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Evaluation of Disaster Preparedness Perceptions of Prehospital Emergency Health Workers: Kayseri Case

Hastane Öncesi Acil Sağlık Çalışanlarının Afet Hazırlık Algılarının Değerlendirilmesi: Kayseri Örneği

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Abstract

Aim: The aim of this study was to determine the disaster preparedness perceptions of prehospital emergency healthcare workers and to ascertain whether these perceptions vary according to their demographic characteristics. **Materials and Methods:** A total of 246 prehospital emergency healthcare workers participated in the study, which was conducted in Kayseri Province. The "HASPAHA Scale," consisting of 28 statements, was utilized in the research. SPSS 22 package program was used in the analysis of the data obtained by the survey technique, and descriptive analysis, correlation analysis, t-test and ANOVA analysis were used to analyse the data. **Results:** In this study, there were significant differences in the overall disaster preparedness perceptions of prehospital emergency healthcare workers based on gender and educational status, while no significant differences were observed based on age group, title, or length of service. The desirability sub dimension of disaster preparedness perception varied according to educational status, while the significance sub dimension differed based on gender, age group, and educational status. Additionally, the self-efficacy and intervention skills sub dimensions exhibited significant differences based on gender and educational status, and the benefit sub dimension showed significant differences based on gender, age group, title, and educational status. Furthermore, it was determined that the disaster preparedness perceptions of prehospital emergency healthcare workers did not vary based on their experiences of encountering disasters or their involvement in disaster response situations. **Conclusion:** The research findings indicate that prehospital emergency healthcare workers' perceptions of disaster preparedness are significantly above average and vary according to certain demographic characteristics. Due to the insufficient literature on the subject, this study contributes to the relevant literature and serves as a reference for practitioners in disaster preparedness and planning processes, providing valuable insights for their utilization.

Öz

Amaç: Bu çalışmanın amacı, hastane öncesi acil sağlık çalışanlarının afete hazırlık algılarını belirlemek ve bu algıların demografik özelliklerine göre değişip değişmediğini tespit etmektir. **Gereç ve Yöntem:** Kayseri ilinde gerçekleştirilen çalışmaya toplam 246 hastane öncesi acil sağlık çalışanı katılmıştır. Araştırmada 28 ifadeden oluşan "HASPAHA Ölçeği" kullanılmıştır. Anket tekniği ile elde edilen verilerin analizinde SPSS 22 paket programı kullanılmış, verilerin analizinde betimsel analiz, korelasyon analizi, t testi ve ANOVA analizi kullanılmıştır. **Bulgular:** Araştırma bulguları, hastane öncesi acil sağlık çalışanlarının afete hazırlık algılarının ortalamanın önemli ölçüde üzerinde olduğunu ve belirli demografik özelliklere göre değiştiğini göstermektedir. Bu çalışmada, hastane öncesi acil sağlık çalışanlarının genel afete hazırlık algılarında cinsiyet ve eğitim durumuna göre anlamlı farklılıklar bulunurken, yaş grubu, unvan veya hizmet süresine göre anlamlı farklılıklar gözlenmemiştir. Afete hazırlık algısının istenirlik alt boyutu eğitim durumuna göre farklılık gösterirken, anlamlılık alt boyutu cinsiyet, yaş grubu ve eğitim durumuna göre farklılık göstermiştir. Ayrıca, öz yeterlilik ve müdahale becerileri alt boyutları cinsiyet ve eğitim durumuna göre anlamlı farklılıklar gösterirken, fayda alt boyutu cinsiyet, yaş grubu, unvan ve eğitim durumuna göre anlamlı farklılıklar göstermiştir. Ayrıca, hastane öncesi acil sağlık çalışanlarının afete hazırlık algılarının afetlerle karşılaşma deneyimlerine veya afet müdahale durumlarına katılımlarına göre değişmediği tespit edilmiştir. **Sonuç:** Araştırma bulguları, hastane öncesi acil sağlık çalışanlarının afete hazırlık algılarının ortalamanın önemli ölçüde üzerinde olduğunu ve belirli demografik özelliklere göre farklılık gösterdiğini göstermektedir. Konuyla ilgili literatürün yetersizliği nedeniyle, bu çalışma ilgili literatüre katkıda bulunmakta ve afete hazırlık ve planlama süreçlerinde uygulayıcılar için bir referans niteliği taşımakta ve kullanımları için değerli bilgiler sağlamaktadır.

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INTRODUCTION

Disasters are the consequences of natural or human-induced events that significantly affect, disrupt, and cause physical, social, and economic losses and damage beyond the capacity of society to cope with disasters (1, 2). Disasters are classified as natural disasters (such as earthquakes, floods, and landslides) or human and technology-induced disasters (socioeconomic structures, environmental pollution, war, and traffic accidents), and when they occur, they can cause severe damage. Despite technological advancements, there has been a significant increase in the number of disasters and affected individuals due to their impact on physical, social, and economic factors (3). Our country is located in a region where natural disasters frequently occur, and thousands of people are affected by these disasters every year. Earthquakes rank first among the natural disasters causing the most damage in our country (2, 4). Last, the earthquake centered in Kahramanmaraş on February 6, 2023, severely affected both the population living in a wide area and the personnel involved in disaster response. Therefore, it is crucial to prepare for and take measures against disasters in our country to reduce losses and meet medical care needs. In addition to the sufficiency of materials and medical equipment against disasters, healthcare professionals need to have effective and coordinated response capabilities (5, 6, 7). To achieve this and improve disaster response capacities, evaluating disaster preparedness perceptions is a very important step.

Disaster preparedness encompasses all planning efforts conducted at the state, institutional, and individual levels (8). Rapid and effective provision of healthcare services during the predisaster preparedness and disaster response phases is crucial for minimizing injuries and fatalities. Prehospital emergency healthcare workers, who are the first to arrive at the scene and provide initial assistance to disaster victims, have significant responsibilities in this regard and must be prepared for potential disasters. In this context, prehospital emergency healthcare workers with a high level of disaster preparedness perception are more effective during disaster preparedness and response phases and are better equipped to cope with postdisaster stress. Although there are guidelines available to assist prehospital emergency healthcare workers during disaster situations, individuals' readiness for disaster preparedness (including factors such as confidence, personal characteristics, education, and communication) may be influenced by various factors. Furthermore, some studies have shown that factors such as age, education, gender, and experience can affect an individual's perception of disaster preparedness (9, 10, 11).

Upon reviewing the literature, Fernandez et al. (12) determined that healthcare workers are prepared for disasters in a study aimed at identifying the disaster preparedness of nationally certified prehospital emergency healthcare workers. In the study by Okan et al. (7), which aimed to identify the perceptions of disaster preparedness among 112 emergency healthcare workers and the factors influencing these perceptions, it was found that workers' disaster preparedness perceptions were moderate and varied according to demographic characteristics. Aslantaş and Tabuk (13), conducted a study in Balıkesir Province to evaluate the readiness and preparedness perceptions of 112 provincial ambulance service personnel and found that their disaster preparedness perceptions were high. In a study by Ayvazoğlu et al. (14), evaluating the disaster preparedness perceptions of national medical rescue teams, it was found that workers' disaster preparedness perceptions were above average.

Although there have been studies on determining the disaster preparedness perceptions of prehospital emergency healthcare workers in the literature, they are not sufficient. In this regard, this study contributes to filling the gap in the literature by providing important contributions to the implementation of disaster management strategies and policies and can be used as a valuable resource. This study will be conducted to determine the disaster preparedness perceptions of prehospital emergency health workers in Kayseri Province, which is strategically located close to regions directly affected by natural disasters and to determine the factors affecting their preparedness and to reveal whether their preparedness varies according to demographic characteristics.

Based on the review of the literature, the main and sub hypotheses of the research are as follows:

Hypothesis 1: Prehospital emergency healthcare workers have a high level of disaster preparedness.

Hypothesis 2: The disaster preparedness perceptions of prehospital emergency healthcare workers vary significantly according to their involvement in disaster response activities.

Hypothesis 3a: Disaster preparedness perceptions and sub dimensions of prehospital emergency healthcare workers significantly differ according to gender.

Hypothesis 3b: Disaster preparedness perceptions and sub dimensions of prehospital emergency healthcare workers significantly differ according to age.

Hypothesis 3c: Disaster preparedness perceptions and sub dimensions of prehospital emergency healthcare workers significantly differ according to educational level.

Hypothesis 3d: Disaster preparedness perceptions and sub dimensions of prehospital emergency healthcare workers significantly differ according to job title.

Hypothesis 3e: Disaster preparedness perceptions and sub dimensions of prehospital emergency healthcare workers significantly differ according to the duration of employment in the institution.

MATERIALS AND METHODS

Research Desing and Sample

This study aimed to assess the disaster preparedness perceptions of prehospital emergency healthcare workers. The population of the study consisted of 650 healthcare workers serving in prehospital emergency healthcare services in Kayseri Province. The sample size representing the population was determined to be 246 using the formula developed by Özdamar (15), and a simple random sampling method was used. In the quantitative research study, the survey technique was utilized as the data collection tool. STROBE checklist was used in the study.

Data Collection Tools

The questionnaire, consisting of two sections and 35 statements, was used. In the first section of the questionnaire, the "HASPAHA Scale," developed by Tercan and Şahinöz (16), comprising 5 subscales and 28 statements, was utilized. The scale is a 5-point Likert scale (strongly disagree (1)–disagree (2)–neither agree nor disagree (3)–agree (4)–strongly agree (5). The second section of the questionnaire included 7 statements aimed at determining the sociodemographic characteristics of the participants, their experiences with disasters, and their involvement in disaster response activities.

Statistical Evaluation of Data

SPSS 22 was used to analyse the data obtained. The reliability of the HASPAHA scale was measured with a Cronbach's alpha of 0.938. Accordingly, the HASPAHA scale is highly reliable. As the scores obtained from the scale increase, the level of disaster preparedness of the participant increases. Parametric tests were used since the skewness and kurtosis values of the data were within the limits of ±1.5 and showed a normal distribution. Descriptive statistics for demographic characteristics are given, and ANOVA and t test were used to evaluate the differences found.

RESULTS

In Table 1, the frequencies and percentage distributions of demographic characteristics of prehospital emergency healthcare workers who participated in the research are provided.

Table 1. Findings related to participants' demographic characteristics and disaster status (n=246)

Variable	n	%
Gender		
Female	114	46.3
Male	132	53.7
Age group		
18-25	54	22.0
26-35	102	41.5
36-45	78	31.7
46 and above	12	4.9
Title		
Paramedic	113	45.9
Emergency Medicine Technician	92	37.4
Doctor	24	9.8
Other Health Workers	17	6.9
Education status		
High School	44	17.9
Associate degree	78	31.7
Bachelor's degree	108	43.9
Master's degree and above	16	6.5
Working time		
1-5 year	73	29.7
6-10 year	49	19.9
11-15 year	64	26.0
16 year and above	60	24.4
Your disaster experience		
Yes	127	51.6
No	119	48.4
Duty status in a disaster		
Yes	198	80.5
No	48	19.5

A total of 53.7% of the 246 participants were male, 41.5% were in the 26-35 age group, 45.9% were paramedics, 43.9% were undergraduate graduates, and 29.7% were health workers with a working period of 1-5 years. In addition, 51.6% of the participants experienced a disaster, and 80.5% of them participated in the disaster.

In Table 2, descriptive statistics are provided regarding the disaster preparedness perceptions of prehospital emergency healthcare workers. The participants' mean overall disaster preparedness perception was (x=3.77), with the willingness sub dimension at (x=3.60), the importance sub dimension at (x=3.89), the self-efficacy sub dimension at (x=3.66), the intervention skill sub dimension at (x=3.82), and the benefit sub dimension at (x=3.84). Based on these findings, disaster preparedness perceptions and sub dimensions among prehospital emergency healthcare workers are high, above the mean threshold value (x=3). Accordingly, hypothesis 1 is accepted. Correlation analysis revealed significant positive relationships among the sub dimensions of disaster preparedness perception.

Table 2. Findings and correlation analysis on disaster preparedness perception

	n	¯X	Std. Dev.	1	2	3	4	5
General Perception of Disaster Preparedness	246	3.77	.571					
1. Desire Sub dimension	246	3.60	.829	1				
2. Importance Sub dimension	246	3.89	.782	.635**	1			
3. Self-Efficacy Sub dimension	246	3.66	.637	.521**	.672**	1		
4. Intervention Adequacy Sub.	246	3.82	.591	.437**	.473**	.609**	1	
5. Benefit Sub dimension	246	3.84	.790	.563**	.548**	.717**	.706**	1

**p<0.01

In Table 3, t test were conducted to examine whether there were differences in disaster preparedness perceptions and sub dimensions among pre hospital emergency healthcare workers based on gender.

There were statistically significant differences in the general disaster preparedness perception, importance sub dimension, self-efficacy sub dimension, intervention skill sub dimension, and benefit sub dimension according to gender (p=0.000; p=0.003; p=0.000; p=0.001; p=0.000; p<0.05), whereas the willingness sub dimension did not exhibit such differences (p=0.063; p>0.05). The disaster preparedness perceptions of male healthcare workers (x=3.91) were greater than those of female healthcare workers (x=3.60). Accordingly, hypothesis 3a is partially accepted.

Table 3. Comparison of disaster preparedness perceptions of participants according to gender variable (t test)

	Gender	¯n	*X*	Std. Dev.	*t*	*p*
General Perception of Disaster Preparedness	Female	114	3.60	.687	4.34	**.000***
	Male	132	3.91	.398		
Desire Sub dimension	Female	114	3.49	.977	1.87	.063
	Male	132	3.69	.666		
Importance Sub dimension	Female	114	3.73	.904	3.01	**.003***
	Male	132	4.02	.631		
Self-Efficacy Sub dimension	Female	114	3.47	.722	.672**	**.000***
	Male	132	3.82	.503		
Intervention Adequacy Sub.	Female	114	3.68	.633	.473**	**.001***
	Male	132	3.94	.526		
Benefit Sub dimension	Female	114	3.62	.600	.548**	**.000***
	Male	132	4.03	.917		

*p<0.05

In Table 4, t test was conducted to determine whether there was a difference in the disaster preparedness perceptions of prehospital emergency healthcare workers based on their involvement in disaster response. There was no statistically significant difference in healthcare workers' disaster preparedness perceptions based on their involvement in disaster response (p=0.800; p>0.05). Accordingly, hypothesis 2 was rejected.

In Table 5, one-way analysis of variance (ANOVA) was performed to reveal whether the disaster preparedness perceptions and sub dimensions of prehospital emergency health workers differed according to the age group variable. First, Levene's test was conducted to assess the homogeneity of variances, indicating that variances were homogeneously distributed (p>0.05).

Table 4. Comparison of participants' disaster preparedness perceptions based on their experience of disaster exposure and engagement (t test)

		n	x̄	Std. Dev.	t	p
Your disaster experience	Yes	127	3.71	.616	-1.590	.113
	No	119	3.83	.515		
Duty status in a disaster	Yes	198	3.77	.613	.254	.800
	No	48	3.75	.357		

According to the obtained data, statistically significant differences were not observed in healthcare workers' general disaster preparedness perception, desire sub dimension, self-efficacy sub dimension, or intervention skill sub dimension based on the age group variable p=0.174; p=0.522; p=0.330; p=0.287; p>0.05), while significance was observed in the importance sub dimension and benefit sub dimension

Table 5. Comparison of participants' disaster preparedness perceptions based on demographic characteristics (ANOVA)

	General Perception of Disaster Preparedness		Desire		Importance		Self Efficacy		Intervention Adequacy		Benefit	
	$\bar{x}$	Diff	$\bar{x}$	Diff	$\bar{x}$	Diff	$\bar{x}$	Diff	$\bar{x}$	Diff	$\bar{x}$	Diff
Age Group												
18-25	3.67		3.58		3.66		3.55		3.79		3.76	
26-35	3.86	-	3.59	-	4.09	**2>1**	3.74	-	3.86	-	4.01	**2>3**
36-45	3.73		3.67		3.78	**2>3**	3.62		3.84		3.67	
46 and above	3.66		3.30		3.86		3.72		3.53		3.83	
f	1.669		.753		4.508		1.150		1.265		2.992	
p	.174		.522		**.004***		.330		.287		**.032***	
Title												
Paramedic	3.79		3.65		3.86		3.68		3.86		3.92	
Emergency Medicine Technician	3.67	-	3.52	-	3.83	-	3.55	-	3.77	-	3.64	**3>2**
Doctor	3.90		3.66		4.00		3.80		3.90		4.17	
Other Health Workers	3.89		3.60		4.21		3.90		3.77		3.91	
f	1.612		.444		1.356		2.176		.505		3.818	
p	.187		.722		.257		.092		.679		**.011***	
Education Status												
High School	3.52	**2>1**	3.32		3.49	**4>1**	3.42	**4>1**	3.69		3.57	**2>1**
Associate degree	3.79	**3>1**	3.48	**4>1**	3.76	**3>1**	3.71	**3>1**	3.90	**4>1**	4.01	**3>1**
Bachelor's degree	3.89	**4>1**	3.79	**3>1**	4.17	**3>2**	3.78		3.85		3.93	**4>1**
Master's degree and above	4.04		3.93		4.25		3.91		4.08		4.04	
f	8.507		6.414		14.867		6.175		2.734		4.710	
p	**.000***		**.000***		**.000***		**.000***		**.044***		.003*	
Working Time												
1-5 year	3.67		3.63		3.69		3.51		3.76		3.83	
6-10 year	3.89	-	3.66	-	3.98	-	3.83	-	3.89	-	4.05	-
11-15 year	3.81		3.57		4.03		3.71		3.86		3.84	
16 year and above	3.73		3.54		3.90		3.65		3.81		.368	
f	1.592		.239		2.429		2.584		.546		2.033	
p	.192		.869		.066		.054		.652		.110	

*p<0.05

and benefit sub dimension (p=0.004; p=0.032; p<0.05). Thus, Hypothesis 3b was partially accepted.

Post hoc analysis was conducted to determine which groups the differences were between. Accordingly, the mean scores of the importance sub dimension for healthcare workers aged 26-35 (x=4.09) were found to be greater than those of the 18-25 age group (x=3.66) and the 36-45 age group (x=3.78). The mean scores of the benefit sub dimension for healthcare workers aged 26-35 years (x=4.01) were found to be greater than those for healthcare workers in the 36-45 years age group (x=3.67). One-way analysis of variance (ANOVA) was conducted to determine whether there were differences in disaster preparedness perceptions and sub dimensions among prehospital emergency healthcare workers based on job title.

Initially, Levene's test was conducted to assess the homogeneity of variances, indicating that variances were homogeneously distributed (p>0.05). According to the obtained data, healthcare workers' general disaster preparedness perception, desire sub dimension, importance sub dimension, self-efficacy sub dimension, and intervention skill sub dimension did not show statistically significant differences based on job title variable (p=0.187; p=0.522; p=0.722; p=257; p=0.092; p=0.679; p>0.05), while significance was observed in the benefit sub dimension (p=0.011; p<0.05). Thus, Hypothesis 3c was partially accepted.

Post hoc analysis was conducted to determine which groups the differences were between. Accordingly, the mean scores of the benefit sub dimension for healthcare workers with a doctor title ($\bar{x}$ =4.17) were found to be greater than those of emergency medical technicians ($\bar{x}$ =3.64). One-way analysis of variance (ANOVA) was conducted to determine whether there were differences in disaster preparedness perceptions and sub dimensions among prehospital emergency healthcare workers based on education level. Initially, Levene's test was conducted to assess the homogeneity of variances, indicating that variances were homogeneously distributed (p>0.05).

According to the obtained data, healthcare workers' general disaster preparedness perception, desire sub dimension, importance sub dimension, self-efficacy sub dimension, intervention skill sub dimension, and benefit sub dimension showed statistically significant differences based on the education level variable (p=0.187; p=0.522; p=0.722; p=0.257; p=0.092; p=0.679; p<0.05). Thus, Hypothesis 3d was accepted. Post hoc analysis was conducted to determine which groups the differences were between. Accordingly, healthcare workers with a master's degree or above (x=4.04) had greater mean scores for general disaster preparedness perception than did those with a bachelor's degree (x=3.89), an associate degree (x=3.79), or a high school degree (x=3.52).

Healthcare workers with a master's degree or above (x=4.25) and those with a bachelor's degree (x=4.17) had higher mean scores for the importance sub dimension than did those with an associate degree (x=3.76) and high school graduates (x=3.49). Healthcare workers with a master's degree or above (x=3.91) and those with a bachelor's degree (x=3.78) had higher mean scores for the self-efficacy sub dimension than did high school graduates (x=3.42). Healthcare workers with a master's degree or above (x=4.08) had higher mean scores for the intervention skill sub dimension than did high school graduates (x=3.69). Finally, healthcare workers with a master's degree or above (x=4.04), those with a bachelor's degree (x=3.93), and those with an associate degree (x=4.01) had higher mean scores for the benefit sub dimension than did high school graduates (x=3.57).

One-way analysis of variance (ANOVA) was conducted to determine whether there were differences in disaster preparedness perceptions and sub dimensions among prehospital emergency healthcare workers based on years of work experience. Initially, Levene's test was conducted to assess the homogeneity of variances, indicating that variances were homogeneously distributed (p>0.05). According to the obtained data, healthcare workers' general disaster preparedness perception, desire sub dimension, importance sub dimension, self-efficacy sub dimension, intervention skill sub dimension, and benefit sub dimension did not significantly differ based on years of work experience (p=0.192; p=0.869; p=0.066; p=0.054; p=0.652; p=0.110; p>0.05). Thus, Hypothesis 3e was rejected.

DISCUSSION

In the study conducted on 246 people in order to evaluate the disaster preparedness perceptions of pre-hospital emergency health workers, it was determined that the majority of the health workers consisted of male health workers in the 26-35 age group, with the title of paramedic, with undergraduate education, and with a working period of 1-5 years. In this study, the disaster preparedness perceptions of prehospital emergency healthcare workers were significantly greater than the median value. Accordingly, it can be said that prehospital emergency healthcare workers are prepared to intervene in any disaster situation. The results of the study are similar to those of studies conducted by Okan et al. (7), Kocaman (17), and Tan et al. (18) targeting prehospital healthcare workers, while they do not show similarity with the results of studies conducted by Aslantaş and Tabuk (13) and Ağahan (19). Therefore, Hypothesis 1 is accepted. The present study revealed that the disaster preparedness perceptions of prehospital emergency healthcare workers did not vary according to their involvement in disaster response. The perceptions of preparedness did not significantly differ due to prehospital emergency healthcare workers encountering various natural and human-induced disaster situations while performing their routine duties and participating in numerous practical and theoretical training sessions. The results of some studies targeting prehospital emergency healthcare workers [Okan et al. (7); Tercan and Şahinöz (16); Karakuş (20); Çakmak et al. (21)] are not similar. Therefore, Hypothesis 2 is rejected.

This study examined whether there were significant differences in disaster preparedness perceptions and sub dimensions among prehospital emergency healthcare workers based on demographic characteristics. The analyses revealed that the disaster preparedness perceptions and sub dimensions of healthcare workers showed partial differences based on gender, age group, title, and education level, while they did not show statistically significant differences based on years of work experience. Accordingly, Hypothesis 3d was accepted, Hypothesis 3a, 3b and 3c were partially accepted, and Hypothesis 3e was rejected. Accordingly, the general disaster preparedness perceptions, as well as the importance, self-efficacy, intervention skill, and benefit sub dimensions, of male healthcare workers were found to be significantly greater than those of female healthcare workers, with no significant difference found in the desire sub dimension. This could be attributed to women being perceived as physically and emotionally weaker than men and adopting a more cautious approach towards risks, resulting in lower disaster preparedness perceptions. In the study conducted by Okan et al. (7) on 112 emergency health workers, the disaster preparedness perception of male health workers was found to be higher than that of females. In the study conducted by Nofal et al. (22) on emergency service employees in Saudi Arabia, the disaster preparedness levels of male healthcare workers were found to be higher than those of females.

In the study conducted by Koçak et al. (23) on 112 emergency health workers, the disaster preparedness levels of male health workers were found to be higher than female health workers. The results of these studies are similar to the findings of this study.

Regarding age, there were no significant differences in healthcare workers' general disaster preparedness perceptions with in the desire, self-efficacy and intervention skill sub dimensions. However, significant differences were found in the importance and benefit sub dimensions, with healthcare workers aged 25-35 years having significantly greater perceptions of disaster preparedness than workers in other age groups (18-25 years and 36-45 years). It can be inferred that healthcare workers aged 25-35 years perceive disaster preparedness as more beneficial and important. According to the study conducted by Okan et al. (7), there were differences in disaster preparedness perceptions based on age group. Regarding the title variable, no significant differences were found in healthcare workers' general disaster preparedness perceptions in the desire, importance, self-efficacy and intervention skill sub dimensions. However, significant differences were observed in the benefit sub dimension, indicating that the disaster preparedness perceptions of emergency medical technicians were significantly lower than those of doctors. Similar findings regarding differences based on title were reported in studies conducted by Aslantaş and Tabuk (13), Özcan (24), and Çelebi and Uçku (25). It was also found that healthcare workers with a high school education had significantly lower general disaster preparedness perceptions and sub dimensions than did healthcare workers with other education levels. We can say that as the education level of healthcare workers increases, their knowledge, skills, and awareness regarding disaster preparedness also increase, leading to greater perceptions of disaster preparedness. This is consistent with the findings of studies conducted by Okan et al. (7), Tercan and Şahinöz (16), and Baack and Alfred (3). Regarding the variable of years of work experience, no significant differences were found in healthcare workers' general disaster preparedness perceptions or sub dimensions, which is consistent with the results of the study conducted by Aslantaş and Tabuk (13).

The significant results for practitioners in this study indicate that prehospital emergency healthcare workers have above-average disaster preparedness perceptions and that these perceptions vary according to demographic characteristics. In this regard, it is crucial to plan theoretical and practical training exercises considering both the frequent disasters occurring in the area where prehospital emergency healthcare workers operate and the demographic characteristics of the personnel. Additionally, training on "Effective Communication and Telecommunication in Disasters," "Incident Scene Management and Field Triage in Disasters," and "Post-Traumatic Psychosocial Support" in in-service training programs will contribute significantly to enhancing the disaster knowledge level and preparedness perceptions of personnel and ensuring their continuity. Furthermore, this study is considered to fill a gap in the relevant literature due to the lack of sufficient studies on prehospital emergency healthcare workers, and it is considered a reference study that practitioners can benefit from in the disaster preparedness and planning process. The study was limited to prehospital emergency healthcare workers serving in Kayseri Province and the measurement tool used.

CONCLUSION AND RECOMMENDATIONS

As a result, it has been revealed that prehospital emergency health workers are prepared for disaster situations that may occur and some suggestions have been made. For future studies, it is recommended to conduct studies with prehospital healthcare workers in different regions using the same measurement tool. The results of these studies conducted in different regions can be compared with the results of this study to identify similarities or differences. Additionally, other factors affecting the disaster preparedness perceptions of prehospital emergency healthcare workers can be identified, disaster preparedness perceptions can be examined according to different types of disasters, and studies can be conducted to evaluate the effectiveness of the training they receive in disaster management.

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