

I Miss My Students!: Investigating the Effects of Türkiye's Earthquakes on Education from the Perspective of Teachers Who Experienced Earthquake Trauma

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Abstract

On February 6, 2023, two earthquakes called the disaster of the century occurred in Türkiye. These earthquakes affected education as well as every aspect of life. This research was conducted to investigate the effects of earthquakes on teachers, students, and the education system through the eyes of teachers who experienced the earthquake. The study participants were sixteen teachers working in Hatay province, most affected by the earthquakes. The data were obtained through online interviews with semi-structured questions and analyzed with interpretative phenomenological analysis. In addition, Kübler-Ross's theory of mourning was used in the study. According to the research results, earthquakes affected teachers' private lives psychologically and physically. Earthquakes have both positive and negative effects on teachers' professional lives. Participating teachers think that earthquakes affect education in three dimensions: "teacher," "student," and "education system." After the earthquake, teachers questioned and criticized the Ministry of National Education's practices regarding teachers, students, and systems. According to Kübler-Ross's theory of grief, it has been determined that teachers experience the stages of denial, anger, bargaining, and depression but are not yet at the stage of acceptance. In conclusion, this research contributes to the literature by revealing the personal and professional experiences of teachers who experienced the earthquake, their working conditions, and their strategies for coping with post-earthquake situations. I can say that to increase the welfare of society after the disaster, state institutions, especially the Ministry of National Education, should take urgent measures and be multidimensionally prepared for disasters.

Keywords: Education, Teacher, Students, Kahramanmaraş Earthquakes, Traumatic Grief, Türkiye

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INTRODUCTION

Earthquakes occur suddenly and have many effects, such as destruction, injury, and death, causing many problems. The damages of earthquakes as natural disasters are classified as loss of life, physical destruction, displacement of people, and economic losses (Deryugina, 2022). The earthquakes centered in Kahramanmaraş on February 6, 2023, were classified as earthquakes with significant and devastating consequences in the world and were even called the "disaster of the century," it caused such severe destruction that ten provinces were declared a state of emergency region. The total population affected by the earthquake is 14.013.196. This population is 16.4% of Turkey's population (Address Based Population Registration System (ABPRS) Results, 2022). In these earthquakes, nearly 120.000 buildings were destroyed, nearly 50,000 people died, and approximately 130.000 were injured (Ministry of Interior Disaster and Emergency Management Authority (AFAD), 01.03. 2023). Office for the Coordination of Humanitarian Affairs (OCHA) Türkiye: 2023 Earthquakes According to the status report, While 2.5 million children need humanitarian aid, 3 million people have had to leave their homes and relocate. 1.6 million people live in irregular settlements (OCHA, 2023). Economic losses were calculated at about US\$ 34.2 billion (World Bank, 2023, 6).

Earthquakes affect all areas of life, social institutions, values, processes, and results. The shock effect experienced during an earthquake can disrupt the psychological balance of not only individuals but also the entire society, and the effect of the trauma can continue for a long time. In addition, physical difficulties, injuries, and health problems experienced by earthquake victims can also affect their psychological state. Especially those who lost their relatives during the earthquake, those who were caught in the middle of the destruction, and those who escaped being buried under the rubble can feel the effects of traumatic events more and more intensely. The fear of an earthquake recurring can also negatively affect people's psychological states. In addition, individuals who must leave their safe and comfortable homes and live in tent or container cities have difficulty getting rid of the fear they experience (Long & Wong, 2012).

In the earthquakes centered in Kahramanmaraş, approximately 4 million students and 220 thousand teachers were affected in 11 provinces. 21.4% of students in Türkiye are receiving education in the earthquake zone. 21% of educational institutions and 19.1% of teachers provide service in the region (T. R. Report, 2023, p. 11; TRT News, 01/27/2024). 936 schools and 11 thousand 738 classrooms are unusable in the earthquake zone (Aktaş-Salman et al., 2023, p. 88). Therefore, it can be said that the earthquake affected approximately one in every five teachers and students in Türkiye.

Hatay, where this study was carried out, is one of the provinces most affected by earthquakes. As of June 8, 2022, Hatay's population is approximately 2 million. According to official records, 23 thousand people died, and 30.762 people were injured in the earthquake in Hatay. Two hundred seventy thousand buildings were damaged in the earthquake, 200 thousand people lived in tents, and 72 thousand lived in containers. According to Ministry of National Education (MoNE) 2021-2022 statistics, there are 1,368 educational institutions in Hatay, and approximately 26 thousand teachers work. In Hatay, where the earthquake's impact on educational environments is most substantial, 45.4% of the classrooms are unusable (T.R. Report, 2023, p. 42). According to official statements, 377 of the approximately thousand teachers who lost their lives in the earthquake zone were working in Hatay. After the earthquake, approximately 18 thousand teachers left the city (Hatay Express, 25. Kasım.2023; Aktaş -Salman et al., 2023).

This research was carried out in Hatay province to evaluate the effects of earthquakes on teachers, students, and the education system from the teachers' perspective. It determines teachers' experiences, problems, opinions, and reactions regarding the earthquake. It is expected that teachers will contribute to the authorities and the literature on earthquakes and education, not only in earthquakes but also in all natural disasters that affect society, on how to overcome their problems and then support the education system they are affiliated with and the students they are responsible for.

Theoretical background

Grief Theory

The reactions that occur in people who experience the unexpected and sudden death of family members, relatives, colleagues, and neighbors terribly and the disruption of the person's functionality due to these reactions can be defined as grief (Parkes, 2001). Although grief reactions vary from person to person, a series of similar behavioral, emotional, and cognitive reactions can also be seen (Benkel et al., 2009). Three main factors determine the reactions people will exhibit after loss and the nature of grief. These can be listed as: Personal factors (gender, attachment style, coping methods, character traits, etc.), situational factors (cause of death, manner, etc.), and interpersonal factors (presence of social support, spouse's reaction, etc.) (Stroebe & Schut, 2001).

Kubler-Ross suggests a five-stage grief model consisting of denial, anger, bargaining, depression, and acceptance as a framework for grieving people to identify their feelings and learn to live with grief. Kubler-Ross (2014) proposes the following stages in this model: 1. Denial: A common defense mechanism used to protect oneself from the difficulty of thinking about a distressing reality. A person is shocked by a loss such as death, divorce, or job loss and does not want to accept the truth. 2. Anger: The person begins to accept the reality of the loss and often blames themselves, others, and the creator. 3. Bargaining: The person hopes they can do something to ease the pain of the loss and often thinks, "I wish I had done something." 4. Depression: The person accepts reality and begins to feel the pain of grief intensely. 5. Acceptance: The person accepts the reality of the loss and moves into the final stage of grief. However, while expressing these stages, he emphasized that they may not be sequential and that sometimes these reactions may be seen simultaneously, and sometimes several of them may be seen together, and sometimes a transition may occur from an advanced stage to a step at a lower stage. Most grieving people may experience temporary difficulties in coping with their grief. However, while they may recover independently over time, some cannot overcome the sadness or traumatic event even months later (Wang & Wang, 2021). In this respect, the types of grief can be generally classified as a) standard, b) complex-pathological, and c) traumatic grief (Hablemitoğlu, 2021, p. 60).

This research focuses on the traumatic grief that occurred because of the Kahramanmaraş Earthquakes, which "falls outside the general experiences of individuals and creates excessive stress for almost everyone. Traumatic grief is a reaction to a traumatic event that lasts longer than usual or affects a person coping with death or another event more deeply than usual. It is stated that individuals experiencing grief face situations such as avoiding situations and thoughts that remind them of the loss, not accepting the situation, distancing themselves from other people, feeling meaningless, emotional unresponsiveness, feeling that a part of them is gone, thinking that life is falling apart, insecurity, guilt, and restlessness (Helvacı-Çelik & Hocaoğlu, 2015).

In traumatic grief, grief symptoms expressed both physically, emotionally, cognitively, and behaviorally affect the individual very severely, and the grief period can last for years. Traumatic grief significantly undermines the person's coping mechanisms and the way they perceive the world and their expectations. As a result of the changes that occur in these areas, the resolution process of grief reactions is prolonged. Post-traumatic stress disorder can be seen in these people due to the trauma they experienced (Mestçioğlu & Sorgun, 2003). Prolonged grief syndrome can also occur. Studies show that prolonged grief syndrome (PDS) is found in 8.5% to 79% of those affected by earthquakes (Eisma et al., 2019; Ghaffari-Nejad et al., 2007; Yi et al., 2018). Prolonged grief syndrome was demonstrated eight years after the 2011 Van earthquake (Kurt & Gülbahçe, 2019), 14 years after the Marmara and Düzce earthquakes (Bedirli, 2014), and seven years after the Wenchuan earthquake (Yi et al., 2018).

Earthquake and Education

Although earthquakes initially appear as physical damage, their effects shift to the sociological and psychological sphere over time (Yüksel, 2000). After a while, these effects begin to affect individuals' futures beyond their present day. One of the most important sources of this effect is the effects on educational processes (Kopcha & Shin, 2016). Despite contributing significantly to the fight against the negativities caused by earthquakes, education is among the sectors that suffer the most. However, education is evaluated after vital needs are met and problems are solved. Earthquakes have several adverse effects, such as damaging the physical infrastructure of the school, causing loss/deficiency of educational stakeholders, restricting access to educational resources and teaching materials, causing student loss and emotional/psychological problems, and disrupting the curriculum (Ögenler et al., 2024; Polat & Sarıçam, 2024; Turhaner & Polat, 2023).

When the literature is examined, studies show that natural disasters/earthquakes disrupt education by affecting the work of teachers, the learning processes of students, the physical condition of schools and educational policies (e.g. Bilinci et al. 2013; Cengiz & Peker, 2023; Tekin & Dikmenli, 2021), and have negative consequences that can affect individuals' right to education and their future (Feriver & Arık, 2021; Tüzün, 2023). In this context, it is seen that earthquakes bring with them several factors that will hinder education and teaching processes (Arslan, 2023; Özdemir, 2024; Sarıgöz, 2023; Telli & Altun, 2023; Turhaner & Polat, 2023). Paudel and Ryu (2018) examined the effects of the 1988 Nepal earthquake on education. They found low school attendance and completion rates of students in the regions affected by the earthquake. On the other hand, Wang, Yang, and Li (2017) concluded that access to education decreased after the 7.8 magnitude disaster in Tangshan Province, China. Earthquakes in China, Haiti, and Indonesia have also been shown to disrupt education (Green & Miles, 2011; Shidiqi et al., 2023; Zifa, 2008). Studies on the impact of natural disasters/earthquakes on education also show a significant relationship between earthquake exposure and educational outcomes (e.g. Akbaba-Altun, 2005; Arslan, 2023; Deuchert & Felfe, 2015; Di Long & Wong, 2012; Duman, 2014; Lei, 2017; Mutch, 2015; O'Connor & Takahashi, 2014; Özer, 2023; Telli et al., 2023).

In Türkiye, immediately after the February 6, 2023 earthquakes, it was desired to normalize education. For this purpose, studies were planned to provide psychoeducation beyond providing curriculum-based education and to help children recover from trauma (MoNE, 2023f). In this context, to ensure access to education, students studying in the provinces in the disaster area could be placed in schools throughout Türkiye through transfer committees if they wish. A total of 252,829 students from ten provinces in the earthquake area went to other provinces to receive education. 66,916 students from Hatay were transferred to other provinces (MoNE, 03/23/2023). While it was expected that the students who moved from the region to other cities would be in better psychological conditions, the fact that they had to take written exams in the schools they attended increased the pressure on them even more. For this reason, 94,012 students transferred to different provinces returned to their schools. The number of students returning to Hatay is 18,287 (MoNE, 23.03.2023)

The Ministry of National Education has lifted the obligation to attend classes in schools due to the earthquake in the second semester of the 2022-2023 academic year. It has limited the exam questions for the High School Entrance Exam (LGS) and the Higher Education Entrance Exam (YGS) to first-term courses. It has also announced that a student's "higher grade will be evaluated in each term" (MoNE, 23.03.2023). The earthquakes that occurred in Türkiye on February 6, 2023, caused the death of dozens of teachers and the destruction and damage of many schools. This situation had direct or indirect harmful effects on teachers and students. Factors such as losing family members, relatives, colleagues, students, and schools in the post-earthquake period and continuing education in damaged schools paved the way for teachers to be more affected by the earthquake. Despite all the problems experienced after the earthquake, the Ministry of National Education switched to face-to-face education.

It is important to know teachers' experiences, the most fundamental elements of the education system, who communicate face-to-face with students and understand students and education through their experiences and perspectives in the post-earthquake process. In addition, teachers have important roles before, during, and after the disaster/earthquake process. Because children shape their reactions after the emergency threat is over by taking the adults around them as models, and in this context, schools play an active role in the post-disaster process (Lazarus, Jimerson, & Brock, 2002). According to Le Brocque et al. (2017), teachers can follow potentially traumatic events, provide vital support to children, and identify children with psychosocial difficulties. All these were considered in this study, and the following questions were sought in line with the interviews conducted with teachers.

1. What are the effects of the earthquake on your private life?
2. What are the effects of the earthquake on your professional (teaching) life?
3. What are the effects of the earthquake on the education system?
4. What do you think about the practices implemented by the Ministry of National Education in the field of education due to the earthquake?

METHOD

Interpretive Phenomenological Analysis (IPA), preferred in this study, is an inductive, questioning, and qualitative analysis method that focuses on individual differences and reveals how individuals make sense of their subjective experiences (Smith, 2004). In this analysis method, the focus is not on the objective characteristics of a concept or phenomenon but on how the person makes sense of this experience (Smith & Osborn, 2003). All aspects of the individual's lived experience, desires, emotions, belief system, how these manifest in behavior and action, etc., are addressed (Eatough & Smith, 2017). This study determined that teachers' experiences fulfilling their professions in the post-earthquake education process were a phenomenon. Since this phenomenon aimed to examine how teachers make sense of their experiences in terms of the needs and difficulties they experienced after the earthquake and while fulfilling their professions in the education process, the interpretive phenomenology approach was adopted.

Participants

In phenomenological studies, the study group should consist of individuals and groups who have "experience" with the phenomenon the research focuses on and can reflect on their experiences (Creswell, 2012). Since the interview questions in interpretive phenomenological analysis target all aspects of the experience, idiographic (subjective/individual-focused) commitment encourages working with small groups (Smith & Osborn, 2003). Patton (2014) mentions five to 25 participants regarding the number of participants. Miles and Huberman (2015) state that even one person can be included in the sample. The participants of this study consisted of a total of sixteen teachers, 8 male, and 8 female, who were working in Hatay, one of the provinces most affected by the earthquake, and who volunteered to participate in the study and had "earthquake experience." These teachers were reached through familiar circles. The purpose and scope of the study were explained to the participants. In addition, informed consent was obtained from the participants who agreed to participate in the study at the beginning of the interview. The average duration of these interviews was approximately one hour.

Table 1. Participant Demographic Information

Gender	Age	Years of teaching experience	City	Effect of earthquake
M1	42	18	Hatay	His house is heavily damaged/he lives with a relative
M2	39	21		His house is heavily damaged/he lives in a tent
M3	24	1		His house is heavily damaged/he lives in a tent
M4	37	12		His house is heavily damaged/he lives in a tent
M5	39	20		His house is heavily damaged/he lives in a tent
M6	28	4		His house was destroyed/He lives in a tent
M7	26	9		His house was destroyed/he lives in a tent
M8	36	10		His brother and nephews are dead/he lives in a tent
F1	26	2	Hatay	Her house is heavily damaged/he lives in a tent
F2	36	13		Her house is heavily damaged/he lives in a tent
F3	27	3		Her house was destroyed/She lives in a tent
F4	25	3		Her house was destroyed/She lives in a tent
F5	41	17		Her house was destroyed/She lives in a tent
F6	28	6		Her house was destroyed/She lives in a tent
F7	33	9		Her house was destroyed/She lives in a tent
F8	30	9		Her house was destroyed/She lives in a tent.

When examined in Table 1, the ages of the participants ranged from 24 to 42. Their service period is between 1 and 20 years. Participants' homes were destroyed or severely damaged. While one teacher lives with relatives, the others live in tent cities.

Data Collection Tools

As data collection tools in the study, a personal information form in which the participants' demographic information was obtained and a semi-structured interview form consisting of open-ended questions were used.

Personal information form: The researchers created a personal information form to obtain information about the demographic characteristics of the teachers participating in the study. This form includes personal information about the participants' gender, age, length of service, city, and how they were affected by the earthquake.

Semi-structured interview form: The researcher prepared a semi-structured interview form consisting of open-ended questions to learn the teachers' views on the effects of the earthquake on their personal and professional lives. These questions were prepared per the Interpretative Phenomenological Analysis (IPA) method, and a general idea was obtained by scanning the research literature on the effects of natural disasters and earthquakes on the education system, teachers, and students to understand the teachers' experiences in depth. The open-ended questions, consisting of 4 questions, were prepared by the researcher and sent to 2 experts working in this field. The questions were finalized by considering the feedback from the experts.

Data Collection and Analysis

The steps of Interpretive Phenomenological Analysis can be expressed as follows (Smith & Osborn, 2003): As a first step, the transcriptions are read multiple times to gain familiarity with the data, and "interpretive notes" are taken for the transcriptions (Smith, Flowers, and Larkin, 2009). Then, these exploratory notes are transformed into themes that will meet the meaning appropriate to the data. These themes are associated with each other to create superordinate themes. As the last step, the themes reached are reported by tabulating (Smith & Osborn, 2003). The interviews were first transcribed in the data analysis with a voice recorder. The interviews whose transcriptions were made were coded as (F) F1, F2, F3... for female teachers, and (M) M1, M2, M3... for male teachers. The transcriptions were read in detail more than once to gain familiarity with the data. Interpretive notes were taken starting from the transcription of the first participant using the YFA process. As the next step, the interpretive notes from the first participant's transcription were abstracted and converted into

codes that would carry the most appropriate meaning for the data. The codes were associated with each other in appropriate ways to create themes. The analysis process was repeated for each participant (Smith, Flowers, & Larkin, 2009). After this process was followed for all participants, all themes were brought together, examined, and associated appropriately to reach common themes. Considering these commonalities, the relationships between the themes were closely examined to create superordinate themes (Smith & Osborn, 2008). Within the scope of this study, four superordinate themes and subthemes related to these themes were reached.

FINDINGS

Participants' views on the effects of the earthquake on teachers' individual/professional lives and the education system were collected through an interview form. Interpretive contents are shown as central themes, subthemes, and codes. Some quotes from the participants' views were made. The first sub-question of the research is: What are the effects of the earthquake on your private life? The primary purpose of this question is to determine how the participant was affected by the earthquake individually and professionally. The results of the analysis of participant opinions regarding this question are shown in Table 2:

Table 2. Teachers' Views on the Effects of the Earthquake on Their Private Lives

Main themes	Subthemes	Code	Some Opinions
Effects of the earthquake on private life	Psychological	Anxiety about the future	"Our house was severely damaged. As a family, we had to take shelter elsewhere. Both me and my family were psychologically exhausted. "We felt like a refuge." (M1)
		Numbness/insensitivity	
		Children affected	
		loss of loved ones	"Everything is uncertain... our whole life has been turned upside down, our home and order have been disrupted. I cannot focus on daily life. I cannot stop myself from thinking about future anxiety (M1)
		feeling like refuge	
		Stress/Fear/Anxiety/Anger/Crying	
		Life going up/down/disorder.	
	forgetting responsibilities	"Emotionally, I feel numb and insensitive to everything. "I even started to forget my responsibilities." (F4)	
	Physically	Being homeless / sheltering	"Our lives have been turned upside down; we remember those moments psychologically, our order has been disrupted, our children have been negatively affected, we no longer want to stand in that house, that building, that street in the district where we experienced the earthquake and see and remember it. "Unfortunately, my children wake up crying and shaking at night." (F5)
		Trying to survive	
End of private life			
		Material losses	"Housing and family order, financial uncertainties, and trying to survive have ended our private lives. "We had to live as a commune in tent cities." (M2)

According to the opinions of earthquake victims' teachers, it is seen that the earthquake affected the private lives of teachers psychologically and physically. The traumas experienced after the earthquake and the difficult living conditions caused teachers to be psychologically affected. This situation reduces teachers' motivation for their work and reduces their productivity. After the earthquake, many teachers lost their homes and had to stay in temporary shelters. This situation has negatively affected teachers' working conditions and quality of life. Damage to schools and disruption of education processes due to the earthquake also negatively affected teachers' professional lives.

The researcher asked the participants, "What are the effects of the earthquake on your professional (teaching) life?" The question was posed, and the answers were themed in Table 3.

Table 3. Teachers' Opinions on the Effects of the Earthquake on the Teaching Profession

Main themes	Subthemes	Codes	Some Opinions	
Effects of the earthquake on professional life	Undesirable effects of the earthquake	Stay away from the profession.	"I have been away from my profession, which I love, and my students, whom I regard as my children, for about three months. I learned that I lost many of my students in this process. I am psychologically tired. I want to go to school, and I do not. "Unfortunately, I do not have the strength to teach." (M1)	
		I do not want to stay in school.		
		Student loss	"I feel like I do not have the strength to give anything to teaching students right now." (M8)	
		Discontinuation of education		
		Not having a school to go to		
	Positive effects			"This process made us more emotional and negatively affected our perspective on events. We do not want to enter buildings and stay at school." (F5)
				"It is unfortunate that in my professional life, I do not have a school to attend in the morning. "It is a great loss for children that education is always interrupted." (F8)
		Loving your job more		"I value my profession as a teacher and my students more now." (F8)
		Loving your students more		"I could not teach for about ten days. Then, we arranged a container class, provided the 12th graders with their coursework for the YKS exam, and held trial exams. "I tried to do my teaching from my perspective." (M6)
		Teaching in a "container class."		
Miss the students		"I miss my students." (M7).		

As can be seen in Table 3, the theme of the effects of the earthquake on your professional (teaching) life consists of two sub-themes: "positive effects" and "negative effects." When the "negative effects" sub-theme was examined, the participants stated that they were separated from the profession, they did not want to stay in school, some of their students died, their education was interrupted, and they did not have a school to go to because of the damaged schools. When the "Positive effects" sub-theme was examined, the participants stated that they loved their profession and their students more because they taught in the container and missed the students.

The researcher asked the participants, "What are the effects of the earthquake on the education system?" The question was posed, and the answers were themed in Table 4.

Table 4. Teachers' Opinions on the Effects of the Earthquake on the Education System

Main themes	Subthemes	Codes	Some Opinions
Effects of the Earthquake on the Education System	Teacher	Loss of motivation	"Although I tried to recover quickly, the deep wounds I experienced caused me to lose professional motivation and question life." (F6)
		Having difficulty teaching	"The fact that I could not do my job due to schools being closed reduced my professional motivation." (M2)
	Student	Concentration disorder	"It was a difficult process for the students, and they were seriously disconnected from education." (M7) "Events such as pandemics and earthquakes disrupt students' behavior and reduce their interest in the lesson." (F5)
		Indifference	"I realized that children stopped seeing education as a priority. "Education has become very unimportant in the eyes of students. I believe this situation needs to change as soon as possible." (F7)
		Low motivation	"We could not hold classes because the learning environments were damaged; 9th, 10th, and 11th graders could not come to school." (M6).
		Absence	"It will be tough to reunite students who have lost their families, close and distant relatives." (M1).
	Education system	Regional differences in education	"There were regional differences in education due to the earthquake. Level differences emerged between students in non-earthquake regions and children in earthquake regions." (M2).
		Disruption in education	"Education has been disrupted a lot. "Our country could not properly carry out its educational activities in such a situation." (F3, F4, M4).

When Table 4 is examined, the theme of the effects of the earthquake on the education system consists of three sub-themes: "teacher," "student," and "system." When the sub-theme "Teacher" is examined, it is seen that the participants have difficulty in teaching and lose motivation. When the sub-theme "Student" was examined, the participants stated that students lacked concentration, apathy, low motivation, and absenteeism. When the sub-theme "education system" was examined, participants stated that there were disruptions and regional educational differences.

The researcher asked the participants, "What are your opinions about the practices carried out by the Ministry of National Education in education due to the earthquake?" The question was posed, and the answers were themed in Table 5.

Table 5. Teachers' Opinions on the Practices of the Ministry of National Education after the Earthquake

Main themes	Subthemes	Codes	Some Opinions	
Effects of the Earthquake on the Education System	Teacher	Starting work under adverse conditions	"MoNE put psychological pressure on teachers by calling them to duty without considering their psychology." (M1)	
		The psychological pressure was applied.	"The failure to solve the teachers' accommodation problem is an indication that teachers are not valued, and this is very sad." (F8)	
		Teachers' needs were neglected.	"The Ministry did not protect its teacher neither economically nor psycho-socially." (M1)	
	Student	Unfair competition between students	"I think that in our country, where competition is at the forefront, our students, especially those preparing for the university entrance exam, are subjected to injustice. As a result, while we did not provide education for three months, all the students who continued made a huge difference to those affected by the earthquake." (F4)	
		Psychological support for students	"Students should be supported psychologically by sending counselors to schools." (M1)	
		System	Regional differences in education	Education was disrupted. "Our students fell behind their peers." (F2)
			The infrastructure problem of schools still needs to be solved.	"Teachers are forced to teach in uncontrolled buildings." (M1) "Even now, it forces teachers to stay in container cities that do not have electricity or water." (M1)
	Training started unprepared		"To what extent was it right to open schools without providing shelter, water, and hygiene in Hatay, where the earthquake was intense? Teachers' accommodation should be provided, and schools should be open if they are healthy. "I also find it wrong to enter school buildings." (F5)	
			The right to appoint was not granted	"All teachers should have been given the right to appointment unconditionally. "Teachers who lost their family members and students who experienced the earthquake should not be left alone with their memories and pain." (M8)

As can be seen in Table 5, the central theme of "Practices of the Ministry of National Education in Education after the Earthquake consists of three sub-themes: teacher," "student," and "system." When the sub-theme "Teacher" was examined, the participants stated that they were assigned to work under adverse conditions, their needs were neglected, and psychological pressure was put on them. When the sub-theme "Student" was examined, it was stated that unfair competition was created among students and psychological support was not provided. When the "System" sub-theme was examined, participants stated that there were regional differences in education, education started unprepared, and teachers who experienced earthquake pain were not given the right to work in other provinces.

DISCUSSION

This research was conducted to evaluate the effects of the earthquakes which affected eleven provinces centered in Kahramanmaraş in Türkiye on February 6, 2023, and are called the disaster of the century, on teachers, students, and the education system from the perspective of teachers, the following results were reached. According to Kübler-Ross's theory of grief, it has been determined that teachers experience the stages of denial, anger, bargaining, and depression but are not yet at the stage

of acceptance. The results of research on grief theory after natural disasters support this finding (e.g., Burnham & Hooper, 2012; Pane et al., 2008; Fothergill & Peek, 2006; Ward & Shelley, 2008; Prinstein et al., 1996).

Research results show that earthquakes affect teachers' private lives psychologically and physically. It is usual for those who were exposed to an earthquake, those who survived the rubble, those whose family members or relatives died, those who had permanent physical damage to themselves or their family members, those who directly observed what those who were exposed to the earthquake experienced, and those who repeatedly encountered traumatic experiences to be psychologically affected. Various studies have shown that these people are more likely to experience negative emotions (Polat & Sariçam, 2024; Zheng et al., 2012; Xiang et al., 2016). It shows that individuals who experience severe negative emotions after a natural disaster can be more withdrawn, less respectful of others, less confident in life, more irrational, and more pessimistic (Xiang et al., 2016). Research shows that earthquakes cause fear in people who experience them, and the most common fear is the possibility of a new earthquake. At the same time, psychological symptoms such as insomnia, anxiety, irritability, aggressive behavior, attention-grabbing, concentration problems, forgetfulness, meaninglessness, and a feeling of emptiness are observed (e.g., Bozkurt, 2023; Tuna et al., 2012, p. 41). In his research, Akbaba-altun (2005) found that earthquakes caused loss of education and training, economic and social losses, housing problems, and psychological problems. Earthquakes revealed different problems in the private lives of teachers. For example, Bozkurt (2023), "anxiety about the future"; (Telli et al., 2023; Duman, 2014), panic and fear; (Arslan (2023) identified the pain of losing a loved one as a priority problem. After the 2011 Van earthquake, most of the teachers affected by the earthquake experienced post-traumatic stress disorder (PTSD). They struggled to return to their daily lives even 18 months after the earthquake to overcome the trauma caused by the earthquake (Duman, 2014). Earthquakes also affected teachers' private lives in terms of physical needs. It was determined that the most important problem was shelter. Studies show that the most important problems experienced by teachers are shelter and transportation and that homelessness, living in prefabricated buildings, and transportation difficulties negatively affect teaching activities (Polat & Sariçam, 2024; Yıldız, 2000). According to the OCHA (2023) report, the need for container or prefabricated schools with furniture and WASH facilities to be used as learning spaces and the housing needs of teachers continue. Most of the buildings where teachers stay are damaged, but even if they are sturdy, they are not allowed to enter due to fear due to the ongoing tremors. Transportation also poses a problem for teachers. The damage to the infrastructure and transportation network caused by the earthquake makes it difficult for teachers to reach their schools. These situations negatively affect the education process.

As a result of the research, it was determined that the earthquake had both positive and negative effects on teachers' professional lives. The **adverse effects** of the February 6, 2023 earthquake on teachers' professional lives were reflected in newspaper news. For example, "A teacher's most difficult exam! He lost 92 of his 117 students in the earthquake." (Sabah Newspaper, 24. March 2023). Studies show that teachers experience psychological problems, professional burnout, and alienation after earthquakes (2023 Kahramanmaraş earthquake (Arslan, 2023), 2011 Van Earthquake (Duman, 2014), 1999 earthquake in Türkiye (Akbaba-Altun, 2005), 2008 Wenchuan earthquake (Qi & Wu, 2014), and Christchurch earthquakes (Kuntz, 2015). Long and Wong (2012) found post-traumatic stress, depression, and anxiety in teachers who "put aside their grief" and continued their duties after the 2008 Wenchuan earthquake. In this case, they argued that time should be set aside for "discussion, memory, and mourning" to facilitate collective emotional healing. Significant disasters that cause teachers to lose their loved ones, homes, and many belongings can cause them to suffer and experience emotional distress (Bokszczanin, 2011; Lei, 2017). People who have lost their social networks and friends often ask, "Why me?" This questioning increases teachers' helplessness (Xu & Feng, 2012). It has been determined that teachers who encounter the death of their students and colleagues experience stress. If teachers cannot receive immediate psychological support, they will be less effective in meeting the psychological needs of their students, causing them to experience "secondary post-traumatic stress" (Di Long & Wong, 2012).

In addition, it has been understood that the February 6, 2023, earthquakes positively affected teachers' professional lives. Some studies have shown that stress factors resulting from a traumatic event are not completely harmful if they do not exceed a person's coping capacity but can motivate the "strength and capacity-building process" and personal development (Casper, 2011). Resilient teachers generally have stronger bonds with the school, students, family, and colleagues. If these bonds are functional in the face of adversity, teachers are less likely to develop traumatic problems. Similarly, supporting teachers, meeting their needs, and improving their well-being has encouraged them to understand, help, and fulfill their duties with their students (e.g., Bridges & Searle, 2011; Gu & Day, 2007). Psychological Teachers' resilience after traumatic events is considered necessary in three aspects. Since teachers are role models for students, a positive role model will support recovery (Bridges & Searle, 2011). Second, professional commitment, self-efficacy, and motivation to teach foster teacher support and student achievement (Gu & Day, 2007, p. 1302). Finally, higher teacher resilience facilitates recovery from the traumatic event due to the adoption of desired coping strategies (Widyatmoko et al., 2011). A study investigating the level of impact of earthquakes on different professionals determined that teachers showed fewer psychological symptoms than nurses (Tomar, 2002). After the earthquakes in New Zealand and Japan in 2011, teachers put aside their fears and concerns, attended to crises, cared for students, and continued the course curriculum. A similar situation occurred in Türkiye after the 1999 Düzce earthquake (Mutch, 2015; Akbaba-Altun, 2005).

According to the results of the study, the participants think that earthquakes affect education in three dimensions: "teachers," "students," and "education system." Traumatic experiences in teachers turn into physical and emotional reactions that can turn into exhaustion, depression, lack of interest in work and life, low motivation, low morale, fear of entering closed spaces, alienation from friends, or overwork in the long term (Arıcı et al., 2023; Bokszezanin, 2011; Wolmer et al., 2003). Teachers are asked to act as consultants, problem detectors, psychologists, and intervening actors and carry out adaptation and intervention programs with the regular curriculum. Teachers are expected to prepare and develop themselves emotionally, behaviorally, and cognitively to manage this process (Wolmer et al., 2003).

Teachers' workload increased after the earthquake as they dealt with their trauma and losses and their students' traumas, needs, and educational difficulties (Carlson et al., 2010; Wolmer et al., 2003; Wood & Olivier, 2008). Teachers were unable and unwilling to understand and meet the needs of their students before their problems were resolved (Bizumic et al., 2009; Wolmer et al., 2003). They stated that taking responsibility for students after the earthquake was one of the heaviest professional demands (Lei, 2017). After the 2016-2017 earthquakes in Italy, 72% of teachers mentioned that lessons were interrupted and teaching was difficult (Salerni & Vaccarelli, 2019).

In a research, it was found that teachers who lost loved ones in an earthquake found life more meaningless than teachers who did not lose loved ones. It was determined that teachers who did not lose any in the earthquake were more willing and dynamic (Yıldız, 2000). Since teachers need special knowledge and competence to meet professional expectations after an earthquake, they avoid taking on this responsibility due to the possibility of harming themselves and their students without receiving training that will provide this competence (e.g. Alisic et al., 2012). In Indonesia, a significant relationship was shown between teachers' post-traumatic stress after disasters and their general beliefs about teacher competence (Seyle et al., 2013). Teachers who faced the pain of losing their colleagues, students, homes, and family members in the 2008 Sichuan earthquake in China were able to show positive effects in their personal and professional lives only two years later (Lei, 2017).

According to teachers, earthquakes caused absenteeism problems, low motivation, behavioral disorders, decreased academic success, and lack of access to education in students. Research supports these findings. What happened during the earthquake can constantly replay in students' minds and reduce the effectiveness of education (Nakajima, 2012). After the earthquake, students experienced high levels of fear, anxiety, and worry (Arslan, 2023; Salerni & Vaccarelli, 2019), behavioral disorders (Arslan, 2023), decreased motivation to continue school (Arslan, 2023; Shidiqi et al., 2022), high stress (Du et al., 2018), problem behaviors even nearly two years after the

earthquake, lack of academic motivation (Siswa et al., 2011), and lower rates of both attendance and completion of education. Students have shown strong mental and emotional reactions to the trauma they have experienced, such as confusion, fear, grief, anger, guilt, sleep, and concentration problems (Arıcı et al., 2023). Tan Gülünay (2024) stated in his research that the most challenging situation for students after the earthquake was entering a different environment and earthquake-related fears, while teachers who had earthquake-affected students stated that the most challenging situation for their students was not being able to focus on lessons, distraction, and adaptation problems. All these situations reduce students' academic performance and affect their future (Baytiyeh, 2018; Cengiz & Peker, 2023; Tan et al., 2024; Tekin & Dikmenli, 2021). According to the OCHA (2023) report, students and teachers have problems accessing education. Although education resumed in the provinces affected by the earthquake on April 24, 2023, the school attendance rate in Hatay is 35-50%, Kahramanmaraş 70%, Malatya 35%, and Adıyaman 40%.

According to research findings, teachers believe earthquakes also negatively affect the "education system ." According to teachers, interruptions in education, differences in student levels, and regional differences in education are among the negative effects on the education system. Teachers also stated that damaged schools and unpreparedness for education negatively affect the education system. After disasters, schools often play a central role in protecting students from trauma, helping them cope with difficulties, and dealing with emotional and social problems (Baytiyeh, 2018; Potter et al., 2021). Earthquakes seriously affect the education systems of the countries where they occur. Studies conducted in different geographies also confirm the harmful effects of earthquakes on schools and education (Rodgers et al., 2021).

Teachers, the most important elements of the education system, experience the most significant difficulties in this process. These problems include lack of coordination, urban transportation disruptions, school planning problems, container city schools, and insufficient personnel. The existence of such problems negatively affects equality in education and access to equal opportunities (Adıgüzel, 2007; Güçlüoğlu, 1991). In addition, teachers experience problems related to the continuity of education. These problems include problems failure to ensure student continuity, constant student transfers, teacher-student reassignments, the decline in student's academic development, the inadequacy of educational materials and accommodation facilities, and loss of motivation (Arıcı et al., 2023; Baytiyeh, 2018; Bilici et al., 2013).

There are studies showing that the decrease in school attendance rates of students in earthquake zones and the resulting decrease in the academic achievement of students cause inequalities among students (For example, Bilinci et al, 2013 Caruso and Miller (2015) examined the 1970 Ancash earthquake in Peru using 1993 and 2007 census data to examine years of education, while Paudel and Ryu (2018) used survey data from Nepal to relate the level of education in 2008 to early exposure to the 1988 earthquake in Nepal. Both found that educational outcomes for exposed infants were significantly worse than for various control groups, and girls were more affected than boys. In the United States in 2005, studies documented the inequalities in school systems and students caused by Hurricanes Rita and Katrina. The disaster displaced many families in New Orleans and disrupted school education for 5 weeks (Sacerdote, 2012). Some students displaced by hurricanes have reported problems such as non-enrollment or poor attendance, mental health or behavioral problems, and academic decline (Pane et al., 2008). Fothergill and Peek (2015) report that youth lost class time, changed schools, and had difficulty concentrating in class due to the trauma.

Teachers were also reported to be overwhelmed, frustrated, and unable to do their best work. Harris and Larsen (2023) documented significant improvements in test scores, high school graduation rates, and college enrollment after comprehensive school reform, focusing on students who remained in or returned to New Orleans. Deuchert and Felfe (2015) found that typhoons had short-term adverse effects on children's education, but in the long term, as children got older, gaps in student education levels increased, such as lower test scores, more frequent grade retention, and lower overall education.

Students who migrate to other cities experience significant adaptation problems, among many other problems. For example, Uluocak (2009) observed that migrant children exhibited more introverted behaviors at school and that their home and school environments differed in adaptation and behavior. Snattra et al. (2014) similarly suggested that externalizing problems and maladaptive behaviors may occur in adolescents.

As a result of the research, it was determined that the participants questioned and criticized the post-earthquake practices of the Ministry of National Education in terms of "teachers," "students," and "system" dimensions. It has been determined that teachers are employed under adverse conditions, their needs are neglected, and they are under psychological pressure. There are studies supporting this finding. Teachers in the earthquake region criticize the Ministry of National Education for not solving their housing, transportation, and psychological problems, disrupted education processes, and unconditional assignment requests (For Teachers, 21.03.2023). Teachers working in the earthquake zone went out of town because they had no place to stay (Cumhuriyet Newspaper (March 23, 2023; Güçlü, March 27, 2023). Research shows that teachers criticize the fact that they have to support the academic needs of students, increase workload demands, and continue to carry out the curriculum while dealing with personal losses and traumas (Carlson et al., 2010; Mutch, 2015). Teachers, whose psychosocial support and accommodation needs are at the forefront, are faced with emotional exhaustion, fatigue, challenging living and working conditions, a decrease in the quality of education and training, and damage to the reputation of the teaching profession (Tunca et al., 2022; Kuntz, 2015). In addition, teachers criticize the lack of coordination in education processes, urban transportation disruptions, school planning problems, and inadequate staff. Such problems negatively affect equality in education and access to equal opportunities.

Teachers criticize the practices of the Ministry of National Education regarding students. Although the right of transfer was granted to those who wanted to continue their education in a different city after the earthquake of February 6, 2023, only about 5% of the students benefited from this right (Özer, 2023). Students who migrate to other cities after natural disasters and continue their education experience many problems and significant adaptation problems (e.g., Uluocak (2009; Snattra et al., 2014; Tuna, Parin, & Tanhan, 2012). Students who continue their education in the earthquake zone have had to receive more distance education than their peers. In addition, the failure to establish enough "container schools" has caused significant disruptions in their education. Students face difficulties both in terms of access to education and socioeconomic conditions. Due to limited accommodation conditions, students do not have a study environment outside of school. The fact that schools destroyed in the earthquake were matched with less damaged schools has also caused many adaptation and transportation problems due to the increase in teachers and students. The closure of libraries and the inadequacy of cargo services have caused students studying for the exam to suffer (Güçlü, 27.03.2023). It has been determined that passing a good high school exam after the earthquake and getting into a selective high school reduces students' university entrance exam scores and, therefore, their success in going to university (Leng & Liu, 2022).

As a result of the research, the participants question and criticize the post-earthquake practices of the Ministry of National Education in terms of the "system" dimension.

Teachers stated that there were regional differences in education, unfair competition between students and that students were not given psychological support. They criticize the practices of the Ministry of National Education for starting education unprepared and for not granting teachers who experienced the pain of the earthquake the right to work in other provinces.

The Ministry of National Education announced that teachers working in the earthquake zone who lost their spouse or child due to the earthquake, whose/their spouse's mother or father died, and who can document that the building they resided in during the earthquake suffered moderate or severe damage or collapsed can apply for relocation (MoNE, 01.09. 2023). According to the OCHA (2023) report, one hundred and thirty thousand teachers have benefited from psychosocial support training. However, there is still a need for support for students, parents/caregivers, and teachers. Students and

teachers, especially in rural areas, have transportation problems to go to school. Although one year has passed since the earthquake in Hatay, the education problem has still not been resolved (9th Village, May 2 2024).

Students face challenges related to both access to education and socioeconomic conditions. Due to limited housing conditions, students need a work environment outside of school to continue their education. Some teachers have not returned to work because schools are damaged and unsafe, or they do not want to leave their families. Some teachers who were physically or emotionally affected by the earthquake have had their teaching skills affected. Some teachers need additional support to cope with the emotional impact of the disaster. Although the Ministry of National Education has developed and implemented solutions to all these problems, they are insufficient.

Teachers state that they are under pressure to start education. A message was sent to teachers on 19.03.2023, signed by the Hatay Samandağ District National Education Director. "With the decision of the Hatay Governorate and the instructions of the Samandağ District Governor, I kindly request that all education personnel who are not on administrative leave or sick leave start their duties as of 20.03.2023. Otherwise, the District Governorate will initiate legal action." Teachers who received this message reacted by saying, "The Ministry of National Education, which does not know whether we are dead, alive or disabled, is calling us to urgent duty" (birgünnet).

CONCLUSIONS

This study revealed that the earthquake affected the education system, teachers, and students. Teachers, who fulfill the essential duties of the education system, are critical actors in improving society's resilience, considering their role as educators, their impact on children's development, and the support they provide to children exposed to the psychosocial effects caused by natural disasters. Teacher training does not include the skills necessary to develop adaptive capacity or the personal resilience to sustain pedagogical practices during and after natural disasters. It is essential to strengthen existing mechanisms and establish new mechanisms at the system level in general and schools by embracing the protective and preventive roles of education and teachers more strongly. Therefore, educational environments and processes must be inclusive for all children or support teacher well-being at every step taken. A structure that aims to increase the quality of education and considers regional needs in the "recovery" process after the earthquake is only possible by making the process participatory for teachers and students. This process teaches us about the roles of education in the "intervention" and "recovery" periods after the earthquake, as well as "preparation, risks" for natural disasters. It shows that it is essential not to ignore their role in "mitigation and prevention" processes and to consider possible disasters and ongoing crises.

Limitations

There are several limitations to this study.

1. This is a qualitative study. It can be done with quantitative or mixed methods.
2. This study was conducted with 20 teachers who experienced and were affected by the earthquake in Hatay province, which was the most affected. Comparative studies can be conducted with larger groups of teachers in other provinces affected by the earthquake.
3. Longitudinal studies can be conducted.
4. Comparative studies can be conducted with the experiences of teachers in natural disasters experienced in other countries.

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