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Fatalistic Tendency as a Predict of Disaster Preparedness Beliefs in University Students

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Abstract

This study aims to examine whether fatalism tendency is a predictor of disaster preparedness belief in university students. In this study in which correlational research design was used, the data were obtained by convenience sampling method from the students studying at a university and voluntarily participating in the study. Demographic information form, fatalism scale and disaster preparedness belief scale were used as data collection tools. Data were collected through online forms. A total of 212 university students with an average age of 19.92±1.46 years, mostly 169 (79.72%) of whom were female, participated in the study. Pearson correlation and multiple linear regression analyses were used to analyse the data. As a result of the study, fatalism tendencies of the students were found to be moderate and disaster preparedness belief levels were found to be high. When the relationships between the participants' fatalistic tendencies and disaster preparedness beliefs were analysed, a significant negative relationship was found between fatalistic tendency and disaster preparedness beliefs. The results showed that as the perception of personal control weakened and the belief in luck and superstition increased, the belief in disaster preparedness decreased. In addition, regression analysis revealed that the weak perception of personal control and the tendency to believe in luck and superstitious beliefs contributed to the belief in disaster preparedness.

Keywords: Disaster, Disaster Preparedness Belief, Fate, Fatalism, Faith Tendencies, University Students

1. INTRODUCTION

Disasters, which are defined as events that disrupt the flow of life of the society in which they occur, cause loss of life and property, and exceed the response capacity of the society in which they occur (Yumagulova et al., 2021; UNISDR, 2009), cause great damage to human communities and the values of communities every year (URL 1). It is predicted that the loss and damage caused by disasters will be higher in the future (Maurice, 2013). Losses and damages caused by disasters can sometimes be prevented and always mitigated (Neumayer et al., 2014). Preparation and planning are of immense importance before disasters occur and cause great damages (Fothergill et al., 2005). As a matter of fact, many researchers in the literature state that the most effective, economic, and rational way to prevent damages caused by disasters is through preparations to be made before the disaster occurs (URL 2, Ma et al., 2021; Karaman, 2020; Doğulu, 2018; İnal et al., 2012).

The last century has shown that disasters are inevitable events with great destruction and losses caused by disasters in the world. Earthquakes in Turkey with magnitudes ranging from 6.4 to 7.5 causing loss of life and property; 2023 Kahramanmaraş, Gaziantep and Hatay earthquakes. 2023

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floods in Kastamonu, forest fires and landslides in Muğla and Antalya in 2021, and the Covid-19 outbreak worldwide have shown that disaster can happen at any time and that we should be prepared for it. It is clearly seen that humanity must accept the painful consequences of disasters if the situation is left unattended. On the other hand, disaster education is shown as one of the most effective solutions in minimising and preventing the damage caused by disasters. Likewise, disaster education aims to enable individuals to acquire knowledge and skills to take action to reduce their vulnerability to disasters (Torani, Majd, Dowllati, and Sheikhi, 2019). In line with this purpose, school-based and community-based disaster education is adopted by considering the environment and audience characteristics. In Turkey, school-based disaster education was initiated on 18 October 2010 with the protocol signed between Japan International Cooperation Agency and Ministry of National Education General Directorate of Teacher Training and Development (Ministry of Development, 2014). The studies accepted as the first phase continued as the second phase in 2018 (URL 3). The aim is to improve disaster awareness and reduce losses. 2021 was declared as "Turkey Disaster Education Year" (URL 4) and a nationwide "Disaster Education Mobilisation" was launched. Under the leadership of AFAD, "Disaster Awareness Training" was organised for teachers, administrative staff and students in schools, public personnel, gendarmerie, police, and citizens (URL 5). The year 2022 was designated as the "Disaster Drill Year" throughout the country and practical drills were conducted to combat disasters (URL 6). After the 6 February Earthquake, which affected nine provinces, MEB implemented the Psychosocial Support Action Plan (URL 7). Over the years, it is seen that the importance given to disaster education in Turkey has increased and action-oriented studies have also been conducted. However, despite these studies, it is also stated that the level of disaster preparedness of people living in Turkey is not at the desired level (Sarık and Cengiz, 2022; Ünal et al., 2017).

Disasters are foreseeable events whose consequences will be aggravated if they are not prepared. Distinct types of disasters not only cause loss of life and property in terms of their consequences but also cause losses in physical and mental health of people. Injury of the disaster victim, seeing people other than his/her relatives or relatives who are injured and deceased disrupts his/her psychological state and adaptation. Post-disaster psychological problems such as post-traumatic stress disorder, stress and anxiety reactions, depression, panic disorder and sleep disorders (Kim and Lee, 2021; Xi et al. 2020; Georgieva et al. 2020; Goenjian, Steinberg, and Najarian 2000; Martin, 2015) can be experienced. This may lead to job losses (Kino, Aida, Kondo, and Kawachi, 2021) and deterioration of family relationships (Makvana, 2019).

Although preparation is of vital importance in disaster mitigation (Şahin et al., 2018), sometimes individuals and sometimes societies do not give the necessary value to this issue (Neumayer et al., 2014, p. 8). There are many cultural, social, and economic reasons for not paying enough attention to disasters and not making the necessary preparations. Some of them are the understanding of fate and fatalism, which are frequently discussed and researched in many different disciplines from psychology to religion (Kaya and Bozkur, 2015). While fate is based on the Creator's eternal knowledge of the events that will develop (Yavuz, 2001), some societies and people use this concept out of its context and think that it is certain how everything will happen, that it is pointless to try to change events, that their own efforts will not lead to a change in the events they experience in their lives, and that it is unnecessary to make an effort. This thought and attitude may prevent societies from progressing, developing, and preparing adequately for disasters. Inadequate preparation, not taking necessary precautions and measures caused by the understanding of fatalism, especially in destructive events such as disasters, increases the loss of life and property.

Fatalism tends towards inaction and hopelessness (Leach, 1915: 25). Fatalism is a way of coping with helplessness. Some researchers have stated that fatalistic understanding can prevent individuals from taking necessary measures against disasters (Kılıç and Malak, 2022; Demirci,

2021; Bilik, 2019; Pathirage et al., 2012; İnmez, 2011). However, explaining the lack of adequate preparation against disasters as everything is fate (Bilik, 2019; Pathirage et al., 2012) shows that the issue of fate is misunderstood. It is not a correct understanding of fate to simply see the disaster events experienced as a compulsory fate or to characterise the disaster as a divine punishment and not to take precautions and measures (Karaman, 2020). The correct understanding of fate requires taking responsibility, precautions, and measures. As a result, what is important is how fate is understood. It can be said that the correct understanding of fate that requires responsibility is an incentive rather than a barrier in disaster preparedness, but the wrong understanding of fate may naturally negatively affect individuals' preparedness for disasters (Kılıç and Malak, 2022).

It is stated that some people show resistance to protective practices such as immunisation and health screenings, especially in taking health-protective and disease-preventive measures in areas such as health. In relation to this, the Health Belief Model (HBM) was developed in the early 1950s to investigate why some people do not use health services such as immunisation and screening (Sutton, 2001). It was suggested that the model could be applied to other problems (Rosenstock, 1974). The model was adapted to explain and predict disaster behaviours (İnal, 2015). HBM consists of components that predict whether and why people will act in disaster preparation and protection (Skinner et al., 2015). HBM assumes that people will act for disaster protection behaviours if they are susceptible to disaster (perceived susceptibility), believe that disaster will cause serious consequences (perceived severity), believe that certain actions will reduce their susceptibility and serious consequences, and believe that the results of their actions will provide less harm (perceived harm) and more benefit (perceived benefit) (Jones et al., 2015). The desirable outcomes of people's actions are the determinants of their current and future behaviours. The model also includes enablers (cues to action) that play a key role in the realisation of action and the belief in one's own ability to act (self-efficacy). HBM are explanations that shed light on understanding people's actions in emergency and threatening situations. The components of the HBM model can predict people's behaviour of taking precautions and being prepared for disaster (Inal et al., 2018). It can also be used as a framework to explain the avoidance of disaster preparedness behaviour. HBM can provide useful information in investigating why people do not take precautions against disaster situations.

When the literature is examined, it is seen that disaster preparedness and disaster awareness issues are addressed and studied together in studies on disaster preparedness (Demirci, 2021; Şahin et al., 2018; İnal et al., 2012; Pathirage et al., 2012). When the results of studies on disaster preparedness in Turkey are analysed, it is shown that the level of disaster preparedness of disaster workers is limited (Ünal et al., 2017) and acceptable (Sarık and Cengiz, 2022). In a study conducted with teachers, it was observed that the disaster awareness levels of classroom teachers were high, and this situation was attributed to the trainings conducted within the scope of "Disaster Ready Turkey" (Bulu, 2023). In support of this situation, in a study conducted with university personnel, it was reported that training had a positive effect on the level of disaster awareness (Gerdan, 2014). In the study in which the opinions of university students on the factors preventing disaster preparedness were tried to be determined, it was found that lack of disaster awareness, lack of knowledge and experience about disasters, irresponsibility, lack of supervision and not believing in the reality of disasters were among the factors affecting disaster preparedness (Avcı, 2023). A limited number of studies on disasters have addressed the issue of fate and tried to measure fatalism with a few questions (Kılıç and Malak, 2022; Demirci, 2021; Bilik, 2019; Pathirage et al., 2012). Among the studies in the literature, there is no study that measures or examines fatalism tendency and disaster preparedness beliefs with a valid and reliable scale. Therefore, it is deemed necessary to measure fatalism, which can significantly affect people's lives and disaster preparedness, more in-depth and with a valid and reliable measurement tool.

People's preparedness for disasters is first based on the existence of certain beliefs that encourage disaster preparedness behaviours. People's beliefs that there is a risk, that the risk cannot be avoided and that it will be realised soon may encourage them to be prepared. Fatalistic tendencies may prevent such thoughts and beliefs. This study aims to examine whether fatalistic tendency is a predictor of high predictive constructs (HBM components) of disaster preparedness. The study is expected to guide institutions, organisations and educators in determining the issues that should be given importance in activities such as education, training, advertisement, promotion, etc. for the society, especially university students to be prepared for disasters, and in preparing the content of trainings.

In this direction, answers to the following questions will be sought in this study.

1. At what level are the disaster preparedness beliefs and fatalism tendencies of university students?
2. Is there a significant relationship between disaster preparedness belief and its subscales and fatalism tendency and its subscales in university students?
3. Do subscales of fatalism tendency predict general disaster preparedness beliefs and subscales?

2. MATERIALS AND METHOD

2.1 Ethical Dimension of the Study

To conduct the study, permission to use the scales was first obtained from the researchers who adapted the scales to be used. Then, ethics committee permission dated 27.12.2021 and numbered E-57452775-044-72335 was obtained from Sinop University, Human Research Ethics Committee for the approval of the compliance of the research with ethical principles and applicability. In addition, informed consent was obtained from the individuals participating in the study for their participation in the study.

2.2 Sampling

The population of the study consists of 298 university students. In the study, convenience sampling method was used and 212 (71.14%) associate degree students studying at Sinop University Türkeli Vocational School who agreed to participate in the study were included in the study. Türkeli Vocational School has Emergency and Disaster Management, Home Patient Care and Child Protection and Care Services programmes. The inclusion criteria were to be a university student and to volunteer to participate in the study. To reach the participants, the form with the data collection tools was shared online on social media applications and especially in class whatsapp groups. The limitation of this study is that the study was applied on a small sample.

2.3 Research Design, and Data Collection Process

Since this study aims to examine whether fatalism tendency is a predictor of disaster preparedness belief in university students, it was carried out with relational design, which is one of the quantitative research methods. The data collection process for the research was carried out between 01.01.2022 and 31.01.2022. The population of the study consists of 298 university students. The aim of this study is to examine whether fatalism tendency is a predictor of disaster preparedness belief in university students.

2.4 Data Collection Tools

In this part of the study, data collection tools used in the research are given.

2.4.1 Demographic information Form

In the first part of the form used as a data collection tool, there is an information form developed by the researchers consisting of different questions such as age, gender, disaster experience, loss of relatives because of disaster, and receiving disaster training.

2.4.2 General Disaster Preparedness Belief Scale

The scale used in the last part of the data collection tool is the General Disaster Preparedness Belief Scale (Inal et al., 2018). This scale, which was developed based on the Health Belief Model, consists of a total of 31 items, including perceived susceptibility (6 items), perceived barriers (6 items), perceived benefit (3 items), perceived severity (3 items), self-efficacy (8 items) and cues to action (5 items). In the scale, the perceived barriers dimension is reverse coded. General Disaster Preparedness Belief Scale has no cut-off point. The scale is designed in 5-point Likert type. The lowest score that the participants can get from the scale is 31 and the highest score is 155. Researchers found that Cronbach's Alpha coefficients for the sub-dimensions of the scale ranged from 0.90 to 0.74 (Inal et al., 2018). In this study, the Cronbach Alpha coefficient of the General Disaster Preparedness Belief Scale was found to be 0.81.

2.4.3 Fatalism Tendency Scale

In the second part of the data collection form, the Fatalism Tendency Scale, which is sufficient to measure the fatalism tendency of high school and university students, containing 24 items and 4 different dimensions as predetermination (8 items), personal control (6 items), superstition (6 items), luck (4 items), was used. The Personal Control sub-dimension in the scale is reverse scored. In the evaluation of the scale, the fatalism tendency score of the individuals is calculated with the sum of the scores obtained from all dimensions. An increase in the score of the participants indicates an increase in the tendency towards fatalism. The scale is designed in 5-point Likert type. The highest score that can be obtained from the scale is 120 and the lowest score is 24. Researchers determined the Cronbach Alpha coefficient of the fatalism tendency scale as 0.86 and the test-retest reliability coefficient as 0.72 (Kaya and Bozkur, 2015). In this study, the Cronbach Alpha coefficient of the fatalism tendency scale was found to be 0.76.

2.5 Data Analysis

The data obtained were analysed using SPSS 22 package statistical software. Before analysing the data obtained in the study, it was examined whether the data set showed normal distribution or not by Skewness and Kurtosis tests. As a result of the test, it was determined that the skewness and kurtosis coefficients of the sub-dimensions of the General Disaster Preparedness Belief scale and the sub-dimensions of the Fatalism Tendency scale were within the range of ±2 and had a normal distribution (George and Mallery, 2010). According to the variables of the study, the numbers and percentages of the participants and the mean values and standard deviations of the variables were calculated. Pearson correlation analysis, which is one of the parametric tests that enables the examination of the relationship between two or more variables, was used to examine the relationship between variables. Multiple linear regression analysis was used to determine whether the sub-dimensions of fatalism tendency predicted disaster preparedness belief.

3. RESULTS

Findings regarding the characteristics of the students are given in Table 1. Many of the participants (79.72%) were female students. The mean age of the participants was 19.92±1.46 years. According to the education of their parents, 74.1% of the participants' fathers and 81.2% of their mothers were primary school graduates. 40.12% of the students reported that they had experienced a disaster. The rate of those who lost their relatives in disasters was determined as 2.8%. When the findings were analysed according to the disaster training of the participants, it was found that 39.6% of them received disaster training.

Table 1. Characteristics of students (N= 212)

Variable		N	%
Gender	Woman	169	79.7
	Male	43	20.3
Age	17-26	M=19.92	SD=1.46
Mother Education	Primary School	173	81.6
	High School	28	13.2
	High Education	11	5.2
Father Education	Primary School	157	74.1
	High School	48	22.6
	High Education	7	3.3
Experienced Disaster	Yes	85	40.1
	No	127	59.9
Losing a Loved One in a Disaster	Yes	6	2.8
	No	206	97.2
Getting Disaster Education	Yes	84	39.6
	No	128	60.4

The mean scores and standard deviation values of the students participating in the study are given in Table 2. The mean score of the total points obtained by the students from the General Disaster Preparedness Belief Scale was well above the average (M=110.77, SD=12.63). When the subscales of the Disaster Preparedness Belief Scale were analysed, the mean scores of the participants for the perceived susceptibility subscale were found to be 23.05±3.63, 10.35±2.19 for perceived severity, 11.6±2.37 for perceived benefit, 20.27±4.5 for perceived barriers, 16.88±2.88 for cues to action and 28.62±4.66 for self-efficacy (Table 2).

The mean scores of the students' fatalism tendency was found to be above the average (M=65.16, SD=11.98). When the scores of the subscales of fatalism tendency were analysed, it was seen that they received 13.58±4.07 from the subscale of personal control perception, 24.96±6.29 from the subscale of predetermination, 11.84±3.48 from the subscale of tendency to believe in luck factor and 14.7±8.81 from the subscale of tendency to believe in superstitious beliefs.

Table 2. Scale score averages of the participants

	M (lowest score-highest score that can be obtained from the scale)	SD
General disaster belief	110.77 (31-155)	12.63
Perceived susceptibility	23.05 (6-30)	3.63
Perceived severity	10.35 (3-15)	2.19
Perceived benefits	11.6 (3-15)	2.37
Perceived barriers	20.27 (6-30)	4.5
Cues to action	16.88 (5-25)	2.88
Self-efficacy	28.62 (8-40)	4.66
Fatalistic tendency	65.16 (24-120)	11.98
Personal control	13.58 (6-30)	4.07
Predetermination	24.96 (8-40)	6.29
Luck	11.84 (4-20)	3.48
Superstition	14.78 (6-30)	4.81

When the relationships between the participants' fatalism tendencies and disaster preparedness beliefs were analysed, a significant negative relationship was found between fatalism tendency and disaster preparedness beliefs (r=-.26, p<0.01). It was observed that students with high

fatalism tendency had weak disaster preparedness beliefs. The results of the correlation analysis showed a negative relationship between the subscales of the fatalism tendency, except for the predetermination subscale, and disaster preparedness beliefs. When the correlation coefficients between fatalism tendency and disaster preparedness beliefs of undergraduate students studying at the university were analysed, it was found that general disaster belief was negatively correlated with perception of weak personal control (r=-.30; p<0.01), tendency to believe in luck factor (r=.16; p=<0.05) and tendency to believe in superstition (r=-.22; p<0.01) (Table 3).

When the relationships between the subscales of the Disaster Preparedness Belief Scale and the subscales of fatalism tendency were analysed, perceived susceptibility was found to have a significant negative relationship only with personal control (r=-.31; p<0.01). Perceived severity showed a significant positive relationship with predetermination (r=.19; p<0.01) and superstition (r=.28; p<0.01). Perceived benefits had a significant negative relationship with personal control (r=-.24; p<0.01) and superstition (r=-.15; p<0.05). Perceived barriers were negatively related to predetermination (r=-.28; p<0.01), luck (r=-.24; p<0.01) and superstition (r=-.29; p<0.01). Cues to action were found to have a significant negative relationship only with personal control (r=-.16; p<0.05), while self-efficacy was negatively related to personal control (r=-.31; p<0.01) and superstition (r=-.26; p<0.01) (Table 3).

Tablo 3. Relationships Between Variables

	1	2	3	4	5	6	7	8	9	10	11
1.General disaster belief	1.00										
2.Perceived susceptibility	.77**	1.00									
3.Perceived severity	.11	.12	1.00								
4.Perceived benefits	.55**	.47**	.15*	1.00							
5.Perceived barriers	.63**	.31**	-.17**	.50	1.00						
6. Cues to action	.60**	.35**	-.06	.18**	.25**	1.00					
7.Self-efficacy	.80**	.51**	-.15*	.39**	.40**	.42**	1.00				
8.Fatalistic tendency	-.26**	-.12	.26**	-.16*	-.35**	-.07	-.29**	1.00			
9.Personal control	-.30**	-.31**	.02	-.24**	-.04	-.16*	-.31**	.24**	1.00		
10.Predetermination	-.05	.05	.19**	.04	-.28**	.08	-.08	-.08	-.08	1.00	
11. Luck	-.16*	-.05	.13	-.13	-.24**	-.08	-.11	-.20**	.46**	.46**	1.00
12. Superstition	-.22**	-.06	.28**	-.15*	-.29**	-.08	-.26**	-.02	.43**	.49**	.49**

*p <0.05, **p <0.01

It was thought that students' fatalistic tendencies might predict their beliefs about disaster preparedness. Multiple linear regression analyses were performed to determine the contribution of fatalism tendency to disaster preparedness beliefs. It was found that the weak perception of personal control and the tendency to believe in luck and superstitious beliefs contributed to the belief in disaster preparedness ($F_{(3.208)}$=12.553, p<0.0001). The explanatory power of fatalism tendency was determined as 15% (R^2 =0.153).

The standardised coefficients of the variables included in the regression analysis, which were thought to contribute to the belief in disaster preparedness, were determined as (β=-0.33, p<0.0001) for the lack of perception of personal control, and (β=-0.15, p=0.040) for the tendency to believe in superstitious beliefs. (Table 4).

Table 4. Predictors of Disaster Preparedness Beliefs

	B	S.E	B	t
Constant	136.770	4.469		30.603**
Personal control	-1.017	0.203	-0.328	-5.019**
Luck	-0.531	0.271	-0.147	-1.962
Superstition	-0.399	0.193	-0.152	-2.071*
R^2 =0.153 F=12.553				

*p<0.05,**p<0.01

Then, regression analyses were performed separately for the subscales of disaster preparedness belief. Unrelated independent variables were not included in the analyses. The results are shown in Table 5. While personal control was a significant predictor for perceived susceptibility, ($F_{(1. 210)}$=21.879, p<0.01). For perceived severity, superstition was a significant predictor, but predetermination was not identified as predictors ($F_{(2. 209)}$=9.473, p<0.01). For perceived benefits, personal control and superstition-were found to be significant predictor ($F_{(2. 209)}$=9.301, p<0.01). The significant predictors of perceived barriers were predetermination and superstition ($F_{(3. 208)}$=8.966, p<0.01). Personal control was found to be significant predictor for actionable ($F_{(1. 210)}$=5.371, p<0.05). The predictors of self-efficacy were personal control and superstition ($F_{(2. 209)}$=21.485, p<0.01).

Table 5. Regression Analysis Results Related to Subscales of Disaster Preparedness Beliefs

	B	S.E	β	t
Perceived susceptibility				
Constant	26,764	,829		32,268***
Personal control	-0,274	0,059	-0,307	-4,678***
R^2 = 0,094 F = 21,879				
Predictors of Perceived Severity				
Constant	7,968	0,634		12,562***
Predetermination	0,031	0,026	0,088	1,199
Superstition	0,109	0,033	0,240	3,272**
R^2 = 0,083 F=9.473				
Predictors of Perceived Benefit				
Constant	14,638	0,735		19,927***
Personal control	-0,143	0,039	-0,245	-3,702***
Superstition	-0,074	0,033	-0,150	-2,270*
R^2 = 0 ,082 F = 9,301				
Predictors of Perceived Barriers				
Constant	22,239	1,116		19,929***
Predetermination	-0,097	0,046	-0,162	-2,128*
Luck	-0,088	0,085	-0,082	-1,037
Superstition	-0,137	0,060	-0,176	-2,275*
R^2 = 0,115 F = 8,966				
Predictors of Cues to Action				
Constant	18,396	0,684		26,898***
Personal control	-0,112	0,048	-0,158	-2,318*
R^2 = 0,025 F = 5,371				
Predictors of self-efficacy				
Constant	37,412	1,374		27,231***
Personal control	-0,364	0,072	-0,318	-5,054***
Superstition	-0,260	0,061	-0,268	-4,252***
R^2 = 0,171 F = 21,485				

* p<0,05, ** p<0,001, *** p<0,0001

4. DISCUSSION AND CONCLUSION

In this study, fatalism tendency was analysed as a predictor of general disaster belief in university students. The results showed that students' disaster preparedness belief is high. The findings support the results of the study conducted with university students (Ertuğrul and Ünal, 2020). The general disaster preparedness belief scores of the participants of the study were found to be close to the findings of this study. When the sub-scales of disaster preparedness belief of the study were examined, it was seen that the mean scores of the subscales of perceived benefit, perceived barriers, perceived susceptibility, perceived severity, self-efficacy, and activators were close to the mean scores of this study. In a study conducted with university students as a focus group study, it was determined that students were uninterested in disaster preparedness (Davis et al., 2019). This indifference is since the university environment is perceived as a safe environment by the students and that disaster preparedness is not seen as a priority for this reason. The difference in the results may be due to the difference in the questions asked to the students, the difference in the environment of the students and the different courses they take. It is important for university students to be prepared for disasters during and after their education in the fight against disasters individually and collectively. For this reason, increasing the disaster preparedness beliefs of students should be seen as a part of their education and should be continued in university education.

Another result of the study is that the fatalism tendencies of the students were close to the average. In a study conducted with university students, it was found that a substantial proportion of students had fatalistic tendencies (Doğan, 2021). In the same study, it was determined that approximately 40% of the students had a belief-based perception of destiny. In another study conducted with an adult group, it was determined that the fatalism tendency levels of the participants were awfully close to the finding of the current study (65.86 ± 13.23) (Öncü et al., 2021). A more recent study was conducted with high school students, and it was concluded that students' fatalistic beliefs were high (Baytiyeh and Öcal, 2016). It is argued that the tendency towards fatalism is a cultural phenomenon (Maercker et al., 2019; Ruiu, 2013). In this context, the fact that it is the most expressed belief and thought in Turkish folk poetry and memoirs can be shown as proof of the prevalence of the fatalistic approach (Çevirme, 2020). Turkey is among the countries with high fatalism tendency (Ruiu, 2013). A study comparing Norwegian and Turkish drivers also supports this situation. In the study, fatalism was found to be an important predictor of risky driving by Turkish drivers (Nordfjærn et al., 2012). On the other hand, the finding that the level of fatalism decreases as the level of education increases (Shahnazi et al., 2020; Shen et al., 2009) may explain the moderate fatalism tendencies of the participants of this study.

One of the important problems in human life is disasters. Disasters are events that develop suddenly and seriously affect people and their environment with loss of life and property. Disasters are a part of life, and it seems unlikely that they will not affect people. Turkey, which is accepted as an earthquake country, is one of the countries where various disasters, especially earthquakes, have been experienced. This situation requires individual preparedness for disasters as well as state policies. Being prepared for floods and being prepared for earthquakes are seen as the basic building blocks in the management of disaster risks (Babcicky and Seebauer, 2019). Understanding the factors that facilitate and hinder disaster preparedness can help cope with disasters. Fatalism, as the belief that nothing can be done about disasters, is closely related to people's thoughts and actions to prepare for disasters.

Belief in preparedness for disasters includes being susceptibility to disasters, taking disaster seriously, believing that disaster can be prevented, not putting barriers on oneself, existence of motivators and trusting one's own abilities. A weak but significant negative correlation was found between the belief in being prepared for disasters and the tendency towards fatalism. This result

suggests that the role of other factors should be considered in disaster preparedness. In studies conducted in Turkey, it has been found that fatalism, which is determined by the expression "God knows everything" in determining the fatalism of the participants, reduces responsible behaviours related to earthquake preparedness. In the same study, it is stated that people's belief in Allah's justice is important in coping with stress. In the study, 13.2% of the participants also stated that "it is not possible to avoid Allah's might and desire" as the reason for not acting responsibly (Kasapoğlu and Ecevit, 2003). The cause of the earthquake is seen as God and destiny, the stress created by the disaster is suppressed by religious beliefs and the negative consequences of the disaster are accepted (Çevirme, 2020). Fatalism was determined among the reasons why university students and non-student adult participants did not take precautions against earthquakes (Akalın et al., 2020).

Fatalism is a barrier to preparing for disasters (John McClure, 2017). It is the belief that it is not possible to reduce the damage caused by disasters. The belief that a person cannot prevent a disaster no matter what he does prevents him from being prepared for a disaster. The uncontrollability of the event causes people to feel powerless and helpless and inaction. The person who believes that he cannot get out of the situation no matter what he does will accept the situation. Researchers state that the fatalistic structure of society cannot be overcome in Turkey, and that the state is perceived as a remedial role in disasters and its protective role is not understood (Özmen and Özden, 2013). In a recent study conducted with a group of adults, fatalism tendency was found to be above the average (Yıldız et al., 2023).

When the relational analyses were examined in line with what was stated, it was found that the belief in disaster preparedness was negatively related to the sub-dimensions of fatalism except predetermination. Personal control sub-dimension showed the strongest relationship with disaster preparedness belief. The belief in disaster preparedness decreases as personal control weakens, beliefs that are not in accordance with reason and logic and belief in luck. Believing that the disaster is determined by supernatural power and feeling that one has no control may negatively affect people's preparedness for disasters. Other correlational analysis results showed that the sub-dimensions of disaster preparedness, except perceived seriousness, were negatively related to the sub-dimensions of fatalism. Another result of the correlation analysis is that disaster preparedness beliefs are generally related to fatalism, personal control and superstition.

Analyses on the prediction of fatalism on general disaster belief and its subscales showed that personal control, luck, and superstition were significant predictors of disaster preparedness belief. It was determined that the belief in disaster preparedness decreased as the perception of personal control weakened and belief in luck and superstition increased. This result suggests that students' thinking that their behaviours and choices are not under their control and that they attribute events to supernatural forces negatively affect their disaster preparedness beliefs. Fatalistic people are people who submit to their fate and do not plan (Hayes and Clerk, 2021). The fatalistic tendency may hinder the actions of self-protection and disaster preparedness. Fatalism needs to be "fought, controlled or somehow managed" (Entwistle, 2021).

It has been found that high fatalistic beliefs in health are associated with low preventive behaviours (Vanderpool et al., 2015). Fatalism is seen as a to the prevention of diseases and screening studies in the field of health (Vanderpool et al., 2015). barriers Disasters are perceived as situations beyond personal control. It has been observed that, depending on the increase in fatalism, adaptability increases and as fatalism decreases, responsibility, and openness to innovation increase (Çelik, 2020). As the person feels responsible, disaster preparedness actions and intentions increase (Mulılıs et al., 2001). With the understanding of human behaviour, the measures that can be taken and the interventions to be determined, the damage and problems caused by disasters can be reduced.

Perceived susceptibility is a person's belief that he or she will be exposed to a disaster (Strecher et al., 1997). To prepare for disaster, one must believe that he will be exposed to disaster. This belief is important because people who believe they will be exposed to disaster are more likely to take protective action (Thompson et al., 2011). The results showed that personal control, one of the sub-dimensions of fatalism, was a predictor of perceived sensitivity. As the perception of personal control weakens, the perceived susceptibility decreases. Perceiving events as uncontrollable can reduce vulnerability to disaster and hinder action. Similarly, some researchers have found that the belief that nothing can be done in the face of natural disasters is associated with a lack of feelings of control (Becker et al., 2013). People with low self-control perceptions may prefer to remain passive about disaster preparedness. Changing people's perceptions that nothing can be done in the face of disasters can increase their disaster susceptibility and disaster protection behaviours.

Perceived severity is the person's perception of the disaster as a serious/dangerous situation. As the linking of disaster to supernatural events increases, disaster is perceived as a more dangerous/threatening situation. Not perceiving a disaster as a serious situation may prevent taking protective/preventive measures. In the study, the sub-dimension of fatalism tendency, superstitious beliefs, was found to be a predictor of perceived seriousness. In a study conducted with adults living in Hong Kong, fatalism was also found to be positively associated with perceived severity (Lee and Shi, 2022). Superstitious people are people who think that sad things will happen to them (Lu et al., 2019). This may strengthen people's belief that a disaster will be dangerous. People may experience anxiety when they think about the possible damaging consequences of a disaster. Fatalism can be seen as an attractive way to alleviate anxiety (Hayes and Clerk, 2021). It is claimed that fatalism reduces the emotional consequences of a threatening situation (disaster) (Babcicky and Seebauer, 2019).

Perceived benefit is the degree to which a person believes that he or she can prevent disaster risk by changing his or her behaviour. It is the perception that the behaviour will be beneficial. The person does not adopt the proposed action unless he perceives it as feasible and effective (Janz and Becker, 1984). The results showed that sub-dimensions of fatalism, weakness of personal control, and were predictors of perceived benefit. People who believe that disaster is an uncontrollable situation do not believe that a change in their behaviour will prevent disaster risk. The source of superstition is ignorance or misinformation. False beliefs are formed because of exposure to false information (Ecker et al., 2022). People can be saved from their superstitious beliefs by giving them information, education and training to overcome their ignorance (Armstrong-Jones, 1929). When the benefits of disaster preparedness are known, individuals will exhibit more disaster preparedness actions (Rostami-Moez et al., 2020). Therefore, people should be informed about the benefits of disaster preparedness.

Perceived barriers are the perceived barriers or undesirable consequences of behaviour in displaying recommended behaviours to reduce disaster risk (İnal, 2015). Results showed that sub-dimensions of fatalism, predetermination and superstition contributed to perceived barriers. It can be argued that the person has responsibilities, money, time, or knowledge as barriers to disaster preparedness. Perceived barriers are decisive in changing and acquiring disaster preparedness-related behaviours. Extreme barriers can easily deter people from acting (Shahnazi et al., 2020). When a person thinks that the disaster is predetermined and fateful or perceives it as superstition, he/she may easily give up taking precautions and preparing against the disaster. Nothing will work for fatalistic people, so the person may be reluctant to prepare for disaster. He can easily make excuses and put forward various barriers. Fatalism reflects a pessimistic rather than an optimistic view of the future (Keeley et al., 2009). Therefore, people can focus on the negative consequences of their actions.

Perceived activators are internal and external activators in the realization of disaster preparedness behaviour. It includes experiences such as being informed by family members about disasters and preparedness for disasters, being enlightened by friends and being guided. The results of the regression analysis showed that the weakness of control perception had a significant negative contribution to perceived mobilisers. he belief that the person cannot control events and that he is out of his control may have caused him to close himself off to information coming from the environment (family, friends, etc.). Or the individual may experience the so-called illusion of control, believing that he/she can control things that are beyond his/her control. (Langer, 1977). A relationship was found between behaviours that endanger health due to increased fatalism and avoidance of health promotion actions (Cohn and Óscar Armando, Esparza del Villar, 2015).

Self-efficacy is a person's belief in his or her ability to exhibit disaster preparedness behaviours. This belief plays a key role in overcoming the barriers that a person faces in exhibiting any behaviour and in reaching the result. It is not enough to believe that a behaviour related to disaster preparedness is beneficial, it is necessary to believe that one can do this behaviour (Orji et al., 2012). People try not to know and not to worry about things they believe they cannot do (Rippl, 2002). The findings showed that personal control weakness and superstitious belief were predictors of self-efficacy. The weakening of the person's perception of personal control and the presence of superstitious beliefs reduces the perception of self-efficacy. When fatalists encounter stressful life events, they often believe that whatever happens to them is an outcome beyond their control (Powe and Finnie, 2003). In this case, they do not feel confident that they will not be able to cope with the disaster. Fatalism plays a role in inhibiting self-efficacy beliefs (Joffe et al., 2013; Straughan and Seow, 1995). Related empirical study has shown that fatalism has a significant effect on self-efficacy (Go and You, 2018). The results of the study conducted with participants from different countries (Argentina, Bosnia, Sierra Leone, and Sri Lanka) also revealed that self-efficacy increases as fatalism decreases (Pajardi et al., 2020). Since fatalists generally believe that the consequences of events are determined by external forces, they are more prone to develop the belief that they cannot control events when faced with stressful life events, and this leads them to be more external-oriented and think that all their efforts will be fruitless (Zuo et al., 2020). In this case, it leads to a decrease in the feelings of self-control and self-efficacy, thus making individuals prone to adopt a helpless and passive attitude towards life (Zuo et al., 2020). As a result, they may be reluctant and reckless to take precautions against disasters. On the other hand, individuals with high internal locus of control who think that they can control events are more confident in reducing the negative effects of disasters and being prepared for disasters (Karanci et al., 2005). It is claimed that low self-efficacy perception prevents the actions of self-doubt and self-protection (Straughan and Seow, 1995). People who are confident that they can reduce the damage caused by the disaster can prepare for the disaster (Rostami-Moez et al., 2020). It can be contributed to increase the self-efficacy of individuals by combating fatalistic beliefs.

The study reveals the contribution of fatalism tendency in university students to their disaster preparedness beliefs. The results of the study can guide the strategies to be determined in increasing disaster preparedness behaviours and reducing disaster risk. Fatalistic beliefs may result from failure to prevent or cope with stressful events and trigger maladaptive outcomes (Geng and Lei, 2021). Fatalism is the belief that people gain through their experiences that the negative consequences of disasters will not be prevented. The fatalistic tendencies of people are an important barrier to their preparation for disaster. The results of this study support these views. Preventive behaviours can be increased by reducing fatalistic beliefs (Shahnazi et al., 2020).

Understanding the beliefs and tendencies of people in the background of their behaviours towards disaster protection and prevention can be helpful in effective fight against disasters and in reducing loss of life and property. In this study, perceived barriers (predestination and superstition) and self-efficacy perceptions (personal control and superstition) from disaster preparedness belief constructs were determined as the constructs most predicted by fatalism. In

addition, it has been observed that superstitions contribute to both perceived barriers and self-efficacy structures regarding fatalism tendency. Superstitions are "irrational beliefs that an object, action or situation influences the outcome, which is not logically related to the course of an event" (Damisch et al., 2010). They are not realistic. In this case, it may be recommended to address superstitions and increase personal control within the scope of psychological counselling services. Fatalistic tendencies may cause people to be insensitive to measures that can reduce the harm or damage that disasters may cause, to ignore them, and to avoid taking precautions and be busy with different things. In studies conducted in the field of health, it is seen that the most effective HBM structures on healthy behaviours are perceived barriers and self-efficacy. To strengthen these structures, it can be suggested to include fatalism tendencies in education programs based on HBM. Lehman and Taylor (1987) emphasize that it is a priority to address fatalism by stating, "Possibly, before people can be induced to learn about a potential natural disaster and prepare themselves adequately for it, their perceptions its controllability need to be modified."

LIMITATIONS OF THE STUDY

There are some limitations regarding the findings and results of this study. The participants of the study are students studying in associate degree programs of a state university in a small city (Sinop) located in the northeast of Turkey. Therefore, the findings and results obtained from this study may not reflect the whole society. Participation in the study was voluntary. Therefore, the findings and results of this study are limited to the reports of those who are willing to participate in the study. In addition, the findings and results obtained from the study reflect the perceptions and thoughts of the participants at the time of the study. Conducting future studies on different cultures, beliefs, regions and with a larger number of participants will make a great contribution to explaining the subject and determining its international dimension.

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