

Original Article

**Factors Associated with Nurse Preparedness in Handling Disaster Victims  
in Central Sulawesi**

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**ABSTRACT**

*Several factors influence nurses' preparedness in handling disaster victims. This study aims to identify the factors associated with nurses' preparedness to manage Central Sulawesi disaster victims. Conducted between April and July 2023, this cross-sectional quantitative study involved 124 nurses from Undata Hospital, Anutapura Hospital, Madani Hospital, Bhayangkara Hospital, and Dr. Sindhu Trisno Hospital, selected through total sampling. Preparedness was measured using the Disaster Preparedness Evaluation Tool (DPET). At the same time, knowledge, attitudes, and experiences in disaster management were assessed with the Knowledge, Attitude, and Practices of Disaster Management (KAP DM) questionnaire. Data were analyzed using chi-square and linear regression tests. The chi-square results indicated significant relationships between preparedness and knowledge ( $p=0.004$ ), attitude ( $p=0.045$ ), length of service ( $p=0.037$ ), participation in disaster training ( $p=0.004$ ), and experience in disaster management ( $p=0.028$ ). At the same time, education level showed no significant relationship ( $p = 0.075$ ). Linear regression revealed that knowledge had the strongest influence on preparedness. The study concludes that knowledge, attitudes, length of service, disaster training, and disaster management experience are key factors affecting nurses' preparedness. It is recommended that emergency nurses regularly participate in disaster-related training to enhance their ability to provide timely medical assistance, thereby reducing disaster-related mortality.*

**Keywords:** preparedness; disaster; nurses.

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**INTRODUCTION**

Indonesia is known to be disaster-prone because it is located on a tectonic plate stretching across the archipelago, and systemic activity makes Indonesia very vulnerable to earthquakes, floods, landslides, tsunamis, and other natural disasters.<sup>1</sup> Forest and land fires are the most common natural disasters in September. However, the earthquake, accompanied by a tsunami and liquefaction in Palu City and its surroundings, was the cause of most of the deaths, disappearances, and property damage.<sup>2</sup> A total of 2,227 victims

were reported dead, 965 were declared missing, 2,537 were injured, 66,451 houses were damaged and 1,784 houses were declared lost due to the earthquake, tsunami and liquefaction that hit the cities of Palu, Sigi, Donggala and Parigi Moutong in September 2018.<sup>3</sup> Apart from that, a flash flood disaster also occurred in Beka Village, Sigi Regency in March 2021, causing property damage and loss of life. In March 2022, floods also hit Toli-Toli Regency, Central Sulawesi

Central Sulawesi's high number of disaster incidents requires nurses to be at the

front line in dealing with disaster victims, including emergency cases. This is in line with Schneider's (2019) research, which states that nurses who work in the emergency unit will be at the front line in providing health services to disaster victims.<sup>4</sup> Nurses in the Emergency Unit are the front line in normal situations; their responsibilities increase severalfold during emergencies and emergencies on hospital premises. Self-efficacy and appropriate skills are necessary to save people's lives and improve their health.<sup>5</sup> Disasters can occur anywhere, at any time, in any community. Therefore, nurses need to be prepared to respond so that the negative impact on the affected population can be reduced.<sup>6</sup>

However, research conducted by Januarista (2016) at Undata Regional Hospital, Palu, stated that nurses were less prepared to handle disaster victims and that training was needed to increase nurses' knowledge and skills.<sup>7</sup> Previous research also stated that nurses were less prepared to handle disaster victims.<sup>8,9</sup> Six main factors contribute to nurses' preparedness in disaster management: level of education, length of service, previous disaster response experience, disaster simulation training, family preparedness and support, and Self-Regulation.<sup>10</sup> Another study states that nurses must be prepared to support disaster management in terms of knowledge, skills, self-awareness, interest, intellect, cooperation, and motivation.<sup>11</sup> However, knowledge, attitudes, and experience following previous disaster-related training are considered to contribute the most to nurses' preparedness for disasters. Working in health facilities located in disaster-prone areas presents challenges for nurses.

For nurses to handle disease-related clinical situations competently, they must have the necessary knowledge and abilities. Inadequate knowledge, attitudes, and preparedness can cause medical personnel to provide inadequate care to disaster victims. Other research also states that even though hospitals have provided tools and quality indicators for disaster preparedness, what happens if nursing staff are not equipped with training? This will result in their lack of preparedness to face disasters.<sup>5</sup> However, the literature review shows that no research has been conducted to examine factors related to nurses' preparedness to deal with disaster victims in Central Sulawesi. This research aims

to determine the factors related to nurses' preparedness to deal with disaster victims.

## METHODS

A quantitative research of the cross-sectional approach was conducted at Undata Regional General Hospital (RSUD Undata), Anutapura Regional General Hospital (RSUD Anutapura), Madani Regional General Hospital (RSUD Madani), Bhayangkara Regional Hospital (RS Bhayangkara), and DR. Sindhu Trisno Regional Hospital (RS DR. Sindhu Trisno) from April to July 2023. A total of 124 respondents participated in this study, selected through total sampling technique. Data collection for nurse preparedness is conducted using a questionnaire adapted from the Disaster Preparedness Evaluation Tool (DPET). It has undergone validity and reliability testing, resulting in a Cronbach's alpha internal consistency reliability of 0.949. The questionnaire comprises 38 questions divided into three aspects: knowledge, skills, and disaster response, using a 6-point Likert scale. The scoring system for selected questions is as follows: 6 for 'strongly agree,' 5 for 'agree,' 4 for 'somewhat agree,' 3 for 'somewhat disagree,' 2 for 'disagree,' and 1 for 'strongly disagree.'

To assess knowledge, attitudes, and work experience, a modified version of the KAP DM Questionnaire is used to align with respondents, research conditions, and locations. This questionnaire has undergone validity and reliability testing, resulting in a Cronbach's alpha internal consistency reliability of 0.783. The questionnaire consists of 42 items.

Univariate analysis was carried out to see the frequency distribution of each variable. A chi-square test was carried out to see the relationship between variables with a Confidence Interval (CI) of 95%. To determine which independent variable has the most influence or is related to the independent variable, a linear regression test is used at the real test level  $\alpha=0.05$ . Next, to see how much the independent variable contributes to the dependent variable, look at the coefficient of determination ( $R^2$ ).

This research has been approved by the Health Polytechnic Ministry of Health Ethics Committee in Palu (0067/TKEPK-KPK/V/2023). Respondents are treated confidentially, and participation in the survey is voluntary. There is no conflict of interest in this

research.

## RESULTS

### 1. Demographic characteristics

Table 1 shows the characteristics of the respondents in this study. Based on age category, the majority of nurses who were respondents in this study were 69 people aged 26-35 (55.6%), meanwhile 55 nurses aged 36 - 50 (44.4%). The research results also showed that most nurses were male, namely 67 people (54%) and 57 female nurses (46%).

Based on educational characteristics, the majority of nurses have a background in nursing diploma education which is 73 individuals (58.9%), while 51 individuals (41.1%) have a background in professional nursing education. The research results also indicate that nurses who have worked for more than 3 years are more numerous, totalling 97 individuals (78.2%), while those who have worked for less than 3 years amount to 27 individuals (21.8%).

Based on knowledge about disasters, most nurses had sufficient knowledge, 74 people (59.7%), while 50 nurses (40.3%) had good knowledge. The majority of nurses' attitudes towards disasters were in the quite good category, 79 people (63.7%), while the number of nurses with good attitudes was 45 people (36.3%).

The research results also showed that the majority of nurses, 66 people (53.2%), had never participated in disaster training, while the % of nurses who attended training was 58 people (46.8). Based on experience in disaster management, most nurses had been involved in disaster management. Namely, 70 people (56.5%), and nurses who had never been involved in disaster management 54 people (43.5%). Judging from nurses' preparedness in dealing with disaster victims, there were more nurses whose preparedness was quite good, 63 people (50.8%), compared to 61 nurses whose preparedness was good, 61 people (49.2%).

**Table 1. Distribution of Nurses Based on Research Variables (n = 124)**

Characteristics	Frequency	%
<b>Age</b>		
17 – 35 Years old	69	55.6
36 – 50 Years old	55	44.4
<b>Gender</b>		
Male	67	54.0
Female	57	46.0

Characteristics	Frequency	%
<b>Education</b>		
Diploma Nursing	73	58.9
Professional Nursing	51	41.1
<b>Years of service</b>		
< 3 Years	27	21.8
>3 years	97	78.2
<b>Knowledge</b>		
Enough	74	59.7
Good	50	40.3
<b>Attitude</b>		
Enough	79	63.7
Good	45	36.3
<b>Experience of Participating in Disaster Training</b>		
Never	66	53.2
Ever	58	46.8
<b>Disaster Management Experience</b>		
Never	54	43.5
Ever	70	56.5
<b>Disaster Preparedness</b>		
Enough	63	50.8
Good	61	49.2

### 1. Factors Associated with Preparedness in Disaster Victim Management

The statistical test used is the chi-square test with a confidence level of 95%. The chi-square test results can be seen in Table 2. The research results in Table 2 indicate that out of 73 nurses with a nursing diploma (D3) education, 37 individuals (50.7%) exhibit sufficiently good readiness, while 36 individuals (49.3%) demonstrate good readiness in disaster victim management. Meanwhile, among the 51 nurses with professional nursing education, 26 individuals (50.9%) have sufficiently good readiness, and 25 individuals (40.1%) show good readiness in disaster victim management. The chi-square statistical test yielded a p-value of 0.938 ( $p > \alpha 0.05$ ). This means there is no relationship between the nurses' educational level and readiness in disaster victim management.

The research results also showed that of the 27 nurses whose work experience was <3 years, there were 19 people (70.4%) whose preparedness was quite good in dealing with disaster victims and 8 people (29.6%) whose preparedness was good. Meanwhile, of the 97 nurses whose work period was > 3 years, there were 44 people (45.4%) whose preparedness was quite good, and 53 people (54.6%) whose preparedness was good. The results of

statistical tests using chi-square obtained a value of  $p = 0.037$  ( $p < \alpha 0.05$ ), so  $H_0$  was rejected, and  $H_a$  was accepted. This means

there is a relationship between nurses' work length and preparedness in dealing with disaster victims.

**Table 2. Factors Associated with Preparedness in Disaster Victim Management**

Variable	Preparedness in Disaster Victim Management				Amount		p-value
	Pretty good		Good		n	%	
	n	%	n	%			
<b>Education</b>							
D3 Nursing	37	50.7	36	49.3	73	100	0.938
Professional Nursing	26	50.9	25	49.1	51	100	
<b>Years of service</b>							
< 3 Years	19	70.4	8	29.6	27	100	0.037
≥3 years	44	45.4	53	54.6	97	100	
<b>Knowledge</b>							
Enough	46	62.2	28	37.8	74	100	0.004
Good	17	34.0	33	66.0	50	100	
<b>Attitude</b>							
Enough	46	58.2	33	41.8	79	100	0.045
Good	17	37.8	28	62.2	45	100	
<b>Experience of Participating in Disaster Training</b>							
Never	42	63.6	24	36.4	66	100	0.004
Ever	21	36.2	37	63.8	58	100	
<b>Experience in Disaster Management</b>							
Never	34	63.0	20	37.0	54	100	0.028
Ever	29	41.4	41	58.6	70	100	

The research results also showed that of the 74 nurses whose knowledge was quite good, there were 46 people (62.2%) whose preparedness was quite good in dealing with disaster victims and 28 people (37.8%) whose preparedness was good. Meanwhile, of the 50 nurses who had good knowledge, there were 17 people (34%) whose preparedness was quite good in dealing with disaster victims and 33 people (66%) whose preparedness was good. The results of statistical tests using chi square obtained a value of  $p = 0.004$  ( $p < \alpha 0.05$ ), so  $H_0$  was rejected and  $H_a$  was accepted. This means that there is a relationship between nurses' knowledge and preparedness in dealing with disaster victims.

The research results also showed that of the 79 nurses whose attitudes were quite good, there were 46 people (58.2%) whose preparedness was quite good in dealing with disaster victims and 33 people (41.8%) whose preparedness was good. Meanwhile, of the 45 nurses whose attitudes were good, there were 17 people (37.8%) whose preparedness was quite good in dealing with

disaster victims and 28 people (62.2%) whose preparedness was good. The results of statistical tests using chi square obtained a value of  $p = 0.045$  ( $p < \alpha 0.05$ ), so  $H_0$  was rejected and  $H_a$  was accepted. This means that there is a relationship between nurses' attitudes and preparedness in dealing with disaster victims.

The research results also showed that of the 66 nurses who had never had experience attending disaster training, there were 42 people (63.6%) whose preparedness was quite good in dealing with disaster victims and 24 people (36.4%) whose preparedness was good. Meanwhile, of the 58 nurses who had experience taking part in disaster training, there were 21 people (36.2%) whose preparedness was quite good in dealing with disaster victims and 37 people (63.8%) whose preparedness was good. The results of statistical tests using chi-square obtained a value of  $p = 0.004$  ( $p < \alpha 0.05$ ), so  $H_0$  was rejected, and  $H_a$  was accepted. This means a relationship exists between nurses' experience following disaster training and preparedness in dealing with disaster victims.

Based on experience in disaster management, the study's results showed that of the 54 nurses with no experience in disaster management, there were 34 people (63%) whose preparedness was quite good in handling disaster victims and 20 people (37%) whose preparedness was good. Meanwhile, of the 70 nurses who had experience taking part in disaster training, there were 29 people (41.4%) whose preparedness was quite good in dealing with disaster victims and 41 people (58.6%) whose preparedness was good. The results of statistical tests using chi square obtained a value of  $p = 0.028$  ( $p < \alpha 0.05$ ), so  $H_0$  was rejected and  $H_a$  was accepted. This means a relationship exists between nurses' experience in disaster management and preparedness in handling disaster victims.

## 2. Influence Preparedness in Disaster Victim Management

Using statistical regression analysis tests to find out the independent variables (work period, level of education, knowledge, attitudes, experience of participating in training activities, disaster management experience) which influence the dependent

variable (preparedness in handling disaster victims). The results of the statistical regression test can be seen in Table 3.

Table 3 shows that the p-value of education (0.967), length of service (0.187), attitude (0.055), experience of attending disaster training (0.062) and experience in disaster management (0.481) where  $p > 0.05$ , which means these variables have no significant effect significant impact on nurses' preparedness in dealing with disaster victims. The p-value for knowledge is 0.022 ( $p < 0.05$ ), meaning that knowledge significantly influences nurses' preparedness in handling disaster victims. The better the knowledge, the more positive it will affect nurses' preparedness to handle disaster victims.

The results of the regression test also showed an  $R^2$  value of 0.180. This means the variables (length of service, level of education, knowledge, attitudes, experience of participating in training activities, experience of disaster management) contribute 18% to nurses' preparedness to handle disaster victims, while other variables not studied influence 82%.

**Table 3. Influence Preparedness in Disaster Victim Management**

Variable	B	p	R	R <sup>2</sup>
Education	-0.002	0.967	0.424	0.180
Years of service	0.140	0.187		
Knowledge	0.206	0.022		
Attitude	0.173	0.055		
Experience of Participating in Disaster Training	0.191	0.062		
Experience in Disaster Management	0.071	0.481		

Furthermore, the level of influence between the independent variable (X) and the dependent variable (Y) can be seen from the R-value, namely 0.424 or in the interval 0.40 – 0.599, which means that there is a "quite strong" influence

## DISCUSSION

### 1. The relationship between education level and nurses' preparedness in dealing with disaster victims

Education level has no significant relationship with nurses' preparedness in dealing with disaster victims. This finding aligns with research conducted by Brewer *et al.*, (2020) which stated that there was no

relationship between education and nurses' preparedness in handling disaster victims.<sup>12</sup>

However, this research is not in line with the results of Baker (2021) research, which states that there is a significant difference between nurses' levels of education and their preparedness for dealing with disaster victims.<sup>13</sup> Nurses with a bachelor's degree in nursing or a nursing profession know more about disaster preparedness than nurses with a diploma degree. This is because disaster management is not emphasized at the Diploma level like the Bachelor of Nursing level. However, education is very important to increase nurses' readiness and understanding of their roles and

responsibilities to respond effectively to disaster events. Previous research also suggests a significant relationship between education level and disaster preparedness among US Military Health Care Personnel.<sup>14</sup> Murphy *et al.*, (2021) also stated in their research that education is related to preparedness.<sup>15</sup> Research conducted by Martono *et al.* (2019) states that the level of education can increase nurses' preparedness for disaster management.<sup>1</sup> Nurses who are highly educated have better preparation in dealing with disaster management.<sup>16</sup> Several studies also suggest a positive correlation between education and nurses' preparedness in facing disasters.<sup>17,18</sup> According to researchers, the difference between these findings and previous research is that the education level of most of the respondents in this study was a nursing diploma, so the results were less valid. Further research is needed to determine the relationship between education and nurses' preparedness in dealing with disaster victims.

## **2. The relationship between knowledge and nurses' preparedness in dealing with disaster victims**

The statistical test results show a relationship between knowledge and nurses' preparedness in dealing with disaster victims. This finding is in line with research conducted by Abuadas & Albikawi (2022), which states that there is a relationship between knowledge and nurses' readiness to face disasters.<sup>19</sup> Park & Kim (2017) 's research also revealed that emergency nurses' knowledge of disasters influences their preparedness for managing them.<sup>20</sup>

However, the research results show that more than half of the nurses know fairly well about disaster preparedness. This finding is in line with previous research, which stated that nurses' knowledge of disasters was at a sufficient level or even lacking.<sup>8,12,21</sup> This can be caused by the low level of formal and/or informal disaster management education in curricula and hospitals, lack of awareness of disaster management plans and operational procedures, and the lack of disaster training programs in hospitals where nurses work.<sup>19</sup> Developing disaster education programs for

nursing curricula is recommended as the most effective method for successful disaster preparedness and management.<sup>16</sup> Low levels of knowledge can cause moderate nurse preparedness due to a lack of appropriate training and low motivation of nurses to prepare for incidents and disasters. Lack of incentives, space, equipment, and facilities for manoeuvring, as well as a working atmosphere and less supportive environmental conditions, are other factors that contribute to the level of nurse readiness being moderate or lacking.

However, this research does not align with previous research conducted by Brewer *et al.* (2020), which stated that there was no significant relationship between knowledge and nurses' preparedness in facing disasters.<sup>12</sup> This difference in findings is due to the different research locations.

## **3. The relationship between attitudes and nurses' preparedness in dealing with disaster victims**

The research results show that attitudes are significantly related to nurses' preparedness in dealing with disaster victims. This finding aligns with research conducted by Dewi *et al.* (2020), which suggests a relationship between attitudes and nurses' preparedness in dealing with disaster victims.<sup>22</sup> This research is also in line with Sulistyadi *et al.* (2021), who also stated that there is a relationship between attitudes and the preparedness of medical personnel in disaster management in XYZ Industrial City.<sup>23</sup> Faris (2021), in his research, also stated that there is a significant relationship between attitudes and nurses' preparedness in dealing with disaster victims.<sup>24</sup>

## **4. The relationship between length of work and nurses' preparedness in dealing with disaster victims**

Length of work has a significant relationship with nurses' preparedness for dealing with disaster victims. These findings are in line with the results of research conducted by Brinjee *et al.* (2021), who stated that Saudi Arabian nurses with longer work experience had a more significant level of knowledge in disaster

management compared to nurses who had less experience working in the ER.<sup>25</sup> Nurses with little experience in ER services are advised to attend more training courses and seminars to increase their knowledge and skills in disaster response and management.

The results of this research are also supported by Baker et al. (2019), which suggests a relationship between length of work and nurses' preparedness for disasters.<sup>26</sup> Previous research also suggests significant differences between those who have experienced a disaster before and those who have never experienced a disaster. Nurses who have experience in disaster management are better prepared to face disasters.<sup>12</sup> Emaliyawati *et al.* (2021) also stated in their research that work history has a significant relationship with disaster preparedness. This is because these nurses gain a lot of information and knowledge about disaster management from their work experience.<sup>27</sup> Several studies also suggest a significant relationship between the length of work and disaster preparedness.<sup>25,28,29</sup> Nurses with >3 years of work experience in tertiary hospitals had significantly higher knowledge scores and were better prepared to face disasters than nurses with ≤3 years.<sup>5</sup>

However, it should be noted that nurses who have worked for a long time with a heavy workload may experience a decrease in productivity due to boredom and stress when working as disaster nurses.<sup>30,31</sup> Research conducted by Rizqillah & Suna (2018) states that years of experience as an emergency nurse is no longer statistically significant for disaster preparedness. This is because many emergency nurses act as hospital first responders during community disaster response systems. The more experience participants have as emergency nurses, the higher the likelihood of them experiencing a response to a disaster. Therefore, previous disaster response experience may be more important in improving disaster preparedness than years of experience working in an emergency department for nurses working in an emergency department.<sup>32</sup>

## 5. Relations have attended training on nurse preparedness in dealing with disaster victims

Nurses who have attended training on disasters have a relationship with nurses' preparedness in dealing with disaster victims. This finding aligns with research conducted by Baker (2021), which stated that nurses who received disaster management training were better prepared to face disaster situations than those who did not receive such training. This shows that training is very important to increase nurses' readiness and understanding of their roles and responsibilities to respond effectively to disaster events. Training programs are also very important in obtaining knowledge and skills to help nursing staff prepare to face disaster situations.<sup>13</sup>

Martono *et al.* (2019), in their research, stated that disaster training can increase nurses' preparedness for disaster management.<sup>1</sup> Nurses who have previously attended disaster training are more confident and better prepared to manage the impact of a disaster event.<sup>16</sup> The experience of having attended training is an important strategy to increase the readiness and competence of nurses in dealing with disasters. Previous research suggests that preparedness is higher for nurses who have attended disaster training.<sup>33,34</sup>

However, the results of this study show that more nurses have never attended disaster-related training. This is an input for the hospital to include nurses in training or seminars related to disaster response to increase the ability and readiness of nurses to handle disasters when disasters occur. A systematic review conducted by Labrague et al. (2018) in several articles revealed that nurses who had previously attended disaster training were better prepared to face disasters. Disaster or emergency drills routinely carried out are very helpful in preparing nurses to respond to disasters. Most of the knowledge and skills in dealing with disasters are obtained from training.<sup>33</sup>

This finding is inversely proportional to the results of research conducted by Emaliyawati et al. (2021), which stated that nurses who did not take part in disaster training had a greater

possibility of having a higher level of disaster preparedness than those who had taken part in the training. This is because the training provided was not effective enough to increase nurses' preparedness for disasters, so it is necessary to evaluate the training methods carried out.<sup>27</sup>

#### **6. The relationship between previous experience in disaster management and nurses' preparedness in handling disaster victims**

Previous experience of nurses in handling disaster victims is also significantly related to nurses' preparedness in handling disaster victims. This finding aligns with research conducted by Emiliyawati et al. (2021), which stated that nurses with experience volunteering during disaster conditions have a higher level of self-confidence in dealing with disasters. On the other hand, nurses who have never been involved in disaster management have a lower level of disaster preparedness. Allowing nurses to volunteer in disaster conditions can help them improve their capabilities and the quality of services they provide in disaster conditions.<sup>27</sup> Work experience can help nurses gain more experience, knowledge, and disaster experience.<sup>16</sup> A systematic review conducted by Labrague et al. (2018) in several journals suggests that nurses with previous experience handling disaster victims are better prepared to face disasters.<sup>33</sup>

#### **7. Factors that influence nurses' preparedness in dealing with disaster victims**

The results of statistical tests of regression analysis show that among the 6 factors studied, the knowledge variable has the strongest and most significant influence on nurses' preparedness in handling disaster victims and the better the knowledge, the more positive influence it will have on nurses' preparedness in handling disaster victims. However, the results show that more than half of nurses know fairly well about disaster preparedness. So, it is recommended that nurses increase their knowledge through training and seminars related to disasters. It is also hoped that decision-makers in hospitals will send

nurses, especially those who work in the ER, to take part in training, seminars, workshops and even simulations related to disasters, especially nurses who lack experience, so they can learn to manage their responsibilities during a disaster. Apart from that, based on the research results, it is known that more than half of the respondents had at least a Diploma in nursing education. So it is recommended to continue your education to a higher level. Knowledge can increase through education, training and experience. Nurses who regularly attend training will provide a sense of self-confidence because they have sufficient awareness of disaster management practices and procedures.

The findings of this study assert that knowledge, attitude, and experience in attending disaster training contribute to nurses' preparedness in disaster management. Good knowledge, attitudes, and experience in disaster-related training will instil confidence in nurses and make them more prepared to face disasters. This has a direct impact on minimizing and containing the number of victims and deaths in disasters

### **CONCLUSION**

Knowledge, attitude, length of service, previous training, and experience in disaster management correlate with nurses' preparedness in disaster management, while education level has no relationship. Knowledge is the most influential variable. Emergency room (ER) nurses are recommended to consistently participate in disaster-related training. This will guarantee that they are prepared to offer medical assistance to victims of disasters to reduce and contain the number of people who die from catastrophes.

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