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Relationship Between Determinant Factors of Nurse Competency in Disaster Mitigation in 5 Community Health Centers in Ende

Irwan Budiana[1*], Try Ayu Patmawati[2]
Ministry of Health Polytechnic Kupang
Corresponding Author: Irwan Budiana budianairwan89@gmail.com

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A B S T R A C T

This research aims to determine factors related to nurse competency in disaster mitigation. This research is a descriptive analytical study with a cross sectional approach. The population in this study were all nurses in 5 Community Health Centers in Ende City. Sampling used a purposive sampling technique with an instrument in the form of a questionnaire. Data were processed using SPSS software with a multiple regression test. The research results showed that there was no relationship between age, gender, education level, length of service and participation in disaster training with nurses' competency in carrying out disaster mitigation. Meanwhile, the level of education and knowledge, length of service and attitudes and competence of nurses in disaster mitigation have a significant relationship

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INTRODUCTION

The territory of the Unitary State of the Republic of Indonesia has geographical, geological, hydrological and demographic conditions that allow various types and forms of disasters to occur, whether caused by natural factors, non-natural factors or human factors. This results in human casualties, environmental damage, property loss and psychological impacts (Natasya Widyasari, 2019). The geographical location crossed by two mountain ranges, namely the Mediterranean in the west and the Circum Pacific in the east, causes Indonesia to have many active volcanoes and is prone to disasters. Disasters are extraordinary events that cause great losses to humans and the environment where it is beyond human ability to control it, caused by natural or human factors or both. The impacts caused by disasters can be in the form of mass casualties or deaths, disruption of the sociological and psychological order of society, unemployment, poverty, crime, backwardness, and destruction of the community's living environment. (Sinaga, 2015).

In addition, disasters can reduce the quality of life of the population in various public health problems that occur such as death, serious injuries requiring intensive care, increased risk of infectious diseases, damage to health facilities, and water supply systems. In addition, the problem of inadequate food, shelters that do not meet health requirements can reduce the body's resistance which if not immediately addressed will cause problems in the health sector. Meanwhile, health services that experience obstacles due to damage to health facilities, inadequate equipment, number or type of drugs and limited health workers and operational funds (Putih et al., 2024).

In disaster management, there are several aspects, namely disaster mitigation (prevention), emergency when a disaster occurs, and rehabilitation. The factor that supports success in disaster management is disaster management. In its implementation, disaster management often faces various problems at all stages of disaster management, starting from pre-disaster (mitigation and preparedness), during disaster (emergency response) and post-disaster (recovery and reconstruction). The role of multi-sectors (Pentahelix) in the implementation of disaster management is very important, one of which is health workers in this case nursing staff. The absence or weakness of health workers is confusion, destruction, loss, and disaster (Sinaga, 2015).

As health workers who are at the forefront of health services, nurses have a large role and responsibility in services including services in reducing disaster risks such as disaster mitigation efforts. The exact percentage of the number of nurses involved in disaster management in hospitals or in the community is not yet known for sure. Until now, the need for nurses to handle disaster victims in the community is the largest need, namely 33% of all health workers involved (Nuraida, 2011). Nurses as one of the health service providers, are expected to be more Nurses are required to be able to manage daily services, disaster victim services, and actively help in saving the lives of disaster victims. The purpose of this study was to determine the competence of nurses in disaster mitigation.

LITERATURE REVIEW

1. Disaster Management

Disaster management is a series of efforts that include establishing development policies that are at risk of disasters, disaster prevention activities, emergency response, and rehabilitation. There are several phases in disaster management that follow the disaster cycle, namely (Tyas, 2016). First; Pre-Disaster Phase; referred to as the preparedness phase consisting of prevention and mitigation. Second; Disaster Phase; referred to as the emergency response phase consisting of the acute phase and the sub-acute phase and Third; Post-Disaster Phase; referred to as the reconstruction phase consisting of the recovery phase and the rehabilitation and reconstruction phase. Preparedness is the activities and steps taken to anticipate the possibility of a disaster in order to avoid loss of life, loss of property and changes in the community's way of life. Preparedness efforts are carried out when a disaster is identified as occurring.

2. The Role of Nurses in Disaster Management

The role of nurses in health centers during a disaster is to provide: light patient care, administer light medication, refer patients. The functions and duties of nurses in disaster situations can be described according to the phases and conditions that apply when a disaster occurs as below;

a. Pre-disaster Phase:

Nurses participate in education and training for health workers in disaster response for each phase, nurses are involved in various government agencies, environmental organizations, the national red cross, and community institutions in providing counseling and simulations for preparing for disaster threats to the community, nurses are involved in health promotion programs to improve community readiness in facing disasters which include; self-help efforts (in the community), first aid training for families such as helping other family members, providing information on how to store and carry food supplies and safe water use, nurses can also provide several addresses and emergency telephone numbers such as the fire department, hospitals, and ambulances. Nurses provide information on alternative shelters and disaster posts. In addition, the equipment also provides information about equipment that can be brought, such as necessary clothing, portable radio, flashlight and batteries, and others.

b. Disaster Phase (Emergency Response):

In the disaster phase or considered an emergency, the role of nurses includes; acting quickly, do not promise or not promising anything for sure, with the intention of giving great hope to the survivors. Nurses must concentrate fully on what is being done. Coordinating and creating leadership and for the long term, together with related parties can discuss and design a master plan of revitalizing, usually for the first 30 months.

c. Post-Disaster Phase

Disasters certainly leave a special mark on the physical, social, and psychological conditions of victims, the psychological stress that occurs can continue to develop until Post-Traumatic Stress Disorder (PTSD) occurs, which is a syndrome with three main criteria. First, the symptoms of trauma can definitely be recognized. Second, the individual experiences re-trauma

symptoms through flashbacks, dreams, or events that trigger them. Third, the individual will show physical disorders. In addition, individuals with PTSD can experience decreased concentration, feelings of guilt, and memory disorders. The health team together with the community and other professions work together with cross-sector elements to handle post-emergency public health problems and accelerate the recovery phase towards a healthy and safe state. As the largest health workers and first responders and care givers in disaster emergency response, nurses are required to have a higher level of disaster preparedness than the general public.

The competencies that nurses must have in order to maximize their preparedness capabilities are: First. Knowledge, namely participating in disaster training, reading books and literature related to disaster preparedness and management, actively seeking and attending disaster preparedness and management seminars, having a contact list of health workers at work and support from the government during a disaster. Second. Skills, namely being ready to participate in disaster management, being involved in the creation or development of emergency guidelines, being able to act as a leader during a disaster, being aware of potential disaster risks, being able to carry out emergency disaster responses, being able to carry out triage principles during a disaster, being able to implement emergency plans, evacuation procedures, being able to differentiate between acute stress disorder and post-traumatic stress and being able to conduct health assessments on disaster victims who experience post-traumatic stress (PTSD).

3. Disaster Management

The general role of nurses at all stages of disaster management is to know the limits of their knowledge, skills, and authority, to be able to identify the level of emergency of disaster victims by grouping patients with the same signs and symptoms, to be able to handle the symptoms and common reactions experienced by disaster survivors based on their emotional, behavioral, cognitive and physical conditions, to be able to carry out psychological interventions, behavioral therapy, cognitive strategies for patients who experience physical and emotional trauma, to prepare emergency plans for themselves and their families during a disaster, to be confident in their abilities as direct care providers and first responders during a disaster, to be confident as managers or coordinators in disaster shelters, to be confident in caring for disaster victims independently without medical supervision during a disaster, to be able to carry out logistics management and cross-program/sector cooperation in disaster management, to be able to carry out emergency plans, evacuation procedures, to be able to differentiate between acute stress disorder and post-traumatic stress and to be able to conduct health assessments on disaster victims who are experiencing stress.

4. Disaster Mitigation

Mitigation is an action to reduce something related to risk, impact, bad, or unwanted things. In other words, it can be said that mitigation is a series of efforts made to reduce risk, bad impact or other unwanted things, as a result of an event, which is generally a disaster. Mitigation is an effort that aims to reduce the risk and impact of a disaster. Disasters have three categories, namely natural disasters, non-natural disasters, and social disasters.

5. Nursing Competence

Nursing competence consists of knowledge competence and skill competence in carrying out nursing actions in accordance with nursing practice standards which are the main focus in nursing actions. Competence is the ability and willingness to carry out a task with effective performance. that competence is knowledge, skill and individual quality to achieve success in their work.

METHODOLOGY

The research design used in this study is descriptive analytical with a cross-sectional approach to analyze the picture of the competence of Puskesmas nurses in disaster mitigation. This study will be conducted in 5 Puskesmas in Ende Regency from January to October 2024. The population in this study were all nurses in 5 Puskesmas in Ende Regency. Sampling using non-probability sampling technique, namely purposive sampling. The instrument used in this study is a questionnaire and the data is processed using SPSS software using multiple regression tests.

RESULTS

After the data is collected through the process that has been described in the research methodology, the next step is to analyze the data. Data analysis is carried out to provide meaning or significance that is useful for solving research problems. Furthermore, from the data, descriptive data presentation is carried out to then be analyzed quantitatively using statistical methods.

Table 1. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training Activities with Nurses' Knowledge of Disaster Mitigation

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.714	1.062		3.498	.001
	Age	-.237	.245	-.134	-.966	.337
	Gender	-.339	.434	-.076	-.780	.437
	Education Level	.746	.247	.299	3.018	.003
	Year of Service	.198	.186	.154	1.065	.290
	Disaster Training	.525	.309	.172	1.701	.092

Source; Primary Data 2024

Based on table 1 above, the p value of the age variable is 0.337, gender 0.437, education level 0.003, length of service 0.290 and the variable of participation in disaster training 0.092. This shows that there is no significant relationship between the variables of age, gender, length of service and participation in disaster training activities with nurses' knowledge in carrying out disaster mitigation (>0.05). While the education level variable has a relationship with nurses' knowledge in carrying out disaster mitigation (<0.05).

Table 2. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training Activities with Nurses' Attitudes Towards Disaster Mitigation

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27.136	3.025		8.969	.000
	Age	.174	.699	.035	.249	.804
	Gender	-.277	1.237	-.022	-.224	.824
	Education Level	-1.253	.704	-.177	-1.779	.078
	Year of Service	-.882	.531	-.241	-1.662	.100
	Disaster Training	1.676	.879	.193	1.905	.060

Source; Primary Data 2024

Based on table 2 above, the p value of the age variable is 0.804, gender 0.824, education level 0.078, length of service 0.100 and the variable of participation in disaster training 0.060. This shows that there is no significant relationship between the variables of age, gender, education level, length of service and participation in disaster training activities with the attitude of nurses in carrying out disaster mitigation (>0.05).

Table 3. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training Activities with Nurses' Skills in Disaster Mitigation

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	31.270	3.458		9.044	.000
	Age	.205	.798	.035	.257	.798
	Gender	-.932	1.414	-.063	-.659	.511
	Education Level	-1.436	.805	-.174	-1.784	.078
	Year of Service	-1.596	.607	-.374	-2.630	.010
	Disaster Training	.966	1.005	.095	.961	.339

Source; Primary Data 2024

Based on table 3 above, the p value of the age variable is 0.798, gender 0.551, education level 0.078, length of service 0.010 and the variable of participation in disaster training 0.339. This shows that there is no significant relationship between the variables of age, gender, education level and participation in disaster training activities with the attitude of nurses in carrying out disaster mitigation (>0.05). While the variable of length of service has a relationship with t

he skills of nurses in carrying out disaster mitigation (<0.05).

Table 4. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training Activities with Nurses' Competency in Disaster Mitigation

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	62.120	5.978		10.391	.000
	Age	.142	1.381	.014	.103	.918
	Gender	-1.547	2.445	-.061	-.633	.528
	Education Level	-1.943	1.392	-.136	-1.396	.166
	Year of Service	-2.280	1.049	-.309	-2.173	.032
	Disaster Training	3.167	1.738	.181	1.822	.071

Source; Primary Data 2024

Based on table 4 above, the p value of the age variable is 0.918, gender 0.528, education level 0.166, length of service 0.032 and the variable of participation in disaster training 0.071. This shows that there is no significant relationship between the variables of age, gender, education level and participation in disaster training activities with the competence of nurses in carrying out disaster mitigation (>0.05). While the variable of length of service has a relationship with the competence of nurses in carrying out disaster mitigation (<0.05).

DISCUSSION

1. The Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training with Nurses' Knowledge of Disaster Mitigation

The results of the study showed that there was no significant relationship between the age variable and nurses' knowledge in carrying out disaster mitigation with a p value of the age variable of 0.337 (>0.05). The more mature the age of nurses, generally they have enough knowledge and experience in various things including in efforts to prevent various risks for patients and the community, especially when a disaster occurs. A more mature age tends to comply with existing standards and has a better level of knowledge because at that age level, a person has a greater ability to recall material that has been learned or to implement the knowledge or material they have. (Puspasari, 2015). Knowledge is one component of the competence of health workers, including

nurses. (Hakim Husen et al., 2020). Research conducted by Hasmoko, V. E (2008) in (Puspasari, 2015) which states that nurse performance can be improved if nurses are between 24-34 years old (54.1%).

The gender variable also has no significant relationship between gender and nurses' knowledge in carrying out disaster mitigation with a p value of 0.437 (> 0.05). Based on gender, women are generally more obedient than men to various regulations, women are more obedient and care about improving services to patients. (Puspasari, 2015). The large population of female nurses increases the expectation of knowledge and concern for disaster mitigation efforts in health services in particular and the community in general. The importance of knowledge about disaster mitigation shows the urgency of disaster education for all levels of society including for health workers such as nurses. Disaster education is an important education for community life, because disasters are events that cause many forms of damage to human life. (Saparwati et al., 2020).

Meanwhile, the education level variable has a relationship with nurses' knowledge in carrying out disaster mitigation with a p value of 0.003, (<0.05). Nurses with a D3 education level get more material and practical experience in hospitals when compared to nurses with a S1 or S2 education level. In addition, nurses with a D3 education also carry out more nursing actions so that D3 nurses are more skilled and have more knowledge about risks that can threaten the safety of patients and families such as disaster risks. Nurses are required to always make efforts to protect patients, families, themselves and colleagues, one of which is by carrying out mitigation activities. Research conducted by Hasmoko, V. E (2008) in (Puspasari, 2015) which states that nurse performance can be improved if nurses have the characteristics of a D III Nursing education (94.6%).

The work period variable has no relationship with nurse knowledge in carrying out disaster mitigation with a p value of 0.290 (> 0.05). Research conducted by Hasmoko, V. E (2008) in (Puspasari, 2015) which states that nurse performance can be improved if nurses have the characteristics of respondents' work periods mostly between 1 - 9 years (45.9%). The possibility of increasing disaster preparedness for nurses with good disaster knowledge is higher compared to nurses with sufficient disaster knowledge. (Hakim Husen et al., 2020). Factors that support the success of Disaster Risk Reduction (DRR) cannot be separated from various aspects such as knowledge, willingness, attitude, skills, and habits in Disaster Risk Reduction activities. Community awareness, readiness and knowledge greatly contribute to disaster mitigation education and strategies. Johnston and Becker, (2013) stated that individuals who are given knowledge about risks and dangers will prepare themselves to face disasters that will occur. (Rina Susanti, Sri Adelila Sari, Sri Milfayetty, 2014).

The variable of participation in disaster training has no relationship with nurses' knowledge in carrying out disaster mitigation with a p value of 0.092 (> 0.05). Training is one of the efforts to support the improvement of nurses' knowledge and abilities in disaster management. There are several competencies that must be met, namely: First aid, Basic Life Support (BCLS), Advanced

Cardiovascular Life Support (ACLS), infection control, field triage, pre-hospital trauma life support, advanced trauma care nursing, post traumatic psychological care, danperi- trauma counseling (Radhi et al., 2019). Increasing knowledge about disasters for nurses can be done through educational activities, this right has a strategic impact in the short and long term. In the short term, it is expected that nurses will gain practical knowledge about natural and non-natural disasters that are useful for carrying out disaster mitigation that can occur at any time. In the long term, it is expected that an attitude of self-responsiveness and awareness of the surrounding environment which is a disaster-prone area will be formed. (Rusilowati, 2012). Nurses have a role in disaster mitigation, especially non-natural disasters such as disease outbreaks. Research conducted by Cut (2017) states that factors that influence disaster preparedness consist of 1) knowledge factors, 2) attitudes, 3) policies and guidelines, 4) disaster emergency plans, 5) disaster warning systems, and 6) resource mobilization (Hakim Husen et al., 2020).

2. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training with Nurses' Attitudes About Disaster Mitigation

The results showed that the p value of the disaster age variable had no relationship with nurses' attitudes in carrying out disaster mitigation with a p value of 0.804 (>0.05). Attitude is defined as a predisposition or tendency learned from an individual to respond positively or negatively with moderate or adequate intensity to objects, situations, concepts or other people (Putra et al., 2014) A positive attitude will make someone do activities or actions according to what is required, enjoy, be passionate in carrying out, think creatively and innovatively and have a sense of responsibility. A person's attitude will have a direct effect on behavior depending on what conditions, what time and situation. The gender variable of the disaster has no relationship with the attitude of nurses in carrying out disaster mitigation with a p value of 0.824 (> 0.05). Attitudes have levels based on their intensity, according to Notoatmodjo, (2005) attitudes consist of accepting, responding, appreciating, being responsible. Attitudes can also be formed through personal experience, the influence of other people who are considered important, the influence of culture, mass media, educational and religious institutions and emotional influences (Puspasari, 2015). Attitude is one of the competencies that nursing staff must have when a disaster occurs, namely intravenous insertion, monitoring and observation, mass casualty triage, trauma patient management (homeostatic control, bandaging, fixation, manual handling), and mass casualty transportation. (Radhi et al., 2019). In addition, attitudes in the pre-disaster phase are also no less important, namely attitudes in carrying out disaster mitigation.

The variable of disaster education level has no relationship with nurses' attitudes in carrying out disaster mitigation with a p value of 0.078 (> 0.05). Respondents' attitudes about risk reduction and disease prevention are mostly in the good category, namely 101 respondents (99.0%). Nurses can have positive attitudes or negative attitudes in terms of risk reduction and disease prevention. Negative attitudes in preventing infection are related to the risk of contracting

infection for the community and for nurses themselves through blood and body fluids for both patients and nurses. Nurses are mostly less supportive in carrying out nosocomial infection prevention measures, for example, nurses do not like it when washed tools have to be sterilized, medical waste is disposed of in yellow trash cans, nurses do not have to maintain sterility of tools when performing invasive actions, used syringes do not need to be disposed of in a special place for disposing of syringes and do not need to wash hands before and after direct contact with patients (Puspasari, 2015).

The variable of disaster work period has a relationship with the attitude of nurses in carrying out disaster mitigation with a p value of 0.100 (<0.05). According to Young et al. (2017) stated that nurses with work experience> 3 years have better preparedness (p = 0.017). A positive nurse's attitude in the form of confidence, ability, and tendency to carry out universal precautions in all conditions regardless of the disease or diagnosis to prevent transmission of infection or an increase in cases of other diseases such as epidemics. Nurses mostly agree and support in carrying out infection prevention measures, for example nurses always use disposable gloves when handling exudate, masks, gowns, and glasses must be used if there are splashes and contact from infectious fluids, proper hand washing techniques using aseptic techniques.

The variable of participation in disaster training has no relationship with the attitude of nurses in carrying out disaster mitigation with a p value of 0.060 (> 0.05). The majority of respondents' attitudes towards health promotion are in the good category, namely 100 respondents (98.0 people). Health promotion carried out by nurses aims to improve the level of public health and control various diseases. Health promotion is one form of comprehensive health service in addition to preventive, curative and rehabilitative. As a professional, nurses have the ability, responsibility, and authority to carry out various forms of health promotion at various levels of care services (Lestari et al., 2018). The role of nurses is very important, not only as service providers but also as educators considering the many factors that cause non-natural disasters such as infectious disease outbreaks such as Covid 19, rabies outbreaks and other disease outbreaks. Nurses are required to be sensitive to all possible disaster risks and understand the attitudes and habits of the community and the surrounding environment in dealing with disasters, these attitudes can be used as reference materials in providing education and carrying out various forms of mitigation of various forms and types of disasters. According to Firda and Haksama (2020) a good attitude will be implemented consistently if there are strict rules from policy makers and good role models from public figures. So it is important in forming public attitudes that are supported by government policies (Utami, 2020).

3. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training With Nurses' Skills in Disaster Mitigation

The results showed that the age variable had no relationship with nurses' skills in carrying out disaster mitigation with a p value of 0.798 (> 0.05). According to Usher K et al. (2015) in his study that age has a significant value on skills (p = 0.002). Specifically, the skills that are influenced by age are communication and critical thinking skills because the older a person is, the wiser and more precise they can be in making decisions (Septiana & Faith, 2019). In line

with the research of Hodge et al. (2015) that the age factor (p = 0.015) causes nurses to be more familiar with emergency preparedness, because they are used to dealing with disasters (Putri et al., 2021).

The increase in disaster mitigation capabilities of unskilled nurses is higher compared to skilled nurses, not a few nurses have forgotten about the disaster training and simulations they received and the materials on disaster emergencies they received during college. (Hakim Husen et al., 2020). Factors that influence nurse preparedness include cognitive ability, attitude (affective), and psychomotor (skill) in disaster management. Improving ability and skills can be done through continuous training, this can make someone skilled, so that the skills they have related to disaster mitigation can be used if needed at any time.

The gender variable has no relationship with the skills of nurses in carrying out disaster mitigation with a p value of 0.551 (>0.05). Risk reduction and disease prevention skills can be in the form of skills in using personal protective equipment for infectious diseases such as masks, refraining from visiting endemic areas of a disease, always washing hands with soap in running water, always providing disinfectants, taking a shower as soon as possible after leaving the house, not making physical contact, maintaining distance, limiting the number of passengers in vehicles (Utami, 2020). The participation of health workers, in this case nurses, in all disaster mitigation policy processes is important to maximize considering that nurses are the health workers with the largest population in most health care facilities. The empowerment of nurses starts from planning to policy evaluation. This is a form of implementing nurses' skills in developing and planning disaster mitigation policies, especially non-natural disasters. Pearson (2013) added that in formulating public policy, at least it includes the following: identifying policy problems; formulating policy proposals; legitimizing public policy; implementing public policy; and evaluating public policy (Shalih & Nugroho, 2021)

The education level variable has no relationship with the skills of nurses in carrying out disaster mitigation with a p value of 0.078 (>0.05). Other skills that are also included in the skills of reducing the risk and preventing non-communicable diseases include modifying lifestyle or controlling risk factors that can be changed to reduce the incidence of non-communicable diseases, for example by exercising, consuming foods high in fiber and vitamins such as fruits and vegetables, reducing the consumption of fatty foods and alcoholic beverages and not smoking. Control of non-communicable diseases can also be done by modifying risk factors with behavioral changes known as CERDIK (Sirajudin et al., 2023). These activities must be carried out routinely and continuously, namely: C: Check your health condition routinely and regularly E: Eliminate cigarette smoke and other air pollution R: Be diligent in physical activity with sports and art D: A healthy diet with balanced calories (low in sugar, salt and fat and rich in fiber) I: Get enough rest and prioritize safety K: Control stress and violence.

The work period variable has a relationship with nurses' skills in carrying out disaster mitigation with a p value of 0.010 (<0.05). More than half (n=12) of the studies showed that work period also has a significant relationship with preparedness. (Putri et al., 2021). The role of nurses in the Nursing Act is as a provider of counseling and counselor for clients, so in certain conditions, nurses are required to carry out health promotion in various situations such as pre-disaster and post-disaster. Health promotion is defined as any form of combination of health education and interventions related to economics, politics and organizations that are designed to facilitate changes in behavior and environments that are conducive to health (Lestari et al., 2018). Nurses can have an important and more effective role in dealing with disaster management in terms of skills when nurses have been prepared and trained in disaster situations (7). Supporting factors that influence health promotion services include promotion time, nurse communication, and promotion media (Lestari et al., 2018)

The variable of participation in disaster training has no relationship with the skills of nurses in carrying out disaster mitigation with a p value of 0.339 (> 0.05). According to Sangkala & Gerdtz, (2018) disaster nursing education is also a supporting factor in nurse preparedness. Disaster nursing education in the nursing education curriculum makes nursing students familiar with the command system, disaster risk analysis and community resilience. Many nurses have not received training/education on disasters and emergencies, because this is rarely held in areas where nurses work or reside. This directly affects the skills of nurses in carrying out disaster mitigation. Skills are expertise that must be possessed by someone to do their job in their respective fields of duty, including nurses.

4. Relationship Between Age, Gender, Education Level, Length of Service and Participation in Disaster Training with Nurses' Competence in Disaster Mitigation

The results showed that the age variable had no relationship with nurses' competence in carrying out disaster mitigation with a p value of 0.918 (> 0.05). Yu et al.'s (2013) study stated that respondents aged > 50 years who had higher competence scores were associated with increased disease control abilities in older nurses with a p value of <0.001 (Putri et al., 2021). According to (Gibson, etall, 2011) that to see a person's performance can be seen from behavior. Behavior appears influenced by environmental factors and from the individual himself. Individual factors that influence behavior include abilities and skills, family background, personality, perception, attitude, values, learning capacity, age, race, gender, and experience (Suprapto et al., 2020)

The gender variable has no relationship with nurse competence in conducting disaster mitigation with a p value of 0.528 (>0.05). Quad Council PHN Competencies (2003) mentions the competencies needed to analyze health problems in the community to conduct evaluations. The expected competencies include skills in analyzing public health assessments, skills in planning public health programs, communication skills, skills in understanding community culture, skills in working with the community and stakeholders, skills in using public health science, skills in financial management, and leadership skills and systematic thinking. The education level variable has no relationship with nurse competence in conducting disaster mitigation with a p value of 0.166 (>0.05). The level of education is also one of the factors that influences nurse competence in receiving disaster preparedness information. In line with the research of Putra et al. (2011) which shows that nursing diploma graduates have a moderate level of ability, while nurses with bachelor's degrees have a higher level of disaster preparedness (p = 0.002). This is in line with the opinion of Ahayalimudin & Osman (2016) that the higher the level of education, the more it can support nurses' preparedness because it can make information easier to accept (Putri et al., 2021).

The work period variable has a relationship with nurse competence in carrying out disaster mitigation with a p value of 0.032 (>0.05). Another study (Tzeng et al., 2016) which is in line, revealed that senior nurses are considered to have better performance (p = 0.001). The variable of participation in disaster training has no relationship with nurse competence in carrying out disaster mitigation with a p value of 0.071 (>0.05). Disaster training is also a need that is often expressed by nurses, because training can help describe events during a disaster and train the ability to act quickly. Through 10 studies, it is known that 42.9% of respondents have attended training. According to research by Putra et al. (2011) in (Putri et al., 2021) revealed that disaster training contributed to improving nurses' skills. Meanwhile, according to Baack & Alfred (2013) in (Putri et al., 2021) training makes nurses more planned, because they have been trained with disaster scenarios during training. According to Husna, (2012) in (Putri et al., 2021) Training can support nurses' skills in helping disaster victims, namely first aid training, field triage, BCLS, ACLS, disaster drills, and communication training. According to Usher K. et al., (2015), training can support preparedness if it is carried out continuously (Putri et al., 2021)

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the study, it can be concluded that there is no relationship between age, gender, level of education, length of service and participation in disaster training with nurses' competence in carrying out disaster mitigation, both knowledge, attitude and skills. While the level of education with knowledge, length of service with attitude and nurses' competence in disaster mitigation have a significant relationship.

FURTHER STUDY

There are several limitations in carrying out this research, namely the number of respondents does not cover the entire population, the research object only focuses on one variable, even though there are many other variables which are also considered to influence nurses' preparedness, the respondents' answers in the questionnaire do not show the actual situation due to differences in thinking, assumptions , and understanding. It is hoped that further research will be able to prepare better plans including rewards for respondents so that they get the expected results.

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