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Disaster Management and Social Work Students' Willingness to Work in Disaster: A Cross-Sectional Study

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Abstract

The negative effects of disasters can be reduced through disaster management strategies, joint practices, experiences, preparedness plans, and mitigation efforts. This study aims to determine the willingness of Emergency Aid and Disaster Management (EDM) and Social Work (SW) students studying in two different departments of a state university to work in disasters. This descriptive research was conducted by applying a face-to-face survey to 561 students. Relationships between variables were examined with chi-square test and logistic regression analysis. 85.2% (n=179) of EDM students are willing to work, 0.9% (n=2) are not willing, 56.6% (n=197) of SW students are willing to work. 6.6% are willing to work. (n=23) are not willing. Two variables were identified to determine the willingness of EDM students: gender (OR: 0.317, CI: 0.134-0.751) and membership in a disaster-related Non governmental organization (OR: 0.003, CI: 1.533-8.082). It was found that the variable explaining SW students' willingness was membership in a disaster-related NGO (OR: 0.378, CI: 1.770-7.789). For students to gain the desire to work in disasters, the needs of applied education should be met, and similar supportive initiatives should be encouraged in various areas of education.

Keywords: Disaster, Emergency Aid and Disaster Management, Social Work, Willingness

1. INTRODUCTION

Disasters are emergencies that cause great loss of life and property, negatively affect society by interrupting normal life, and often require resources and support from outside the community (Kaya, 2022). In the literature, disaster types can be examined in three groups “natural, human-made, and technological” (Lindell, 2013). Reducing the effects of disasters that cause loss of life and property is possible through planned risk management, improving people's resilience to disasters, and disaster drills.

Although disasters mainly cause loss of life and property, they significantly affect society and countries. The effects of disasters are generally evaluated in three groups: physical, social, and psychological, and their effects on people and the environment are direct, indirect, and secondary. These effects (Karabulut and Bekler, 2019): Direct impacts: Loss of life and property, injury and

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disability, animal losses, loss of agricultural land and agricultural products, loss of cultural relics and heritage, and all expenses in the recovery and reconstruction process. Indirect effects: Temporary and/or permanent interruption of agriculture, animal husbandry, trade, education, service and tourism sectors, income losses, unemployment, looting, and psycho-social problems seen in disaster victims. Secondary effects: Market losses as a result of loss of production and services, deterioration of social balances, exorbitant price practices, theft, increase in inflation rate, problems arising as a result of restructuring and transferring public resources to aid (Altun, 2018).

Since the 1980s, there has been a sharp increase in the occurrence of reported disasters, including their negative humanitarian and economic consequences (UNDRR, 2020). In 2021, 431 natural disasters occurred and 10.492 people lost their lives and 101.8 million people were affected as a result of these disasters (CRED, 2021). According to the Global Migration Indicators 2018 Report published by the International Organization for Migration, at the end of 2017, 68.5 million people were forcibly displaced worldwide due to persecution, conflict, general violence, or human rights violations (IOM, 2018). The Syrian war forced people to relocate in masses, and with this, many social, economic, and cultural problem areas began to emerge. As of 2017, the number of registered Syrians in Turkey has reached 3,250.734 people (Karakaya, 2020). Unfortunately, there is an increase in the number of disasters and disaster victims due to the rapid increase in human population, unplanned urbanization, climate changes, inadequacy of risk management in some countries, etc. Due to this increase, displacements and migrations due to disasters are also increasing and more people are affected. Nowadays, migration sometimes becomes a torment rather than a salvation, and sometimes it may expose migrants to a new disaster. In addition, population increase, infrastructure inadequacies and lack of planning in the migrated region may cause new disasters. Changing environments or disasters such as floods and storms have been affecting human settlements and movements in various ways for centuries. In 2017, 3,077,800 people in China were displaced by floods. In 2019, the number of people displaced due to floods in India was 2,647,326 (Karakaya, 2020; Varol and Gültekin, 2016). In 2022, 59.1 million people had to flee their country due to conflicts and violence (IDMC, 2022).

In Turkey, 8474 climatological disasters exceeding the optimum climate level occurred between 1987 and 2017, 222 people died due to floods, 205 people died due to fire, and 1501 people were injured (Celik et al., 2018). Only 0.5 percent of the world's terrestrial unit constitutes the territory of Türkiye. On the other hand, Turkey ranks fourth among the countries with the most earthquakes between 1900 and 201 (Statista, 2022). Türkiye is in a geography that can be described as "high risk" in terms of earthquakes. An earthquake that causes widespread loss of life and property is experienced in Türkiye every five years on average. In addition to earthquakes, disasters such as landslides, floods, rockfalls, and avalanches are also frequently experienced on a regional/seasonal basis. In addition, the possible Istanbul earthquake, which will occur as a result of the rupture of the approximately 200 km extension of the North Anatolian Fault line in the Marmara Sea, is expected to be 7-7.7 in magnitude (Naimi and Tufan, 2021). The probability of an earthquake in the Marmara Sea once every 30 years is estimated to be 65%. It is thought that this expected earthquake will fall into the category of large earthquakes according to the earthquake scale (Naimi and Tufan, 2021).

According to the literature, emergency workers such as firefighters, security forces and social workers are the first teams to respond to disasters in Türkiye. Nurses have duties such as saving lives and protecting health in the emergency phase of a disaster and performing post-disaster care functions (Taşkıran and Baykal, 2017). Social workers, on the other hand, have duties such as providing all kinds of economic and psycho-social aid and support to disaster victims and

facilitating the adaptation of individuals to each other and their social environment (Seyyar and Yumurtacı, 2016). Emergency and Disaster Management departments were established in Türkiye in 2005 to increase the workforce in the field of emergency and disasters (AYAYDER, 2022). It is aimed to train the professionals of the newly created department and the human resources necessary for the management and administration of the health and firefighting systems, and the creation of a safe society culture with disaster education (Çalışkan and Koçak, 2019). The feature of the EDM department stems from the fact that it is a multidisciplinary program covering different fields related to emergency, disaster management, search and rescue, education, firefighting, engineering and health (Demirbilek and Emrah, 2022).

EDM and Social Work employees, an important professional group, are always needed to effectively respond to emergencies and disasters and to reduce or eliminate vulnerability. This situation is accepted by policy makers in the country. The policymakers may think that EDM graduates will be willing to work / serve before, during, and after disasters. However, graduates of EDM, nursing, health management, medicine and SW may not be willing to work in disasters. For example Shapira et al. (1991) reported that only 42% of participants were willing to work in a chemical attack (Shapira et al., 1991). For example, when 1025 home health workers were asked whether they would provide care to a patient in quarantine, it was determined that only 11% of them would provide care and 51% of them would not provide care (Gershon et al., 2007). In addition, only 37% of the nurses providing home care services reported that they would provide care to bird flu patients if they had personal protective equipment. In another study, it is stated that disasters affect the willingness of hospital personnel to work in a catastrophic event (Seale et al., 2009). In the study conducted by Seale et al. (2009) on hospital personnel, 83.3% (n = 899) of the personnel stated that they would go to work if they had a flu-like illness in their department/service, while 81.2% (n = 876) stated that they would not go to work if they had influenza (Seale et al., 2009).

Studies have been reported on the willingness of professional groups such as nurses, doctors, and home health workers to work in bird flu, influenza, and catastrophic disasters (Hung et al., 2021; Shapira et al., 2019). However, there are very few studies investigating the willingness of both EDM and SH department graduates, who are actively involved in the disaster field, to work in disasters. Therefore, the current study aims to better understand the factors related to the willingness of work in disaster to students.

2. MATERIAL AND METHOD

2.1. Research Design

The study is a descriptive cross-sectional study. Cross-sectional researches are preferred because they allow the collection of data once and obtain useful data in a short time, at a very low cost.

2.2. Research Sample / Study Group

This study was carried out between 31.01.2022 and 28.02.2022 in two departments, EDM and SW, within a state University. Based on the (Krejcie and Morgan, 1970) table to determine the sample size from a given population, a minimum of 243 students should be selected as the sample for the study. The reason for the selection of EDM and SW departments is that the students of both departments are actively involved in the field in intervention, recovery and recovery activities after disasters. There were a total of 656 students enrolled in these departments at the university. 561 students accepted to participate in the questionnaire (response rate 85.51%). A power

analysis was conducted that indicated that the minimum sample size should be 295 with 95% confidence interval and 5% sampling error. The data were collected in in-person sessions with participants during their class hours.

2.2. Research Instruments and Procedures

The data were obtained by using a questionnaire developed by İnal and Kaya (Inal and Kaya, 2021). The questionnaire form consists of 29 questions and 3 parts. The first part includes 9 questions about the socio-demographic characteristics of the students (age, gender, marital status, residence (province/district/village), being able to swim (yes/no), height and weight, family members to be cared for (yes/no), education program, year of education (first/second/third/fourth). The second part consists of 7 questions about disaster experience (disaster experience (yes/no), disaster education (yes/no), information source (School/internet/television/course/AFAD/UMKE/Work), state of being affected , membership in a non-governmental organization (yes/no), willingness to work in disaster (willing/unwilling/uncertain). The last part consists of 13 propositions about students' willingness to respond to disasters. Responses were usually given as yes or no, or on a 5-point Likert scale (1=strongly willing, 2=willing, 3=undecided, 4=not willing, 5=strongly unwilling).

2.3 Data Analysis

Research data were analyzed using SPSS package program version 26.0 (IBM Corporation, Armonk, NY, USA). In solving the questions; From descriptive statistics, frequency (f) and percentage (%) were used. Cross-table and chi-square test were applied to reveal the relationship between students' socio-demographic variables and their willingness to work in disasters. The dependent variable "willingness to respond to disasters" was divided into two for analysis. “Unwilling” and “uncertain” responses were combined into a single category as “unwilling”. Therefore, the dependent variable had two categories (willing and unwilling). Binary logistic regression analysis was performed to identify predictors of willingness to work in disasters. Binary logistic regression analysis is a regression model in which the dependent variable is two-state (Kılıç, 2015). Binary logistic model is used to calculate the probability of a two-state outcome based on one or more independent variables. The explanatory variables included gender (ref. female), department (ref: social work), getting disaster training (ref: no), experiencing a disaster (ref: no), personal preparedness for disaster (ref: no), membership in a disaster-related non-governmental organization (ref: no), being able to swim (ref: no). Statistical significance level was taken as $p<0.005$ for all analyses performed.

2.4. Ethical Procedures

Ethical approval was obtained from the Selcuk University Faculty of Medicine Local Ethics Committee to conduct the study (E-70632468-050.01.04-198250)

3. RESULTS

The mean age of the students is 20.71±1.4. Most of the students (36.9%) are between the ages of 22-28. Almost all the students are single and only 6 of them are married. 32.3% of the students are in their second year and 17.6% are in their last year of school. 24.4% (n=137) of the students are male and 75.6% (n=424) are female. The majority of them (62.2%) are students of the Department of Social Work. 32.3% of the students are in the second year and 17.6% are in the first year. In general, the most people lived in the Central Anatolia region (36.8% n=152) and the least lived in the Eastern Anatolia region (6.2% n=26). 47.6% (n=66) of the students live in province,

37.6% (n=210) in the district and 14.8% (n=83) in the village. The majority of the students (61.9%, n=346) do not know how to swim (Table 1).

Table 1. Sociodemographic Characteristics of the Students

Characteristics	EDM, n (%)	SW, n (%)	Total n (%)
Age (n=561)			
18-19	25 (8.01)	89 (25.5)	114 (17.2)
20	57 (18.2)	80 (22.9)	137 (20.7)
21	69 (22.11)	97 (27.7)	166 (25.1)
22-28	61 (51.6)	83 (23.79	144 (36.9)
Gender (n=561)			
Male	80 (37.7)	57 (16.3)	137 (24.4)
Female	132 (62.39	292 (83.7)	424 (75.6)
Marital Status (n=561)			
Married	6 (2.8)	3 (0.9)	9 (1.6)
Single	206 (97.2)	346 (99.1)	552 (98.4)
Grade (n=561)			
First	13 (6.1)	113 (32.4)	126 (22.5)
Second	86 (40.6)	95 (27.2)	181 (32.3)
Third	63 (29.7)	92 (26.4)	155 (27.6)
Fourth	50 (23.6)	49 (14.0)	99 (17.6)
Most lived place			
Mediterrenian	31 (17.9)	59 (24.5)	90 (21.8)
Aegean	16 (9.3)	20 (8.3)	36 (8.7)
Central Anatolia	56 (32.3)	96 (40.0)	152 (36.8)
Black sea	16 (9.2)	13 (5.4)	29 (7.1)
Southeastern Anatolia	24 (13.8)	18 (7.5)	42 (10.1)
Marmara	17 (9.9)	21 (8.8)	38 (9.3)
Eastern Anatolia	13 (7.6)	13 (5.5)	26 (6.2)
Type of place of lived place (n=559)			
Province	98 (46.4)	168 (48.3)	266 (47.6)
District	76 (36.0)	134 (38.5)	210 (37.6)
Village	37 (17.5)	46 (13.2)	83 (14.8)
Ability to swim (n=559)			
Yes	88 (41.7)	125 (35.9)	213 (38.1)
No	123 (58.3)	223 (61.4)	346 (61.9)

The mean height of the students was 166.36±8.26, body weight was 60.70±11.12 kg and the mean body mass index was 21.55±2.95. Students' willingness to work in disasters was examined according to their socio-demographic characteristics and disaster experience. A statistically significant difference was found between the students' grades and their willingness to work in disasters ($p<0.001$). The willingness to work in disasters is higher among students who received disaster training compared to those who did not receive disaster training in the past, and among 2nd and 3rd year students compared to first year students ($p<0.05$).The students who were members of an NGO dealing with disasters were more willing to work in disasters than those who were not members ($p<0.01$) (Table 2). When the ages of the students were separated from the average (20 years and below and 21 years and above), no statistically significant difference was found between the average age and willingness to work in disasters ($p=0.64$). In addition, no statistically significant difference was found between the gender ($p=0.08$), marital status ($p=0.50$), city-district of residence ($p=0.37$), geographical region they live in ($p=0.42$), family members to be cared for ($p=0.41$), being able to swim ($p=0.14$), and disaster experience ($p=0.11$) (Table 2). There are 656 students in total registered in two departments at the university, and 561 of the students

filled out the questionnaire (response rate 85.51%). The remaining 95 students either did not come to school or did not want to fill out the questionnaire.

Table 2. Student's Willingness to Work in Disasters According to Their Socio-Demographic and Disaster Experience

Characteristics	n	Means (±standard deviations)		
Height (cm)	554	166,36 (±8,26)		
Kilogram (kg)	554	60,70 (±11,12)		
Body mass index	509	21,55 (± 2,95)		
	Willing, n (%)	Unwilling/uncertain, n (%)	X^2	p value
Age				
≤ 20 age	171 (45,47)	79 (43,40)	0,21	0,64
≥ 21 age	205 (54,53)	103 (56,60)		
Gender				
Male	84 (22,34)	53 (29,12)	3,04	0,08
Female	292 (77,66)	129 (70,88)		
Marital Status				
Married	7 (1,86)	2 (1,09)	0,45	0,50
Single	369 (98,14)	180 (98,91)		
Province/District/Village				
Province	173 (46,13)	92 (50,82)	1,95	0,37
District	141 (37,60)	67 (37,01)		
Village	61 (16,27)	22 (12,17)		
Grade				
First grade	68 (18,1)	57 (31,3)		
Second grade	138 (36,7)	43 (23,6)	20,41	0<00*
third grade	97 (25,8)	58 (31,9)		
Fourth grade	73 (19,4)	24 (13,2)		
Having dependent family member				
Yes	13 (3,5)	4 (2,2)	0,66	0,41
No	362 (96,5)	178 (97,8)		
Swimming				
Yes	134 (35,82)	77 (42,30)	2,18	0,14
No	240 (64,18)	105 (57,7)		
Past received disaster training				
Yes	189 (50,53)	75 (41,20)	4,27	0,03*
No	185 (49,47)	107 (58,80)		
Being a member of an NGO related to disaster				
Yes	175 (46,54)	22 (12,08)	63,470	0,00*
No	201 (53,46)	160 (87,92)		

*p<0.05

Nearly half of the students (48.0%) had received training on disasters beforehand. EDM students received information about disasters mostly from school (65.2%), least of all from their job, while SW students received information about disasters most from school (61.7%) and least from AFAD or UMKE (Table 3). Most of the EDM students (68.4) had previously received disaster training compared to SW students (34.9%) (p<0.001). The most common information sources are school, internet, and television (63.0%, 26.4%, 7.7%). 26.2% of the total students have personal disaster preparedness. One-third (35.4%) of the students are members of a non-governmental organization related to disasters. While 68% of EDM students received disaster training, 34.9% of SW students received disaster training (p<0.001). While 44.5% of EDM students have personal disaster preparedness, 15.2% of SW students have personal disaster preparedness (p<0.001). While 69.1% of EDM students are members of a disaster-related NGO, 14.8% of SW students are

members of a disaster-related NGO (p<0.001). While 85.2% of EDM students are willing to work in disasters, 56.6% of SW students are willing (p<0.001) (Table 3). A total of 198 students are members of an NGO related to disasters. The memberships of the students to the Non-Governmental Organizations are as follows:

- AFAD (Disaster and Emergency Management Presidency): 109 students
- Turkish Red Crescent: 42 students
- AFAD and Turkish Red Crescent:33 students
- AFAD,Turkish Red Crescent and GEAK (Messengers of Heart & Search and Rescue): 8 students
- IHH (Humanitarian Relief Foundation): 1 student
- TEMA (The Turkish Foundation for Combating Erosion, Reforestation And The Protection Of Natural Habitats): 2 students

Table 3. Some characteristics of students about disasters

Characteristics	EDM, n (%)	SW, n (%)	TOTAL, n (%)	p value
Having Disaster Training (n=558)				
Yes	143 (68.4)	122 (34.9)	265 (48.0)	<0.001
No	66 (31.6)	227 (65.1)	293 (52.0)	
Source of disaster information				
School	137 (65.2)	214 (61.7)	351 (63.1)	
Internet	55 (26.2)	92 (26.5)	147 (26.4)	
Television	8 (3.8)	35 (10.1)	43 (7.8)	
Course	7 (3.3)	5 (1.4)	12 (2.2)	
AFAD	2 (0.9)	0	2 (0.3)	
UMKE (National Medical Rescue Team)	1 (0.5)	0	1 (0.1)	
Job	0	1 (0.3)	1 (0.1)	
Personal disaster preparedness (n=557)				
Yes	93 (44.5)	53 (15.2)	146 (26.2)	<0.001
No	116 (55.5)	295 (84.8)	411 (73.28	
Membership to an NGO related to disasters (n=558)				
Yes	146 (69.1)	52 (14.8)	198 (35.4)	<0.001
No	65 (30.9)	297 (85.2)	362 (64.6)	
Willingness to work in disaster (n=558)				
Yes	179 (85.2)	197 (56.6)	376 (67.4)	<0.001
Undecided	29(13.8)	128 (36.7)	157 (28.1)	
No	2 (0.9)	23 (6.6)	25 (4.5)	
Disaster survival status (n=383)				
Yes	136 (65.1)	241 (69.0)	377 (67.6)	>0.05
No	73 (34.9)	108 (31.0)	181 (32.4)	

EDM: Emergency and Disaster Management
SW: Social Work
NGO: Non-governmental organization

More than half of the students (67.4%) are willing to work during disasters after graduation. However, 28.1% are undecided to work during a disaster, while 4.5% are not willing to work during a disaster. 327 students stated their willingness to work during a disaster after graduation. The reasons for students' willingness to work in disasters are as follows: 245 students want to help people and keep their hopes alive, 31 students want to raise awareness of disasters and minimize the damage, 20 students want to provide social service to disaster victims, 18 students love their profession, and 13 students think that it is a humanitarian mission.

More than half of the students (n=383, 67.6%) experienced a disaster. The most common type of disasters are as follows: earthquake (76.0%), earthquake and flood (9.1%), earthquake and fire (6.3%), earthquake and infectious disease (4.4%). When the effects of disasters are examined, it is seen that 73.6 of them got over the disasters lightly, and they experienced no loss of life and property, 18.7% (n=73) were mentally damaged, 5.6% (n=22) experienced property loss, 1.5% (n=6) lost their relatives and 0.5% (n=2) were physically harmed.

Students' intervention situations according to different types of disasters are shown in Table 4. Students are willing to work first in earthquakes (81.0%), second in traffic accidents (77.1%), and third in forest-related disasters (75.5%). On the other hand, they are less willing to work first in disasters caused by communicable diseases (34.6%), second in disasters caused by gas leaks (30.1%), and finally in disasters caused by nuclear accidents (27.8).

Table 4. Students's willingness to work according to different types of disasters

Type of disaster	Strongly willing, (%)	Willing, (%)	Undecided, (%)	Not willing, (%)	Strongly unwilling, (%)
Earthquake (n=557)	239 (42.9)	212 (38.1)	67 (12.0)	28 (5.0)	11 (2.0)
Trafic accident (n=546)	233 (42.7)	188 (34.4)	80 (14.7)	27 (4.9)	18 (3.2)
Forest fire (n=551)	215 (39.0)	205 (36.5)	93 (16.9)	29 (5.3)	9 (1.6)
Natural Disaster (n=555)	207 (37.3)	216 (38.5)	106 (18.9)	21 (3.7)	5 (0.9)
Building/house fire (n=552)	200 (36.2)	199 (36.1)	113 (20.1)	30 (5.3)	10 (1.8)
Flood (n=552)	149 (27.0)	189 (34.3	121 (21.6)	65 (11.6)	27 (4.7)
Complex humanitarian emergencies (n=552)	143 (25.5)	173 (30.8)	144 (25.7)	68 (12.1)	24 (4.3)
Extreme winter disaster (n=552)	137 (24.8)	180 (32.6)	129 (23.4)	69 (12.3)	37 (6.6)
Technological disaster (n=550)	136 (24.2)	174 (31.0)	158 (28.2)	63 (11.2)	19 (3.4)
Storm (n=553)	130 (23.5)	171 (30.9)	150 (27.1)	75 (13.6)	27 (4.9)
Cyclone (n=553)	127 (23.0)	153 (27.3)	164 (29.2)	81 (14.4)	28 (5.0)
Hurricane (n=551)	123 (22.3)	155 (27.6)	164 (29.2)	74 (13.2)	35 (6.2)
Terrorism (n=553)	120 (21.7)	129 (23.3)	158 (28.6)	102 (18.4)	44 (7.8)
Nuclear disaster (n=545)	91 (16.7)	107 (19.6)	191 (34.0)	79 (14.1)	77 (13.7)
Gas leakage (n=545)	89 (16.3)	105 (19.3)	185 (33.9)	98 (18.0)	68 (12.1)
Infectious disease (n=552)	78 (14.1)	94 (17.0)	187 (33.9)	129 (23.0)	64 (11.6)

A binary logistic regression analysis was conducted to examine the effects of gender (ref. female), department (ref. social work), receiving disaster training (ref. no), experiencing a disaster (ref. no), making personal preparations for disasters (ref. no) , being a member of a disaster-related NGO (ref. no), and being able to swim (ref. no), which are thought to affect the willingness to work in disasters after graduation (Table 5). The regression model that emerged as a result of the analysis is statistically significant (X2 (7) = 97.433, p<0.001). The model explains 22% of the variation in willingness to work in disasters with the Nagelkerke R2 coefficient and correctly categorizes 69% of students in general. As a result of the logistic regression analysis conducted to determine which variables explained students' willingness to work in disasters, it was determined that they were being an EDM student and being a member of an NGO related to disasters (OR:3.725, CI: 2.155-6.439). Also, Being male reduces the odds of willingness to work in disasters by 54.6% compared to being female (OR = 0.454, CI: 0.275-0.750, p = 0.002). EDM students are 2.908 times more likely to be willing to work in disasters compared to SW students (OR = 2.908, CI: 1.681-5.032, p < 0.001). Students who are members of a disaster-related NGO are 3.725 times more likely to be willing to work in disasters (OR = 3.725, CI: 2.155-6.439, p < 0.001)

Table 5. Factors Affecting Students' Willingness to Work in Disasters. Binary Logistic Regression Analysis

	B	S.E.	OR	95% CI	P value
Gender (ref. Female)	-.790	.257	.454	0.275-0.750	0.002
Department (ref: Social work.)	1.068	.280	2.908	1.681-5.032	<0.001
Having disaster education (ref: No)	-.157	.215	.855	0.561-1.302	0.464
Experiencing a disaster (Ref: No)	.176	.213	1.193	0.786-1.812	0.408
Personal disaster preparedness (ref: No)	.530	.270	1.698	1.000-2.885	0.055
Membership to an NGO related to disasters (ref: No)	1.315	.279	3.725	2.155-6.439	<0.001
Ability to swim (ref: No)	-.359	.213	0.698	0.460-1.060	0.092
Constant	.213	.206	1.238	-	0.301

B: Coefficients of Independent Variables, S.E: Standard errors of coefficients, OR: Odds ratio

Regression analysis was repeated separately for EDM and SW students (Table 6). The regression analysis for EDM students is shown in table 6. Two variables were identified to determine the willingness of EDM students: gender (OR: 0.317, CI: 0.134-0.751) and membership in a disaster-related NGO (OR: 0.003, CI: 1.533-8.082). Being male reduces the odds of willingness to work in disasters by 68.3% compared to being female (OR = 0.317, CI: 0.134-0.751, p = 0.009). Membership in a disaster-related NGO significantly increases the odds of willingness to work in disasters (OR = 3.725, CI: 1.533-8.082, p = 0.003). Similarly, the regression analysis for SW students is shown in table 6. The variable explaining the willingness of SW students was found to be membership in a disaster-related NGO (OR: 0.378, CI: 1.770-7.789). Membership in a disaster-related NGO significantly increases the odds of willingness to work in disasters (OR = 3.714, CI: 1.770-7.789, p = 0.001).

Table 6. Factors Affecting Students Students' Desire to Work in Disasters According to Education Program Types – Binary Variable Logistic Regression Analysis

	B	S.E.	OR	95% CI	P value
Emergency and Disaster Management					
Gender (ref. Female)	-1.149	0.440	0.317	0.134-0.751	**0.009***
Having disaster education (ref: No)	-.044	0.459	0.957	0.390-2.351	0.924
Experiencing a disaster (Ref: No)	-.214	0.446	0.630	0.337-1.933	0.630
Personal disaster preparedness (ref: No)	.634	0.470	0.177	0.751-4.733	0.177
Membership to an NGO related to disasters (ref: No)	1.259	0.424	3.520	1.533-8.082	**0.003***
Ability to swim (ref: No)	-.592	0.439	0.177	0.234-1.307	0.177
Constant	1.762	0.591			0.003
Social Work					
Gender (ref. Female)	-.601	0.316	0.548	0.295-1.019	0.057
Having disaster education (ref: No)	-.211	0.243	0.810	0.503-1.304	0.386
Experiencing a disaster (Ref: No)	.306	0.246	1.358	0.838-2.201	0.215
Personal disaster preparedness (ref: No)	.457	0.335	1.579	0.818-3.045	0.173
Membership to an NGO related to disasters (ref: No)	1.312	0.378	3.714	1.770-7.789	**0.001***
Ability to swim (ref: No)	-.300	0.246	0.741	0.458-1.199	0.222
Constant	.103	0.225			0.646

*p < .05

In addition, when the student's satisfaction with the program they study is examined, it is observed that 28.8% (n=61) of EDM students are satisfied, 54.7% (n=116) are dissatisfied, and 13.7% (n=29) have no opinions. On the other hand, 50.1% (n=175) of SW students are satisfied, 18.1% (n=63) are dissatisfied, and 29.8% have no opinions.

4. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

The primary actions taken during a disaster are search and rescue, damage assessment, humanitarian aid, rehabilitation, zoning and construction, risk assessment, risk analysis, establishment of shelter tents, and clean water supply (Kimin et al., 2022). Disasters that interrupt or stop people's daily lives and activities are actually situations that create difficult times or tension in a person's or social life and indicate that preventive measures are insufficient. Providing successful emergency management within the scope of disaster events can prevent the crisis from escalating and eliminate the crisis. Disaster management is also called the management of disaster-related resources (Yaman and Çakır, 2020). Experience with emergency planning has shown that identifying and recruiting volunteers may be the biggest challenge. This study aims to evaluate the attitudes and factors related to the willingness of university students to work during a disaster. When EDM and SW department students were compared in terms of their willingness, the willingness of EDM students to work in disasters was significantly higher than SW students. 85.2% of EDM students (n=179) and 56.6% of SW students (n=197) want to work in disasters. Similarly, İnal and Kaya, in their study with EDM and nursing students, reported that the willingness level of EDM students was above the average (Inal and Kaya, 2021). When the reasons for being unwilling to work in disasters are examined, it is seen that the applied training is inadequate, the quality of education is low, there is no internship, and the instructors do not have sufficient knowledge and equipment. Emergency Aid and Disaster Management department is not included in the regulation regarding the job and task definitions of healthcare professionals and other professionals working in health services. Therefore, not being appointed to the Ministry of Health may be among the reasons for students' reluctance to work in disasters. The willingness of SW students to work in disasters was lower than expected since working in disasters is a correct and necessary work needed for Social Work graduates whose main duty is to organize the fulfillment of people's social needs and to ensure that they have good conditions (Tuncay, 2004). The breadth of the spectrum of influence requires social workers to engage in multidimensional planning and process management. It is known that social work has assumed responsibility from past to present in order to respond to the needs of populations who have become disadvantaged and vulnerable due to various reasons, including natural or man-made disasters. In general, the activities expected from pre-disaster social workers are training/information activities, participation in disaster management stages and organization of risk management studies. The activities that social workers should do during a disaster are to provide access to cases within the scope of advocacy and mediation roles, to facilitate people's access to help resources, to carry out professional studies to improve the mental health of individuals and society (Seyyar and Yumurtacı, 2016). Considering the willingness of EDM and SW students to respond to disasters, who are at the forefront of disasters, active intervention is needed to increase their willingness to participate, to increase applied training, to provide mental support, and to strengthen their coping skills.

Most of the students in SW department (84.8%) and nearly half of the students in EDM (55.5%) have no personal disaster preparedness. It was seen as an unexpected situation that the students of both departments did not have personal disaster preparedness since students studying in both departments have to contribute and participate in the process of disaster preparedness and disaster prevention (at the regional and national level) (Todd and Drolet, 2020). In addition, being

unprepared is closely related to the lack of knowledge and experience about social services in disasters.

In order for the disaster management process to be effective, non-governmental organizations have important roles in economically, socially and psychologically damaged societies (Başaran and Akyüz, 2022). Non-governmental organizations have begun to be established, especially in the national and international arena, to meet the needs of the poor, reduce the effects and damages of disasters, and combat and intervene against disasters (Lassa, 2018). This study shows that being a member of a disaster-related NGO is important in terms of EDM students' willingness to work in disasters since NGOs encourage stronger participation of students (Islam and Walkerden, 2015). Additionally, NGOs have an important role in disaster management (Grogg, 2016). NGOs are non-profit, voluntary and government-independent organizations that engage in activities related to various social and developmental issues. The role of NGOs during a disaster is to respond quickly and try to save as many lives as possible with the funds given (Mondal et al., 2015). NGOs have become a large component of the response and recovery process for natural disasters. Research shows that NGOs not only have the potential to assist during disaster response, but also do an effective job in mitigation, preparedness and recovery (Grogg, 2016). Therefore, students' participation in NGOs and internships before or after disasters will contribute to their development.

Many studies reveal a willingness to work according to disaster types (Kimin et al., 2022; Smith, 2007; Smith et al., 2009; Sultan et al., 2020). In studies conducted with healthcare professionals, it has been found that employees are more willing to work in a natural disaster compared to man-made disasters (Cone and Cummings, 2019; Martens et al., 2003). In a study conducted on nurses, it was determined that nurses were least willing to work in bird flu, an infectious disease-related disaster (Anderson et al., 2007). Mushtaque et al. (2022) conducted a study on avian influenza with healthcare professionals in Australia. While 36 percent of the participants were unwilling to work even if antiviral drugs were available during the pandemic, 53 percent stated that they were willing (Mushtaque et al., 2022). In another study, it was found that the willingness of emergency response workers to work in chemical, biological, radiological, and nuclear disasters was below 75%, while their willingness to work in environmental disasters and weather-related disasters was higher (82.5%) (Balicer et al., 2011; Barnett et al., 2010). In this study, which is in line with the literature, students want to work more during earthquakes, but they want to work less during infectious diseases and gas leak disasters. It is also due to the nature of the willingness to respond as a disaster-specific situation. Student's willingness to work varies according to the type of disaster. In addition, in recent literature on willingness to work in disasters, it is stated that people who will work during a disaster are less willing when there is a high threat to themselves, their families, or their property (Barnett et al., 2010). The reason for the low desire to work in events such as CBRN or bombing may be that CBRN and bombing events cause mass deaths and injuries, major structural damage, burns on the skin, edema in the lungs, and incurable damage (Sert et al., 2022).

Although the Covid-19 pandemic has captured the attention of all countries around the world, few studies have investigated the willingness of healthcare workers to work during this pandemic. Joseph and Manasvi conducted a study to assess the perceptions of medical students in India about self-preparation and volunteering in COVID-19 relief activities (Joseph and Manasvi, 2022). As a

result of the study, only 56.9% (n=116) of the students stated that they were willing to participate in covid-19 aid activities, while 19.1% (n=39) were not.

As a result of the study, it was determined that EDM students were more willing than SW students, and 85.2% of EDM students and students in general wanted to work in earthquakes the most. While gender and membership in an NGO are predictors of willingness for EDM students, only membership in an NGO is a predictor of willingness for SW students. NGOs can carry out various activities for disaster management in co-operation with both departments. Because NGOs have been one of the key actors of the intervention and rescue process in disaster periods. They can also help students to become more resilient against disasters by organising disaster planning and emergency drills. NGOs can work in coordination with students in the disaster management process and distribute aid effectively. Educational content that does not only treat disasters as natural disasters, but is participatory, includes opportunities, and addresses all the dangers that pose risks at the local level and the vulnerability situations that may arise, should be created and added to the curriculum. While creating this educational contents, international criteria should be evaluated based on national priorities. In addition, the applicability and efficiency of the programs should be inspected at regular intervals and their suitability for current conditions should be taken into account and updated. For students to gain the willingness to work in disasters, the requirements of pedagogical education should be met, and similar supportive initiatives should be encouraged in various fields of education.

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