THE RELATIONSHIP OF AGE AND GENDER WITH DISASTER PREPAREDNESS AMONG EMERGENCY NURSES

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ABSTRACT

Disasters are events that threaten life. It is likely that disaster events will increase globally as a result of climate change. Therefore, there is a need for a strategy to overcome disasters, namely by carrying out disaster management. Nurses have an important role in disaster management, namely by implementing disaster preparedness. Disaster preparedness among nurses is influenced by many factors including age and gender. The aim of this research is to determine the relationship between age and gender and disaster preparedness among emergency nurses at the Sumenep Regency regional health center. The research design is Cross-Sectional. The population in this study was Emergency Nurses at the Sumenep Regency Regional Health Center which involved 7 health centers with a population of 96 nurses. The sampling technique used was total sampling with the independent variables namely gender and age, while the dependent variable was disaster preparedness in emergency nurses. Data collection was carried out using a questionnaire which was filled out directly by nurses working in the Emergency Room. At the beginning, before filling out the questionnaire, the researcher first explained the aims and objectives of the research. Once the respondent understands and is willing to participate, the respondent can immediately fill out the questionnaire. Respondent characteristics and disaster preparedness were analyzed using descriptive statistics, while to determine the relationship between respondent characteristics and disaster preparedness in emergency nurses using the Spearman Rank test. The significance level for analysis was set at 0.05. Results: The results of the study showed that there was a relationship between gender and age and disaster preparedness in emergency nurses (p value <0.05). Conclusion: the older a person gets, the higher their ability to think and work, where women tend to work carefully while men prioritize the end result.

Keywords: disaster management; emergency nurses; preparadness

INTRODUCTION

Disasters are events that threaten life, caused by various factors such as natural, non-natural and human. The impacts of disasters can include high death rates, injuries, infrastructure damage, and significant economic losses for communities (Tas et al., 2020). Predictions show that the frequency of disasters of various types is likely to increase globally due to the impacts of climate change. In 2017, 335 natural disasters were reported that affected more than 95.6 million people and resulted in more than 9,697 deaths (Setyawati, et al., 2020).

Every year, the number of natural disasters in Indonesia continues to increase. According to the National Disaster Management Agency (BNPB), there were 1,567 disaster events recorded at the end of 2014 (BNPB, 2016). This figure increased to 2,342 disaster events in 2016, which resulted in 522 people dying and 2,311 experiencing material damage (Setyawati et al., 2020). In the period January to March 2018, 513 disaster events were recorded, including 182 tornadoes, 157 floods, 137 landslides, 15 forest fires, 10 floods and landslides, 3 earthquakes and 2 volcanic eruptions (BNPB, 2017).

East Java Province is one of the areas that has a high risk of various disasters, including floods, landslides and tornadoes (BPBD, 2016). Of the 38 districts and cities in East Java, 29 of them are classified as areas that are highly vulnerable to disasters (BNPB, 2016). Sumenep

Regency, as one of the districts in East Java, has recently experienced frequent disasters such as floods, landslides and tornadoes.

Disasters can arise suddenly without warning, and there are five main focuses in managing disasters with the aim of reducing the risk, as described by Surianto et al. (2019). This includes understanding disaster risk, improving disaster risk management, investing in risk reduction, increasing disaster preparedness, as well as recovery, rehabilitation and reconstruction efforts. Raising awareness of disaster risks and reducing them is an important first step. One strategy for overcoming disasters is to increase preparedness for them.

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Nurses have the potential to be the first team to respond in a disaster situation, although their role can involve all stages of disaster management, from preparedness to recovery (Putra et al., 2011). This is in line with the principles of the International Council of Nurses (ICN) which recommends that nurses play a role in all aspects of disaster management, including prevention, preparedness, response, as well as rehabilitation and recovery (Park & Kim, 2020).

During the pre-disaster stage, the role of nurses at community health centers is very important. They are responsible for conducting risk evaluations in communities, analyzing vulnerabilities, and creating community hazard maps. Nurses are also involved in organizing disaster prevention activities, such as increasing community preparedness and optimizing early warning systems. In addition, as part of preparing for disasters, nurses can provide counseling and training to the community and implement disaster management training programs (Huriah & Farida, 2010).

From the description above, nurse preparedness is an important part of disaster management. There are many relationships that can influence disaster preparedness, but researchers only examined two relationships that influence nurses' preparedness in disaster management, namely age and gender. According to research by Putri et al., (2022), as people get older, their thinking and working abilities tend to increase. There is a belief in society that adults are more trustworthy than those who are still in the process of maturing, based on the experience and maturity that the adult already has. Budiana, I. et al, (2024) stated that there are no stable differences between men and women in terms of problem-solving ability, analysis, competitive drive, motivation, sociability, or learning ability. However, according to researchers, a person's gender significantly influences their work approach. In general, women tend to work carefully, while men prioritize achieving final results (Jumairah, T. et al, 2019). This study aims to determine the relationship between age and gender with disaster preparedness in emergency nurses.

METHOD
The research design used is Cross-Sectional. The population in this study was Emergency Nurses at the Sumenep Regency Regional Health Center which involved 7 health centers with a population of 96 nurses. The sampling technique used was Total Sampling with the independent variables namely

gender and age, while the dependent variable was disaster preparedness in emergency nurses. The instruments used in this research were a demographic questionnaire to assess age and gender and a Disaster Preparadness Evaluation Tool questionnaire to assess the preparedness of emergency nurses. The demographic questionnaire includes age and gender, where age describes the nurse's age on an ordinal scale and gender includes women and men on a nominal scale. The Disaster Preparadness Evaluation Tool questionnaire has 39 questions using a 1-6 Likert scale covering knowledge before the disaster, skills acquired before the disaster, disaster response knowledge, patient management, rehabilitation knowledge, rehabilitation management. Respondent characteristics and disaster preparedness were analyzed using descriptive statistics, while to determine the relationship between respondent characteristics and disaster preparedness in emergency nurses using the Spearman Rank test. The significance level for analysis was set at 0.05

RESULTS

Based on the results of the variable test on respondent characteristic data which includes gender and age, the following are obtained:

Table 1.
Characteristics of Respondents by Age and Gender

Characteristics	f	%
Age		
<25 years	14	14.6%
26-35 year	50	52.1%
36-45 years	30	31.2%
>45 years	2	2.1%
Gender		
Male	58	60.4%
Femele	38	39.6%

Based on the analysis in table 1, it can be interpreted that the majority are male, 58 people (60.4%), with the largest age range being 26-35 years.

Tabel 2.
Distribution of Disaster Preparedness Respondents

Variable	Min	Maks	Mean	Standard Deviasi
Disaster Management Preparedness	128	219	189.06	22.095

Disaster management preparedness based on the Disaster Preparadness Evaluation Tool (DPET) questionnaire in this study resulted in a minimum score of 128, a maximum of 219 and an average score of 189.06 with a standard deviation of 22,095.

Table 3.
Data Normality Test

Characteristics Respondents	Uji Kolmogrov-Smirnov
Age	0.000
Gander	0.000
Disaster management preparedness	0.010

Results of the Kolmogorov Smirnov test show that all variables have a p value <0.005, which means that the variables age, gender and disaster management preparedness are not normally distributed. Therefore, using the *Spearman Rank* test. Based on the results of bivariate tests on age and gender data with disaster management preparedness, the results were as follows:

Table 4.
Analysis of the Relationship between Age and Disaster Management Preparedness

Variable	Correlation coefficient	P value
Age- Disaster management preparedness	-0.277	0.006

The results of the Spearman Rank test show a p value of 0.006 so that the p value is <0.05, so it can be concluded that in the relationship between age and disaster management preparedness there are emergency nurses in the Sumenep District Health Center with a Correlation coefficient value of -0.277 which indicates weak.

Table 5.
Analysis of the Relationship between Gender and Disaster Management Preparedness.

Variable	Correlation coefficient	P value
Gender-Disaster Management Preparedness	-0.228	0.026

The results of the Spearman Rank test show a p value of 0.026 so that the p value is <0.05, so it can be concluded that there is a relationship between gender and disaster management preparedness in emergency nurses at the Sumenep District Health Center with a Correlation coefficient value of -0.228 which indicates weak.

DISCUSSION
The Relationship Between Age and Disaster Preparedness Among Emergency Nurses
The results of the research based on the Spearman Rank analysis test showed that there was a relationship between age (p 0.006) and disaster preparedness among emergency nurses at the Sumenep District Health Center. Age has a weak relationship with preparedness scores obtained from the correlation strength value (r -0.277). These results are in line with previous findings by Fitriani, N et al., (2019) who stated that age is a factor that influences preparedness, with the assumption that the older a person is, the more mature they are and tend to have access to more information. These findings also support research by Firiani, N. et al., (2019) which concluded that age maturity level can influence preparedness in facing emergency situations. In contrast to the statement, (Putri, S.et al., (2022.) There is an opposite tendency between work motivation and age, as explained by researchers. Younger workers tend to have lower levels of work motivation when compared to those who are older. older. This is caused by a lack of experience and understanding of the realities of the world of work in younger individuals. As a result, young workers often experience disappointment in their work, whichcan result in a negative attitude in carrying out their duties low.

However, Putri et al., (2022) also indicated that as a person gets older, their technical and psychological maturity tends to increase. This reflects the development of mental maturity in line with life experiences. In addition, a person's ability to make decisions, control emotions, think rationally, and accept other people's opinions also usually increases with age. Therefore, the older a person gets, the higher their motivation at work. This is due to the development of overall technical, psychological and personal maturity, which can have a positive influence on work attitudes and performance. Supported by research (Bakri et al., 2020) as a person gets older, their level of maturity, technical skills and psychological aspects will increase. Individuals will become more capable of making decisions, increase wisdom, develop the ability to think rationally, control emotions, and become more tolerant of other people's views. This situation is considered to encourage health workers to be better prepared to face tasks related to disaster management.

The Relationship Between Gender And Disaster Preparedness Among Emergency Nurses

The results of research based on the Spearman Rank analysis test showed that there was a relationship between gender (p 0.026) and disaster preparedness among emergency nurses at the Sumenep District Health Center. Gender has a weak relationship with preparedness scores obtained from the correlation strength value (r -0.228). This finding is consistent with previous research by Fitriani. N., et al., (2019) who identified gender as a division of two sexes that exist from birth and are determined biologically, namely male and female. These differences influence the way individuals think, feel and act, so that gender can influence responses and preparedness in dealing with emergency situations. Meanwhile, according to research (Bakri et al., 2020), it shows that there is no relationship between the gender factor of health workers and preparedness in flood disaster management because according to psychological studies it is found that women are more willing to obey authority, and men are more aggressive and more women are more likely to have hope of success, but this is a very small difference. The research results of Budiana, I. et al, (2024) state that there are no stable differences between men and women in terms of problem-solving ability, analysis, competitive drive, motivation, sociability, or learning ability. However, according to researchers, a person's gender significantly influences their work approach. In general, women tend to work carefully, while men prioritize achieving final results (Jumairah, T. et al, 2019)

CONCLUSION

Based on the research results, the age, gender and level of disaster preparedness among emergency nurses is dominated by those aged 26-35 years and male for both variables. There is a weak but significant positive correlation between age and gender and disaster preparedness among emergency nurses in the Sumenep Regency Work Area, which means that the older a person gets, the higher their motivation at work. This is due to the development of overall technical, psychological and personal maturity, which can have a positive influence on work attitudes and performance. Meanwhile, gender can influence the way individuals think, feel and act, so that gender can influence responses and preparedness in facing emergency situations.

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