



# Investigation of Aged Individuals in the Kahramanmaraş Earthquake in Turkey

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## Abstract

Aged individuals, who are among the vulnerable individuals in society, constitute an important group that should be protected and protected. The underlying reason for this can be thought of as the physiological and psychological states of aged individuals. Under these considerations, it was aimed to determine what happened in the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on February 6, 2023, under the opinions of aged individuals. Phenomenological case design, one of the qualitative research methods, was used in the research. The study was conducted with 300 individuals over the age of 30 who voluntarily agreed to participate in the study. 58.3% of the individuals participating in the research are male and 41.7% are female. 100% of them have encountered a disaster at some point in their lives, and 50% of these disasters have been pandemics. In the study, the data were collected with a semi-structured interview form developed by the researchers. At the end of the research, it was found that aged individuals were most anxious (n=300) and experienced anxiety (n=178), constantly watching television or reading the newspaper (n=180); In the 6 February earthquake, it was determined that they experienced the highest rate of willingness to help (n=300) and fear (n=290) and that they constantly watched television (n=300). In line with the results obtained from the research, it can be suggested that

psychosocial support mechanisms should be effectively presented in the face of disasters, especially for older individuals.

**Keywords:** Disaster, Crisis, Aged individual, Earthquake, Psychosocial support

**Jel Classification Code:** H-19

## **Investigation of Aged Individuals in the Kahramanmaraş Earthquake in Turkey**

### **1. Introduction**

In the most general sense, disaster is considered as a natural event that disrupts the existing order of a society and catches individuals unprepared, resulting in psychological, physical and sociological problems (Varol and Gültekin, 2016). Disasters are examined under different subheadings. These are listed as earthquake, flood, pandemic disease, landslide, volcanic eruption, desertification and storm (Partigöç and Soğancı, 2019). Whatever type of disaster may occur, certain events may occur as a result. In this context, after disasters, the existing order is damaged to a great extent and a crisis situation emerges. A crisis, on the other hand, can be defined as any event that occurs unexpectedly and whose outcome is unpredictable and disrupts the daily routine (Aydoğdu et al., 2012). Crisis can also be expressed as an important life period that deeply affects people of all ages and all ages and causes psychological and social difficulties in individuals. Especially communities that play a critical role in society can be affected much more by the crisis. One of these communities is elderly individuals (Erkal and Şahin, 2015).

While aging is considered as a natural part of development in the most general sense, it is also considered as an expression of the end of life (Santrock, 2016; Türkan and Sezer, 2017). Especially when developing countries such as Turkey are taken into consideration, it is seen that some different physiological and psychological reactions occur with the end of working life of aged individuals (Genç and Dalkılıç, 2013). In this context, it is also stated that aged individuals may experience some physiological health problems more with the increase in age, and they are more likely to experience some psychological problems due to declining economic income, losing the individuals or spouses around them to death, or their children starting their own lives known. These reasons clearly reveal that aged individuals are sensitive individuals in society (Çakır and Aydoğmuş Atalay, 2020).

This type of state of aged individuals can also damage their self-integrity and cause them to be hurt more. Especially crisis situations cause elderly individuals to be alone and lose their self-confidence (Gülen et al., 2013). Recently, one of the crisis situations for the elderly in Turkey has been the Covid-19 pandemic, and in this process, elderly individuals have been exposed to discrimination and have experienced many psychological problems (Hwang et al., 2020; Lizzo and Liechty, 2020; Tekindal et al., 2020; Varişli - Gültekin, 2020; Wu, 2020). When the pandemic was over, forest fires and earthquakes seriously affected the elderly and caused them to question life (Atila Demir, 2020; Çakır and Aydoğmuş Atalay, 2020; Sarı and Akın, 2017; Taşdelen, 2020; Tufan et al., 2022). However, considering the fact that aged individuals have experienced many similar disasters during their lifetime, it should be taken into consideration that their experiences can be benefited from. However, in order to express these experiences, it is necessary to reach these individuals first and to offer psychosocial support mechanisms for their experiences.

Psychosocial support can be expressed as an important social work practice that enables individuals to be approached as a whole and to minimize or eliminate the psychological symptoms experienced after disaster situations (Aykut and Soner Aykut, 2020). Especially in this context, psychosocial support activities to be offered to aged individuals may help protect their psychosocial health, even if they have not experienced the disaster directly. It can be said that the most important reason underlying this is that individuals from all ages question life in disaster events, but this situation is seen as more severe especially in older individuals (Akyıldız, Gürboğa, and Gürboğa, 2018). However, the first step in psychosocial support studies can be considered as reaching these individuals and getting their thoughts. In the literature review, it was found that the opinions of individuals who aged after the disaster were taken after the Covid-19 pandemic (Kaplan and Demir, 2021). In this context, the fact that no study was found in which the opinions of aged individuals, especially after the earthquake disaster, were not found, reveals the importance of the research. Under these considerations, in the research, it is aimed to determine the events of the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on February 6, 2023, under the opinions of aged individuals.

## **2. Method**

The model, study group, data collection tool, data collection method and data analysis parts of the research, which was carried out to determine the events of the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on February 6, 2023, are given below.

### **2.1. Research Model**

Phenomenological case design, one of the qualitative research methods, was used in the research. Phenomenological phenomenon design is a research method in which the opinions of individuals who have experienced that subject are examined in depth (Creswell, 2017). At this point, the views of elderly individuals who experienced the February 6 earthquake were examined with a phenomenological phenomenon pattern.

### **2.2. Study Group**

The study was conducted with 300 individuals over the age of 300 who voluntarily agreed to participate in the study. The population of the research consisted of individuals 65-90 and above. Individuals from the general population who voluntarily accepted to participate in the research with the snowball sampling method were reached throughout Turkey and the research was carried out. The distribution of sociodemographic characteristics of the individuals included in the study is presented in Table 1.

Table 1: Distribution of Sociodemographic Characteristics of Aged Individuals in the Study

<b>Features</b>	<b>f</b>	<b>%</b>
<b>Gender</b>		
Woman	125	41,7
Male	175	58,3
<b>Job</b>		
Retired	135	45
Working	25	8,3
Self-employment	40	13,3
Housewife	100	33,3
<b>Having a Child</b>		
Yes	300	100
No		

<b>Living place</b>		
own	245	81,7
with their children	45	15
Nursing home	10	3,3
<b>Monthly Income</b>		
1000 Turkish lira and below	95	31,7
1001-2000	140	46,7
2001 and above	65	21,7
<b>Previous Disaster Experience</b>		
Yes	300	100
No		
<b>What Kind of Disaster Occurred? <sup>x</sup></b>		
Earthquake	140	23,3
Fire	60	10
Flood	100	16,7
Pandemic	300	50

<sup>x</sup> This question has more than one answer.

As seen in Table 1, 58.3% of the aged individuals included in the study were male, 41.7% female; 35% are in the 76-81 age group; 45% are retired, all (100%) have children; 81.7% of them live in their own house, 46.7% of them have a monthly income of 1001-2000 TL. 73.3% of aged individuals have experienced a disaster before, and 50% of these disasters were pandemics.

### **2.3.Data Collection Tool**

"General Information Form" and "Semi-Structured Interview Form" developed by the researchers and expert opinion was used in the research.

**General Information Form:** It is a form developed by researchers to determine the sociodemographic characteristics of aged individuals. In the form, there are questions about the participants' gender, age, occupation, status of having children, place of residence, monthly income, whether they have experienced any disaster before and what this disaster is.

**Semi-Structured Interview Form:** It is a form developed by the researchers to determine what aged individuals experience and feel after disasters in general and the 6 February earthquake in particular. After the form was prepared, it was submitted to the opinion of 5 experts (3 in the field of social work, 2 in the field of measurement and evaluation) who are experts in their fields. First of all, the form consisting of 10 questions was reduced to 6 items according to the feedback

received from the experts. In the form, what happened in the previous disaster, what was felt and what was done; There are questions about what happened after the 6 February earthquake, what was felt and what was done.

#### **2.4.Data Collection Method**

In order to collect data in the research, ethics committee permission was obtained from Erzurum Atatürk University ethics committee with the date of 14.02.2023 and decision number 2. Individuals aged 65-91 years and older living in Erzurum, Ankara and Çankırı provinces and districts, which did not experience the February 6 earthquake after the ethics committee approval, were reached and they were informed about the purpose of the research. Thus, the questions were asked directly by the researchers to the aged individuals and their answers were recorded. After the answers were recorded, the answers were read to the participants and it was determined whether there were any misunderstandings and adjustments were made. Then, the people who were directed by the people participating in the research were reached and the data were collected.

#### **2.5.Analysis of Data**

In the analysis of the data, the sociodemographic characteristics of the participants were included in the SPSS 21 package program and descriptive statistical analyzes were performed. A content analysis form was created for the answers to the qualitative questions, and the content analysis form was sent to 5 experts (3 in the field of social work, 2 in the field of measurement and evaluation). Content analysis form was prepared according to expert feedback. The categories and subcategories in the content analysis form are given below.

Table 2: Content Analysis Form

<b>Category</b>	<b>Sub Category</b>
Experiences in previous disasters	Uneasiness
	Changing old life habits
	Following the media
	willingness to help
What was felt before in the disaster	Fear
	Anxiety
	Depression
	we gave up

What has been done before during the disaster	not eating Following the media sleep do not sleep Tension in relationships turn to religion Change in cleaning habits
Experiences in the February 6 earthquake	Uneasiness Shopping willingness to help Thinking about the cause Changes in daily routine Preparedness for earthquake
What was felt in the February 6 earthquake	Fear Sadness Anger don't revolt Pity Despair
What happened in the 6 February earthquake	do nothing Monitoring of media tools Praying don't help

The answers given by the participants were coded according to the content analysis. The answers were coded by two independent researchers and the inter-researcher reliability coefficient was calculated. Inter-research reliability was determined as 100%. Interesting ones among the answers given are given by coding as K1, K2..... K299, K300.

### **3. Findings**

The findings obtained as a result of the research carried out with the aim of determining the events of the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on 6 February 2023, are given below.

First of all, "What did you experience in the disaster you experienced before? Can you explain?" has been a question. When the answers of the participants were examined, it was seen that they gave the answer of being uneasy (n=300) at the highest rate, followed by the desire to help (n=260), watching the news (n=225) and not continuing their old life habits (n=150). K<sub>8</sub> from the participants said, "*I have experienced an earthquake before. I was nervous about this earthquake. Although there was no problem in my house, when I saw people without a home, I wanted to help*

*them” while K<sub>14</sub> said, “I didn't want to go out. Even shopping was starting to make no sense to me. So much so that even though the place where I live was not damaged by the flood, I had a feeling that I would be flooded at any moment.”*

The second question posed to the participants was “How did you feel in the previous disaster? Can you explain?” has been a question. While the participants answered this question with the highest rate of anxiety (n=300), this rate was followed by fear (n=152), depression (n=62), anxiety (n=60), and feelings of abandonment (n=40). One of the participants, K<sub>44</sub>, said, *“Especially during the Covid-19 epidemic, our age group was prevented from going out. In this situation, in addition to being sad, I felt that the danger was greater in our age group and was afraid because of this,”* said K<sub>56</sub>, *“I have experienced a fire before. Although the fire was very small, I was afraid that it could grow and harm my children.”* K<sub>195</sub> *“I encountered a flood disaster. I was pretty scared at first. But after that, I wasn't too impressed.”* and K<sub>200</sub> *“I have not experienced a major disaster myself. However, I remember thinking that in the 1999 earthquake or here, I couldn't sleep and I couldn't eat for a certain period of time.”* expressed their opinions.

What did you do in the disaster you experienced before? Can you explain?” question was posed. While the participants were given the answer of constantly watching TV/reading the newspaper (n=280), this response was respectively not being able to eat (n=175), not being able to sleep (n=165), change in cleaning habits (n=155), turning to religion (n=150), tension in relations with others (n=142). One of the participants, K<sub>3</sub> *“I remember that I was constantly washing my hands, boiling all the things thoroughly, pouring cologne constantly during the Covid-19 epidemic.”* K<sub>15</sub> said, *“When I think of the 1999 earthquake and the people living there, I lost my sleep. I felt guilty. I didn't want to eat for that.”* K<sub>45</sub> *“I was praying before the Van earthquake. But I could delay. After hearing the earthquake, I thought that death was very close and I took care not to delay it.”* K<sub>68</sub> *“After the 1999 earthquake, I started reading newspapers and watching news programs on TV without missing a beat to learn about the situation of the people living in that area. Meanwhile, what people around me and my family did or said started to seem meaningless to me. When I expressed my thoughts in this direction, I had conflicts with both my family and friends from time to time.”* expressed their opinions.

“What did you experience in the earthquake that took place on February 6, 2023? Would you tell?” question was posed. While the participants answered this question mostly as willingness to help (n=300), this ratio was respectively prepared for earthquake (n=290), shopping (n=140), changes



in daily routine (n=90), thinking about the cause of the event (n=65) and anxiety (n=15). One of the participants K<sub>1</sub> said, *“I experienced similar things to what I experienced in the disaster I experienced before. I thought I might face the same thing as a result of such a strong earthquake.”* K<sub>79</sub> *“As soon as I heard about the earthquake, I wanted to help my children and grandchildren by shopping for things that the people there might need.”* K<sub>88</sub> *“As I heard about the magnitude of the earthquake and the loss of life, I wanted to watch more television rather than my daily work. Every time I watched television, I questioned why the situation was different in our country, while there were not so many casualties in such earthquakes abroad.”* K<sub>123</sub> *“I realized more that the earthquake was a reality. However, we prepared an earthquake bag and put it at the entrance.”* expressed their opinions.

“How did you feel in the earthquake that took place on February 6, 2023? Would you tell?” question was posed. Participants gave the highest rate of pity (n=300) and despair (n=300) answers to this question, and these rates were respectively fear (n=290), sadness (n=200), anger (n=165), and rebellion (n =85) followed. One of the participants, K<sub>53</sub>, said, *“When I saw the February 6 earthquake and the people living in that region, I was very sad. I was very saddened by those whose houses were destroyed on the Day of Winter Judgment, those who were left on the streets, and those who lost their relatives. I cried. Moreover, I felt very bad about not being able to do anything and being tied up.”* K<sub>98</sub> *“When I saw those whose houses were destroyed after the earthquake, I thought again and again about how these structures were built. In such a case, I think that those who built these buildings should be punished severely.”* K<sub>300</sub> *“The thought that an earthquake could happen at any moment really impressed me. At any moment, I began to think that it could be where I live.”* expressed their opinions.

Finally, the participants were asked, “What did you do in the earthquake that took place on February 6, 2023? Would you tell?” question was posed. Participants mostly answered this question by watching television continuously (n=300), praying (n=260), helping (n=190), and doing nothing (n=140). K<sub>143</sub> of the participants said, *“I didn't want to do anything after the earthquake. So much so that I did not want to eat. I didn't want to sleep. I didn't want to do anything unless it was necessary.”* K<sub>178</sub> *“As soon as I heard about the earthquake, I immediately watched the television news. I tried to do all the material and moral help that needed to be done.”* and K<sub>288</sub> *“I tried to help them by praying because I had nothing and I couldn't do anything.”* expressed their opinions.

#### **4. Discussion**

As a result of the research carried out to determine what happened in the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on February 6, 2023, under the opinions of older individuals, it was found that aged individuals were most anxious, wanted to help, watched the news and changed their old life habits during the disasters they had experienced before determined to have changed. It is possible to explain this situation by considering the situation of aged individuals in general, all individuals, especially people who experienced disasters. As a matter of fact, it is quite common for individuals to deteriorate their normal lifestyles and need help during a disaster. In such a case, all individuals want to help the individuals who experienced this disaster, they think that they can experience the same event, but at the same time, they have the feeling of following the instant situations of the people in the disaster area (Koçan and Sürün, 2020; Kukuoğlu, 2018; Usta and Yükseler, 2021). In this context, there may be a situation such as thinking that some of the older individuals live their lives fully, but that individuals who are younger than themselves should have a greater chance of life (Çakır and Aydoğmuş Atalay, 2020). All these situations can result in the realization of experiences, as in the result of the research.

As a result of the research, it was concluded that aged individuals felt fear, anxiety and disregard for previous disasters. Although this situation changes according to the type of disaster experienced, due to the sudden development of the disaster, being unexpected and changing the existing situation, it causes individuals to experience a loss of confidence and as a result, they experience emotions such as fear, anxiety and anxiety intensely (Erkal and Şahin, 2015; Gülen et al. , 2013; Özkan and Çetinkaya Kutun, 2021). However, at the same time, it can be thought that individuals use defense mechanisms in order to protect their current psychological state, and as a result, they normalize the event and act with feelings of abandonment (Tufan et al., 2022). As a matter of fact, similarly, the results obtained in the researches that the individuals who have aged after a disaster experience similar emotional reactions (Aykut and Soner Aykut, 2020; Bui et al., 2021; Kahraman et al., 2022; Seplaki et al., 2006; Tufan et al., 2022), supports the research finding. As a result of the research, it has been determined that individuals who have aged after the disaster frequently use media tools, experience sleep and eating problems, experience changes in their cleaning habits, increase in religious activities and take actions in the form of tense relations with

the environment. It is possible to explain this situation with disaster psychology and the reasons that come after the disaster and cause significant changes in people's lives (Çakır and Aydoğmuş Atalay, 2020). As a matter of fact, the fear and anxieties experienced by the individual after the disaster, as well as witnessing the experiences of the people who experienced the disaster, may result in the individual going out of his daily life habits. In this context, it is a common situation that the individual's daily life philosophy changes, directing himself to religious activities or experiencing sleep and eating problems (Ayata and Çamur, 2020). In this case, the characteristics of the media also play a dominant role. As a result of the instantaneous transfer of events through the media, individuals both want to use the media constantly and can be highly influenced by the images and messages given in the media (Demiröz, 2020; Soydan and Alpaslan, 2014). Such a situation also shows that the results obtained as a result of the research are an expected situation. In the researches, it has been concluded that after the disasters that aged individuals have experienced or witnessed, significant changes have occurred in their daily routines, some problems have begun to be experienced, and they are more engaged in religious activities (Akyıldız, Gürboğa, and Gürboğa, 2018; Gencer, 2020; Ito et al., 2016; Lin et al., 2002).

In the study, aged individuals stated that they shopped after the earthquake of February 6, 2023, they wanted to help, they were nervous, they were preparing for the earthquake, there were changes in their daily routines and they thought about the cause of the event. The earthquake that occurred on February 6, 2023, has the distinction of being the first of the century, although similar disasters have been experienced before. It is thought that this is due to unpreparedness and loss of life. As a result of an earthquake in which many buildings collapsed, people were unprepared and left in the middle, and aid did not arrive on time, every segment of the society mobilized for the people living in that area and wanted to help. In addition, the statements made by scientists have also revealed the fact that the ignored earthquake phenomenon is experienced more closely and that it is now mandatory to take precautions by everyone (Çoban and Yerel Kandemir, 2023; Yıldız et al., 2023), which in such a case, of course, the research reflected in the results.

Another finding reached as a result of the research was the emotions felt after the 6 February earthquake, such as fear, anger, rebellion, helplessness and pity. It is also known that after each disaster, people experience the events over and over again, think about the reasons for this, want to take precautions, and rebel against the fact that the situation has not changed, but they take on feelings of helplessness and act with feelings of pity. This situation also took place after the 6

February earthquake, which was described as the disaster of the century, and people experienced similar emotional states. This emotional state not only affects individuals of all ages and walks of life, but also stems from the developmental period of aged individuals. As stated before, aged individuals have feelings and thoughts that they are entering the final stages of their lives, and that children and young people, in other words, the younger generation should live (Okay and İnal, 2019; Yıldız et al., 2023). It is thought that this situation is reflected in the results of the research. The last finding reached in the study was that aged individuals stated that they watched television, prayed, did not want to do anything and helped people in that area after the 6 February earthquake. Television and media have become very important in this period as in every period. All television channels, especially in the first days after the earthquake, almost competed with each other in order to provide news from the region. Such a situation resulted in individuals watching television more in order to receive news from the region. Aid campaigns in television programs have become important in this context and everyone in the society has started to help as much as they can. In an environment where people's agenda is constantly news and they watch what is happening in the region, it may be the case that daily routines change and things that were done in the past cannot be done, as well as religious feelings may be exhibited more (Özbilgin et al., 2023; Uğur et al., 2021). When evaluated in this context, it can be stated that the feelings, experiences and actions of individuals who have aged after the 6 February earthquake are in a sense shaped by the media and television programs and are reflected in the research results as a result.

## **5. Conclusion**

As a result of the research carried out to determine what happened in the earthquake disaster, which was the epicenter of Kahramanmaraş Pazarcık and Elbistan on February 6, 2023, under the opinions of older individuals, it was determined that the elderly individuals behaved in a similar way in the disasters they experienced before and in the February 6 earthquake, felt similar emotions and similarly experienced their lives structured conclusion. In other words, individuals experienced feelings such as uneasiness, fear, anger, helplessness, anxiety, rebellion after the disaster, and developed behaviors such as a desire to help, turning to religious practices and wanting to follow the events through the media.

## **6. Suggestions**

Based on the results of the study, the following recommendations can be made:

- Necessary measures should be taken to establish psychosocial support mechanisms and to facilitate their transportation, taking into account the elderly, who are the sensitive segment of the society, in earthquakes in particular and in all disasters in general.
- It can be considered as an important responsibility that psychosocial emergency response plans are applied not only to those living in the region, but also to all segments of the society.
- The media should act sensitively in this regard, and provide accurate information accurately and without departing from ethical principles.
- Priority should be given to taking the necessary precautions and studies in order to ensure that all segments of the society create response plans for any situation that may occur, not after an earthquake or disasters, and to ensure that this is adopted by the whole society and its applicability.
- The fact that older individuals are more likely to be injured in such disasters should be known by everyone in the society and act with this awareness.
- Creating occupations for these people where they can spend their time more actively will be an important step in preventing emotional and behavioral problems.

## **7. Acknowledgement**

We would like to express our sincere thanks to all the participants who took part in the research during the research.

## **8. Conflict of Interest Statement**

There is no conflict of interest between researchers and with any institution.

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