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Challenges, Innovations and Recommendations for Strengthening Educational Resilience: The Post-Earthquake Experiences of Teachers in Kahramanmaraş Region

Research Article

Nil OZKAN[1], Asiye TOKER GOKCE[2]

[1]Burdur Mehmet Akif Ersoy University, Faculty of Education, Department of Educational Science, Burdur, Türkiye 0000-0001-6237-5359

[2]Kocaeli University, Faculty of Education, Department of Educational Science, Kocaeli, Türkiye 0000-0003-1909-1822

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ABSTRACT

The aim of this study is to examine the resilience in education in line with the opinions and experiences of teachers working in the region after the earthquakes that occurred in ten provinces based in Kahramanmaraş on February 6, 2023 and to develop innovations and suggestions for strengthening resilience within the scope of the normalizing and curative role of education. The research is within the scope of qualitative research and is patterned with descriptive case study. The teachers participating in the research were selected according to the maximum diversity sampling and the data were collected using a semi-structured interview form. Content analysis technique was applied to analyze the data. As a result of the research; the problems experienced by teachers working in the earthquake zone during and after the earthquake process, the difficulties they face and the solutions they have developed, as well as suggestions and expectations aimed at increasing the resilience of education to natural disasters have been revealed.

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Keywords:
Earthquake, Endurance in Education, Natural Disaster

Introduction

Throughout the ages of human history, natural and human-made disasters have been profound tests of our resilience, adaptability, and ability to rebuild a semblance of normalcy in their aftermath. Disasters, which include events of both natural and human-made events, have always left an indelible mark on the environment and the lives of the people who live in the affected regions. They have caused profound destruction of both

[1] Corresponding author's address: Burdur Mehmet Akif Ersoy Üniversitesi
Telephone: +905385258367
e-mail: kezban_2121@hotmail.com
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the physical environment and the social fabric, often resulting in staggering losses. In this sense, disasters are the crucible through which societies are severely tested and their capacity to recover and adapt is revealed.

Classifying of disasters into two categories -natural and human-made allows for a more nuanced understanding of their causal factors, dynamics, and the variables that make them unpredictable, recurrent, and devastating. Natural disasters, born of the vagaries of nature, possess an inherent unpredictability that shapes their occurrence in terms of time, place, and form. These events have a profound impact on human life, resulting in the loss of life, property, and livelihoods. Human-made disasters, on the other hand, emerge from a web of political, economic, and social upheaval, often compounded by significant events (Cavallo & Noy, 2011). In recent decades, global changes and transformations in the climate system have unleashed an alarming trend - an increase in natural disasters of unprecedented magnitude and frequency. In the last half-century, the number of natural disasters has quintupled, underscoring the relentless disruption of our planet's delicate balance. Among these natural disasters, earthquakes stand out as a pervasive and profoundly destructive force (CRED, 2015; Aydın, 2019; Goldstein, 2021). These seismic upheavals, caused by the sudden release of energy as rocks rupture beneath the earth's surface, have always been the most threatening adversary to humanity.

For Turkey, the seismic vulnerability stemming from its geological disposition on active fault lines has earned it the moniker of an "earthquake country" (Gündüz, Türkmen, Eryiğit, Karaca & Aydın 2013; Zhang, Fung, Johnson & Sattar, 2022; Bilen & Polat, 2022;). This epithet is not unwarranted, given its history of seismic turbulence. The harrowing events of February 6, 2023, bear testimony to this grim reality, as earthquakes of magnitudes 7.8 and 7.7 shook the province of Kahramanmaraş (AFAD, 2023; USGS, 2023), triggering a domino effect that reverberated across ten adjacent provinces, leaving in their wake widespread devastation and loss (Zilio, Galasso, Gürer, Aslin, Lachowycz, Müller & Su, 2023).

These earthquakes, along with the numerous aftershocks that followed, tragically killed more than 50,000 people and left countless others facing the grim aftermath. The lives of nearly 15 million people in the region were directly and severely affected. The Ministry of National Education (2023) reported that 24 schools were destroyed and 83 others severely damaged as a result of these disasters. Authorities resumed the education process, setting up tents, containers and prefabricated classrooms to ensure that preschool, primary and secondary school students could continue to learn in a safe and structured environment. In addition, more than 20,000 teachers were deployed to the region to provide psychosocial support to students and children whose lives had been upended by the disaster. Educational materials and lifelong learning activities were initiated to facilitate the continuity of education and to mitigate traumatic experiences. Meanwhile, many students moved to other provinces after the earthquake.

Continuing the educational process after natural disasters such as earthquakes is one of the most effective ways of dealing with the destruction, trauma and psychological difficulties caused by disasters. Therefore, as Le Brocque et al. (2017) emphasize, in order to protect children, who are the most vulnerable members of society, from the risks that may arise, it is crucial to initiate and ensure the continuity of normal educational processes as soon as possible after disasters in order to heal the wounds of society. In the educational process following natural disasters such as earthquakes, teachers play a key role in meeting the psychological and physiological needs of students, improving their psychosocial health, and helping them to cope emotionally with the losses or pain they have experienced (Devaney, Carr & Allen 2009). Teachers play a central role in this phase of educational recovery. They are responsible for meeting students' psychological and physiological needs, enhancing their psychosocial well-being, and helping them cope with the emotional upheaval and loss they have experienced. As the first point of contact for students, teachers, in collaboration with families, play a critical role in ensuring that the educational process resumes in a safe environment and in contributing to rehabilitation and recovery efforts (CDC, 2023). As such, teachers are undoubtedly one of the key actors in facilitating the post-disaster normalization process.

On the other hand, it is imperative to recognize that disasters affect teachers as profoundly as they affect society as a whole. Teachers not only deal with the loss of life and property but also experience a variety of psychological and social consequences in the aftermath of such disasters. As they struggle to survive amid adversity, teachers are also tasked with meeting the professional demands that are critical to normalization. Their professional responsibilities are compounded by personal losses, adding to the burden and responsibility of practicing their profession under difficult circumstances. In this sense, as underlined by INEE (2010), support for teachers in disaster areas is of paramount importance. This includes improving their living conditions, providing psychological support, and responding to their needs and demands. Recognizing the basic humanity of teachers, it is both unrealistic and unfair to expect them to perform superhuman feats in times of adversity. The existing literature, as highlighted by Seyle et al. (2013), clearly supports the need for psychosocial understanding and support for teachers following natural disasters or traumatic events. Promoting stability and continuity is a cornerstone in addressing the lingering effects of an earthquake and improving the overall well-being of teachers. It is a key factor in the transition to normalization and an integral part of the restorative potential of education, as Car asserts. The existing literature, as highlighted by Seyle et al. (2013), clearly supports the need for psychosocial understanding and support for teachers following natural disasters or traumatic events. Promoting stability and continuity is a cornerstone in addressing the lingering effects of an earthquake and improving the overall well-being of teachers. It is a key factor in the transition to normalization and an integral part of the restorative potential of education, as Carlson et al. (2010) asserts. In light of these considerations, this paper aims to reveal the experiences of teachers in the region after the Kahramanmaraş earthquake on February 6, 2023, the difficulties they faced, and the solutions they developed for these difficulties. By delving into these educators' experiences, solutions, and recommendations, we hope to support ongoing natural disaster recovery efforts and contribute to the body of knowledge guiding disaster recovery and resilience in education

To that end, this study seeks to answer the following key questions:

1. What problems did teachers face in the provinces affected by the earthquake?

2. What solutions did teachers develop to solve their problems?

3. What are their recommendations for mitigating the problems they encountered during and after the earthquake and improving the education system's overall resilience in the face of future disasters?

Addressing these questions, the research is expected to provide valuable insights to inform future natural disaster recovery initiatives, provide practical guidance for improving educational sustainability, and contribute to the broader knowledge base on disaster recovery and sustainability in education.

Method

Reseach Design

This study employs a descriptive case study design to address the difficulties and solutions experienced as a result of the earthquake from the perspective of the teachers who experienced the earthquake. The case study is a qualitative research approach in which one or more situations, limited in time, are studied in depth using data collection tools (observation, interviews, audiovisual documents, reports) and the emerging themes are defined (Creswell, 2013). A descriptive case study is a type of case study designed to describe a phenomenon as a case in its real-world context. Descriptive case studies allow researchers to present a situation that is rarely encountered or normally inaccessible to researchers. The descriptive case studies deal with the “how” of a situation (Yin, 2018).

Research Group

The study group of the research consists of teachers working in public primary, secondary and high schools in 10 earthquake affected provinces, (Kahramanmaraş, Malatya, Osmaniye, Kilis, Adıyaman, Hatay, Diyarbakır, Adana, Şanlıurfa, Gaziantep) centered in Kahramanmaraş. The study group was selected using maximum diversity sampling, which is one of the purposive sampling methods. According to Patton (2014), this method allows the phenomenon under study to be examined in depth, with different experiences from different stakeholders, assessing the situation from different perspectives and collecting rich data. In this context, the research group consisted of teachers who were teaching in tent cities and permanent school buildings due to the destruction caused by the earthquake, and who volunteered to participate in the research. Table 1 provides demographic information about the participants.

Table 1. Demographic Information of Participants

Code	Gender	Age	Seniority	Education Level	Branch	Level
T1	Male	29	6	BS	Maths	Middle School
T2	Female	38	11	MS	Turkish language and literature	High School
T3	Male	44	21	BS	Electrical-Electronics	High School
T4	Male	47	25	BS	English	High School
T5	Male	36	14	MS	science	Middle School
T6	Male	25	3	BS	Religious Culture and Ethics B.	Middle School
T7	Female	35	13	MS	Turkish	Middle School
T8	Female	41	17	MS	Class Teacher	Elementary School
T9	Female	33	9	BS	Class Teacher	Elementary School

As Table 1 shows, the gender distribution of the participants is balanced. The average age of the participants is 36 and the average number of years of service is 13. Most of the participants have a Bachelor's degree (BS) and a few have a Master's degree (MS). Most of the teachers work in secondary schools and the fewest in primary schools.

Instrument

The data required for the study was collected using a semi-structured interview form developed by the researchers. Patton (2018) was used in the development of the form. Patton (2018) states that the interview form guides the researcher and lists the intricacies of form development. First, a draft of the interview form was created; necessary revisions were made after obtaining the opinions of three experts. The form was then piloted. As a result of the piloting, it was determined that the interview questions collected data suitable for the purpose of the research. As a result, the interview form contained three questions and probes that asked about the participants' experiences during the earthquake, the solutions they developed to cope with the difficulties that arose after the earthquake, and their suggestions for reducing the problems they encountered after the earthquake and normalizing education.

Data Collection and Analysis

The data required for the research was collected through in-person and face-to-face interviews. First, ethical and other approvals necessary for the study were obtained from the authorities. Then, preliminary interviews were conducted with individual teachers by visiting the region and informing them about the research. Interviews were conducted with those who volunteered to participate in the research, whenever and wherever they wanted. On average, the interviews lasted 4-50 minutes.

After all the interviews were completed, the collected data was transferred to the computer environment and written down. Content analysis, as suggested by Miles and Huberman (2021), was used to analyze the data obtained. First, codes-categories and themes were created for each problem; then the results were interpreted. The data were analyzed separately by two researchers. In addition, to ensure validity and reliability, as suggested by Creswell and Miller (2000), the codes-categories and themes created separately by the researchers were compared with each other and with the results obtained by two different scholars. According to Yin (2011), any quotation or excerpt used should support the interpretations and explanations presented. Thus, as Brown (2010) and Eldh et al. (2020) point out, presenting authentic quotations of what informants have said has become the "gold standard" in qualitative studies. Thus, in order to increase the reliability and credibility of the research, some of the data obtained during the interview was presented in the text with direct quotations. Besides, the participants were given code names in the form of T1, T2, .., T9.

Findings

Problems Experienced by Teachers in Provinces Affected by the Earthquake

Data analysis revealed that the problems experienced by the participants appeared in five dimensions: Safety, economic-social losses, psychological-health, technical-structural, and educational (Figure 1).

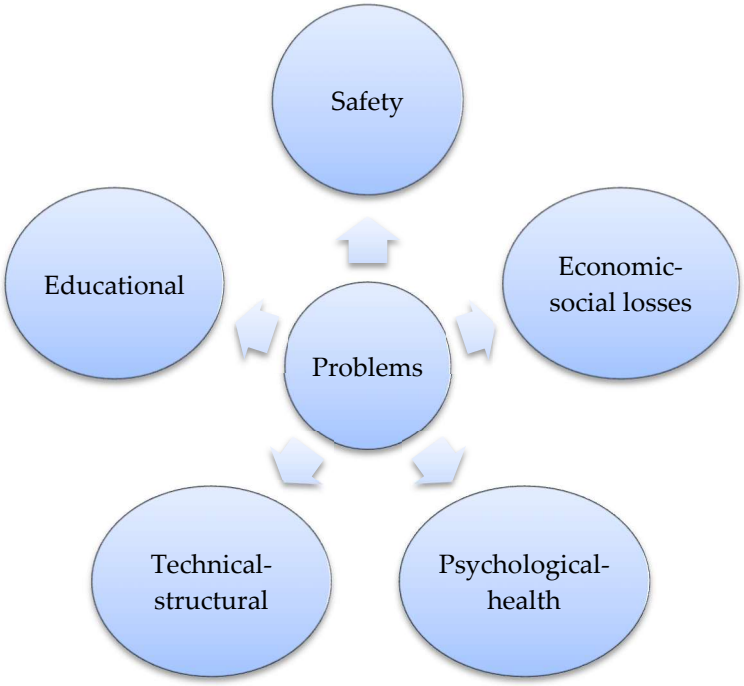


Figure 1. Problems experienced by teachers

As Figure 1 shows, in the security subcategory, participants reported that the number of foreign national groups in the region increased after the earthquake and that they experienced theft and looting. Some of the participants' opinions on this issue are as follows:

We needed a lot of food and supplies. But the markets were being looted and we could not meet our needs (T3).

We left our house like that, never to enter it again, but this time we had a security problem. Incidents of theft and looting began. Since we could not enter the damaged houses, groups from outside began to steal valuables or things that could be converted into money (T6).

There was a lot of looting and stealing. People bought extra items just in case they couldn't find them. Products that were not needed were also looted by others, namely foreigners. After the earthquake, we

encountered many dangerous people, including refugees, foreigners, and people from outside the province. In fact, it was these people who were looting and stealing (T7).

In the subcategory of economic and social losses, participants indicated that basic needs cannot be met and there is a need for shelter; there has been a loss of life and property; there is a loss of purchasing power due to price increases; relief and debris removal efforts have been slowed due to a lack of earthquake preparedness and prevention work; the earthquake has been forgotten by the public; there have been irregularities in financial aid and damage assessment studies; there is social pressure and ostracism toward the region; and finally, some groups advertise and show off during relief efforts. Some of the participants' opinions on this issue are as follows:

In particular, we tried to meet our basic needs such as toilets and bathrooms outside (T2).

We had a lot of problems with shelter, especially during the earthquake. Tents could not be delivered to us in the first few days. The containers came much later. And the containers were not given to everyone (T2).

We lost some of our relatives and teacher friends; some of our colleagues' spouses and some of their children died (T1).

Our house was badly damaged and completely destroyed by the second earthquake in the afternoon. We bought our house with a loan, but we are still in debt. We are both homeless and in debt. At the same time, we are struggling to make ends meet (T5).

We lost some of our students. Or our current students have lost family members. Even if your home is moderately damaged, most of your belongings are unusable. Currently, most teachers are in financial need of both a house and furniture (T3).

Since the area affected by the earthquake is very large and its destructive power is very high, the rental prices of solid buildings have increased significantly, even more than our salary (T8).

After the earthquake, I had a hard time making ends meet. When the schools were closed due to the earthquake, I received all my tuition, but without my family's vineyard house, I have no place to stay and I cannot afford to rent a house on my own (T6).

This earthquake literally said it was coming. But we had not taken any precautions, either nationally or individually. We were caught off guard, and all the drills were weak. The rescue teams were not ready because there was no preparation (T3).

With the elections, the pain of the earthquake was quickly forgotten and the agenda in our country immediately changed. Although more than three months have passed since the earthquake, there is still debris that has not been removed, the process of debris removal has slowed, and aid has decreased (T3).

There have been changes in damage assessment reports to qualify for assistance. We have seen situations where moderate damage was changed to major damage and minor damage was changed to moderate damage. (T6).

After the election, we as a region came under social pressure. Generalizations were made about the region, we were lynched. Our electoral choices were questioned by society and we were humiliated. These inevitably spread and are seen on social media. As locals, we were very disturbed by this issue (T8).

We heard from families and students who had migrated and returned that they were treated as refugees in some places outside the province, that they were ostracized, and that this situation worsened after the election, and that they later decided to return. In addition, during the earthquake, some people (especially influencers) sought publicity. While they were not actively working in the field, they posted as if they were. When you checked two days later, they were gone (T9).

In the mental health subcategory, participants reported experiencing fear, anxiety, panic, behavioral disorders, and psychological trauma after the earthquake, as well as experiencing hygiene and health problems after the earthquake. Some of the participants' opinions on this issue are as follows:

Fear and panic surrounded us. When we went out, we heard screams and cries for help everywhere. Because of the fear and panic, various diseases started among the children. For example, some of our students cannot speak like they used to (T3).

We also have friends whose houses are intact, but they have not been able to enter their houses for months because of fear (T7).

After the schools opened, neither we nor the students could fully adjust. Because our endurance in the face of losses had diminished. Psychologically, I am not in the good mood I was before (T2).

Container cities were set up, but electricity and water were not provided at first. This led to hygiene problems. We go to the toilet, we cannot wash our hands, we cannot take a shower (T5).

The polyclinics were closed for treatment. Either we couldn't find a desk or we couldn't reach the doctors (T9).

In the technical-structural subcategory, participants noted that electricity and communications were cut off during the earthquake; there was a need for fuel oil and generators; search and rescue teams and aid were delayed; there was a lack of organization and coordination; there were misdirections and wasted time in rescue efforts due to lack of expertise and technical knowledge; there was chaos in the region due to transportation and traffic congestion; emergency assembly areas were inadequate; and drills were inadequate in practice. Participants also stated that incompetence and irregularities were committed in structural transactions for profit and gain; local units were given authority over earthquake preparedness and construction. Some participants' opinions on this issue are as follows:

There was a lot of lack of technical knowledge and misdirection. Because of the panic, rescue operations were delayed. Since our people were unable to give correct information due to panic and psychology, the work of existing authorized or expert people was also hindered. A lot of time was lost and the emergency response was too late (T2).

The rescue teams arrived too late. Although sounds were heard from the wreckage, no intervention could be made because there was no equipment. After the earthquake, we experienced both cold and frost (T8).

We lack activities such as drills, first aid and awareness. Exercises and first aid activities are carried out all over Turkey, but they require a lot of technical knowledge and expertise. It is difficult to put the learned information into practice (T7).

AFAD's lack of organization and coordination in terms of aid distribution and emergency response was serious. Even the distribution of tents was not fully completed (T3).

The biggest mistake made; all earthquake related work should be left to the local authorities and authorized. Irregularity and incompetence are at the highest level. Construction companies chase profit. Complaints about illegal construction, floor additions, column cutting, etc. are not taken into consideration. Building inspection, laws and regulations remain on paper (T9).

In the subcategory of education, participants noted that the number of students in schools has decreased; that there is a need for teachers after migration; that there is absenteeism, apathy, low expectations, motivation, and hopelessness among students after the earthquake; that there are educational losses and deficiencies; that there are different practices in earthquake compensation for permanent and paid teachers; that volunteer teachers coming to the region could not be coordinated; and that there is turnover among

teachers. Participants also noted that the right of teachers to interprovincial appointments is subject to strict conditions and that appointments due to health disabilities are irregular. Some participants' opinions on this issue are as follows:

> *While the earthquake compensation started to be paid to the permanent teachers, the paid teachers were excluded from the scope (T6).*
>
> *There were those who irregularly received reports or documents regarding out-of-province appointments due to health disability, such as polyclinic, department to be treated, doctor, etc., and somehow gained the right to be appointed. There is a department, but there is no doctor, how do you get documents or reports? This is thought-provoking (T8).*
>
> *Appointments and leave rights were left to the permission and order of the provinces. That's why there were differences in implementation between provinces and we experienced victimization (T9).*
>
> *We also experienced difficulties in coordinating volunteer teachers. Since the branches of the incoming students were not known in advance and there was a lack of information on this subject, the primary school and branch teachers were guided in a mixed manner. Planning could not be done in the schools and programs because of the circulation (T7).*

Solutions Developed by Teachers to Solve Their Problems

Data analysis revealed that the solutions developed by the participants appeared in four dimensions: Solutions implemented by the school principals, solutions implemented by the Ministry of National Education (MoNE), solutions implemented individually, and solutions with physical-material-human support (Figure 2).

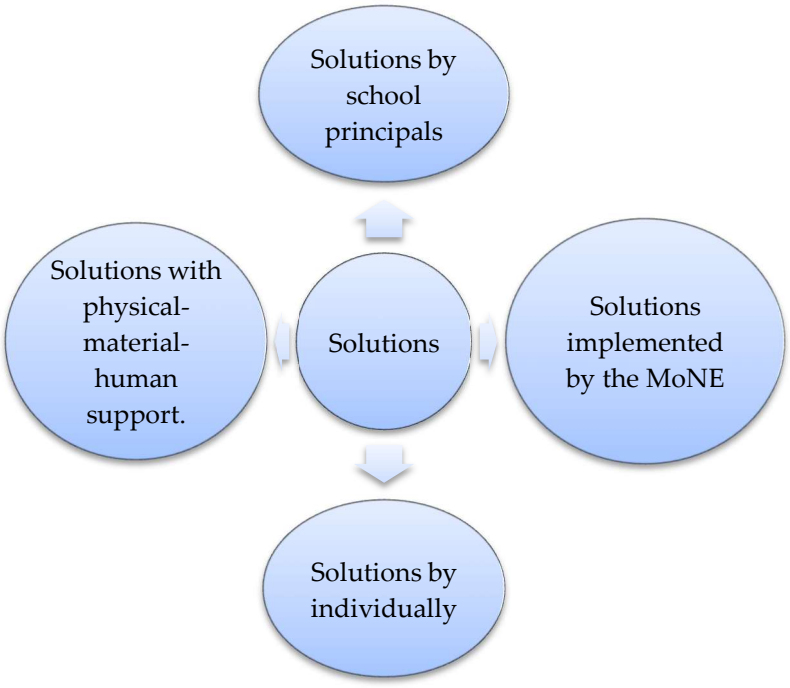


Figure 2. Solutions of the participants

In the subcategory of solutions implemented by the school administration, participants expressed that teachers were given flexibility and understanding in the process by the school administration; coordination was ensured between students and teachers regarding the provision of assistance, programs and lessons; courses were given to address educational losses; rehabilitation and improvement works were carried out in schools; and they supported each other. Some participants' opinions on this issue are as follows:

Together with our teachers who survived the earthquake, we helped the search and rescue teams and tried to reach our students and friends through the WhatsApp groups we created. We offered help by sharing shelter, food or other needs (T1).

We constantly organized activities for our students at school to bring them back to normal, improve their morale, motivate them, make them laugh and cheer them up. After the rehabilitation and improvement studies, we started to gradually move on to the course subjects (T2).

In the solutions implemented by the MoNE subcategory the participants stated that education continued and normalcy was achieved; shelter schools were opened; teachers were given leave, extra course pay and the right to be assigned outside the province; students were given the right to transfer to other provinces; attendance requirements were abolished; mobile education was provided in tent cities and branches were merged and dual education was provided in fixed schools the AKUB unit affiliated to the MoNE participated in search and rescue activities; psychological counselors and volunteer teachers were assigned; and coordination between the MoNE and its sub-units was established and mobilized. Some participants' opinions on this issue are as follows:

Children living in tent cities or tents were included in the transportation education and an attempt was made to ensure their access to education (T9).

Our schools were first opened for public use to meet the need for shelter, and then education began. It was very good for us and for the children to open schools to change their environment and improve their psychological conditions (T1).

I can say that MEB, provincial national education directorates, schools and teachers are better organized than AFAD. While vocational schools produce food and bread, public education centers produce body bags, tents, shrouds, etc. They did everything they could. Kitchens were set up and even our friends worked there (T5).

In the subcategory of individually applied solutions, participants reported that teachers voluntarily participated in search and rescue and relief organizations, stayed in cars, parks, vineyard houses, with relatives, in different provinces for shelter purposes, or continued to live in houses with low/medium damage, and teachers continued to live in schools with low/medium damage. They also stated that the planning and programming processes were carried out and that people acted with commitment. Some participants' opinions on this issue are as follows:

Even though it was voluntary, every teacher who saved his family ran to the field and did his best (T5).

Most government offices and school buildings were not badly damaged in this earthquake. That's why families can send their children to school safely (T1).

After the earthquake, we saw that the school buildings were stronger than our houses. At this point, children and families have full confidence in the school (T6).

In the physical-material-humanitarian subcategory, respondents indicated that per-household financial assistance was provided to teachers affected by the earthquake, damage assessment studies were conducted, tent and container cities were set up, and volunteer assistance was provided by the public. Some participants' opinions on this issue are as follows:

We survived this earthquake thanks to the strong solidarity and volunteer work of the Turkish people (T3).

Education was provided in tent cities set up throughout the province. Various courses were opened for adults in the framework of lifelong learning (T4).

Expectations and Proposed Solutions

Data analysis revealed that the expectations and proposed solutions developed by the participants appeared in five dimensions: Personal rights, infrastructure hardware, preliminary and preventive studies, transactions related to legislation, regulations and laws, and psychological - financial support (Figure 3).

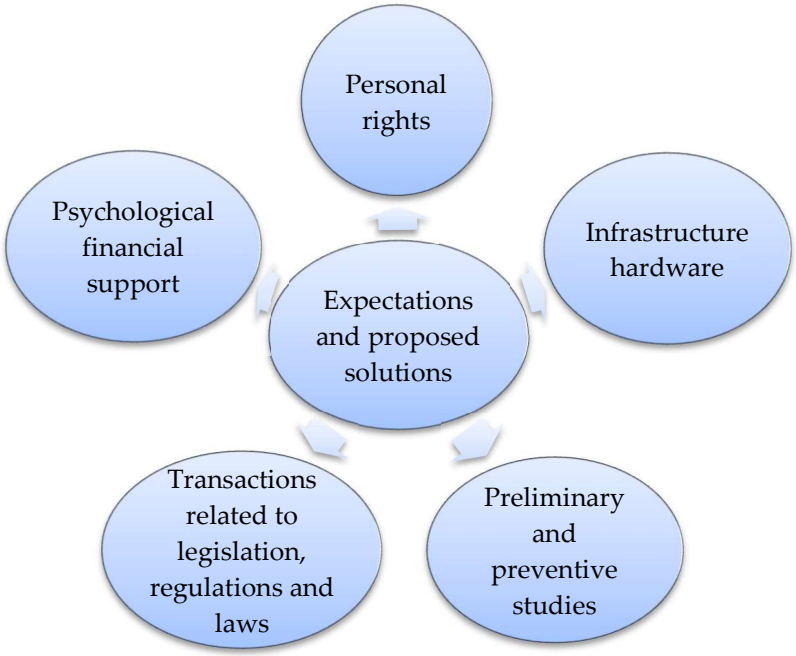


Figure 3. Expectations and proposed solutions developed by the participants

Participants in the personnel rights subcategory; they emphasize that all teachers should be given the right of appointment and that teacher appointments should be planned according to need. One of the participants, T9, summarizes his views as follows:

> *In teacher planning, the teachers concerned in the region should first be given the right to be appointed and new appointments should be made for the vacant positions* (T9).

Participants in the infrastructure-hardware subcategory suggested that the construction of damaged schools should be completed, school infrastructure should be improved, dual education should be abolished, zoning peace should be abolished throughout the region, soil surveys should be conducted, and multi-story buildings should not be allowed. In addition, it is expressed that education in building-related fields such as engineering and architecture can be given in selected universities, and earthquake-related courses can be taught in schools. One of the participants, T2, explains his views as follows:

> *Earthquake strengthening works will be carried out for each school. In this regard, mobilization should be carried out for earthquake zones and risk areas, and urgent measures should be taken. If necessary, cooperation should be established with other ministries and institutions, and support should be obtained for equipment, materials, and experts in this regard* (T2).

Participants in the preparedness and prevention subcategory recommended increasing the number of emergency shelters and storage areas, with priority given to regions at high risk of earthquakes; developing earthquake-related early warning systems; and increasing the number of emergency response teams and equipment. It also emphasizes the need to conduct earthquake awareness activities, to keep earthquakes on the public agenda so that they are not forgotten, and to conduct and sustain earthquake drills. Another striking finding is the hopelessness and low expectation of change regarding earthquake preparedness and prevention. One of the participants, T2, explains his views as follows:

If you look at the time between 1999 and 2023, you cannot see any change or difference. Also, the loss of life is higher. Here you can see the lack of precautions and preparations. In another earthquake that may happen after tomorrow, we will be talking about the same things again, maybe there will be more victims (T2).

Participants in the subcategory of legislation-regulation and law-related transactions recommended the imposition of criminal sanctions for irregularities related to construction, strict supervision of authorized institutions and municipalities related to construction, enforcement of merit by strengthening earthquake-related laws, legislation and regulations, and the establishment of a centralized system compared to the authority in local units related to construction. Participants T4 and T5 explain their opinions as follows:

Heavy criminal penalties should be applied for irregularities. Municipal supervision should be strengthened (T4).

Procedures such as building construction, building inspection, engineering, geotechnical surveying, and the permits to be obtained in these matters should not be left to local, i.e. municipal, units. This should be done by establishing a central system, enacting laws and imposing obligations (T5).

In the psychological-financial support subcategory, participants emphasized the sustainability of financial support by meeting teachers' housing needs, providing psychological support, providing financial incentives by improving their purchasing power, cooperation between security-related institutions, and cooperation with other provincial national education directorates for organizing and coordinating volunteer teachers. Participants T5 and T8 explain their opinions as follows:

Teachers in particular should be given urgent support in terms of shelter after the earthquake. Unfortunately, the one-time financial support per household was not enough. This aid must be continued until normalcy returns. Earthquake compensation must be paid (T5).

The Ministry of Education should not make its teachers dependent on anyone for housing, protect them from rent increases and exorbitant prices, or increase the number of structures such as dormitories and teacher TOKIs. Incentives should be provided to solve the livelihood problems of teachers in earthquake zones (T8).

Conclusion, Discussion and Suggestions

This paper aimed to investigate the experiences of teachers in the region after the Kahramanmaraş earthquake. The results showed that participants were unable to meet their basic needs and experienced security problems due to theft and looting after the earthquake. This finding of the research is consistent with the literature. According to the studies (Paudel & Ryu, 2018; Barsky, Trainor & Torres, 2006; Frailing & Harper, 2017), it was found that the rate of looting and crime increased during and after the earthquake, attempts were made to take valuable items, especially from damaged buildings, and various foreign groups increased in the earthquake provinces, and the aid provided by institutions and individuals was misdirected by taking them under the title of earthquake victims. This study showed that teachers experience the same problems as earthquake victims and that looting and theft are important social problems experienced during the earthquake. Faced with the devastating effects of the earthquake, both teachers and earthquake victims need the protective hand of official institutions and the healing of wounds through sacrifice. The efficient and planned use of available resources can alleviate the pain and strengthen the sense of commitment.

The results revealed that there was a housing problem; loss of life and property; loss of purchasing power with price increases; lack of earthquake preparedness and prevention work slowed relief and debris removal efforts; the earthquake was forgotten by being removed from the public agenda; irregularities in financial aid and damage assessment studies; social pressure on the region and exclusion occur; and some

groups advertise and show off during relief efforts in the region after the earthquake. The analysis of the data showed that due to the widespread destruction caused by the earthquake, the need for housing, which is one of the main problems, together with the rent increases made as a result of opportunism, created a great victimization.

According to the findings, the country's lack of preparedness for the earthquake caused insurmountable problems after the earthquake, resulting in the reality of the earthquake being forgotten. At the same time, the loss of life, property and economic losses forced the earthquake-affected teachers to migrate, resulting in social and psychological problems related to migration. In fact, the results revealed that earthquake victims, both in the earthquake zone and in areas outside the earthquake provinces, experience social adjustment problems such as loneliness, alienation, and exclusion. These problems affect teachers psychologically, sociologically, and individually.

According to the findings, in addition to irregularities in aid distribution and damage assessment studies, it was emphasized that due to the social impact of social media, some groups and phenomena made advertisements and ostentations about aid distribution. In general, it can be seen that social media not only play a savior role in times of crisis and chaos, such as collecting aid, organizing or increasing the efficiency of transportation access, but also spread information pollution by including reliable, accurate and unofficial exchanges. Biased posts and misinformation by some people or groups on social media who tried to turn the earthquake into an opportunity exploited the feelings of teachers in the region as well as the earthquake victims.

According to the findings, the fear, panic, and loss of life after the earthquake negatively affected the mental health and psychological resilience of the participants, increasing their anxiety and stress levels. In studies conducted on earthquakes and natural disasters (Zhang, Zhang, Zhu, Du, & Zhang 2015; Sinclair, 2002), post-traumatic stress disorder has been observed in individuals due to earthquakes. The reluctance of teachers to even enter solid structures reinforces this finding. According to data analysis, sanitation problems in tent cities and containers led to the risk of epidemics and disruption of health services.

The findings showed that there is a lack of technical knowledge, infrastructure, coordination and preparedness for earthquakes; that effective policies on earthquakes could not be implemented in the country; that the earthquake was not taken seriously as a disaster by institutions and individuals; that work and operations remain on paper. Participants emphasized that the delegation of authority over construction to local units has led to irregularities. Lack of supervision and low accountability or arbitrary practices have led to the emergence of rent-seeking and profiteering activities in construction. In this context, eliminating opportunism by focusing on human life in buildings and empowering central units on these issues becomes very important.

According to the findings, there were many learning losses as students in the region struggled with the aftermath of the earthquake. During the previous pandemic period in the country, schools were closed and education was provided online; after the earthquake, students in the region experienced profound negative effects such as absenteeism, apathy, low motivation, low expectations for the future, and despair about face-to-face education. It can be said that this situation creates social inequalities in terms of economic impossibilities, need for social assistance and exposure to risks in the region compared to the mass of students and teachers outside the region.

According to the findings, differences in personnel rights between provinces in the earthquake zone also affected teachers. The strict conditions imposed on out-of-province assignments immediately after the earthquake made it difficult for participants to solve many problems, especially housing. In addition, the volunteer teachers sent to the region had a partial negative impact on the normalization of education due to

the lack of direction and guidance, plan and program in the activities carried out. According to the results, in schools, teachers' schedules were made more flexible in order to prevent learning losses; various courses were opened. In this way, improvement efforts were made to help students in difficult situations. It is essential for the sustainability of education that teachers stay together in this process and support the normalization efforts in education and provide personal, psychological, material and moral support to students during the post-earthquake rehabilitation process. For this reason, supporting teachers, who play a key role in the normalization process of education, ensuring that they do not feel helpless and alone, and drawing strength from mutual solidarity and cooperation contributes to the healing of education. In fact, the literature (Bonanno, Brewin, Kaniasty & Greca, 2010) states that the first support for survivors after the earthquake is the social solidarity that comes from their closest relatives and the environment.

According to the findings, the general solutions implemented by the Ministry of Education are: It improved the personal rights of teachers and all individuals who were earthquake victims during the normalization process were able to benefit from all the facilities of schools. Efforts were made to ensure the participation of students in the educational process through the establishment of tent / container cities and mobile education. Data analysis showed that the Ministry of National Education and the Provincial Directorates of National Education are more coordinated and mobilized by involving administrators, teachers and students in the management of the organizations compared to other units. According to the results, the fact that the Ministry of Education is a large institution in terms of personnel and units, and the formation of formal institutionalization played an important role in the continuation of educational services and mitigating the effects of the earthquake. At the same time, the implementation of flexible models in education plays a critical role in terms of access to education for students affected by the earthquake (Watson, Loffredo & McKee, 2011).

According to the findings, teachers also developed individual and social solutions to create living spaces during the rehabilitation process, such as participating in search and rescue activities, continuing to live in the damaged house, and providing voluntary assistance. The solutions developed by teachers show that they play a critical role in saving lives and providing educational services during and after the earthquake (Stratta et al., 2014).

Teachers' expectations and suggestions for solutions have emerged in order to strengthen the country's infrastructure and equipment, complete the deficiencies and avoid abuses, especially those related to structural transactions. Due to the high destructive power of earthquakes, disaster education activities should be carried out for all people in society (Hoffmann & Blecha, 2020) and the prerequisite for earthquake preparedness and earthquake prevention activities should be realized.

Mental preparation through consciousness and awareness will then bring physical preparation. In this context, in order for disaster education to be sustainable and implemented during the earthquake process, training should be provided by expert and experienced individuals and should be made a part of daily life. In order to prevent the resources of public and private institutions and organizations from being insufficient in the post-earthquake period, the units that will plan and coordinate physical and human resources should be institutionalized and standardized with merit. In addition, all measures that can be taken to increase the earthquake resistance of people and societies, as well as earthquake preparedness studies, should be placed on a solid foundation within the framework of laws and regulations (Potter, Pavlakis & Roberts, 2021). According to the findings, participants suggest that the personal rights of teachers in disaster situations should be improved or relaxed. In this context, the Ministry of Education needs to protect its staff, especially in extraordinary situations, and create conditions that enable staff to maintain their commitment to the school. The most important of these conditions are meeting housing needs, providing material and moral incentives for teachers, providing psychosocial support, and increasing purchasing power.

As a result, education and teachers as key components in the normalization process of society in extraordinary situations is a strategic investment to minimize the impact of disasters and increase the effectiveness of learning. In particular, involving and protecting teachers in this process and meeting their needs will ensure that societies are resilient to disasters, recover quickly and cope with disasters in the long term. It is understood that after extraordinary events such as earthquakes, education cannot be postponed due to its role in improving society (Johnson et al., 2014). Therefore, this research highlights the fact that the normalization of education is the most important solution criterion for the normalization of society in extraordinary situations and crises.

The mental and physical resilience of teachers in the region is critical to the recovery of daily life, the return to normalcy after disasters, and the sustainability of education. The lives of teachers affected by the earthquake changed dramatically in the aftermath; the panic, fear and trauma they experienced negatively affected them physically, mentally and spiritually. The low hopes of the teachers in solving the problems that they believe cannot be changed for the future after the earthquake will cause problems in the quality of education that will shape the future of the country, as well as individual problems such as health in the future (Mir, Shah & Shafi Bhat, 2023). Therefore, providing individual, institutional and social support to these teachers should be an important agenda item of the normalization policy in the country.

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