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From crisis to classroom: preschool teachers' post-earthquake experiences

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Aim of the study is to explore the experiences of earthquake-affected preschool as they returned to their profession following the devastating February 6, 2023, earthquakes in Kahramanmaraş in Turkey. These earthquakes, among the most destructive in the region's history, profoundly disrupted communities, including educators and children. The research addresses a critical gap by exploring how these natural disasters impact the teaching profession and educational practices. This phenomenological study with seven participants -six women and one man, aged 24-40- focuses on teachers from Hatay, Gaziantep, Kilis, and Malatya, collected via semi-structured interviews. Analysis followed a rigorous phenomenological approach to uncover the shared essence of their experiences. Findings reveal that teachers faced inadequate infrastructural preparations, including damaged schools and limited transportation. Psychologically, they felt unsupported, despite the limited training provided by the Ministry of Education. Housing and living conditions further compounded their struggles, with some teachers resorting to living in schools. For children, the study reports significant emotional, behavioral, and social changes. Earthquake-themed play and communication emerged as coping mechanisms, reflecting trauma, fear, and resilience. Teachers observed increased dependence, anxiety, and regressive behaviors such as thumb-sucking and bed-wetting among the children. Teachers assumed expanded roles as saviors, healers, and observers, focusing on creating safe environments, fostering resilience, and addressing both their own and the children's emotional needs. They adapted their classroom routines, shifting the emphasis from cognitive to social and emotional activities to aid recovery. Despite initial resistance, parents later recognized the value of resuming education in providing stability and healing for their children. The research underscores the critical role of teachers in disaster recovery, emphasizing their influence on children's emotional and psychological resilience. It calls for targeted disaster preparedness training for teachers, addressing their mental health needs, and prioritizing school infrastructure and resources. Collaborative efforts involving policymakers, educators, and mental health professionals are recommended to build a more robust educational response to natural disasters. This study highlights the transformative potential of education in emergencies, advocating for a proactive approach to equipping teachers and schools to navigate crises effectively while fostering long-term community resilience.

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Introduction

Two large earthquakes with magnitudes of 7.7 and 7.6 struck the Pazarcık and Elbistan districts of Kahramanmaraş in Turkey one after the other on February 6, 2023. These events were deemed to be among the most destructive disasters of the century in Turkey, with the greatest casualties (Kılıç Ekici, 2023). Eleven provinces experienced these powerful earthquakes, which resulted in significant property and life losses (Salik Ata, 2023). 50,784 people were killed and 37,984 buildings collapsed, according to the June 2023 report released by the Turkish Ministry of Interior Disaster and Emergency Management Presidency (AFAD). Data from the Republic of Turkey's Presidency of Strategy and Budget indicates that 4.8 million children and 2.6 million young individuals were directly impacted by the February 6 earthquake in the earthquake zone. After the earthquake, those who survived had numerous physiological requirements. Also, 220,000 teachers and 3.92 million children impacted, education was another major issue that was affected. In response, the Ministry of National Education established 728 container classrooms and assigned more teachers (Anadolu Ajansı, 2023). Between February and December 2023, UNICEF, (2024) supplied educational resources to 1.1 million children and helped 947,334 children gain access to formal and non-formal education.

A disaster is an event caused by humans, nature, or technology that results in physical, social, and economic losses for the entire society or a certain part of it; it interrupts or completely stops daily life and occurs when the affected society's coping capacity is insufficient (AFAD, 2023). In other words, disasters are unexpected events that disrupt the psychological and physiological well-being of individuals and society (Yavaş, 2004). Therefore, it is possible to say that individuals experience trauma as a response to negative experiences such as earthquakes, fires, floods, pandemics, wars, or the death of a loved one. Psychological trauma requires individuals to make changes in their daily lives (Coddington, 1972), and individuals who have experienced trauma may feel vulnerable, powerless, and helpless because of their negative experiences (Herman, 2016), and in situations such as earthquakes, which cause situational traumatic crises and negatively affect the psychological health of society. Research shows that earthquake survivors are more likely to develop common anxiety disorders, acute stress disorder, and major depressive disorder (Wang et al., 2009). Trauma is the normal response given to abnormal situations, and it is expected to decrease and disappear over time (Fullerton and Ursano, 2005). However, each individual experiences the process at different levels of intensity and severity. The degree to which individuals are psychologically affected by events varies depending on many factors, such as the loss of a loved one, socio-economic losses, damage to family ties and displacement, environmental losses, lack of healthy coping skills, lack of social support, and lack of mental preparedness for disasters (Fletcher and Nicholas, 2016; Makwana, 2019). Individuals with post-traumatic stress disorder (PTSD) may experience flashbacks, loss of hope for the future, sleep disturbances, avoidance of dreams that remind them of the event, restlessness, and anger and so on (Tang et al., 2017).

Research shows that children, adolescents, and the elderly are more affected by natural disasters (Makwana, 2019). Earthquakes have adverse effects on both the physical and psychological health of children. Darga, (2023) found that children exposed to earthquakes experience trauma, exhibiting emotional and behavioral changes such as fear of earthquakes, fear of death, reluctance to return home, sleep disturbances, anger outbursts, and dependency on their mothers. Aral, (2023) also highlighted the widespread occurrence of post-traumatic stress disorder symptoms among children following an earthquake, including recurrent nightmares, sudden startle responses, a constant sense of

danger, and loss of a sense of security. Children are physically, socially, and emotionally affected by earthquakes, fearful of earthquakes, and shocked after earthquakes. Age, gender, the family's reaction to the earthquake, losses, the presence of social and emotional support, and socio-economic conditions are determinative of children's reactions (Yorbik et al., 2004). Research on emotional and behavioral problems emphasizes the preschool period. Positive relationships, self-regulation skills, healthy brain development, and learning opportunities implemented in line with typical development characteristics during the preschool period are crucial for psychological resilience, and these factors help develop children's psychological resilience potential. The term 'psychological resilience' is used in the literature to describe individuals who can adapt to change and regulate themselves without giving up in the face of difficulties (Ogelman et al., 2020), and it requires adapting to unexpected situations and challenging conditions, continuing daily life in the best possible way, and displaying a strong attitude (Masten, 2001). The early childhood period is a time when foundations are laid for all development areas, including psychological resilience. Development progresses very rapidly in all areas during this period, and experiences during this time have an impact on behavior problems in later years (Masten and Gerwartz, 2001; Ogelman et al., 2020). Crisis situations are among the critical situations that can have a negative impact on children's development and well-being. Support and interventions for children during crisis situations play an important role in developing their coping skills and in becoming more resilient adults in their later lives. UNESCO's (2006) report on early childhood education in emergencies emphasizes the long-term effects of disasters on children's physical, mental, and emotional development. It is important to develop national policies and programs to provide early childhood care and education during emergencies, to provide parent and teacher training, and to provide books and materials. The report also highlights the need for collaboration among governments, civil society organizations, and international organizations to reduce the impact of emergencies (Kamel, 2006).

Teachers play an important role in the emotional healing of children and the rebuilding of communities in the aftermath of an earthquake. The guide prepared by the National Association of School Psychologists (NASP) on how parents and teachers can support children after a natural disaster emphasizes the importance of meeting children's emotional reactions, stress symptoms, and needs for security, food, clean water, and shelter. Parents and teachers should support children during this challenging process by listening to them, allowing them to express themselves, and sharing their emotions. Teachers should help children adjust to school according to their individual needs and try to return to routine as much as possible. Children should also be supported in building social connections and participating in activities during this period (Lazarus, Jimerson and Brock, 2003). In the research conducted by Debeş, (2021), teachers' perceptions regarding crisis management in schools were examined, focusing on their attitudes and perceptions towards crisis management processes. The study revealed that teachers have limited knowledge about crisis management. Additionally, the research emphasized the need for more training and support to cope with crisis situations. Another study conducted by Çakır and Çakır, (2022) investigated the experiences, preparedness, and emotional reactions of administrators and teachers in crisis situations. It was found that teachers generally lack preparedness to deal with crisis situations and lack adequate crisis management skills. Furthermore, they tend to struggle emotionally during crises and face difficulties in making accurate decisions under stress. In another research that examined earthquake awareness and perception among teachers, it was

highlighted that teachers need more comprehensive and up-to-date information about earthquakes. The study also emphasized the potential contribution of earthquake education to teachers' professional development (Çakmak et al., 2023). The study conducted by Polat and Sarıçam, (2024) addresses various challenges faced by teachers following the earthquake on February 6th. These challenges encompass psychological, professional, and social issues, emphasizing that teachers struggled to manage not only their own psychological well-being but also the emotional states of their students during this period. Additionally, the physical destruction caused by the earthquake significantly impacted educational environments, leading to substantial difficulties for teachers in conducting classes and maintaining the educational process. Post-earthquake, teachers were confronted with inadequate social support as they tried to care for both their own families and address the needs of their students.

In situations where individual efforts are not enough, such as in natural disasters, the importance of national policies once again comes to the forefront. In recent years, major earthquakes in Turkey have led to a review of the country's earthquake policies. As Turkey is a country with high earthquake risk, the government and civil society organizations have focused on disaster management, reducing earthquake risk, and increasing social resilience, especially after the 1999 Marmara earthquake. To determine the measures to be taken against risks, the 'National Earthquake Strategy and Action Plan' has been prepared. The aim of this plan is to reduce earthquake risk and increase social resilience (AFAD, 2018; Azimli-Çilingir, 2018; SBB, 2023). Despite the many organizations and policies working on earthquake management, considering the frequency, intensity, and especially the aftermath of the earthquake centered in Kahramanmaraş, the government and civil society organizations must make more effective efforts to reduce earthquake risk and improve disaster management. Since teachers can reach large audiences in a short period of time and achieve lasting learning outcomes, the importance of teacher-based research is once again highlighted. Research conducted with teachers regarding earthquakes plays a significant role in raising awareness among teachers, ensuring student safety, and enhancing disaster preparedness. It is believed that by improving teachers' knowledge about earthquakes, a stronger foundation can be built in the community for coping with earthquakes and being prepared for disasters. In this context, this research aims to identify the experiences of victim teachers and their return-to-school experiences after the earthquake. In other words, due to their significant roles within the education system, teachers are in a key position for raising societal awareness and enhancing preparedness for disasters. Natural disasters such as earthquakes are events that directly impact the education system and, consequently, teachers. The correct decisions made by teachers during and after an earthquake are critical for the safety and psychological well-being of students. Therefore, the importance of teacher-based research on disasters like earthquakes is substantial, as it holds potential to contribute both to the education system and societal preparedness. Enhancing teachers' knowledge and experience regarding earthquakes increases not only students' but also the broader community's competency in coping with disasters. Educators, by playing an active role in earthquake awareness and preparedness in their classrooms, can lay the foundation for long-term transformation in society. Consequently, understanding the experiences of teachers after an earthquake will serve as an important reference for future disaster preparedness. The primary aim of this research is to thoroughly examine the experiences of teachers who have been affected by an earthquake and to determine how these experiences influence their professional practices, relationships with students, and processes of returning to school.

In this way, the needs of teachers after disasters will be better understood, and strategies can be developed to enhance the preparedness of both teachers and students for future disasters. This study is important for understanding the experiences of preschool teachers who observed the post-earthquake process and worked directly with children affected by the earthquake. Therefore, aim of the research is to reveal the essence of the experiences of earthquake victim teachers regarding returning to school after the earthquake.

Methodology

Research model. This study, which tries to reveal the essence of the experiences of earthquake victim teachers regarding returning to school after the earthquake, was designed with phenomenology, one of the qualitative research designs. In phenomenological studies, there is a search for and revealing the common meaning of the experiences of more than one person related to a concept or phenomenon (Creswell, 2013). The participants in the study are those who have lived or are currently living these experiences. This is because such research gathers information through first-hand and subjective experiences. Since the focus of this study is to investigate the experiences of preschool teachers who were affected by the earthquake and continued their profession in the post-earthquake period, and to reach an essence that is common across these experiences, a phenomenological design was chosen for the study.

Participants

In phenomenological studies, where personal experiences form the starting point, it is essential to convey the subjective experiences of the participants firsthand. In the selection of the participant group of this study, purposive sampling strategies were used to reach the best data; with purposive sampling, the researcher aimed to include all the situations that were appropriate in terms of the criteria determined (Patton, 2014). The criteria specified were the participants who experienced the earthquake and worked as preschool teachers in their own classrooms both before and after the earthquake. In the creation of the participant group, one of the researchers made an announcement via her personal social media accounts (Instagram and Twitter) and online meetings were arranged. While the ages of the people who make up the participant group are between 24 and 40 years old, the genders of the participants are six females and one male. While all the seven participants are graduates of preschool teaching, only one of them continues to graduate education. The professional seniority of the participants varies, with a minimum of one year and a maximum of 18 years. In the study group, where only one teacher worked in a private kindergarten, the number of children in the classrooms mostly decreased after the earthquake.

Data collection process and ethical issues

In the research, data were collected by using a semi-structured interview form and demographic information form. In the demographic information form, questions were prepared to reach data such as age, gender, educational status, professional seniority, and working years in the region. In the semi-structured interview form, questions were formed to reveal the experiences of the preschool teachers working in the region on the process of returning to school after the earthquake and the experiences they encountered in their classrooms and professional lives after the education period started. The questions focus on contexts such as teacher-child relationship, parent-child relationship, child well-being, and teacher well-being in the post-earthquake period. For the semi-structured interview form, opinions were taken from

two field experts and the interviews were started after the necessary arrangements were made. The data collection process was carried out between June and July 2023. In determining the start date of the interviews, the possibility of the participants encountering acute post-traumatic stress disorder was considered. For this reason, interviews were started approximately three months after the earthquake. All interviews were conducted via Google Meets, and audio recordings were made during the interviews. All procedures in the research are in accordance with the ethical standards of the responsible human experiments committee and the 1975 Declaration of Helsinki, which was revised in 2024. In addition, ethics committee approval dated 21.06.2023 and numbered 2023/85 was received from the Istanbul Kultur University Research and Publication Ethics Committee for all data collection and study content.

At the beginning of the one-on-one interviews for data collection, some information was given to the participants for the ethical procedure. It was reminded that the ethics committee permission for the study was obtained before the interviews started and that they could stop or leave the interview in case of any trauma-triggering situation that may occur during the interviews. Also, the participants used pseudonyms to preserve anonymity, and no personal information was included. Additionally, participants were informed that audio recordings would be made during the interview to prevent data loss, and their verbal consent was recorded.

For ensuring reliability and validity multiple strategies were used in the study. First, the researcher focused solely on the participants' experiences related to the phenomenon, setting aside personal biases and experiences throughout the study. To control subjectivity, the first step is to be aware of the researcher's background and experiences related to the topic. In this research, all of the researchers were born and raised in Turkey, completed their undergraduate and graduate education in Turkey, and have worked as teachers. They are familiar with the educational policies and child protection systems in Turkey and possess the knowledge and experience to evaluate the implemented or not implemented policies in the context of the best interests of the child. When starting this study, the researchers were aware of the difficulties faced by both teachers, children, and parents in the process of returning to school after the earthquake. They designed the study with the understanding that this situation needed to be changed, and at the very least, a child-focused education policy for disaster situations should be developed. In fact, three of the researchers, in response to requests from teachers regarding the return to school after the earthquake, quickly published a bulletin to guide teachers and shared it through their social media and other networks. On the other hand, one of the researchers also provided guidance to teachers by creating a publication titled "What Awaits Preschool Teachers in the Return to School After the Earthquake?" on YouTube channel. Strategies also included prolonged engagement with the collected data, obtaining feedback from participants, using participants' statements without alteration, and checking notes and audio recordings. Additionally, strategies such as providing clear information about the study to participants, ensuring participants' confidentiality, obtaining consent for audio recording were also employed.

Data analysis

In the first stage of data analysis, all interviews were recorded by informing the participants, and the recordings were listened to repeatedly to prevent data loss. The audio recordings of all the interviews were transcribed without any change in the data and analyzed with phenomenological analysis. The researchers carried out the analyses in an objective and unbiased way, focusing only

on the experiences related to the phenomenon. In this analysis method, 'blocking and phenomenological reduction', 'creation of transcripts', 'repeated reading of transcripts', 'detection of important phrases', removal of important phrases and elimination of unnecessary phrases', 'clustering of statements under themes', 'general and individual' The stages of 'identifying the themes', 'textural description', 'structural description' and 'combined description' were followed (Güler et al., 2015).

In the first step, the video recordings of the interview were listened to, and each participant's interview was transcribed separately. After all the interviews were written down, each researcher read them again and again, and the important statements were determined. While determining the important expressions, how the determined phenomenon was experienced was taken into consideration; unrelated statements were eliminated. While reading the transcripts, the main themes that could include the important expressions determined were determined. For example, some statements from the participants; *'How do I protect children?'* and *'How can I make them look to the future with hope?'* made the theme 'The role of the teacher' and the sub-theme of 'The role of the teacher as a savior'. After the coding was done, the codes were combined under sub-themes and sub-themes were combined under themes.

Extract	Sub themes	Theme
<i>How can I make them look to the future with hope?</i>	Teacher as a savior	Teacher role

Finally, the essence of the experiences obtained from all participants was revealed, and it was determined what they compared this experience to and why they reached it. Despite all the adversities experienced, meeting with the children reconnected them to life, brought hope, and conveyed the message that life goes on so the researchers completed the phenomenological analysis by likening the essence of the shared experiences of the earthquake victim teachers to the mythological bird Simurg.

Findings

In this research, which aims to identify the experiences of victim teachers and their return-to-school experiences after the earthquake, the process they lived has been examined. Despite all the adversities experienced, meeting with the children reconnected them to life, brought hope, and conveyed the message that life goes on. One of the teachers, referred to as P6, expressed their feelings as follows: *'Rebirth. Rebirth. We collapsed. We are being reborn. We will blossom again. With whom will we blossom? With the children... I have no expectations from life. But from the children, yes. I have expectations. Let them rise again, let them live again. Let them be reborn. We may have died, but we will rise again...'* Similarly, another teacher referred to as K3 expressed their experience as: *'But the children really have a healing quality at some point, spending time with them, one really says that returning to routine is also good for us...'* This comparison of their experiences to the mythical bird, 'Simurg' enabled them to find resemblance in the Zümrüdüanka Bird. Simurg is a legendary bird in Persian mythology, believed by all birds, symbolizing rebirth and patience. This figure is also embraced in various cultures and fields such as literature and Sufism. Also known as Anka and Phoenix, this figure is a symbol of self-discovery, self-belief, and the journey to oneself.

When looking at Fig. 1, the experiences of teachers during and after the process of school reopening are discussed under the themes of before the return and after the return. Regarding the before the return, the findings focused on school infrastructure

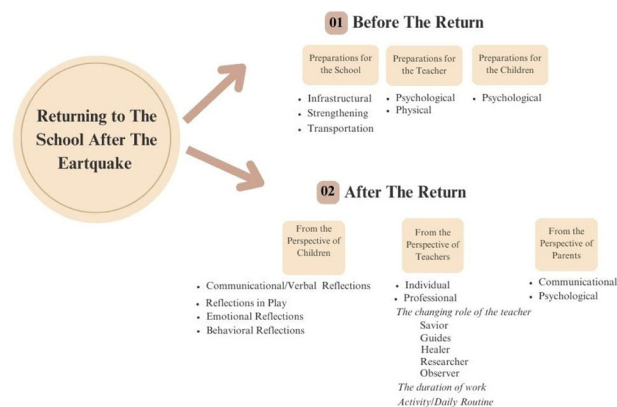


Fig. 1 Themes and Codes of the Returning to the School After the Earthquake.

and reinforcement, while teachers also mentioned issues related to transportation to school. Furthermore, in the before the return theme, teachers addressed their own psychological and physical needs, as well as the psychological and physiological needs of the children.

As for after the return, they were categorized into three main headings: children, teachers, and parents. Regarding the children, changes were observed in communication, play, emotional state, and behavior. For the teachers, changes emerged both individually and professionally. Their roles within the classroom had shifted, and they described their roles as being saviors, guides, healers, researchers, and observers. The relationships they established with the children, the interactions they had with them, and the support they provided determined the teachers' roles. Another change that occurred in the subsequent process was from the perspective of parents. Parents' psychological needs came to the forefront, and they felt a greater need to communicate with the school and teachers more frequently.

Before the return

After the occurrence of the earthquake, with the decision to continue education, teachers, children, and families entered a new process, and the preparations and encountered problems related to this process were expressed by the participants. The participating teachers had experienced the earthquake themselves and had also resumed their profession after the passage of time. Before the return were expressed under three main themes; preparations for the school, preparations for the teachers, and preparations for the children.

Preparations for the school

The preparations for schools were mostly expressed by the participating teachers in terms of reinforcement and infrastructural conditions. In the context of physical preparations, generally negative situations were mentioned; after assessing the damage status of the schools, some actions such as painting and repairs were carried out, but it was reported that no further reinforcement work was undertaken.

...For example, our schoolyard was cracked. It was due to the fault line, and it was filled up... Our storage room was destroyed. It still hasn't been repaired...(P6)

It was also mentioned that there were issues with internet access and hardware such as computers and printers. In addition to these, the participant teacher expressed that the task of collecting debris around the school and its surroundings was assigned to teachers as follows.

...our school was undamaged, but there were debris and rubble around the area. We collected them ourselves, as the Ministry of Education had issued an order to clean up the debris in the schoolyard...(P5)

Preparations for the teachers

During the preparation process for teachers, who are important stakeholders in the process, most participating teachers reported encountering negative situations, with psychological and physiological preparation forming two main categories. Participating teachers particularly expressed feeling abandoned and unsupported, especially from a psychological perspective. It was emphasized that the teachers' well-being was not given sufficient consideration, and there was a lack of adequate efforts directed towards addressing their needs.

I really believe that teachers were left very inadequate and unsupported during this process...(P2)

After the earthquake, no one cared about my state of mind, for example... It's like the number 0 in mathematics. There's something, but I feel empty. I exist, but I feel nonexistent. I do things, I can make things happen, but it's as if I don't exist...(P7)

Most of the participating teachers expressed that there was a psychosocial education and disaster management seminar defined by the Ministry of National Education (MoNE). However, it was found to be inadequate in terms of content and meeting the needs, and some teachers mentioned that they did not attend this seminar.

...There was already one psychosocial thing that the MoNE had introduced into the system, a presentation, but I don't think it was very effective...(P3)

They had organized a training on MEBBIS, but other than that, there was nothing in terms of psychosocial therapy. It was general training related to disaster situations. It wasn't something that I found very impactful or that had a significant effect on me.(P5)

Regarding the physiological needs, which is another sub-heading, most participants mentioned the negative situations and conditions related to tents and tent camps. One of the participants, who is a teacher living and working in Hatay, one of the cities most affected by the earthquake, stated that they stayed at the school with their other colleagues due to the distance and adverse conditions of the tents. They described their living conditions as follows:

'We, as teachers, are sleeping and living inside the school as well...They don't have any acquaintances or houses where they could stay, so there is no other option for them outside the school, and they also don't have any transportation... We were forced to stay like this, you know when you sleep in a tent, it gets very noisy with the wind, and this place is already located on a hilltop. We sleep in the classrooms; we lay out our beds on the floor. That's how we stay...(P2)

Additionally, participating teachers living in Malatya and Gaziantep also mentioned that school dormitories and dormitories were suggested for teachers to stay, but they pointed out that these suggested accommodations were far away.

Preparations for the children

Preparations for the children were also divided into two categories, like the preparations for teachers: physiological and psychological preparations. Teachers mentioned that the guidance counseling services in their schools tried to provide support in this regard. They continued to offer this service to both parents and children through videos. However, another participant pointed out that the number of guidance counselors at school was insufficient.

Our school psychologist showed videos and conducted activities for the children. We also sent comforting videos to the parents...(P1)

Under the heading of physiological preparations related to another need, participating teachers shared the negative situations faced by children, and nutrition, safety, clothing, and shelter were the areas where these deficiencies were most felt. Teachers working in Hatay and Malatya stated that the free meal policy of the Ministry of National Education (MEB) was not provided, while another participant, who is a teacher in Gaziantep, expressed that free meals were provided in their city.

No, it doesn't come, it has never come (free meal).(P2)

...breakfast was supposed to be provided, you may know that you might be aware of the situation, we told the parents about it at the end of the last term, but it didn't come...(P5)

The participant who works as a teacher in Hatay explained the inadequacies in addition to the nutrition problem, giving examples of shortages in stationery and clothing, lack of tent security, and the absence of private spaces.

...we had a shortage of stationery, teacher...There were also problems with clothing, the teacher. They could change their clothes at school. That's why their clothes started becoming more torn and dirtier... Children don't have their own space. All belongings are shared...(P2)

After the decision to reopen schools following the earthquake, it was found that some preparations were made before the schools opened. However, these preparations mostly consisted of minor repairs in the physical sense, focusing on fixing the buildings. On the other hand, it can be said that significant efforts were not made for the psychological well-being of the teachers, who were also earthquake survivors. Teachers faced problems with accommodation and transportation, while children faced issues related to nutrition, shelter, and material needs. It was observed that there were not enough pre-arrangements to support the well-being of the children and parents. Teachers had to prepare themselves for this process and felt left alone during the process.

After the return

Teachers who experienced the earthquake and continued their profession shared their own experiences and observations after the return to education after the earthquake. The feedback from the participants was expressed under three main headings: children, teachers, and parents.

From the perspective of children

The changes in children, as observed by teachers in their classrooms and reported by parents, were categorized into sub-themes related to communication, play, emotions, and behavior. The desire of children to talk about the earthquake was reflected in both their communication with each other and their dialogues with their teachers. It was noted that in these dialogues, children used terms and concepts related to the earthquake.

...the children constantly wanted to talk about the earthquake... but they themselves talked about this topic among themselves for two to three weeks. 'What floor are you on? If you are on the ground floor, you will get crushed there. If you are on the upper floors, at least you won't collapse...' (P1)

...Their language also changed, teacher... They learned concepts like, 'Teacher, did you see the fault line? If you dig the ground, the fault line comes out...' It's constantly on their agenda. I heard the name of Naci Görür, but not in my own class...(P7)

Indeed, the changes in the children's language also include expressions that reflect their emotional states.

You ask 5-year-old children like this: 'How are you, my dear?' and I say, 'I'm very bad.' 5-year-old children don't easily say, 'I'm feeling bad.'(P1)

...teacher, they say things like, 'Our house is severely damaged, my toys are gone, but at least we are safe. I hear them saying 'at least we are safe' a lot...(P5)

Additionally, some children associated the earthquake with situations like being punished and misbehaving, which were reflected in their verbal expressions.

They say things like this: 'If we misbehave, we will get trapped under the rubble, our intestines will come out, and our heads will be severed. The father of anyone who upsets his mother will be buried in the ground...I don't want to leave my mother, the walls will collapse. If I leave my mother, she will be trapped under the wall...' (P7)

As in verbal expressions, the reflections of the earthquake process were also reported by teachers in the children's play. In their games, children tend to build towers using Lego and other objects, and the changes in these towers, such as whether they are earthquake-resistant or whether they collapse, were observed by the teachers.

...they had built a building from a tower they made. What are you doing? Is it strong? They do things like that, saying that nothing will happen with a certain force, but if it's a magnitude five, it will collapse. We observe such changes frequently...(P5)

...They are building a lot of bridges and very tall buildings. In the end, they build a tall building, and then someone comes and knocks it down, and they have a lot of fun...(P7)

It has been noted that some children have developed sensitivity to sound during play, leading to a preference for avoiding the use of musical or percussive instruments. In addition to games, the participant teacher also stated that there were reflections of the earthquake in the children's drawings.

...but after the earthquake, there were a lot of pictures of houses. In all of their drawings, they depicted houses, parents, and children side by side, they showed them a lot. For example, the children in the tents always drew AFAD tents and wrote on them...(P3)

Emotionally, various changes have been observed in children, such as panic and anxiety disorders, not feeling well, and a state of being lethargic.

'...we experienced a lot of panic and anxiety disorders, especially in the first days of school. You ask 5-year-old children like this: 'How are you, my dear?' and I say, 'I'm very bad.' 5-year-old children don't easily say, 'I'm feeling bad.'(P1)

In contrast to these negative reflections, after the start of the educational process, it has been observed that children became happier and felt better, and it was expressed as follows:

...but now, when the children enter the classroom, they come in very happily. They feel good, they have opened up...For example, the children say, 'We want activities' and when we start doing activities after the first week, they become very happy...(P2)

In the behavioral aspect, participant teachers have mostly reported that there were changes in children's behavior, such as regressive behaviors and habits like bedwetting and thumb-sucking.

...yeah, like, our children started to withdraw and become more aggressive. Some of them, you know, used to be normal and calm, but now they've become more irritable...(P7)

...I observed one of my students started thumb-sucking after the earthquake... Another child developed a tic, his mother told me that he clenches and makes a fist with his hands...and there have been many cases of bedwetting...(P1)

From the teacher's perspective

From the teacher's perspective, various changes have been reported by the participants, parallel to the changes observed in

children. According to the feedback received, these changes have been categorized under two main headings: individual and professional changes. On an individual level, teachers have experienced anxiety disorders, panic, fear, and feelings of worthlessness during this process.

I tell the child, 'Okay, it's over.' But it hasn't really passed for me; my eyes fill with tears when I look at the child... We have become robotic... I go to school with all these anxieties and sleeplessness. I'm not okay, so how can I help the child heal...(P7)

During that process, I felt worthless as a young man in these places... As a young man, I felt completely numb, like a stone. I couldn't do anything; we couldn't even experience our emotions...(P5)

After the schools reopened following the earthquake, the teachers expressed that their roles within the classroom had changed, and they mostly described these roles as 'saviors', 'guides', 'healers', 'researchers', and 'observers'. The majority of the participants emphasized their role as 'saviors' while defining their roles during the process. They expressed concerns about the possibility of experiencing another earthquake in the classroom and felt responsible for safely evacuating and protecting the children. As a result of this concern, some teachers mentioned that they couldn't leave the side of their students during the aftermath of the earthquake.

I constantly have thoughts about what if there's another earthquake, how do we evacuate, how do I get the children out, how do I protect them...(P1)

How can I protect the children and preserve my role as a teacher? How can I ensure they look to the future with hope?(P6)

Teachers have taken on the roles of 'healer' and 'guidance counselor' to promote the well-being of the children. Creating a safe and comfortable environment and trying to reduce their fears and anxieties have been essential elements in the teachers' roles during the process.

We constantly provided guidance, assuring them that they were safe and explaining that this was a disaster situation. Our main responsibility was to guide them through this process. (P7)

As 'researchers' and 'observers' teachers have taken on the responsibility of closely monitoring the experiences of children throughout the process and finding solutions to the problems they encounter.

I will investigate another child, for example, whose mother informed me that they have developed a tic. Today, I will go to school and observe when and how the tic occurs. (P1)

Professionally, the teachers have expressed that returning to their duties during the process has been beneficial for them.

...But afterward, during our activities, when families participated and the children smiled, being happy, it gave us a sense that we could heal together, shifting our focus from fear to thoughts of recovery. Moreover, children themselves have a healing quality; spending time with them made me realize that returning to our routine can also be beneficial for us...(P3)

Returning teachers after the earthquake process faced a sense of professional inadequacy. At this point, the lack of previous knowledge and expertise in natural disasters and related subjects contributed to the feeling of incompetence.

In my responses to the children, I felt inadequate because even though I have some education, guidance counseling is just a half-semester course I took in one class. When they come to me with such questions, I get scared and don't know how to respond...(P7)

The earthquake and its aftermath have led to various changes in classroom routines and activities. Teachers have reduced the emphasis on cognitive development activities in daily routines, while increasing the focus on activities promoting social development compared to before. Additionally, more time is now

allocated to outdoor playtime, drama activities, and free play sessions.

Initially, I tried to be a bit more laid-back and ignore certain things... I allowed them more freedom... In the past, I used to be anxious for the first graders to learn numbers, but now I give them more time...(P1)

...to be honest, we can't do math or language activities. I leave them more free time, you know, to do whatever they want because I know they get bored. We read books together, rest, listen to each other, chat, and play games...(P5)

From the perspective of parents

From the Perspective of Parents, various changes have occurred during the process, with both positive and negative transformations observed in the dimensions of parent-school collaboration. Parents who experienced the earthquake have been affected by anxiety and fear, leading to a negative impact on both children's school attendance and parental involvement.

...They become more anxious, constantly checking on them... I mean, it's normal for parents to be so controlling in this situation, but it has a very negative impact on the children... Apart from that, there were also those who didn't want to send their children to school, saying that they were afraid they wouldn't be able to reach them if something happened there...(P3)

Teachers have mentioned that there has been an increase in parent-teacher communication, and in this regard, teachers have made efforts to monitor the children's well-being throughout the process through home and tent visits, phone calls, and online meetings. Indeed, parents have also provided positive feedback regarding the reopening of schools.

We always receive positive feedback from our parents. They are also aware of the situation. Parents often say, 'Teacher, our child wants to come to school, they are very curious about it, and we truly see the benefits. Our communication has improved significantly.'(P3)

In the beginning, this was not the case. Both the children and the parents experienced a sense of unfamiliarity. But now, they have become accustomed to the situation, and we are receiving positive feedback from the parents. They want to send their children to school. (P2)

Discussion and conclusion

When the findings were looked at, after the earthquake and return the school, the decision to resume education led teachers, children, and parents to enter a new process, and the preparations and challenges faced during this period have been expressed by the participants. The participating teachers have experienced the earthquake themselves and returned to their profession after the passage of time. The experiences of teachers as earthquake survivors, the preparation process, and the changes observed during the process. While focusing on the preparation process, it emphasizes the school's infrastructure and reinforcement, as well as the transportation to the school. In terms of physical preparations, mostly negative situations were mentioned; it was stated that after assessing the damage to the schools, some repair and maintenance work, such as painting, was carried out, but no further reinforcement work was done. To make matters worse, teachers still have housing issues that need to be addressed before they can return to their jobs. The significance of attending to disaster survivors' housing and basic requirements, especially educators, as unresolved housing concerns can have a substantial impact on their capacity to carry out their responsibilities (Khorram-Manesh et al., 2021). Still, teachers' housing problems have not been fully resolved. Additionally, due to the lack of transportation facilities, they are facing difficulties in reaching

schools, especially in rural areas (OCHA, 2023). Apart from housing, getting children to school is also a big problem, especially in disaster areas. Similar challenges in gaining access to educational facilities after a disaster in various situations, where a lackluster transportation network can make the educational system's recovery much more difficult.

After the reopening of schools following the earthquake, the changes observed during the process are categorized under three main headings: children, teachers, and parents. Regarding children, changes are observed in communication, play, emotions, and behaviors. On the other hand, teachers undergo both individual and professional changes. The findings obtained without research indicate that teachers who experienced the earthquake described their own roles as 'savior', 'guides', 'healer', 'researcher' and 'observer'. After return to school after the earthquake, their relationships with children, interactions with them, and the support they provide have determined the teachers' roles. Most participants emphasized the 'savior' role when defining their roles during the process. These results are consistent with other research showing the significant effects of traumatic experiences on children's psychological and emotional health, which frequently results in changed behavior and emotional reactions (Brock et al., 2016; Norris et al., 2002). Considering the possibility of experiencing an earthquake in the classroom, they expressed concerns about safely evacuating and protecting the children. Similarly, The Committee on the Rights of the Child, (2008) during and after the disaster, ensuring the right to education is critical, and the role of education as a protective mechanism for children becomes of greater importance.

Based on the reports from teachers' observations in their classrooms and the feedback received from parents, changes in children were categorized into sub-themes related to communication, play, emotions, and behavior. At this stage, teachers stated that they do not have enough information about a crisis and online psychosocial guidance is not enough. Further examination of the roles of schools and teachers in local, national, and international catastrophe prevention, preparation, and planning is necessary and highlight the necessity of through training and readiness for educators to handle emergencies with efficiency (Mutch, 2015). According to Day and others, (2016), these programs would foster resilience in both teachers and children by assisting educators in better preparing for and responding to comparable circumstances in the future. Also, teachers are urged to use clear language and accurate, information when supporting children who have lost a parent. To assist the children, comprehend their experiences more successfully, terms should be used explicitly (Hogstad and Jansen, 2023). According to the report of the Presidency of Strategy and Budget (2023), The Post-Earthquake Psychosocial Support Action Plan has been prepared and implemented. Seminar programs have been initiated via the Teacher Informatics Network to inform approximately 1.2 million teachers working across the country about disaster and crisis management, as well as post-disaster mental health. Teachers and children need emotional and psychological support and like an earthquake, a life-threatening traumatic event must first occur to a person, one that is outside the normal course of human existence and causes them to feel fear, helplessness, or horror (APA, 2013). After the earthquake, education was disrupted, and numerous schools were destroyed or damaged and had to quit. It is well known that especially during and after the crises, qualified education protects young children from physical and emotional risks. Additionally, safe learning spaces support the reduction of psychosocial impacts on children during crises and help them look toward the future with hope (INEE, 2010).

In verbal expressions, as well as in children's games, the reflections of the earthquake process have been conveyed by teachers. In these games, building towers with Lego and other objects, and

observing whether these towers are earthquake-resistant or not, and witnessing their collapse, were among the changes expressed by teachers. Also, after the earthquake, classroom routines and activities have undergone various changes due to the impact of this process. Teachers have reduced the focus on cognitive development activities in their daily routines compared to before, while they have started to incorporate social development activities more frequently to relax the children. Creating a sense of continuity through the presence or absence of resources after a disaster can be seen as a supporter of the creation of daily routines. Maintaining these routines in the educational environment is also supportive for children (Blackwell et al., 2023; Fletcher & Nicholas, 2016), and this aids children's recovery when they return to school after trauma (Gibbs et al., 2013). Children often use this type of play to process traumatic events because it gives them a voice for their anxieties and a sense of control over the circumstances (Terr, 2003; Pynoos and Nader, 1990). Schools excelled at the first two techniques. Teachers and principals did their best to fix and clean up the schools so that when children returned, they would feel at home and secure. They ran the school day in a similar manner to before the disaster but with a little more flexibility. According to teachers, they were less concerned with results and more concerned with the pedagogy of love and care rather than on academic outcomes, is backed by studies that highlight how crucial emotional and social support are to the healing process that occurs after a disaster (O'Connor, 2013). Also, friends and schools are crucial places for individual and collective social and emotional support and recovery (Mutch, 2015). Coping with the post-disaster experiences requires the use of supportive methods, such as emotional and material ones. Programs emphasizing stress reduction, changing, and moderating maladaptive behaviors into socially acceptable behaviors, and educating people on how to react to emotionally stressful situations are all examples of emotional supportive techniques (Wachinger et al., 2013). During these conversations, it was noted that children used specific terms and concepts related to the earthquake. To make sure that children felt safe and at home when they returned, principals and teachers also concentrated on making the schools a comfortable and familiar place by making repairs and maintenance.

Schools and teachers were crucial to the response and recuperation of the community. They can serve as resource centers, places of comfort during the reaction phase, and gathering places for the community during the healing process. Teachers overcame their personal fears to assume positions of emergent crisis leadership when they knew what they could do in a crisis and get an education for it. Since schools frequently develop into centers of support, offering necessary resources and a sense of normalcy, this diverse role is crucial in assisting the community in recovering from trauma (Mutch, 2015). As evidence that can be shown to this, the fact that they can explain the difficult situations experienced in the interviews with the teachers who experienced the earthquake is another indicator of their resilience. The same resilience applies to children, who can retell the earthquake in their games and communication. Children exhibit a similar level of resilience, communicating and playing about their experiences during the earthquake, which reflects their continuous process of adjusting and coping (Ratnam, 2019). Teachers frequently assume emergent crisis leadership responsibilities despite their personal misgivings. The capacity to take on such roles is associated with their comprehension of crisis management, which is frequently acquired via instruction and practice. Interviews with teachers who experienced the earthquake demonstrated that they were able to express the challenging situations they encountered, demonstrating their resilience. Their experiences of settlement today continue to be distressing, given their unknown visa statuses, their disturbing pasts, and uncertain futures. Schools made sure that all individuals could

get the different types of emotional or psychological assistance they required to help them go forward, including children and families. Schools resumed their regular schedules despite all challenging conditions with small changes according to the children's changing needs (Fletcher and Nicholas, 2016). Teachers devised techniques to divert children's attention from their worries and make them look forward to going back to school and continuing the daily routine. Furthermore, we noticed that many valuable encounters took place in 'in-between spaces'. They were not planned for or organized but occurred spontaneously through professionals' sensitive employment of an ethics in practice (Löfgren and Manni, 2022). If consider what the current literature on this subject has to say about it and compare it to the experiences of the teachers in this study, there is still a gap between the role expected to play and their place in wider national and local disaster preparedness.

Also, this study has some limitations and one of the is about the size and diversity of the sample. It's crucial to have a diverse sample to ensure that the experiences and challenges explored are valuable and reflective of the variety of contexts in which they occur. Furthermore, there may be biases introduced because the experiences and viewpoints discussed in this study are based on instructors' self-reports. When evaluating the results, it is crucial to consider the influence of memory recall, personal biases, and social desirability on self-reported data (Podsakoff et al., 2003). The research methodology employed is only qualitative. Understanding the methodology is important for assessing the validity and reliability of the findings. For instance, qualitative or quantitative methods might yield different types of insights.

In the light of these, it can be suggested to conduct a longitudinal study to track the changes and challenges faced by teachers, children, and parents over an extended period. This would provide a more comprehensive understanding of the long-term effects of the earthquake on education. By identifying patterns and results that might not be immediately obvious, this method would offer a more thorough understanding of the earthquake's long-term consequences on schooling (Saldana, 2003). Further research may also involve parents and children in the study group to provide a more comprehensive understanding of how the earthquake affected the educational community. A mixed-methods approach can be used to combine both qualitative and quantitative data. This can offer a more comprehensive view of the situation, allowing for in-depth exploration of experiences while also providing statistical insights. For instance, professionals are advised to offer straightforward and precise factual information using clear language when supporting children who have lost a parent. It is recommended to use terms like 'death' and 'dying' directly, avoiding vague or softened expressions (Hogstad and Jansen, 2023). Findings can be compared across different regions or countries affected by earthquakes. This could reveal variations in the responses and help identify best practices or common challenges that can inform disaster preparedness strategies. Future research can involve stakeholders such as educational policymakers, community leaders, and mental health professionals in the research process. Their insights can provide a more holistic understanding of the challenges and potential solutions. Researchers can develop and evaluate teacher training programs for crisis management and emotional recovery. Involve educators in the creation of educational policies pertaining to disaster response and recovery, particularly those who have experience with disasters. Their firsthand knowledge can help develop more potent plans that cater to the real-world requirements of teachers in disaster-affected communities. For teachers who have suffered natural disasters, schools should set up specific mental health resources and support networks. These could include ongoing counseling sessions, peer support groups, or collaborations with outside mental health organizations. One of the suggestions is to provide flexible work arrangements for teachers impacted by disasters, such as less

hours worked or a gradual return. It can relieve pressure and give them time to get used to returning to their responsibilities gradually. Also, regular disaster preparedness training in schools should involve safety procedures and emergency drills. Teachers should create crisis management strategies unique to their schools and communities as part of these trainings. To facilitate post-disaster recovery efforts, teachers, parents, and the larger community should be encouraged to communicate effectively. Parent seminars on meeting their children's emotional and academic needs at home may fall under this category. Also, it is important to provide a mechanism for routinely checking in on the health of educators in places vulnerable to disasters, making sure that they receive prompt assistance if they exhibit symptoms of burnout or mental health issues. It is imperative that curricula be modified to include instruction on resilience, emotional regulation, and coping strategies. Lesson plans that support kids in processing trauma through art, writing, and group discussions should be provided to teachers. These can help educators better prepare for and respond to similar situations in the future, promoting resilience in both teachers and children.

Data availability

The datasets generated during and analyzed during the current study are available from the corresponding author on reasonable request.

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Competing interests

The authors declare no competing interests.

Ethical approval

All procedures in the research are in accordance with the ethical standards of the responsible human experiments committee and the 1975 Declaration of Helsinki, which was revised in 2024. In addition, ethics committee approval dated 21.06.2023 and numbered 2023/85 was received from the Istanbul Kultur University Research and Publication Ethics Committee for all data collection and study content.

Informed consent

In this study, informed consent was obtained from the participants at all stages. In the quantitative phase, informed consent was obtained via an online form. In the qualitative phase, the interviews were audio-recorded and verbal consent was obtained during the recording.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-025-04504-9>.

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