victims in the community is the biggest need, as many as 33% of all health workers involved. Disaster preparedness training for the Covid-19 pandemic is not only carried out by the authorities in disaster management but also for the general public, especially health workers such as nursing staff. Nursing staff as one of the providers of health services, especially for emergency cases, are expected to be more prepared in dealing with the impact of disasters, both internal and external disasters. The readiness of nursing staff in a disaster situation is required to be able to manage daily services, services for disaster victims, and actively assist in saving the lives of disaster victims. (Depkes RI, 2006)

The role of nursing staff as health workers with the largest population and spearheading medical services must be active during a disaster, which is also a link in the integrated emergency management system. Starting from pre-hospital, in-hospital, intra-hospital referrals to inter-hospital referrals. Readiness in the integrated emergency management system can shorten the response time and the handling of emergency patients can be done quickly, accurately, and according to standards. Based on information from several nursing staff in the field, it is impressed that nursing staff often do not show adequate preparedness in dealing with disasters. This is one of the risk factors for the transmission of Covid-19 to be higher. Based on data from the Covid-19 handling task force of East Nusa Tenggara province, Ende Regency (07/07/2020) there are 14 medical personnel including nurses who have been confirmed positive for Covid-19 (Gugus Tugas COVID-19 NTT, 2020).

The unpreparedness of nursing staff in dealing with disasters is due to the absence of standard instructions in dealing with problems that occur due to disasters. Therefore, every nursing staff is expected to be able to understand the guidelines for disaster preparedness planning as an acceleration to increase disaster preparedness. The readiness of nurses in dealing with disasters is one of the requirements for hospital accreditation assessment. A hospital that already has a Hospital Disaster Plan does not mean that the hospital already has nursing staff who are ready to handle disasters, because disaster preparedness requires training and simulation. The alertness of nursing staff can only be realized if nursing personnel are involved in planning and followed up with the formation of a hospital disaster management team (Depkes RI, 2009)

The Hospital disaster management team is formed by the disaster preparedness planning team which is issued in the Hospital Director's decision letter. In the Guidelines for Health Resource Management in Disaster Management, the minimum requirements for a disaster management team are the Rapid Response Team, the Rapid Health Assessment (RHA) Team and the Health Assistance Team. The TRC team is a team that is expected to be able to move immediately within 0-24 hours after there is information about a disaster incident. The RHA team is a team that can be dispatched at the same time as TRC or catch up in less than 24 hours. Meanwhile, the Health Assistance Team is a team that is dispatched based on need after the TRC and RHA return with the results of activities in the field (Depkes RI, 2006)

The Regional general hospital of Ende is a hospital located on the island of Flores which is an area that is included in a disaster risk zone including infectious disease disasters such as Covid 19. Based on a preliminary study, Ende Hospital, Ende Regency already has a disaster management team but has not run optimally, not many nursing personnel are involved in it. Communication tools are also not functioning properly, and there is no simulation plan for disaster management in hospitals on a regular basis, the nurse's role has not been maximized because there is no preparation from the institution in preparation for the Covid 19 pandemic disaster. Although All participants have been provided with emergency handling training, the absence of a dissaster plan in the institution will be a factor inhibiting the readiness of nurses in responding to the Covid 19 pandemic. The purpose of this study was to determine the relationship between nurse competence and preparedness in dealing with the Covid 19 pandemic at the regional hospital of Ende Regency, East Nusa Tenggara Province.

**RESEARCH METHODS**

This type of research is a quantitative research (correlarial analysis) with a cross sectional approach, namely to analyze the relationship between nurse competencies (knowledge, attitudes and skills) on disaster preparedness at the Ende District Hospital, East Nusa Tenggara Province. The population in this study were nursing staff who were members of the disaster management team at the Ende District General Hospital, East Nusa Tenggara Province, amounting to 180 nursing staff. To obtain a representative sample (representing) in this study using a random sampling technique, namely the technique of determining a sample randomly from all members of the population used as a sample. The inclusion criteria in this study were members of the hospital disaster management team, cooperative, willing to be respondents. Meanwhile, the exclusion criteria in this study were those who were not part of the hospital's disaster management team and were not willing to be respondents. The sample size is the number of members of the population that will be sampled. The sample size was determined based on the freer formula with a sample size of 22 respondents. The independent variable in this research is the competence of nursing staff. Meanwhile, the dependent variable in this study is the preparedness of nurses and the confounding variables in this study are age, workload, education level and length of work. Data collection instruments are tools or facilities used by researchers in collecting data so that their work is easier and the results are better (accurate, complete and systematic) so that they are easier to process and analyze. Characteristics of measuring instruments that must be considered by researchers are validity and reliability. Validity states what should be measured, while reliability is the existence of a similarity of results when measurements are carried out by different people or at different times (Nursalam, 2017)*.*

The instruments used in this study were a questionnaire and a check list consisting of 15 statements related to the competence (knowledge, attitudes and skills) of nurses on preparedness in hospital disaster management with details, namely 5 statements for knowledge, 5 statements of attitudes and 5 statements of skills. by the researcher himself so that validity and reliability will be tested. Each question in the instrument used is said to be valid if r count > r table. Meanwhile, it is said to be reliable if Cronbach's Alpha value is > 0.60

In this study, the validity and reliability tests were carried out on 15 respondents consisting of 30 statements with answers 3 (always), 2 (rarely), 1 (never). From the results of the validity test, the value of r table = 0.514 and r count in each statement the results> 0.514 so that the questionnaire used is declared valid. While the reliability test, obtained the results of Cronbach's Alpha > 0.60 which is 0.828 so that the questionnaire used is declared reliable.

The procedure for collecting and collecting data in this study consisted of several stages, namely the preparation and administration stage, the sample selection stage, the data collection stage, the data processing stage and data interpretation. Data processing includes editing, coding, scoring, processing, cleaning, data entry, data analysis and data interpretation. Data analysis techniques in this research include univariate analysis and bivariate analysis. Univariate analysis is used to describe the characteristics of respondents and presents the data obtained in tabular form to facilitate interpretation. The data are displayed in the form of frequency distributions and proportions in the table. While bivariate analysis is used to test the hypothesis in this study, the data obtained need to be analyzed. The data analysis test in this study was carried out using the Spearman Rank correlation test with the help of the SPSS Forwindows 16.00 program, used to measure the level or close relationship between two variables on an ordinal scale.

Research that uses humans as subjects must not conflict with ethics, research permission from the research site and the signing of informed consent by the respondent. Some of the ethical principles that guide this research are *right to self-determination, right to privacy and dignity. right to anonymity and confidentially. right to fair treatment, right to protect for discomfort and pain.*

**RESEARCH RESULT**

1. Characteristics of Respondents

The characteristics of the respondents who participated were identified in the study including age, gender, education, occupation, and employment status and years of service.

Table 1. Distribution of respondents by age, gender, education, occupation, and employment status and years of service at the Ende Regional General Hospital in 2021

|  |  |  |
| --- | --- | --- |
| **Variable** | **F** | **%** |
| **Age** |  |  |
| 20 to 30 years | 9 | 30.0 |
| 30 to 40 Years | 17 | 56.7 |
| 40 to 50 years | 4 | 13.3 |
| > 50 Years | 0 | 0 |
| Total | 30 | 100.0 |
| **Gender** |  |  |
| Man | 3 | 10.0 |
| Woman | 27 | 90.0 |
| Total | 30 | 100.0 |
| **Education** |  |  |
| Diploma III | 19 | 63.3 |
| Diploma II | 1 | 3.3 |
| Bachelor | 10 | 33.3 |
| Master | 0 | 0 |
| Total | 30 | 100.0 |
| **Employment** **status** |  |  |
| civil servant | 12 | 40.0 |
| Contract | 18 | 60.0 |
| Total | 30 | 100.0 |
| **Position** |  |  |
| Team Leader | 2 | 6.7 |
| Implementing Nurse | 24 | 80.0 |
| Head of Department | 3 | 10.0 |
| Other | 1 | 3.3 |
| Total | 30 | 100.0 |
| **Years of service** |  |  |
| <1Year | 1 | 3.3 |
| 1 to 5 Years | 8 | 26.7 |
| 5 to 10 years | 8 | 26.7 |
| >10Years | 13 | 43.3 |
| Total | 30 | 100.0 |

Source: 2021 primary data

Based on table 4.1 above, it shows that the age of the respondents is in the age of 30 to 40 years, namely 173 respondents (56.7%). As for gender, the majority of respondents were female as many as 27 respondents (90.0%). Based on the level of education, the distribution of respondents shows that most of the respondents have Diploma 3 education, namely 19 respondents (63.3%). The distribution of respondents based on employment status who have status as contract employees is 18 people (60.%). As for the position and tenure of the respondents, it shows that most of the respondents have positions as executor, namely 24 people (80.0%) and most of the respondents have a working period of more than ten (>10) years consisting of 13 respondents (33, 3%).

1. Research Core Data

The research core data includes data on the distribution of nurse competencies which includes knowledge, attitudes and skills of nursing staff in preparedness in the face of non-natural disasters Covid 19 at the Ende District Hospital, East Nusa Tenggara Province which can be seen in table 4.2 below.

Table 2 Distribution of respondents based on knowledge, attitudes and skills at the Ende Regional General Hospital in 2021

|  |  |  |
| --- | --- | --- |
| **Variable** | **F** | **%** |
| **Knowledge** |  |  |
| Not enough | 2 | 6.7 |
| Enough | 16 | 53.3 |
| Well | 12 | 40.0 |
| Total | 30 | 100.0 |
| **Attitude** |  |  |
| Enough | 4 | 13.3 |
| Well | 26 | 86.7 |
| Total | 30 | 100.0 |
| **Skills** |  |  |
| Enough | 7 | 23.3 |
| Well | 23 | 76.7 |
| Total | 30 | 100.0 |

Source: 2021 primary data

Based on table 4.2 above, it shows that the knowledge variable of the majority of respondents is in sufficient category, namely 16 respondents (53.3%). Meanwhile, for the attitude variable, the majority of respondents were in good category, namely 26 respondents (86.7%) and for the skill variable, it showed that most of the respondents were in good category, namely 23 respondents (76.7%).

Table 3 Distribution of respondents based on disaster preparedness at the Ende Regional General Hospital in 2021

|  |  |  |
| --- | --- | --- |
| **Preparedness** | **F** | **%** |
| Enough | 7 | 23.3 |
| Well | 23 | 76.7 |
| Total | 30 | 100.0 |

Source: 2021 primary data

Based on table 4.3 above, it shows that the majority of respondents' preparedness variables are in good category, namely 23 respondents (76.7%). While the lowest is respondents with less category that is 7 respondents (23.3%).

**Bivariate Analysis**

The bivariate analysis aims to determine the relationship between knowledge, attitudes and skills of nursing staff in preparedness for non-natural disasters covid 19 at the Regional Hospital (RSUD) of Ende Regency. Spearman Rank test results are shown in the following table:

Table 4.3 Spearman Rank . test results

|  |  |  |
| --- | --- | --- |
| **Variable** | ***Corelation Coeffisien*** | ***P-Value*** |
| Knowledge | 0.308 | 0,097 |
| Attitude | 0.247 | 0,188 |
| Skills | 0.068 | 0,720 |

Note: \* Variables have a relationship if (*p-value* <0,05)

Based on the results of the Spearman Rank variable test, the knowledge, attitudes and skills variables did not have a significant relationship with preparedness in dealing with non-natural disasters Covid 19 with a value (p-value > 0.05) which was 0.097 for the p-value of the knowledge variable, 0.188 for the p-value. value for the attitude variable and 0.720 p-value for the skill variable. Meanwhile, the direction of the relationship between the three variables has a unidirectional nature in accordance with the positive value of the correlation coefficient, and for the level of the relationship between the three variables, namely the knowledge variable has a sufficient level of relationship (0.308), the attitude variable has a very weak relationship level (0.247) and the skill variable has a very weak relationship level (0.068).

**DISCUSSION**

1. **Characteristics of Respondents**
2. Age Characteristics

Based on the results of the study showed that the age of the majority of respondents were in the age of 30 to 40 years, namely 17 respondents (56.7%). StudyHakim Husen et al., (2020) regarding the determinants of nurse preparedness for the mount eruption disaster (Gamalama) at the ternate city health service work area health center, 19 people (46.3%), the age group of 31-40 years (51.2%), while the age 41-50 years as much as 1 person (2.4%). Based on data from Kusyairi, Achmad et al (2019), it was found that there was a significant relationship between the respondent's characteristic factors, namely age and respondent's self-awareness with a value of 0.001 (ρ value < 0.05).. According to research Mohammad-pajooh & Ab. Aziz, (2014) states that with increasing age, food preparedness will decrease. From adults to the elderly will experience a decrease in preparedness. Adolescence to young adulthood is the peak of preparedness because the elderly group is included in the category of vulnerable groups who need to be well prepared.

1. Gender Characteristics

As for gender, the majority of respondents were female as many as 27 respondents (90.0%). Study Hakim Husen et al., (2020) Regarding the determinants of nurses preparedness for the mount eruption disaster (Gamalama) at the Ternate city health service public health center, there were 6 men (14.6%) and 35 women (85.4%). Based on research Kusyairi, Achmad et al (2019) it was found that there was a significant relationship between the respondent's characteristic factors, namely gender and community self-awareness in carrying out disaster mitigation with a value of 0.027 (ρ value <0.05). This corresponds to (Ali, 2011) that the existence of gender differences will have an impact on preparedness and self-awareness in disasters. This is closely related to the behavior of men who will have a higher sense of preparedness than women. However, this is in contrast to the statement Austin, (2013) that women also have a fairly good responsibility in responding to disasters.

1. Educational Characteristics

Based on the level of education, the distribution of respondents shows that most of the respondents have Diploma III of nursing education, namely 19 respondents (63.3%). According to research results Nurhidayati & Ratnawati, (2018) shows that there is a relationship between education and family preparedness with the elderly in the event of a disaster with the results of the chi-square statistical test (<0.05). The results of this study are in line with research (Krishna et al., 2014) people with higher and secondary education tend to have higher preparedness than people with low education. Study Setiawan, (2014) concluded, the level of education has a significant effect on the level of community capacity in dealing with disasters, so the higher the education, the higher the capacity.

While the research results Kusyairi, Achmad et al (2019) it was found that there was a significant relationship between the characteristics of the respondents, namely education and community self-awareness of disasters. The results of this study are in accordance with the opinion that education is the main factor that affects community preparedness and awareness to participate in disaster mitigation (Mohammad-pajooh & Ab. Aziz, 2014) so that the higher the education, the more awareness and good disaster preparedness.

1. Characteristics of Employment Status

The distribution of respondents based on employment status, the majority have status as contract employees, namely 18 people (60.%). According to (Nuryati, 2016) T-count of employee status variables t-count is smaller than t-table (1.697 <2.021) with a probability (0.096) greater than a significant level of 0.05, thus Ho is accepted and Ha is rejected, meaning that the employee status variable has no positive effect or not significant to employee performance.

Meanwhile, according to research results Saifuddin, (2013) shows that the results of statistical tests show p-value = 0.520 (α 0.05) meaning that there is no significant difference between the performance of civil servants and non-civil servants nurses in the inpatient room of the Indramayu District Hospital. This can be due to nurses who are non-civil servants who have the same responsibility in providing services to the community, including in terms of preparedness in dealing with disasters.

1. Job Characteristics

As for the position and tenure of the respondent, it shows that the majority of respondents have a position as an implementing nurse, namely 24 people (80.0%). According to research results Fahmil Haris et al, (2019) shows the position variable coefficient (X5) has a positive value of 0.248, this gives an illustration that the position factor has a positive but not significant effect on performance. This means that the size of the position will not have an impact on performance. These results support the research Fahmil Haris et al, (2019) Position promotion has a positive and significant effect on employee performance.

1. Characteristics of Working Period

The majority of respondents have a working period of more than ten (>10) years, namely 13 respondents (33.3%). According to research Harmiyati, (2016) there is a significant relationship between tenure and performance of Perkesmas nurses at the Palembang City Health Center with statistical test results showing that (p value = 0.012). Meanwhile, according to Nuraida (2011) there is a significant relationship between the length of work of nurses with the implementation of the Perkesmas program with the results of statistical tests obtained p value of 0.027 (< alpha 0.05).

1. **Relationship of Knowledge to Non-Natural Disaster Preparedness Corona Virus Disease (Covid 19)**

Based on the results of the study above, it shows that the knowledge variable of the majority of respondents is in sufficient category, namely 16 respondents (53.3%). Based on the results. Based on the results of the Spearman Rank variable test, the knowledge variable did not have a significant relationship to the preparedness of isolation nurses in dealing with non-natural disasters Covid 19 with a value of 0.097 (p-value > 0.05). Meanwhile, the direction of the knowledge variable relationship has a unidirectional nature according to the positive value of the correlation coefficient, and the level of the knowledge variable relationship is in the sufficient category (0.308).

In line with the research conducted Hakim Husen et al., (2020) shows the results of statistical analysis to see the relationship between disaster knowledge and preparedness at the 95% confidence level, p value = 0.015 < = 0.05, indicating a significant difference in the proportion of preparedness between good and sufficient knowledge in the Puskesmas working area of the Ternate City health service. So it can be concluded that there is a relationship between knowledge and nurse preparedness at the Puskesmas in the working area of the Ternate City Health Service

Study Radhi et al., (2019) which states that knowledge is one of the factors that influence a person's behavior and beliefs, besides that cognitive abilities shape a person's way of thinking. Knowledge is one component of the competence of health workers, including nurses. Research conducted by Cut in Hakim Husen et al., 2020), stated that the factors influencing disaster preparedness consist of 1) knowledge of disaster preparedness, 2) attitudes towards disaster preparedness, 3) policies and guidelines, 4) plans for disaster emergencies, 5) disaster warning systems, and 6) resource mobilization. While research Hakim Husen et al., (2020) shows the knowledge variable p = 0.015, and the skill variable p = 0.171. the knowledge variable is the most dominant variable associated with preparedness from the results of the logistic regression test, the value of exp (B) = 4,200, sig = 0,998.

Improving the knowledge of community health nurses can be done by increasing education, training, seminars, or workshops on disasters. Another effort that can be made to increase the knowledge of public health nurses is to provide a scientific forum that discusses public health issues that are carried out in one health center or attended by several health centers. Knowledge is also referred to as the result of human sensing, or the result of knowing someone about an object through the senses they have (eyes, nose, and so on).

Study Radhi et al., (2019) about the relationship between knowledge and nurses' preparedness in dealing with Malaria Outbreaks showed that of 101 nurses who had good knowledge, 78.2% were ready to face a malaria epidemic, of 141 nurses who had sufficient knowledge, 65.2% said they were not ready, and all nurses who knowledgeable people are less prepared to face the malaria epidemic in Aceh Besar District. The results of the analysis using the chi square test showed that there was a relationship between knowledge and the preparedness of nurses to face the malaria outbreak in Aceh Besar District, (p value = 0.000).

Theoretically stated that knowledge has a positive correlation with behavior, knowledge can lead an individual to behave well. Related to the preparedness of nurses in dealing with disease outbreaks, knowledge is an important indicator, this is indicated by the better knowledge of a person about a disease, it is believed that he will be more prepared to face disasters or disease outbreaks. Researchers assume that good knowledge of nurses is one indicator of whether or not the nurse is ready to face the malaria epidemic. According to the researcher's assumption, knowledge is one of the factors that influence a person's behavior and beliefs, besides that cognitive abilities shape a person's way of thinking, including the ability to understand the factors that influence illness and personal health practices. The higher a person's knowledge about the meaning of health and the benefits of health facilities, the greater the desire to use health facilities.

1. **Relationship of Attitudes to Non-Natural Disaster Preparedness Corona Virus Disease (Covid 19)**

Based on the results of the univariate analysis of the attitude variable of the majority of respondents in good category, as many as 26 respondents (86.7%). Based on the results of the Spearman Rank test, the attitude variable did not have a significant relationship to the preparedness of nurses in dealing with non-natural disasters of the Covid 19 pandemic with a value of 0.188 (p-value > 0.05). As for the direction of the relationship, the attitude variable has a unidirectional nature in accordance with the positive value of the correlation coefficient and the attitude variable has a very weak relationship level, namely 0.247. Based on the results of the chi-square test, the attitude variable has a significant relationship to disaster preparedness with a value of 0.007 (p-value <0.05).

Study Radhi et al., (2019) The results showed that of 151 nurses with good attitudes, 68.9% were ready to face the malaria epidemic, from 98 nurses who had poor attitudes, there were 68.4% who stated that they were not ready to face the malaria epidemic. The results of the analysis using the chi square test showed that there was a relationship between attitudes and nurses' preparedness to face a malaria outbreak in Aceh Besar District, (p value = 0.000).

Helwie also conducted a similar study to 24 nurses who were part of the earthquake disaster management. The results of the research obtained on competencies that are very important for nurses to have when a disaster occurs are; attitude, intravenous insertion, monitoring and observation, casualty triage, trauma patient management (homeostatic control, bandaging, fixation, manual handling), and casualty transportation. While the competencies that are often used are: debridement and dressing, intravenous insertion, observation and monitoring.

Theoretically, it is stated that attitude is a person's view or determination of an object which will be followed by action after there is a stimulus to act. A positive or accepting attitude will make a person carry out activities or actions as required, enjoy, passionate in carrying out, think creatively and innovatively and have a sense of responsibility. Research conducted by Harmiyati, (2016) concluded that a positive attitude tends to make the community more responsive to the Dengue Hemorrhagic Fever disaster.

According to the researcher's assumption in serving patients in an emergency period, nurses must be able to behave well and control themselves considering that the health of the surrounding community is more important, a disaster is an event or series of events that threatens and disrupts people's lives and livelihoods caused, both by natural factors and/or non-natural factors. as well as human factors resulting in human casualties, environmental damage, property losses, and psychological impacts so that midwives are expected to really be able to serve patients even though the situation is in an emergency condition. In addition, the attitude clearly shows the connotation of a suitable reaction to a certain stimulus which in everyday life is an emotional reaction to a social stimulus. Attitude is also a form of evaluation or reaction of feelings towards an object that is partial or impartial which is a certain regularity in terms of feelings (affection), thoughts (cognition), and predisposition of action (conation) towards an object in the surrounding environment.

1. **Relation of Skills to Non-Natural Disaster Preparedness Corona Virus Disease (Covid 19)**

Based on the results of the univariate analysis of the skill variable, most of the respondents were in the good category, namely 23 respondents (76.7%). Meanwhile, the results of the Spearman Rank test for the skill variable did not have a significant relationship to the preparedness of nurses in dealing with non-natural disasters Covid 19 with a p-value of 0.720 (p-value <0.05). The direction of the skill variable relationship has a unidirectional nature according to the positive value of the correlation coefficient, and the skill variable relationship level is in the category of very weak relationship level (0.068).

Based on the results of the chi square test, the skill variable has a significant relationship to disaster preparedness with a value of 0.043 (p-value <0.05). This looks different from the research results Hakim Husen et al., (2020) shows the results of statistical analysis to see the relationship between nurse skills and preparedness at the 95% confidence level, p = 0.117 > = 0.05, indicating that there is no significant difference. Thus, the difference in the proportion of preparedness between skills was not statistically significant, indicating that there was no significant difference.

Based on the results of interviews and observations (qualitative) Hakim Husen et al., (2020), many informants had forgotten about the training and disaster simulations they had received and the materials on disaster emergencies they had received in college. The results of the interview also showed that among the informants, there were also those who gave answers that had no scientific evidence, such as the wrong CPR cycle and most of the informants had not attended training/education on disasters and emergencies, because it was rarely held where the informants were. Therefore, why are nurses lacking skills in disaster preparedness, namely because of the lack of human resources (nurses) who have not participated in BTCLS (Basic Trauma Life Support and Basic Cardiac life support).

In fact, skills or skills are skills that must be possessed by someone to do their work in their respective fields of duty. Improvement of abilities and skills can be done through related training, training that is carried out continuously will make a person skilled, so that the skills possessed related to disaster management can be used if needed at any time.

1. **Variable Disaster Preparedness**

Meanwhile, the respondent's preparedness variable shows that the majority are in good category, namely 23 respondents (76.7%). While the lowest is respondents with less category that is 7 respondents (23.3%). Preparedness is a phase that requires the development of strategies to coordinate so that the response to disasters can be better and can be more concerned and prepared for various disasters. In this phase, you must understand the concepts and regulations of disaster preparedness, which in turn must also have knowledge about disaster risks in their respective areas such as vulnerability to impacts that may arise from disasters, identify resources that can be developed to reduce mortality and create a communication system for response phase.

Preparedness is the activities and steps taken before the occurrence of a natural hazard to predict and alert people to the possibility of such a hazard event, to evacuate people and property if they are threatened and to ensure an effective response, for example by stockpiling materials. In the disaster management cycle, preparedness efforts are included in the risk reduction phase before a disaster occurs. The shift in the concept of disaster management to a paradigm of disaster risk reduction emphasizes that disaster preparedness efforts are one of the important stages to reduce the amount of losses that arise due to disasters.

Based on Law Number 24 of 2007 concerning Disaster Management, preparedness is a series of activities carried out to anticipate disasters through organization and through appropriate and efficient steps. The indicators that will be used to assess community preparedness are derived from five parameters which according to LIPPI, (2015) is a critical factor for preparedness to anticipate natural disasters, especially earthquakes and tsunamis, namely: knowledge and attitudes towards disaster risk; policies and guidelines; plans for disaster emergencies; disaster warning system; and the ability to mobilize resources

Preparedness efforts are carried out through the preparation and testing of disaster emergency management plans; organizing, installing, and testing early warning systems; provision and preparation of supply goods to fulfill basic needs; organizing, counseling, training, and rehearsing on emergency response mechanisms; preparation of evacuation locations; preparation of accurate data, information, and updating of permanent procedures for disaster emergency response; and the provision and preparation of materials, goods, and equipment for the fulfillment of the restoration of infrastructure and facilities. Preparedness efforts at the points above are not only carried out by the government but can also be carried out by individuals or the community. This is what distinguishes preparedness efforts from other pre-disaster risk reduction efforts (mitigation and early warning), where preparedness efforts can be carried out by individuals or communities, while mitigation and early warning efforts are directed primarily from higher management levels such as government. By seeking preparedness among the community, it also means preparing the community not to panic too much when a disaster occurs so that the losses experienced can be reduced to a minimum.

**CONCLUSION**

Based on the results of the Spearman Rank variable test, the knowledge, attitudes and skills variables did not have a significant relationship with preparedness in dealing with non-natural disasters Covid 19 with a value (p-value > 0.05) which was 0.097 for the p-value of the knowledge variable, 0.188 for the p-value. value for the attitude variable and 0.720 p-value for the skill variable. Meanwhile, the direction of the relationship between the three variables has a unidirectional nature in accordance with the positive value of the correlation coefficient, and for the level of the relationship between the three variables, namely the knowledge variable has a moderate level of relationship (0.308), the attitude variable has a very weak relationship level (0.247) and the skill variable has a very weak relationship level (0.068).

**REFERENCE**

Ali, M. (2011). A *Survey on the Role of Gender Differences in Leadership Style Selection and its leading to Organizational Crisis-preparedness or Crisis-proneness*. *Gender and Development*, *1*(March), 42–47. https://r.search. yahoo.com.

Austin, D. (2013). *Assessing the Preparedness of Community-Based Or ganizations: Surviving the Next Disast*e. Indian Journal of Sexually Transmitted Diseases, *34*(1), 64–66. https://doi.org/10.4103/0253-7184.112971

Depkes RI. (2006). *Pedoman Manajemen Sumber Daya Manusia (SDM) Kesehatan Dalam Penanggulangan Bencana*. Jurnal Kesehatan, 13. https://agus34drajat. files.wordpress.com/2010/10/pedoman\_sdm\_bencana.pdf

Fahmil Haris et al. (2019). Jurnal basicedu. *Jurnal Basicedu*, *3*(2), 524–532. file:///C:/Users/deskTOP/Downloads/Documents/1469-5502-1-PB.pdf

Gugus Tugas COVID-19 NTT. (2021). *Data Sebaran Kasus, Sample RDT dan Sample Test SWAB Covid 19 di Provinsi NTT*. http://www.covid19.nttprov.go.id /home/data

Gugus Tugas COVID-19 RI. (2020). *Protokol Percepatan Penanganan Pandemi Covid-19 (Corona Virus Disease 2019)*. In *Gugus Tugas Percepatan Penanganan COVID-19* (Vol. 19). https://covid19.go.id/storage/app/media/Protokol/ Protokol Percepatan Penanganan Pandemi Corona Virus Disease 2019.pdf

Hakim Husen, A., Kaelan, C., Nurdin, A., & J. Hadi, A. (2020). *Faktor Determinan Kesiapsiagaan Perawat Terhadap Bencana Gunung Meletus (Gamalama) di Puskesmas Wilayah Kerja Dinas Kesehatan Kota Ternate.* *Window of Health : Jurnal Kesehatan*, *3*(2), 159–167. https://doi.org/10.33368/woh.v0i0.313

Harmiyati, L. et al. (2016). *Pengaruh Karakteristik dan Kapabilitas Individu Serta Karakteristik Organisasi terhadap Persepsi Kinerja Perawat Perkesmas di Puskesmas Kota Palembang Program perkesmas di kota Palembang ditetapkan sebagai upaya pengembangan di terhadap keluarga rawan kes*. *3*(1), 341–349. https://media.neliti.com/media/publications/181713-ID-pengaruh-karakteristik-dan-kapabilitas-i.pdf

Johns Hopkins. (2021). *Covid 19 Dasboard by Center for systems Science and Engieneering (CSSE)*. Panel de Control COVID-19 Del Centro de Ciencia e Ingeniería de Sistemas. https://coronavirus.jhu.edu/map.html

Kemenkes RI. (2009). *Pedoman Perencanan Penyiagaan Bencana bagi Rumah Sakit*. https://123dok.com/document/6qmxdxwy-pedoman-perencanaan-penyiagaan-bencana-bagi-rumah-sakit.html

Krishna, A., Nababan, M., Sagala, S., & Lassa, J. (2014). *Adaptasi Non Struktural Penduduk Penghuni Permukiman Padat terhadap Bencana Banjir*: Studi Kasus Kecamatan Baleendah, Kabupaten Bandung. *Resilience Development Initiative*, *5*, 1–19.http://www.preventionweb.net/files/3\_55wp5sagalaetal adaptasinonstrukt. pdf

Kusyairi, A. et al. (2019). *Analisis Faktor yang Mempengaruhi Self Awareness Masyarakat*. https://r.search.yahoo.com

Maarif. (2012). *Penanggulangan Bencana di Indonesia Bintek Manajemen Penyusunan Peta Rawan Bencana.*

Mohammad-pajooh, E., & Ab. Aziz, K. (2014). Investigating factors for disaster preparedness among residents of Kuala Lumpur. *Natural Hazards and Earth System Sciences Discussions*, *2*(5), 3683–3709. https://doi.org/10.5194/nhessd-2-3683-2014

Nuraida, K. (2011). *Faktor-faktor yang berhubungan dengan kinerja perawat pelaksana di ruang rawat inap rumah sakit islam faisal makassar*. https://r.search.yahoo.com

Nurhidayati, I., & Ratnawati, E. (2018). Kesiapsiagaan keluarga dengan lanjut usia pada kejadian letusan merapi di desa Belerante Kecamatan Kemalang. *Jurnal keperawatan dan kesehatan masyarakat cendekia utama*, *7*(1), 20. https://doi.org/10.31596/jcu.v0i0.210

Nursalam. (2017). Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan. In *Pedoman Skripsi, Tesis, dan Instrumen Penelitian Keperawatan*. Salemba Medika.

Nuryati. (2016). Pengaruh disiplin kerja terhadap prestasi kerjapegawai di dinas perpustakaan dan kearsipan kabupatentuban. *Universitas Terbuka FHISIP*. https://www.coursehero.com/file/41480534/Nuryati-022321777doc/

PPK-LIPPI. (2015). *Dampak Bencana terhadap Kesehatan Masyarakat*.

Radhi, S. F., Imran, & Mudatsir. (2019). *Hubungan tingkat pengetahuan dan sikap perawat dengan kesiapsiagaan menghadapi bencana wabah penyakit malaria di kabupaten*. *December 2015*. https://www.researchgate.net/publication/ 331431829

Saifuddin. (2005). *Sikap Manusia: Teori dan Pengukurannya*. Pustaka Pelajar. https://www.worldcat.org/title/sikap-manusia-teori-dan-pengukurannya-saifuddin-azwar/oclc/1027449790

Setiawan, H. (2014). *Analisis tingkat kapasitas dan strategi coping masyarakat lokal dalam menghadapi bencana longsor- studi kasus di Tawangmangu* , Karanganyar , Jawa Tengah ( Analysis of coping strategies and the level of local community ’ s capacity towards landslide- a cas. *Penelitian Sosial Dan Ekonomi Kehutanan*, *11*(1), 70–81.