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Evaluation of Disaster Preparedness Perceptions of Emergency Health Personnel: Descriptive Research

Acil Sağlık Personellerinin Afete Hazırlık Algılarının Değerlendirilmesi: Tanımlayıcı Araştırma

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ABSTRACT Objective: The study was conducted to determine the disaster preparedness perceptions of emergency health personnels. The population of the descriptive study consisted of 150 emergency health personnels in hospitals in Sivas province. **Material and Methods:** It was aimed to reach the entire population, and when the margin of error was calculated as 0.5% with a 95% confidence interval, 107 personnel were reached, while the required sample size was 99. "Individual Characteristics Form" and "Perception of Disaster Preparedness Scale" prepared in line with the literature were used as data collection tools. The data were evaluated using SPSS program. **Results:** The mean age of the health care personnels who participated in the study was 28.91±5.66, and it was determined that the majority of the participants were female (67.3%), had a bachelor's degree (47.7%), had 1-5 years of work (57.9%) and worked as nurses (64.5%). According to the answers given for disaster preparedness, it is seen that 81.3% of them are partially prepared and 57.9% of them think that they are not prepared at all for disasters as a country. **Conclusion:** The disaster preparedness scale score is 79.90±15.71 and it is seen that although their disaster preparedness is at a good level, it is not possible to talk about a complete preparedness. When it is considered that healthcare workers with high disaster awareness and readiness can intervene in disaster victims on-site and quickly in health intervention, it is essential to define the perceptions of disaster preparedness in all healthcare workers.

Keywords: Disasters; disaster preparedness; emergency medical service; health personnel

ÖZET Amaç: Çalışma, acil sağlık personellerinin afete hazırlık algılarını belirlemek amacıyla tanımlayıcı olarak planlanmıştır. Tanımlayıcı tipte yürütülen araştırmanın evrenini Sivas ilinde bulunan hastanelerde doktor, hemşire, acil tıp teknisyeni ve acil teknikeri olarak görev yapan 150 acil sağlık çalışanı oluşturmaktadır. **Gereç ve Yöntemler:** Evrenin tamamına ulaşılması hedeflenmiş, %95 güven aralığında, hata payı %0,5 olarak hesaplandığında minimum ulaşılması gereken örneklem büyüklüğü 99 iken 107 personele ulaşılmıştır. Veri toplama aracı olarak, literatür doğrultusunda hazırlanan 15 soruluk "Bireysel Özellikler Formu" ve "Afete Hazırlık Algısı Ölçeği" kullanılmıştır. Veriler SPSS 21.0 paket programı kullanılarak değerlendirilmiştir. **Bulgular:** Çalışmaya katılan sağlık çalışanlarının yaş ortalamaları 28,91±5,66 olarak belirlenirken, katılımcıların çoğunluğunun kadın (%67,3), lisans mezunu (%47,7), 1-5 yıl arası çalışma yılında (%57,9) ve hemşire olarak görev yaptıkları (%64,5) belirlenmiştir. Afetlere hazır oluşluklarına verilen cevaplara göre ise %81,3'ünün kısmen hazır olduğu ve afetlere ülke olarak hazır oluşluğa bakıldığında, ülkenin afetlere %57,9 oranında hiç hazır olmadığı görüşünde oldukları görülmektedir. **Sonuç:** Afete hazırlık algılarının, ölçek ile değerlendirildiği çalışmamızda, sağlık çalışanlarının ölçek puanının 79,90±15,71 olduğu ve afete hazırlıklarının iyi düzeyde olmasına rağmen, tam bir hazır oluşluktan söz edilemeyeceği görülmektedir. Acil serviste görev yapan sağlık personelinin afet ve acil durumlara hazırlıklı olmalarında hastane afet planının tüm çalışanlara bildirilmiş olmasının yanı sıra, çalışanların afetlere hazırlık eğitimleri ve tatbikatlarla desteklenmeleri gerekmektedir. Özellikle, yeni göreve başlamış sağlık personelinin afet yönetimi için hizmet içi eğitim alması gerekliliği önemlidir. Afet farkındalığı ve hazır oluşluğu yüksek sağlık çalışanlarının sağlık müdahalesinde de afetzedelerde yerinde ve hızlı müdahale edebileceği düşünüldüğünde, tüm sağlık çalışanlarında afete hazırlık algılarının tanımlanması oldukça elzemdir.

Anahtar Kelimeler: Afet; afete hazırlık algısı; acil servis; sağlık personeli

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There are many definitions of disaster. According to the World Health Organization disaster; is defined as "all kinds of natural, technological or human-induced events that cause loss of life and property for people, affect the society in physical, psychological and economic aspects and cannot be coped with local opportunities".[1]

The International Center for Research on the Epidemiology of Disasters reported that in 2018, 10,733 people died worldwide due to disasters and more than 60 million people were adversely affected.[2]

The reasons for the loss of life in disasters include population density, lack of building standards, lack of disaster planning, failure to provide rescue and debris removal organizations, insufficient local medical facilities or severe damage to the said institutions and organizations during the disaster. From past to present, every country has made various plans to minimize the impact of disasters, created communities for effective response to disasters and determined regulations.[3]

Due to climatic conditions and geographical location in our country, natural disasters are frequently encountered. The most common natural disasters in Türkiye are earthquakes, fires, droughts, floods and landslides, floods, epidemics, extreme hot and cold climate imbalances, avalanches and rockfalls.[4]

The fact that our geography is open to many disasters requires all individuals in the society to be conscious about disasters. However, in the opposite direction, disaster education studies are few and the disaster awareness level of individuals is very low.[5,6] In addition to these, health, safety, fire brigade, etc., which will take an active role in disasters, according to the curricula examined the vocational training of its personnel is also quite inadequate.[4] However, every individual may experience a possible fire, earthquake, flood, etc. are likely to encounter such events. Therefore, these employees should be a role model for the public, and they should have the knowledge and skills to save themselves and then their environment in case of any disaster.[7] Otherwise, the personnel who will take part in the disaster response process will also become disaster victims and will not be able to take part in the response.[8]

Disasters, including natural and man-made disasters, often create a need that exceeds the capacity of the existing health system. Meeting this capacity effectively requires careful preparation. While it is true that extraordinary emergencies cannot be prevented or controlled, preparedness at all levels, including individuals, families, healthcare professionals and community organizations, is vital for citizens to respond successfully.[9]

The only way to get out of sudden events with the least damage is to create possible scenarios and prepare for the situation in advance. Disasters are events that develop suddenly and cause destruction in many ways. A healthy disaster management depends on recognizing disasters well and disciplining all stakeholders who will take part in the process.[10]

Health institutions constitute an important part of the studies in the management process of disasters and emergencies.[6] Considering the studies conducted in Türkiye, it can be said that studies on the preparedness of hospitals for disasters and emergencies are being carried out and especially with the effects of legal regulations, improvements have been detected in the results obtained in these studies over the years.[11, 12] When the studies conducted with health professionals in disaster management are examined, it is seen that these studies were conducted especially with nurses.[13]

Hospitals that provide uninterrupted service and fulfill emergency aid and life-saving roles have an active role in disasters with patient care, medical support and institutional support activities.[4] The roles of hospitals continue in the post-disaster period. For this reason, it is a necessity for healthcare personnel to have the knowledge and skills to fulfill their responsibilities and roles in the disaster plan in order to play an effective role during and after the disaster.[6]

Emergency Health Services (EHS) are one of the indispensable support teams of the response phase of the disaster management process. As a result of the literature review, studies and researches have been found for many institutions related to the situation detection and preparation process, but no study has been found for EHS that will take the first place and undertake vital tasks within the scope of disaster re-

sponse. In the light of all this information, the aim of this study is to determine the level of disaster awareness perception of EHS employees and to provide suggestions to improve the level of disaster awareness perception of these employees based on the findings obtained from the research.

MATERIAL AND METHODS

SAMPLE OF THE STUDY

The study was conducted in a descriptive type with the dimension of determining the disaster preparedness, perceptions of preparedness and the factors affecting them. The population of the study consisted of all emergency health workers (n=150) working as doctors, nurses, emergency medical technicians (EMTs) and technicians in hospitals in Sivas province. It was aimed to reach the entire population, and when the margin of error was calculated as 0.5 at 95% confidence interval, the minimum sample size to be reached was 99 but 107 personnel were reached.

DATA COLLECTION TOOLS

"Individual Characteristics Form" with 15 questions and "Disaster Preparedness Perception Scale" will be used as data collection tools. The forms were collected by face-to-face form filling technique.

INDIVIDUAL CHARACTERISTICS FORM

In line with the literature, the researcher prepared 5 questions inquiring about the socio-demographic characteristics of the participants such as age, gender, and title, as well as 10 questions to find out whether they had any previous disaster experience.[10,13,14]

DISASTER PREPAREDNESS PERCEPTION SCALE

The scale used in the study was developed by Özcan by utilizing the scale developed by Fung, Loke, and Lai for nurses in Hong Kong.[15,16] While the "Scale of Disaster Preparedness Perception in Nurses" consisted of 35 items as a draft, it was reduced to 20 items after receiving opinions and suggestions from 10 nurses, new questions were presented to language experts and a draft scale with 24 items was created. The draft scale was presented to 6 experts for the Content Validity Index, and the experts evaluated each item of the scale between 1-4 points in terms of "relevance, simplicity, clarity, comprehensibility", "(1: Not related to the subject, 4: Related to the subject; 1: Not simple; 4: Very simple; 1: Not clear; 4: Very clear, 1: Not comprehensible; 4: Very comprehensible)" and the final version was applied to 20 nurses for pilot study after making minor corrections in line with the opinions.[15] As a result, the scale was reduced to 20 items.

The scale is discussed under 3 headings:

- Preparation phase (questions 1-6)
- Intervention phase (questions 7-15)
- Post-disaster phase (questions 16-20)

The items of the scale are five-point Likert type "1. Strongly disagree, 2. Disagree, 3. Partially agree, 4. Agree, 5. Strongly agree". As the score obtained from the scale increases, the perception of disaster preparedness also increases. The reliability values of the scale sub-dimensions are respectively; It is α=0.872 in the "Disaster Preparedness Phase" dimension, α=0.889 in the "Disaster Response Phase" dimension, and α=0.877 in the "Post-Disaster Phase" dimension. In the reliability analysis conducted within the scope of the study, Cronbach's alpha coefficient was calculated as 0.833 and this result shows that the survey statements and research data are reliable.

STATISTICAL ANALYSIS

Normality of the data was examined by Kolmogorov-Smirnov test. Number, percentage and continuous variables such as mean±standard deviation were used to analyze the descriptive characteristics of the employees. If the data met the parametric conditions, they were analyzed with independent sample t test for two independent groups and F test [Analysis of variance (ANOVA)] for more than two groups and the error level was taken as 0.05.

ETHICAL APPROVAL

Before starting the study, a decision was taken from the Sivas Cumhuriyet University Non-Interventional Clinical Research Ethics Committee (date: March 22; 2023; no: 2023-03/04), where the study will be conducted, and is presented in the appendix. Participants

were included in the study with their verbal consent and the Declaration of Helsinki principles was complied with. Written informed consent was obtained from the participants.

RESULTS

In this section, the findings related to the research results are given. First, there are descriptive statistics about the demographic information of the people who participated in the survey. In this context, frequency analyzes related to the gender, age, occupation, education level and working years of the participants were included. Table 1 shows the socio-demographic characteristics of the participants (Table 1).

According to this, the majority of the participants were female (67.3%), undergraduate (47.7%),

TABLE 1: Socio-demographical characteristics of the participants.

	Feature	n (Number)	%
Sex	Female	72	67.3
	Male	35	32.7
Education levelHigh school	10	9.3	
	Associate degree	22	20.6
	Licence	51	47.7
	Master's degree	24	22.4
Length of service in the emergency department	Less than 1 year	11	10.3
	1-5 years	62	57.9
	6-10 years	17	15.9
	11-15 years	17	15.9
Your title	Emergency medical technician	6	5.6
	Nurse	69	64.5
	Technician	19	17.8
	Doctor	13	12.1
What is the definition of disaster according to you?	Natural disasters such as earthquakes, floods, hurricanes	3	2.8
	Terrorist acts with biological, chemical or explosive agents	2	1.9
	Electricity or nuclear power plant accidents	5	4.7
	Infectious disease outbreaks	5	4.7
	All	92	86.0
Have you received disaster training?	Yes	64	59.8
	No	43	40.2
Have you experienced a disaster?	Yes	62	57.9
	No	45	42.1
Did you care for the disaster victims?	Yes	71	66.4
	No	36	33.6
Do you have a disaster plan at the station where you work?	Yes	85	79.4
	No	22	20.6
Did you participate in the disaster drill?	Yes	60	56.1
	No	47	43.9
What do you think is the role of the	Crime scene manager	62	57.9
emergency health worker in disasters?	Search and rescue	9	8.4
	Psychological support	36	33.6
What is your disaster priority?	Evacuation of many patients	27	25.2
	Implementation of the directives of the competent person	19	17.8
	Following the disaster plan protocol	61	57.0
Training you would like to receive?	CBRN-E	26	24.3
	(Chemical, biological, radiological, nuclear and Industrial accidents) training		
	Basic disaster awareness training	38	35.5
	Sabotage training	28	26.2
	None	15	14.0
Are you ready for disasters?	Not ready at all	13	12.1
	Partially ready	87	81.3
	Completely ready	7	6.5
Do you think our country is ready for disasters?	Not ready at all	62	57.9
	Partially Ready	45	42.1

working as a nurse (64.5%), working years were between 1-5 years (57.9%), having previously received disaster training (59.8%), but it consists of emergency health workers who have not experienced disasters (57.9%) and provided care to disaster victims (66.4%). In addition to these, it is seen that the vast majority (79.4%) of the stations where health workers work has an emergency disaster plan, and most of them (56.1%) have participated in a disaster drill at least once before. While most of the participants (57.9%) see the role of emergency health workers as 'Scene Manager' in disasters, they stated that their priority in disasters (57.0%) is to 'follow the disaster protocol' in the unit they work. The participants, who were asked which subject they would like to receive training on if a training plan were made on the subject, stated that they would like to receive the "Basic Disaster Awareness" training (35.5%). Finally, when they were questioned about the preparedness of both themselves and their countries for disasters, they stated that very few (6.5%) of the healthcare professionals were fully prepared for disasters, and that their country was largely (57.9%) not prepared for disasters.

Table 2 shows the mean and standard deviations of the participants' age and Disaster Awareness Scale. Accordingly, the mean age of the participants was 28.91±5.66, while the mean total score of the Disaster Awareness Scale was 79.90±15.71. In addition, it is seen that the mean score for the Preparation Phase was 25.92±5.52, the mean score for the Response Phase was 34.36±7.58 and the mean score for the Post-Disaster Phase was 19.61±4.64. When the general scale average is evaluated, it can be said that the disaster awareness of emergency health workers is high. It is thought that the recent major earthquake disaster was also effective in the development of this awareness.

Table 3 shows the ANOVA results for determining the differences between some socio-demographic characteristics of the participants and the mean scores of the scale and sub-dimensions (Table 3).

According to this table, there is a statistically significant relationship between the education level of the participants and the total score of the disaster awareness scale ($p<0.05$). It is seen that the disaster awareness of emergency health workers with high school graduates is the lowest and the awareness of health workers with associate degree is the highest.

DISCUSSION

In this section, the findings of the study are compared with the results of the studies in the literature. In our study, when both their own and their countries' preparedness for disasters were questioned, very few healthcare workers (6.5%) stated that they were fully prepared for disasters, while their countries were largely unprepared for disasters (57.9%). Similar results were found in many studies evaluating the preparedness of healthcare workers for disasters in the literature and it was observed that healthcare workers stated that they and their countries were not prepared for disasters.[17-19] In a similar study, it was observed that healthcare personnel were not prepared for disasters.[6]

It was observed that the disaster awareness of emergency health workers with high school graduation was the lowest and the awareness of health workers with associate degree was the highest. It is thought that the higher the level of education, the higher the

TABLE 2: Ages of the participants, Sub-Dimensions of the Disaster Awareness Scale and Total Scale Scores.

	Minimum	Maximum	Mean	SD
Age	22	47	28.91	5.66
Preparation phase	7.00	31.00	25.92	5.52
Intervention phase	10.00	45.00	34.36	7.58
Post-disaster stage	6.00	25.00	19.61	4.64
Total Scale score	23.00	100.00	79.90	15.71

SD: Standard deviation.

TABLE 3: Comparison of some socio-demographical characteristics of the participants with scale scores.

Socio-Demographical Feature		Preparation phase	Intervention phase	Post-Disaster stage	Total scale
Education status	High school	24.60±6.39	32.40±7.47	17.70±5.75	74.70±16.27
	Associate degree	28.50±3.30	36.50±6.23	21.09±3.81	86.09±12.22
	Licence	25.64±4.95	34.62±7.20	19.76±4.19	80.03±14.21
	Postgraduate	24.70±7.25	32.66±9.24	18.75±5.51	76.12±19.89
	F	0.1201	0.3323	0.1005	0.0103*
Year of operation	Less than 1 year	24.54±8.29	32.72±6.42	19.09±5.28	76.36±16.13
	1-5 years	26.64±3.93	34.33±6.84	19.43±4.45	80.41±13.13
	6-10 years	23.94±8.41	33.52±10.80	19.23 ± 6.20	76.70±24.14
	11-15 years	26.17±4.68	36.35±7.28	21.00±3.00	83.52±14.07
	F	0.4661	0.4922	0.6113	0.5355
Title	EMTs	22.00±6.57	33.00±8.29	19.00±4.69	74.00±18.01
	Nurse	25.57±6.19	34.37±8.38	19.84±5.17	79.79±17.80
	Technician	27.94±2.61	36.00±5.41	20.31±3.11	84.26±9.20
	Doctor	26.61±2.90	32.53±5.30	17.69±3.14	76.84±7.89
	F	0.6883	0.6501	0.4808	0.3542
The role of the emergency worker in disasters	Crime Scene Manager	25.82±5.32	33.77±7.03	18.67±4.42	78.27±14.91
	Search and rescue	23.77±3.70	30.88±4.42	16.55±5.31	71.22±11.09
	Psychological support	26.63±6.17	36.25±8.71	22.00±3.85	84.88±16.81
	F	0.2412	0.0704	0.2834	0.3287
Your priority in disasters?	Evacuate more patients	26.07±6.72	35.62±10.25	19.85±5.86	81.55±21.75
	Comply with authorized person directives	23.96±5.70	31.42±7.55	17.36±5.35	72.73±15.54
	Monitoring disaster protocol	26.47±4.79	34.72±5.94	20.21±3.55	81.40±11.79
	F	0.1935	0.0902	0.0491*	0.0877
Which training would you like to take?	CBRN-E	25.38±7.15	35.23±9.81	20.15±5.30	80.76±21.22
	Basic disaster awareness	27.52±4.24	34.36±6.13	20.44±3.67	82.34±11.97
	Sabotage training	24.21±4.65	32.89±6.22	17.47±4.86	74.28±13.66
	None	26.00±6.08	35.60±9.04	21.13±3.87	82.73±15.38
	F	0.1574	0.6118	0.0669	0.2455
Do you feel ready for disasters?	I'm never ready	27.51±3.38	35.04±7.13	20.46± 4.09	83.03±12.76
	I'm partially ready	23.73±7.01	33.42± 8.14	18.44±5.12	75.60±18.34
	I'm fully ready	25.92±5.52	34.36±7.58	19.61± 4.64	79.90±15.71
	F	0.0109*	0.2703	0.0205*	0.0103*
Gender	Female	26.00±4.81	34.31±6.69	19.54±4.37	79.86±13.60
	Male	25.77±6.83	34.45±9.25	19.77±5.22	80.00±19.58
	p value	0.1001	0.1345	0.3002	0.0487*
Do you think your country is ready for disasters?	Not ready at all	27.51±3.38	35.04±7.13	20.46±4.09	83.03±12.76
	Partially ready	23.73±7.01	33.42±8.14	18.44±5.12	75.60±18.34
	p value	0.0098*	0.2706	0.0205*	0.0134*
Have you experienced disaster?	Yes	25.95±5.44	35.17±7.79	20.22±4.48	81.35±16.47
	No	25.88±5.69	33.24±7.22	18.77±4.78	77.91±14.55
	p value	0.1982	0.0256*	0.2440	0.6603
Have you received Disaster training?	Yes	25.68±5.89	35.65±7.46	20.59±4.36	81.93±16.31
	No	26.27±4.96	32.44±7.42	18.16±4.72	76.88±14.43
	p value	0.0334*	0.0485*	0.3302	0.0189*
Did you care for the disaster victims?	Yes	25.42±6.09	34.14±8.02	19.35±5.01	78.90±16.86
	No	26.91±4.07	34.80±6.72	20.16±3.83	81.88±13.15
	p value	0.1431	0.2998	0.1875	0.3464
Does your unit have a disaster plan?	Yes	26.52±5.15	35.27±7.30	19.94±4.79	81.74±15.79
	No	23.57±6.35	30.86±7.77	18.36±3.83	72.81±13.52
	p value	0.2643	0.4675	0.2413	0.0105*
Did you participate in the disaster drill?	Yes	27.33±3.27	36.08±5.98	20.66±3.67	84.08±11.08
	No	24.12±7.11	32.17±8.82	18.27±5.40	74.57±18.96
	p value	0.0166*	0.0251*	0.0187*	0.0167*

*p<0.05, significant; EMTs: Emergency medical technicians; CBRN-E: Chemical, biological, radiological, nuclear and Industrial accidents.

disaster awareness and trainings on possible disaster scenarios will significantly increase the disaster awareness of healthcare workers. Similar results were found in the study conducted by Fernandez et al. and a positive correlation was found between education level and disaster preparedness.[20] On the other hand, Öter et al. found that education level did not affect disaster awareness and Dinçer and Kumru et al. found similar results with our study.[5,6]

Although there was no significant relationship between the years of employment and disaster awareness of emergency health workers, it was observed that disaster awareness increased as the years of employment increased. In the study by Dinçer and Kumru, it was observed that disaster awareness increased with increasing years of service.[6] Experiences gained and increase in cases seen and intervened may contribute to the development of awareness. In the study conducted by Basal and Ahmet, a positive correlation was found between the duration of experience and nurses' perception of disaster preparedness.[21]

As another demographic characteristic, when the disaster awareness of the employees was evaluated according to their titles, it was observed that the disaster awareness of EMTs was lower compared to other titles. This result is in parallel with the result that disaster awareness of employees with low education level is low. In the study conducted by Taşkıran, it was concluded that nurses had less disaster experience.[17] When the priorities of the participants in possible disasters are evaluated, it is seen that the disaster awareness of the employees who follow the disaster protocol is higher.

As another demographic characteristic, the participants were asked whether they felt themselves ready for disasters and it was observed that the disaster awareness of healthcare workers who never felt themselves ready for disasters was high. In fact, this situation can be interpreted as a decrease in preparedness as disaster awareness increases. There are studies with similar results in the literature.[6,22] Although every information increases awareness, it may create a feeling of not being ready for a disaster. It is seen that the disaster preparedness of the participants' countries is also effective on individual preparedness. People who think that their country is not prepared for earthquakes have higher levels of earthquake preparedness and awareness. This relationship is statistically significant ($p<0.05$).

When the disaster preparedness of the participants is evaluated according to their gender, it is seen that the preparedness of male healthcare workers is higher and the difference is statistically significant ($p<0.05$). In other words, disaster awareness of male healthcare workers is higher. In similar studies conducted in the literature, it was found that gender had no significant effect on disaster awareness.[5,6] In our study, it may be thought that women were more psychologically affected by disasters such as earthquakes due to their emotional structures and different social roles and this psychology prevented them from feeling ready for earthquakes.

In many studies, it has been found that the disaster preparedness of healthcare workers who provide care to disaster victims is higher, but in our study, contrary to this information, it is seen that the preparedness of employees who do not provide care to disaster victims is higher. However, the difference was statistically insignificant ($p>0.05$).[14,23] This finding can be interpreted as employees who have not experienced a disaster before feel more prepared for a disaster and cannot predict what might happen.

Şen and Ersoy conducted a study to determine the level of knowledge of hospital emergency personnel about emergencies and disaster preparedness.[24] In this study, it was determined that the level of knowledge of the personnel about the disaster team and hospital disaster plan was insufficient and their disaster awareness increased after receiving disaster preparedness training. In another study, it was shown that disaster trainings increased disaster awareness with a similar result.[5]

In another study, it was observed that the perceptions of disaster preparedness levels of employees who received disaster training were higher than those who did not receive disaster training.[10,25,26] In our study, it is seen that the disaster preparedness of the employees who received disaster training increased significantly. In addition, disaster awareness

was also significantly higher in employees who underwent disaster drills ($p<0.05$). According to Oyanık and Cengiz, systematic earthquake drills in Japan inform the public and create a state of alertness against disasters and emergencies, thus increasing the chances of survival by making the right choices in case of any disaster and emergency.[22]

It is seen that having disaster plans in the units where the participants work strengthens their disaster preparedness. In the study conducted by Öter et al., it was determined that healthcare workers did not know the procedure to be applied in case of a disaster.[5] When evaluated as an expected result, it is possible that employees with a high level of knowledge about the disaster protocol will also have a high level of disaster awareness. These results show that increased awareness, experience and participation in related processes about disasters and emergencies lead to a positive effect on disaster preparedness.

Therefore, including healthcare workers in disaster preparedness activities as much as possible will help them gain disaster awareness. It is seen that periodical trainings and drills to be given to healthcare workers are very effective on their disaster preparedness.

CONCLUSION

Nowadays, while the disasters that are frequently on the agenda and expected to occur in the near future are discussed, it is very important to determine the disaster readiness of health personnel working in EHS. In disasters, the adaptation of the personnel, who are capable of actively serving as both crime scene manager, search and rescue personnel and post-disaster psychological support personnel, to the process passes through their readiness. In our study, it was observed that the educational status of emergency health workers was effective on their disaster awareness, and their awareness increased as the years of employment increased. It was also observed that awareness of male employees and those who had received disaster training before increased. According to the results of the study, it was determined that having a disaster plan in the unit where they work and having previous drills were also effective on disaster awareness. Hospitals have basic duties such as uninterrupted patient care and disaster support activities. In order to maintain these duties, they need conscious and trained healthcare professionals. It is also very important and necessary to increase the disaster preparedness of healthcare personnel in order to take effective duty in possible disaster situations, to plan in-service trainings, and to raise social disaster awareness.

Accordingly;

- Providing in-service trainings to emergency health workers periodically on the requested training topics,
- Periodically planning drills on disaster, emergency response and basic disaster awareness,
- Selecting health personnel working in emergency services from people who have undergone a qualified vocational training and bringing their education level to at least associate degree level,
- Having disaster plans in the stations where they work,
- Since it was determined that it positively affected the readiness of the employees, considering that the disaster preparedness of healthcare personnel increases as the number of years of working in the emergency department increases, it may be recommended that each service should establish an emergency disaster plan and protocol and that personnel working in special units should be fixed in the units where they work.

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Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: *Fatma Hastaoğlu;* ***Design:*** *Fatma Hastaoğlu;* ***Control/Supervision:*** *Pelin Çelik;* ***Data Collection and/or Pro-***

cessing: *Pelin Çelik;* ***Analysis and/or Interpretation:*** *Fatma Hastaoğlu;* ***Literature Review:*** *Pelin Çelik;* ***Writing the Article:*** *Fatma Hastaoğlu;* ***Critical Review:*** *Pelin Çelik;* ***References and Fundings:*** *Pelin Çelik;* ***Materials:*** *Fatma Hastaoğlu.*

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