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An Examination of Post-Earthquake Anxiety Levels in Individuals Affected by the 6 February 2023, Kahramanmaraş-Centred Earthquake

6 Şubat 2023 Kahramanmaraş Merkezli Depremi Yaşayan Bireylerin Deprem Sonrası Kaygı Düzeylerinin İncelenmesi

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Abstract

This study aims to examine the impact of the Kahramanmaraş-centred earthquake, which occurred on 6 February 2023, on the anxiety levels of individuals living in the affected regions. The research seeks to understand the psychological effects of natural disasters on individuals, provide a scientific basis for planning post-disaster support programs, and evaluate the demographic factors (age, gender, marital status, socioeconomic status) influencing anxiety levels. Catastrophic events such as earthquakes are crucial for understanding individuals' challenges in the post-trauma process and developing appropriate interventions during this period. The study group

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consists of individuals aged 18 and above who resided in the earthquake-affected regions during the 6 February 2023, earthquake. 260 participants were selected using the snowball sampling method and included in the study voluntarily. These participants experienced the earthquake firsthand and were exposed to varying levels of psychological impact during this period. Data collection tools included the Beck Anxiety Inventory and a Personal Information Form, and the data were gathered through online platforms. The data were analysed using the SPSS-24 software. T-tests, ANOVA, and post-hoc Scheffé tests were conducted to examine the relationships between participants' anxiety levels and demographic variables. The analysis revealed no significant difference in anxiety levels based on gender. However, analyses by age group indicated that individuals aged 18-24 had significantly higher anxiety levels compared to other age groups. Additionally, university graduates were found to have significantly higher anxiety levels compared to individuals with lower educational attainment. These findings underscore the need for psychosocial support programs tailored to young individuals and those with higher educational levels. This study provides valuable insights into the psychological states of individuals after an earthquake and offers critical data for planning support services following natural disasters.

Keywords: *anxiety disorder, trauma, natural disasters, psychological effects*

Öz

Bu çalışma, 6 Şubat 2023 tarihinde meydana gelen Kahramanmaraş merkezli depremin, deprem bölgelerinde yaşayan bireylerin kaygı düzeyleri üzerindeki etkilerini incelemeyi amaçlamaktadır. Çalışma, doğal afetlerin bireyler üzerindeki psikolojik etkilerini anlamayı, afet sonrası destek programlarının planlanmasına bilimsel bir temel oluşturmayı ve özellikle kaygı düzeylerini etkileyen demografik faktörleri (yaş, cinsiyet, medeni durum, sosyo-ekonomik durum) değerlendirmeyi hedeflemektedir. Deprem gibi yıkıcı olaylar, bireylerin travma sonrası süreçte karşılaştıkları zorlukları anlamak ve bu süreçte uygun müdahaleler geliştirmek açısından büyük önem taşımaktadır. Araştırmanın çalışma grubu, 6 Şubat 2023 tarihinde deprem bölgelerinde yaşayan ve 18 yaş üzerindeki bireylerden oluşmaktadır. Toplamda 260 katılımcı, kartopu örnekleme yöntemi ile seçilmiş ve gönüllülük esasına dayalı olarak çalışmaya dahil edilmiştir. Bu katılımcılar, deprem bölgelerinde yaşamış ve bu süreçte çeşitli düzeylerde psikolojik etkilenebilirliğe maruz kalmış bireylerdir. Veri toplama araçları olarak Beck Anksiyete Envanteri ve Kişisel Bilgi Formu kullanılmış, veriler çevrimiçi platformlar üzerinden toplanmıştır. Verilerin analizi SPSS-24 programı ile gerçekleştirilmiştir. T-testi, ANOVA ve Post-Hoc Scheffé testleri uygulanarak katılımcıların kaygı düzeyleri ile demografik değişkenler arasındaki ilişkiler incelenmiştir. Analiz sonuçları, cinsiyet açısından kaygı düzeylerinde anlamlı bir fark olmadığını göstermiştir. Ancak, yaş gruplarına göre yapılan analizlerde, 18-24 yaş grubundaki bireylerin kaygı düzeylerinin diğer yaş gruplarına göre anlamlı derecede daha yüksek olduğu tespit edilmiştir. Ayrıca, üniversite mezunlarının kaygı düzeylerinin daha düşük eğitim düzeyine sahip bireylere kıyasla anlamlı derecede yüksek olduğu bulunmuştur. Sonuçlar,

genç bireyler ve yüksek eğitim düzeyine sahip kişiler için özel olarak tasarlanmış psikososyal destek programlarının gerekliliğini vurgulamaktadır. Bu araştırma, deprem sonrası bireylerin psikolojik durumlarını anlamaya yönelik önemli bir katkı sunmakta ve doğal afetler sonrası destek hizmetlerinin planlanmasında dikkate alınması gereken veriler sağlamaktadır.

Anahtar sözcükler: *kayıp bozukluğu, travma, doğal afetler, psikolojik etkiler*

Introduction

Disasters are defined as natural or human-induced events that cause extensive losses in physical, social, and psychological domains within societies (Karabulut & Bekler, 2019; Şakir, 2019). Natural disasters such as floods, volcanic eruptions, storms, and earthquakes lead to physical destruction and long-term social and psychological impacts on individuals and communities (Nakajima, 2012; Kolk, 2019; Kılıç, 2021). The outcomes of disasters vary depending on the magnitude and duration of the event and the characteristics of the affected population. Such events profoundly disrupt not only physical infrastructure but also social structures and the psychological resilience of individuals (Erkoç, Hamzaçebi, & Baran, 2000; Öztekin & Öрки, 2023). In particular, the inability to adequately meet basic needs in the aftermath of a disaster can create a foundation for severe psychological problems in individuals (Sarman & Tuncay, 2024; Ryff, 1989). Earthquakes are considered one of the most devastating types of natural disasters. Defined as “movements caused by fractures in the earth’s crust that spread in waves and lead to sudden tremors on the surface” (Erkoç, Hamzaçebi & Baran, 2000, p.1), earthquakes occur unexpectedly and cause widespread destruction. Their effects extend beyond physical damage, significantly influencing individuals’ short-, medium-, and long-term psychological health (Nakajima, 2012; Kolk, 2019; Karabulut & Bekler, 2019). The challenges individuals face following an earthquake depend on factors such as the scale of the disaster, the frequency of aftershocks, and the adequacy of post-disaster interventions (Liu et al., 2013; Çelik, 2023).

The psychological issues experienced by individuals affected by earthquakes are often manifested through symptoms of fear, anxiety, and posttraumatic stress disorder (PTSD) (Kolk, 2019). Aftershocks, in particular, can perpetuate a sense of uncertainty and insecurity, exacerbating these issues (Bonanno et al., 2010; Myers and Diener, 1995; Parmaksız, 2020). Studies indicate that prolonged exposure to aftershocks can retrigger trauma, increasing levels of fear and anxiety (Liu et al., 2013; Wang and Zhang, 2015). For instance, during the 1995 Kobe earthquake, intense aftershocks were observed to prolong recovery and deepen psychological impacts (Ishikawa et al., 2013). Similarly, the intense aftershocks following the February 6, 2023, Kahramanmaraş-centred earthquake are believed to have contributed to the emergence of long-term psychological issues among survivors.

PTSD is a disorder that adversely affects individuals’ emotional, cognitive, and behavioural functioning after life-threatening or traumatic events (American Psychiatric Association, 2013; It is characterized by symptoms such as re-experiencing the trauma (e.g., flashbacks or nightmares), avoidance of trauma-related stimuli, and heightened arousal

levels (Morrison, 2019; Kolk, 2019; Özgen & Aydın, 1999; Uğurluoğlu & Erdem, 2019). An increase in anxiety levels negatively affects individuals' mental and emotional balance, thereby reducing overall life satisfaction and quality of life (Yardibi, Kucuktamer & Ozcinar, 2016). Research has shown that the severity of trauma and the lack of social support following the event play significant roles in the development of PTSD (Tanhan & Kayri, 2013; Zhang et al., 2012). Traumatic events like earthquakes complicate individual' return to normalcy and necessitate long-term psychological interventions (Yıldız & Akkoyun, 2023; Corey, Dov & Carol, 2002; Özçetin, Maraş, Ataoğlu & İcmeli, 2008).

The Kahramanmaraş-centred earthquake on 6 February 2023, caused widespread destruction in southeastern Turkey. Over 50,000 deaths and 110,000 injuries were reported in provinces such as Gaziantep, Hatay, Osmaniye, Adıyaman, Şanlıurfa, Diyarbakır, Malatya, and Adana (Yıldız & Akkoyun, 2023). Addressing survivors' psychological challenges of such a large-scale disaster is critical for societal recovery. However, the limited data in the existing literature regarding the psychological conditions of these individuals highlights the need for further research in this area.

This study aims to explore the devastating effects of the Kahramanmaraş-centred earthquake by examining the psychological states of individuals affected by the disaster in the context of PTSD. By understanding the psychological consequences of the earthquake, this research seeks to contribute to the production of scientific knowledge and the development of effective interventions that promote societal recovery and individual well-being.

1. Research model

This study examines the impact of the 6 February 2023 earthquake on the anxiety levels of individuals residing in the affected regions of Kahramanmaraş and its surroundings in Turkey. The research adopts quantitative research methods and employs a correlational survey model. Quantitative research is based on the objective and systematic measurement of numerical data related to an event, situation, or phenomenon, aiming for replicable results (Büyüköztürk, Akgün, Demirel, Karadeniz, & Çakmak, 2015, p. 55). The correlational survey method describes a situation's current state or ongoing characteristics (Taşpınar, 2017, p. 134). This study applied T-tests, ANOVA, and post-hoc Scheffé techniques for data analysis.

Population and sample

The population of this study consists of adults aged 18 and above residing in the earthquake-affected regions of Kahramanmaraş and its surroundings. The sample was selected using the snowball sampling method, which is particularly effective for reaching hard-to-access or specific groups within a population. In this method, participants are recruited through referrals, where one participant suggests others, thereby expanding the sample (Neuman, 2014: 156). Snowball sampling enables access to populations that may otherwise be challenging to reach by leveraging interpersonal connections.

In this study, the target was to reach 300 participants to measure anxiety levels; however, based on voluntary participation, 260 individuals were included. Participants were invited

to the study via an online platform, Google Forms. The data collection process included distributing a Personal Information Form and the Beck Anxiety Inventory to participants. The use of online data collection facilitated participant accessibility and allowed for efficient data acquisition.

2. Personal Information form

The researchers developed this form to collect demographic information and variables relevant to the study. It consists of short-answer questions to gather basic information such as gender, age, marital status, perceptions of safety in their city, and whether they have children. The Beck Anxiety Inventory (BAI) was developed by Beck, Epstein, Brown, and Steer (1988) to measure individuals' anxiety levels. Comprising 21 items, the inventory is a four-point Likert-type scale designed as a paper-and-pencil test suitable for adolescents and adults. The scale includes two factors: subjective anxiety and somatic symptoms.

The Turkish version of the inventory was validated, and its reliability was confirmed by Ulusoy, Şahin, and Erkmek (1998, p. 167). Additionally, its validity and reliability have been further supported by Büyüköztürk, Çokluk, and Köklü (2015: 82). Each item is scored between 0 and 3, with higher total scores indicating higher anxiety levels.

3. Data analysis

The data collected for the study were analyzed using the SPSS-24 software. The data were systematically processed, and statistical analyses were conducted. T-tests, ANOVA, and post-hoc Scheffe techniques were applied during this process. The analysis results aim to provide comprehensive insights into the anxiety levels of individuals living in earthquake-affected regions and establish a scientific foundation for interventions in this field.

4. Findings and discussion

This section presents the findings and interpretations regarding the post-earthquake anxiety levels of individuals who experienced the 6 February 2023 Kahramanmaraş-centred earthquake. The findings are displayed in tables, categorizing the most frequently mentioned themes influencing participants' anxiety levels and their corresponding frequencies. Additionally, the data under each theme have been analysed to detail the factors affecting participants' anxiety levels and the challenges they encountered.

Table 1: Frequency Distribution of Participants' Demographic Information (N:260)

Gender	f	%
Female	146	56,2
Male	114	43,8
Age Range		
18-24	129	49,6
25-31	52	20,0
	1393	

32-38	38	14,6
39-45	23	8,8
46 and above	18	6,9
Marital Status		
Married	50	19,2
Single	204	78,5
Divorced	6	2,3
Parenthood		
Yes	59	22,7
No	201	77,3
Educational Level		
Middle School	21	1,2
High School	171	9,2
University	62	83,1
Postgraduate	17	6,5
Socio-economic Status		
Low	21	8,1
Medium	171	9,2
Upper Middle	62	23,7
High	6	2,3

As shown in Table 1, 56.2% (N=146) of the participants are female, while 43.8% (N=114) are male. Additionally, 49.6% (N=129) are in the 18-24 age range, 20% (N=52) in the 25-31 age range, 14.6% (N=38) in the 32-38 age range, 8.8% (N=23) in the 39-45 age range, and 6.9% (N=18) are 46 years and older. In terms of marital status, 19.2% (N=50) are married, 78.5% (N=204) are single, and 2.3% (N=6) are divorced.

Table 2: T-test Results of Participants' Anxiety Levels by Gender (N=260)

Gender	N	Mean	SH	df	P
Female	146	24.88	1.04	252	0.06
Male	114	14.07	1.02	7434	

SH: Standard Error, N: Number of Data, Mean: Average

A T-test was conducted to examine the anxiety levels of participants by gender. Table 2 shows that there is no significant difference in anxiety levels between female and male participants ($P < 0.05$). In Table 2, the absence of a significant difference in anxiety levels between female and male participants may indicate that post-earthquake traumatic experiences have a similar impact on both genders or that there are no notable gender-based disparities in access to social support mechanisms.

Table 3: ANOVA Test Results of Participants' Anxiety Levels by Education Level

Education Level	df	Mean	F	P
Within Groups	3	1102.521	6.9	0.00
Between Groups	256	159.722		

P<0.05

In Table 3, a one-way ANOVA test was conducted to examine anxiety levels based on participants' educational levels. The table indicates a significant difference in anxiety levels across different educational levels. To further analyse this difference in detail, the researchers applied a post hoc technique.

Table 4: Post Hoc Results of Anxiety Levels Based on Participants' Educational Levels

Educational Level		\bar{x}	SE	p
Middle School	High School	30,25*	7,73	,00
	University	21,08*	7,34	,04
	Postgraduate	23,64*	7,91	,03
High School	Middle School	-30,25*	7,73	,00
	University	-9,16*	2,71	,01
	Postgraduate	-6,60	4,00	,43
University	Middle School	-21,08*	7,34	,04
	High School	9,16*	2,71	,01
	Postgraduate	2,56	3,18	,88
Post Graduate	Middle School	-23,64*	7,91	,03
	High School	6,60	4,00	,43
	University	-2,56	3,18	,88

A post hoc test measured anxiety based on participants' educational levels. Table 4 reveals significant differences in anxiety levels across educational backgrounds.

Specifically, middle school graduates exhibited significantly lower anxiety levels compared to high school, university, and postgraduate graduates. Similarly, high school graduates displayed lower anxiety levels than university graduates but higher levels than middle school graduates.

On the other hand, university graduates were found to have higher anxiety levels compared to both middle school and high school graduates. Additionally, postgraduate graduates exhibited lower anxiety levels than middle school graduates.

These findings suggest that individuals with higher educational levels often have access to better socioeconomic resources and advanced coping skills, which may help explain the anxiety-reducing effect of educational level.

Table 5: Scheffe Test Results for Anxiety Levels Based on Participants' Age Groups

		\bar{x}	SE	P
18-24	25-31	1,81	2,04	,94
	32-38	1,09	2,30	,99
	39-45	4,95	2,82	,54
	46 and above	16,58*	3,13	,00
25-31	18-24	-1,81	2,04	,94
	32-38	-,71	2,66	,99
	39-45	3,13	3,12	,90
	46 and above	14,77*	3,40	,00
32-38	18-24	-1,09	2,30	,99
	25-31	,71	2,66	,99
	39-45	3,85	3,29	,84
	46 and above	15,49*	3,56	,00
39-45	18-24	-4,95	2,82	,54
	25-31	-3,13	3,12	,90
	32-38	-3,85	3,29	,84
	46 and above	11,63	3,92	,06
46 and above	18-24	-16,58*	3,13	,00
	25-31	-14,77*	3,40	,00
	32-38	-15,49*	3,56	,00
	39-45	-11,63	3,92	,06

When examining Table 5, the Scheffe test results demonstrate comparisons of anxiety levels among different age groups, revealing significant differences between age ranges. Specifically, participants aged 46 and above exhibited significantly lower anxiety levels compared to all other age groups ($P < 0.05$). The 18-24 age group showed significantly higher anxiety levels than the 46 and above group but did not significantly differ from other age groups ($P > 0.05$). Similarly, the 25-31 age group had significantly higher anxiety levels than the 46 and above group but showed no significant differences with the 18-24, 32-38, or 39-45 age groups ($P > 0.05$). The 32-38 age group demonstrated a significant difference only when compared to the 46 and above group, with no significant differences observed among other groups ($P > 0.05$). Finally, the 39-45 age group did not exhibit significant differences with any other group, although it had higher anxiety levels than the 46 and above group; this difference, however, was not statistically significant ($P > 0.05$).

The table suggests that individuals in older age groups tend to have lower anxiety levels, which may be explained by the development of more effective coping mechanisms and greater resilience through life experiences and past exposure to traumatic events. In particular, individuals aged 46 and above may benefit from emotional regulation skills or resilience gained from previous trauma, contributing to lower anxiety levels. Conversely, younger age

groups, especially those aged 18-24, tend to experience higher anxiety levels, potentially due to uncertainties about the future and limited access to social support mechanisms. These findings emphasize the necessity of tailoring post-earthquake psychological support programs to specific age groups, highlighting the need for more intensive interventions for younger individuals.

Table 6: Frequency Distribution of Participants' Sense of Safety in Their Residential Areas

Sense of safety	f	%
Yes	114	43,8
No	146	56,2

According to Table 6, 43.8% of participants (114) reported feeling safe in their residential areas, while 56.2% (146) stated they did not feel safe. This situation can be attributed to various physical and psychological factors experienced after the earthquake. The ongoing aftershocks in the region perpetuate a sense of threat and uncertainty among individuals. Issues such as damaged infrastructure collapsed buildings, and the slow pace of reconstruction weaken the sense of safety.

Additionally, deficiencies in accessing social support mechanisms and perceptions of inequity in aid distribution contribute to the feeling of insecurity. Individuals who lost loved ones or suffered significant physical and psychological harm during the earthquake are observed to develop a persistent sense of threat due to their traumatic experiences. Furthermore, individuals living in temporary shelters (tents or containers) face challenges in achieving a stable sense of safety. These findings highlight the need for measures to enhance safety in post-disaster regions. Accelerating the reconstruction process, strengthening social support mechanisms, and implementing psychological support programs can contribute to individuals feeling safer in their communities. In this regard, it is essential to plan post-disaster policies with a focus on fostering a sense of security.

5. Conclusion

It is true that a significant portion of our country is in earthquake-prone regions. Earthquakes are natural disasters with a high potential to cause severe PTSD. In addition to the material damage caused by earthquakes, there are many short-, medium-, and long-term adverse psychological effects on human life. It is expected that PTSD and similar disorders may arise following a traumatic event like an earthquake, and the impact of stress factors on a person's life may vary. The study aims to evaluate the anxiety levels of individuals who experienced the earthquake based on demographic factors such as age, gender, marital status, and socioeconomic status, providing insights into these aspects.

Additionally, the study focused on how the earthquake experience impacts individuals' psychology. Within this scope, the study analyses the emotional challenges faced by individuals in the post-trauma period and their coping mechanisms. The research aims to provide significant data to understand how post-earthquake psychological effects are related to demographic factors and to raise awareness on this issue.

The results of our study indicate no significant difference in anxiety levels between female and male participants. Gender does not seem to affect the anxiety levels of the participants. According to another study, the anxiety levels of women were found to be higher than those of men (Sarman & Tuncay, 2024). Additionally, there is a significant difference in anxiety levels between participants aged 18-24 and those aged 46 and older. Participants aged 46 and older have lower anxiety levels compared to those aged 18-24. Participants aged 25-31 have significantly higher anxiety levels. There is also a significant difference in anxiety levels between participants aged 32-38 and those aged 46 and older. Participants aged 32-38 have significantly higher anxiety levels. A significant difference in anxiety levels is also found between participants aged 39-45 and those aged 46 and older. Participants aged 39-45 have significantly higher anxiety levels. The results suggest that as age increases, anxiety levels after the earthquake decrease. It is thought that older adults have lower anxiety levels due to their greater life experience compared to young adults. As individuals age, they are believed to be more successful in coping with problems and accepting life as it is. Another result of the study is that older individuals have higher awareness of earthquakes, while young adults have lower awareness levels, resulting in higher anxiety levels.

Another finding of the study revealed that anxiety levels were higher among women, participants aged 20-25, and individuals over 56 years old. A similar study found that individuals in older age groups exhibited increased anxiety levels (Akkaya & Polat, 2024). This suggests that women, due to their higher emotional sensitivity, and younger and older individuals, who are more likely to be experiencing an earthquake for the first time, are more profoundly affected by the earthquake and its consequences.

The study also highlights education level as a significant factor influencing anxiety levels; there were significant differences in anxiety levels between middle school graduates and those with high school, university, and postgraduate education. Middle school graduates have lower anxiety levels compared to others (high school, university, and master's). Additionally, high school graduates have lower anxiety levels compared to middle school and university graduates. University graduates have higher anxiety levels compared to middle school and high school graduates. Master's graduates have lower anxiety levels compared to middle school graduates. Examining the anxiety levels of participants by their education levels, it was found that those with higher education levels have higher anxiety levels. Another study found that female students have higher stress levels compared to male students (Kurt & Gülbahçe, 2019). Another research found that individuals with low education levels and socioeconomic status are at higher risk of having high anxiety levels after an earthquake (Priebe et al., 2009).

Examining the safety perceptions of participants in their regions, it was found that they do not feel safe. Another study found that individuals who experienced the earthquake had significantly higher death anxiety levels compared to those who witnessed it from a distance. Consistent with this result, a study conducted in China after the Sichuan earthquake reported that cognitive processes related to death anxiety were activated among university students one week after the earthquake (Özmen & Ocakdan, 2022). Studies have shown that death anxiety is positively related to traumatic events and life-threatening experiences (Dok & Owen,

2021; Noyes, 1980). Another research found that individuals with higher education levels and socioeconomic status are less likely to be affected by the earthquake (Cerdá et al., 2013).

On the other hand, considering the intensive use of digital technologies today, there are studies suggesting that virtual reality-supported intervention programs are effective on individuals with high anxiety levels and can make psychological intervention faster and more organized (Döner and Usta Yeşilbalkan, 2024; Kafes, Çille & Şakiroğlu, 2024).

6. Suggestions for further studies

Systematic and comprehensive initiatives should be implemented to support survivors in the aftermath of an earthquake. These initiatives must address the psychological health and basic care needs of individuals in affected regions. It's critical that mental health services are integrated with immediate relief efforts to ensure that survivors receive holistic care encompassing their physical and emotional well-being. Special attention should be given to vulnerable groups, such as children, the elderly, and individuals with pre-existing mental health conditions, who may require tailored interventions.

In addition to general support, in-depth qualitative studies should be conducted to understand better the psychological impact on individuals most affected by the earthquake. These studies should include interviews with survivors who have experienced significant trauma, exploring their coping mechanisms, emotional responses, and long-term psychological needs. The sample size of such studies should be more comprehensive than 260 participants, as a larger sample would provide a more comprehensive understanding of the diverse experiences and outcomes. Larger-scale studies identify patterns or trends that might not be visible in smaller samples, allowing for more targeted interventions.

Furthermore, it is essential to explore future anxiety and its long-term consequences for earthquake survivors. Longitudinal studies could track the mental health of individuals over time, particularly those who show high levels of anxiety immediately following the disaster. These studies could examine how future-oriented anxiety develops and persists and what interventions might be most effective in alleviating it. Innovative methods such as virtual reality-supported intervention programs should be considered, leveraging current digital technologies to provide immersive therapeutic experiences. These programs could simulate safe environments or coping strategies, helping individuals work through their trauma in a controlled setting.

In addition to cutting-edge digital interventions, periodic psychoeducation sessions should be organized for earthquake survivors. These sessions aim to improve survivors' understanding of their psychological symptoms, provide coping strategies, and offer guidance on how to access further mental health resources. Psychoeducation could be provided in various formats, including workshops, online platforms, and community meetings, ensuring accessibility for all affected individuals. Engaging the community in ongoing mental health education would help prevent the onset of more severe psychological conditions and build resilience among survivors.

This study used the Beck Depression Inventory to assess mental health outcomes. In future research, it would be valuable to apply a variety of psychological scales to gain a more nuanced understanding of the relationship between anxiety and depression among earthquake survivors. Using different tools could help identify specific factors that contribute to the development of both conditions. For example, scales measuring posttraumatic stress, resilience, and social support could be incorporated to explore how these variables interact with anxiety and depression. This approach would allow for a more comprehensive analysis of mental health outcomes and enable the design of more effective intervention programs.

Finally, collaborative efforts between governmental agencies, non-governmental organizations, and mental health professionals are essential in creating sustainable support systems for survivors. Training mental health workers to deal with trauma-specific issues, such as those resulting from natural disasters, should be prioritized. Additionally, community leaders should be involved in these initiatives to help foster trust and ensure that interventions are culturally sensitive and adapted to the population's specific needs.

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