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Post-earthquake Psychological Support Interventions Implemented by an Airline Company

Bir Havayolu Şirketinin Deprem Sonrası Psikolojik Destek Müdahaleleri

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Abstract On February 6, 2023, a 6.4 magnitude earthquake in Hatay followed two earthquakes of 7.7 and 7.6 magnitude centred in Kahramanmaraş. These earthquakes severely affected 11 cities in southern Turkey, including seven metropolitan cities, killing more than 42,000 people and forcing the displacement of more than 448,000. Aviation operations contributed to transporting humanitarian assistance, medical, search and rescue, and mental health workers, and evacuate disaster victims during these disasters. This case study examines the psychological assistance provided by an airline's Health Department during and after earthquakes. The study focusses on post-disaster psychosocial first aid rather than crisis management operations. A psychological support group was created in the initial phase to help the earthquake victims and their families. The psychosocial support group included 17 volunteer psychologists working within the Human Resources Department of the airline. The current study developed and applied the 8-step Model of Psychological First Aid, which Brymer and colleagues established in 2006. Thus, 527 people who were primarily affected by the earthquake were worked with in this framework to increase their ability to cope with long-term trauma and to increase psychological resilience.

Öz 6 Şubat 2023 tarihinde Kahramanmaraş merkezli iki deprem (7,7 ve 7,6 büyüklüğünde) ardından Hatay'da 6,4 büyüklüğünde bir deprem meydana geldi. Bu depremler, Türkiye'nin güneyindeki 11 şehri, bunlardan yedisi büyükşehir olmak üzere, ciddi şekilde etkiledi. Depremlerde 42.000'den fazla kişi hayatını kaybetti ve 448.000'den fazla kişi yerinden edildi. Arka arkaya yaşanan bu kadar çok felaketle birlikte, havacılık operasyonları insani yardımın taşınmasında, tıbbi personel, arama kurtarma personeli ve ruh sağlığı personeli gibi destek personelinin taşınmasında ve afet mağdurlarının tahliyesinde hayati bir rol oynadı. Bu vaka çalışması, Türk Hava Yolları Sağlık Birimi'nin deprem sırasında ve sonrasında aldığı psikososyal destek önlemleri hakkında bilgi toplamayı amaçlamaktadır. Çalışma, kriz yönetimi dışında, afet sonrasında sağlanan destek adımlarına odaklanmaktadır. İlk aşamada, afet mağduru çalışanlar ve onların yakınlarına müdahale etmek üzere kuruluş içinde bir psikososyal destek grubu oluşturulmuştur. Psikososyal destek grubu, Türk Hava Yolları İnsan Kaynakları Departmanında çalışan 17 gönüllü psikologdan oluşuyordu. Mevcut çalışmada, Brymer ve meslektaşları tarafından 2006 yılında geliştirilen 8 adımlı Psikolojik İlk Yardım Modeli geliştirildi ve uygulandı. Böylece, depremden en çok etkilenen 527 kişi, uzun vadeli travma ile başa çıkma becerilerini artırmak ve psikolojik dayanıklılıklarını güçlendirmek için bu çerçeve içinde çalışıldı.

Keywords Psychosocial support · earthquake · psychological first aid · trauma · aviation operations

Anahtar Kelimeler Psikososyal destek · deprem · psikolojik ilk yardım · travma · havacılık yönetimi

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Post-earthquake Psychological Support Interventions Implemented by an Airline Company

Natural disasters cause enormous physical, social, economic, psychological and mental destruction in all social structures in human nature (Kessler et al., 2017; Kukuoglu, 2018). In particular, the effects of psychological trauma experienced after a disaster negatively affect the life course of individuals, causing lifelong problems and affecting their social environment in the same direction (Sherchan et al., 2017). After a catastrophic event, it is estimated that most of the population may have a normal psychological reaction to the event, with 15 to 20% experiencing mild or moderate depression, anxiety disorders or psychological trauma-related disorders and about 3-4% experiencing severe disorders such as psychosis, severe depression or anxiety disorder (WHO, 2017).

According to the Diagnostic and Statistical Manual of Mental Disorders-5 (DSM), posttraumatic reactions are considered in four main clusters that can significantly affect the individual's functioning: re-experiencing the trauma; intrusive symptoms, including nightmares, and avoidance behaviours; distorted beliefs; negative changes in cognition and mood, such as guilt; and hyperarousal reactions, such as insomnia and alertness (APA, 2013). After the earthquake, people might suddenly remember the event through flashbacks that make them feel very uncomfortable, as if they are reliving it, along with having repeated nightmares and feelings of intense anxiety, fear, and physical symptoms like shortness of breath and a racing heart. Given the ongoing aftershocks following the earthquake, these symptoms may exacerbate the current mental state or lead to the belief that one has a more significant psychological issue (Yildiz et al., 2023). One of the largest earthquakes Türkiye has experienced was the Marmara Earthquake in 1999. A study investigated the enduring psychological effects of the 1999 Marmara Earthquake, indicating elevated prevalence of post-traumatic stress disorder (PTSD) and major depressive disorder three years post-disaster. Despite a decline in prevalence rates for both disorders over time, recovery remained restricted, with fewer than half of PTSD cases reaching remission (Önder et al., 2006). Significant rates of serious depression (11%–42%) and post-traumatic stress disorder (PTSD) were prevalent among survivors of the Marmara earthquakes. Persistent mental health issues, including PTSD, significant depression, and anxiety disorders emphasise the necessity for ongoing psychological treatment after a catastrophe (Önder et al., 2006). Outreach research, training, and psychological assistance are examples of support systems, with an emphasis on the need for enhanced mental health services and disaster preparation policies (Aker, 2006). Due to the significant prevalence of psychiatric diseases among survivors of the Marmara earthquakes who are not pursuing treatment, the implementation of outreach service delivery programs is crucial. Post-disaster programmes may assist undiagnosed and untreated individuals to receive treatment (Salcioglu et al., 2003).

An earthquake is one of the greatest natural disasters. On February 6, 2023, there were two earthquakes, 7.7 and 7.6, centred in Kahranmaraş, which occurred 11 hours apart, and these earthquakes were followed by the 6.4 magnitude Hatay earthquake on the same day (Republic of Türkiye Strategy and Budget Presidency, 2023). The earthquakes severely affected 11 cities in southern Türkiye, including seven metropolitan areas, resulting in the deaths of 42,310 people and necessitating the evacuation of 448,018 (AFAD, 2023). In the immediate aftermath of the earthquake, the İskenderun port, which would enable humanitarian aid to reach the region, was rendered inoperable due to a fire; the railways were severely damaged; and the type of road transportation to the region was severely damaged due to avalanches and damage to the highways from the earthquake (Bakırcı & Aydoğdu, 2023). During the earthquake, snow significantly disrupted aviation

operations. In addition, the terminal building and runway of Hatay, Kahramanmaraş, Malatya, and Adıyaman airports were damaged after the earthquake (Republic of Turkey Strategy and Budget Presidency, 2023).

Only Adana, Diyarbakır, and Elazığ operations were continuing in the earthquake zone (Republic of Turkey Strategy and Budget Presidency, 2023). In a period of so many disasters, aviation operations played a vital role in the transportation of support personnel, such as humanitarian aid, medical personnel, search and rescue personnel and mental health personnel to the region and the evacuation of disaster victims. A total of 242,392 personnel, including AFAD, Gendarmerie, Police, Local Security, MSB, UMKE, Ambulance Teams, Local Support Teams and volunteers, participated in the region (AFAD, 2023). In addition, according to AFAD (2023), 116 helicopters and 78 aircraft from the Air, Naval, and Land Forces, the Gendarmerie General Command, the Coast Guard Command, the Ministry of Health, and the General Directorate of Security made a total of 11,907 sorties on the air bridge established with the earthquake zone for the delivery of materials and personnel. Following the Kahramanmaraş earthquakes, a significant logistical mobilisation took place for humanitarian aid and evacuation efforts. According to Turkish Airlines operational data, total of 6,848 humanitarian aid flights were organised to the region, carrying 955,748 passengers. To transport earthquake victims to safe areas, 6,853 evacuation flights were organised, and a total of 1,052,883 passengers were evacuated. Adana Station experienced the most intense activity in evacuation operations, transporting 270,942 passengers through 1,736 flights. Furthermore, the region received a total of 32,770 tonnes of humanitarian aid materials from 712 cargo flights. These efforts once again demonstrated the critical role of transportation and logistics in the aftermath of disasters, and thanks to rapid organisation, the people of the region were effectively supported.

Psychological first aid (PFA) is defined as adapting physical first aid principles to address mental health needs after a traumatic event; its aim is to stabilise individuals by reducing acute distress and, if necessary, guiding them to further support with a compassionate approach (Everly & Lating, 2022).One of the main benefits of PFA is to reduce stress-related symptoms by meeting the basic physical or psychological needs of individuals and to prevent long-term mental health problems by initiating post-disaster recovery (Birkhead & Vermeulen, 2018). In the early aftermath of the earthquake, alongside the thousands of fatalities, survivors confront new necessities across several domains, including shelter, food, water, clothing, physical health, and mental health. Therefore, PFA is an urgent need for people who lost their loved ones, whose houses were damaged, or who suffered physical injuries or traumatic effects of the earthquake.

PFA is crucial in the aftermath of an earthquake and provides empathy, mentoring and emotional support to survivors (Everly & Lating, 2022). Thus, it aims to reduce distress by identifying and addressing psychosocial needs after trauma and to reduce negative psychological effects by increasing resilience and the ability to draw on healthy social resources necessary for recovery (Giarratano et al., 2019). It is not necessary to be a mental health professional to implement PFA; it can be effectively implemented by educators, physicians, nurses, even clergy and other members of the community (Everly & Latin, 2022). Trauma may lead to several severe long-term health issues, depression, trauma-related symptoms, and addiction to drugs. Helping survivors feel safe and reduce trauma-related symptoms allows responders to better meet their basic needs and access social resources for victims. Psychological first aid is derived from empirical principles that promote a sense of safety and calm, as well as self-efficacy, community efficacy, attachment, and hope (Birkhead & Vermeulen, 2018). The study on PFA for children during the Kumamoto earthquake response in Japan highlights several practical implications for mental health support in disaster situations. The research highlighted the necessity for PFA to provide training for emergency responders and mental health professionals. However, by equipping individuals with the necessary skills, it was aimed to provide immediate support to children and families in distress and reduce the psychological impact of disasters (Akasaka & Kawashima, 2019).

In a randomised study conducted after the Kahramanmaraş earthquake, psychological first aid interventions were shown to be very effective in reducing trauma-related stress and increasing psychological resilience (Bekircan et al., 2023). A study on psychological support provided to victims of the earthquake in Türkiye and Syria revealed a wide range of perspectives and experiences on psychological support services provided after the earthquake by asking open-ended questions to mental health experts from 23 different NGOs. We analysed the statements collected in this study using content analysis. The researchers identified common themes, issues, and recommendations within the qualitative data provided by the participants. A challenge that emerged was facilitating collaboration among varied institutions to deliver mental health services (El-Barazi, 2023).

The present study is crucial for addressing this gap since it ensures that the needs of workers encompass mental health. There is strong evidence that psychosocial interventions increase individual and organisational resilience. However, research indicates that most psychological interventions are directed at individuals and do not focus much on the contextual and social dimensions of trauma (Reifels et al., 2013). The current study was created to address this gap and aimed to gather information about the psychosocial support provided by the airline during the Kahramanmaraş earthquakes, discussing the step-by-step crisis intervention stages that were implemented after the earthquake. For the long-term psychological well-being of disaster victims after a disaster, focusing on physical and emotional problems is essential. The primary objective is to alleviate feelings of guilt by promoting a supportive social environment, facilitating the expression of traumatic experiences, and providing psychological support, even for individuals functioning at a normal level, while considering the potential destructive effects (Tanaka et al., 2019). Little research has been published in the literature concerning crisis management and psychological first aid after an earthquake (Asakasa & Kawashima, 2019; Bekircan et al., 2023; Norris et al., 2002).

The airline industry differs from other sectors in crisis management due to its operational challenges, worldwide procedures and rules, and stringent safety standards. Airline operational time pressure and the management of international multi-stakeholder operations necessitate a significant degree of coordination. Furthermore, international regulations and stringent safety standards differentiate decision-making processes from those in other sectors. Furthermore, public media attention during crises necessitates that communication be both transparent and strategic.

ICAO's Crisis Management Framework (2022) recommends a multi-stage crisis management approach at national, regional and global levels to effectively manage crises. This method allows airlines to respond quickly and in a coordinated manner in times of crisis, which helps maintain operational continuity. Individuals with subclinical symptoms are at risk of developing mental problems in the future, so it is vital to enhance short-term and evidence-based supports focused on early intervention (Pietrzak et al., 2021).

The literature features a restricted quantity of studies regarding the practices of airline companies following a natural disaster. Therefore, this study compiles, for the first time, research conducted by an airline company on mental health interventions following natural disasters. The study aimed to compile the interventions related to the psychosocial support process conducted by the airline Health Unit after the earthquakes, and it discussed the crisis intervention stages applied step by step during the post-earthquake process. This study aims to illustrate the progression of the psychological first aid process implemented by an airline company after the earthquake and its reflections on the experiences of primarily or secondarily traumatised people through a qualitative case study.

Method

Participants

All of those included in the study are Turkish Airlines employees and their relatives. The study encompassed crew members, ground personnel, and all employees operating in various locations and with varying job descriptions for domestic stations. The employees affected by the earthquake were identified by the airlines Human Resources Deputy General Directorate, and a list was sent to the Vice Presidency of Health. The first phase targeted employees residing in the earthquake zone and their families.

527 employees who were identified as having been affected by the earthquake in the first degree, including the passing of a family member or the loss of their home, were provided with psychological first aid (PFA) over the phone in the first stage. The disaster victims who received PFA included 284 males and 243 females. In addition, 201 employees and their relatives who were working in the earthquake zone and brought to Istanbul after the earthquake were contacted, and psychological first aid was provided. Therefore, the programme provided PFA to a total of 728 employees or their families.

The study encompassed the airline employees or their relatives who experienced direct impact from the earthquake at the primary level. Individuals who were not directly or indirectly affected by the earthquake were excluded from the program, even if they were worried about it. The program excluded individuals who were unavailable or did not provide consent for interaction.

Design

This study is a case study of mental health interventions in an airline company after an earthquake. Since nine cities in the earthquake zone (Adana, Adıyaman, Diyarbakır, Elazığ, Gaziantep, Hatay, Kahramanmaraş, Malatya, and Şanlıurfa) had ongoing Turkish Airlines operations (DHMI Statistics, 2024), it was determined that airline employees were directly affected by the earthquake. In the initial phase, the organisation initiated a psychosocial support group to address the needs of employees affected by the disaster and their families.

In the second stage, psychosocial support activities were carried out after meeting the basic needs of the employees and their relatives who were brought to Istanbul and hosted in two hotels for a long time. Employees and their relatives who were identified as in need of psychotherapy during the psychological first aid were referred to clinical psychologists working within the company, and the EMDR R-Tep protocol of 5 sessions was applied to these people.

Data Analysis

Due to the data's exclusive use in clinical process monitoring and documentation, no data analysis was carried out in this research. Therefore, the case study was developed to describe and reflect clinical practices rather than analyse data.

Ethical Declarations

This retrospective case study is based on the identification of fully anonymised data within the scope of a civil aviation company's clinical practices and in-service evaluation processes during a crisis. As the study focused on institutional practice processes rather than individual client data and all data were reported anonymously, it did not require ethics committee approval. Ethical approval for this type of in-service evaluation work has been obtained at the institutional level. Nevertheless, the clinical approach underlying the study adhered to the ethical principles of the Declaration of Helsinki.

Conditions of the study

The study was conducted as individual interviews, group interviews, or collective activities, starting after the earthquake on February 6, 2023, and continuing until August 2023. The study's implementation area was carried out through telephone interviews, online interviews, or face-to-face interviews in Istanbul.

Material

Psychosocial Support Manual

“A Psychosocial Support Hotline Manual” has been developed for psychologists who will provide psychological first aid by telephone in the psychosocial support group. The purpose of this manual is to structure, frame, and standardise the interviews that psychologists will conduct. This manual includes detailed information on the principles of psychological first aid, how to make the first contact on the phone, the phrases to be said, and situations where referral to professional experts is required. After the psychologists' training was completed, this manual was sent to the psychologists involved in the project, and they were asked to use it during psychological first aid interviews.

Flyers for the Hotel Group

The hotel group received hand flyers about trauma. Initially, two-page handbooks were created for this group of psychologists aiming to provide immediate assistance in the situation. In these manuals, post-traumatic stress reactions, emotional, cognitive, behavioural and physical symptoms, basic principles of psychosocial intervention, and situations that require referral to physicians and psychologists are explained in detail. Thus, we drew a framework for psychologists' job descriptions, specifying the areas that needed information and guidance in the crisis situation. The psychologists received these handbooks so they could visit the hotel for earthquake victims and interact with them. Expert psychologists trained and supervised the 17 psychologists from the Human Resources Department who volunteered for the psychosocial support group.

Measures

Employees and their relatives who were identified as in need of psychological support were referred to individual psychotherapy to protect their mental health and increase their resilience and well-being. To analyse the effects of trauma, a series of scales, including the Demographic Information Form, the Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995) and the Impact of Life Events Scale-Revised (IES-R) (Holmes & Rahe, 1967), were sent to disaster survivors scheduled for psychotherapy. Scale scores were considered when planning psychotherapy. Since the data were collected only for clinical documentation and process monitoring, no data analysis for the raw data was applied.

Demographic Information Form

The Demographic Information Form was designed to collect the socioeconomic background of these individuals. The form comprises age and level of education.

The Life Events Checklist – Revised

The revised version of the Life Events Checklist was developed by Thomas H. Holmes and Richard H. Rahe. It was published in 1967 in its original form and has undergone several revisions since that time. The Impact of Life Events Scale—Revised is given to individuals after adverse events happen in their lives. Impact of Life Events Scale – Revised: the scale is administered after traumatic events in people's lives. This scale is a

17-question self-report instrument that evaluates the prevalence and impact of traumatic experiences. This scale measures exposure to traumatic events and their impact on individuals (Gray et al., 2004).

The Depression Anxiety Stress Scale (DASS-21)

The scale aims to clinically observe the depression and anxiety levels of disaster victims. Lovibond and Lovibond from the University of Sydney developed the Depression Anxiety Stress Scale (DASS) in 1995. The DASS-21 scale measures the depression, anxiety, and stress levels of individuals with 21 items. The scale assesses depression, anxiety and stress from different perspectives (Henry & Crawford, 2005).

Results

Application of the Model of Brymer (2006)

The study was designed in line with the "eight-step psychological first aid model" conducted by Brymer et al. in 2006. Similar to this model, a psychosocial support group consisting of 17 volunteer psychologists working within the Human Resources Department of the airline was formed to establish relationships and bonds at the first stage.

1. Creating a psychosocial support group for relationship and bond building

Social support plays a vital role in overcoming trauma. One of the main purposes of a psychosocial support group is to lessen the impacts of trauma on earthquake victims, make them more mentally strong, and help them function better by making social support stronger. Groups of psychosocial support are crucial in the prevention of psychiatric diseases like as post-traumatic stress disorder, intense anxiety, stress, and depression that may develop in the long term after natural disasters such as earthquakes. Supporting earthquake victims in accessing their social resources, families, friends, and community resources can increase their psychological coping power (Yildiz et al., 2023). Studies in the literature highlight the importance of psychosocial support groups. One promising study in the field has shown that psychosocial support increases well-being after a disaster and helps reduce post-traumatic stress. Thus, Norris et al. (2002) found a positive correlation between coping skills and social support. Researchers have underscored the significance of five key characteristics that surface following a disaster: calmness, self-sufficiency, social connections, safety, and hope. Psychosocial support has been shown to increase psychological and emotional resilience, strengthen feelings of safety, and build hope in the long term (Hobfoll et al., 2007). Similarly, psychosocial support has been shown to support effective coping with stress and enhance psychological and emotional resilience in dealing with the long-term effects of disasters (Udwin et al., 2000). In line with studies consistent with the literature, in the first phase of the current study, clinical psychologists prepared special support guidelines for the psychologists in the group to complete their training in psychological first aid.

2. Creating safe spaces for disaster victims

Creating safe spaces as part of psychological first aid (PFA) forms the basis for the recovery process of individuals after trauma. The feeling of safety helps individuals reduce their anxiety levels, become emotionally stable, and open up to social support (Norman et al., 2024). According to Brymer et al. (2006), the airline ensured the evacuation of disaster victims from the earthquake zone to safe areas in order to provide security and relief, which is the second stage. To this end, numerous free flights were organised to deliver humanitarian aid to the region and evacuate disaster victims from it.

3. Balancing for disaster victims

Psychological balancing is one of the fundamental stages of psychosocial support efforts conducted after a disaster. These interventions aim to help disaster victims cope with the emotional and cognitive difficul-

ties that arise from intense trauma and regain their functionality through various techniques. During this process, individuals' sense of security is reinforced through psychological balancing, and their emotional resilience gets strengthened, thereby allowing them to more effectively manage the adverse consequences of trauma (Norris et al., 2002).

Trauma victims may experience avoidance symptoms over time, as they attempt to steer clear of situations that trigger recollections of the event. Symptoms such as emotional numbness and inability to concentrate may also appear. Hyperarousal symptoms, including startle response, hypervigilance, and difficulty managing anger, may accompany these symptoms. Grief can lead to a serious depressive mood. All of these symptoms may appear after a disaster (Yildiz et al., 2023). In the third stage, efforts were made to balance the acute stress symptoms that appeared in disaster victims, such as shock, freezing, startle response, and emotional numbness.

PFA has been associated with increased knowledge about disaster preparedness, increased emotional security and attachment in children, and decreased depression and PTSD symptoms, highlighting its potential as an effective post-traumatic intervention (Gilbert et al., 2021). Psychological balancing is a functional method commonly used for recovery after traumatic events such as earthquakes. Among the techniques used in psychological first aid are grounding techniques that help individuals balance their emotions after disasters, such as focusing on the present moment, using sensory awareness, deep breathing exercises, and engaging in physical activities (Ruzek et al., 2007). One of the methods used immediately after trauma to achieve psychological balance is EMDR (Eye Movement Desensitisation and Reprocessing) therapy. EMDR is widely used to minimise the effects of traumatic events on individuals, such as post-traumatic stress disorder (PTSD). The 4-Element Protocol of EMDR aims to help individuals feel safe, increase their psychological resilience, and restore functionality (Shapiro, 2018). Many studies have indicated that the EMDR 4-Element Protocol reduces the effects of trauma on individuals when applied after trauma. Gelbach (2014) demonstrated in his published article that the EMDR 4-Element Protocol reduces anxiety levels by developing emotion regulation skills in individuals.

Luber (2009) also said that this protocol makes it easier for people to heal. After the quake, EMDR R-TEP was given to victims based on the literature. Luber (2009) asserted that this protocol facilitates individuals' healing process. After the earthquake, EMDR R-TEP was given to victims based on the literature. After the Kahramanmaraş earthquake, a study revealed that EMDR and spiritual support were the most common forms of assistance for earthquake victims. Individuals found these strategies useful in coping with stressful situations. The current study (El-Barazi, 2023) also employed the EMDR therapy method, in line with the literature.

4. Analysis of victims' needs

The PFA needs analysis plays a critical role in promoting the effectiveness of recovery efforts. Through needs analysis, the pain from trauma is lessened, people are helped to adjust after the trauma, and key steps for effective recovery are found, which improves disaster response (Ruzek et al., 2007). In the fourth stage of the needs analysis, one-on-one communication was established with 728 disaster victims, and both physiological and psychological needs were assessed. The psychosocial support group initiated interviews with employees and their relatives who experienced the earthquake directly. Following the interviews, individuals in need of psychotherapy were identified.

5. Providing support for basic needs

Post-disaster needs assessments contribute to the effective planning of support and recovery efforts by gathering information about the basic living conditions, available resources, and priority needs of affected communities (Huafeng, 2013). These assessments enable an understanding of the physical and psychosocial

challenges and support needs faced by individuals who have experienced trauma in the early stages. In the fifth stage of the psychological first aid model, which is the stage of supporting basic needs, the previously identified needs were prioritised according to urgency and directed to the relevant units of the airline to be met, including the basic needs of disaster victims such as safety, shelter, food, and clothing.

6. Social support for disaster victims

Social support is the sixth stage following trauma. Kaniasty (2012) highlighted the importance of social support for trauma theory in a longitudinal study involving 285 disaster victims. This study demonstrated the impact of post-disaster support programmes on social support and the perception of belonging on long-term self-confidence 20 months later. Consequently, we made efforts in this phase to empower individuals to leverage their existing social resources and enhance their social support. At this stage, we have made efforts to empower individuals to leverage their existing social resources and enhance their social support. To stabilise the emotions of children and adults affected by the disaster, we have planned sports activities, playground visits, and city tours. A study examining the impact of post-disaster social support on the psychological well-being of disaster victims indicated, in line with previous literature, that it enhances the ability to cope with the traumatic effects of the disaster and provides support for recovery through strong social bonds (Kaniasty & Norris, 2009). Additionally, toys, colouring sets, books, and board games that facilitate emotional stabilisation were purchased, and a special play environment was created for children with the assistance of play sisters.

7. Psychoeducation

The seventh stage is psychoeducation about post-trauma. Psychoeducation provides support in coping with the lasting effects of trauma, better understanding stress responses, and increasing coping skills to feel a sense of control over traumatic responses. This approach can prevent indirect trauma and minimise negative countertransference (Phoenix, 2007). Similarly, it has been reported that psychoeducation on common responses following trauma normalises the traumatic experiences of earthquake survivors and facilitates coping by reducing difficult emotions such as loneliness and mental confusion (Yildiz et al., 2023). Psychoeducation was given to disaster victims about the immediate and prolonged impacts of trauma. The aim was to help clients better cope with the mental confusion, anxiety, and high stress levels they were experiencing in their current situation.

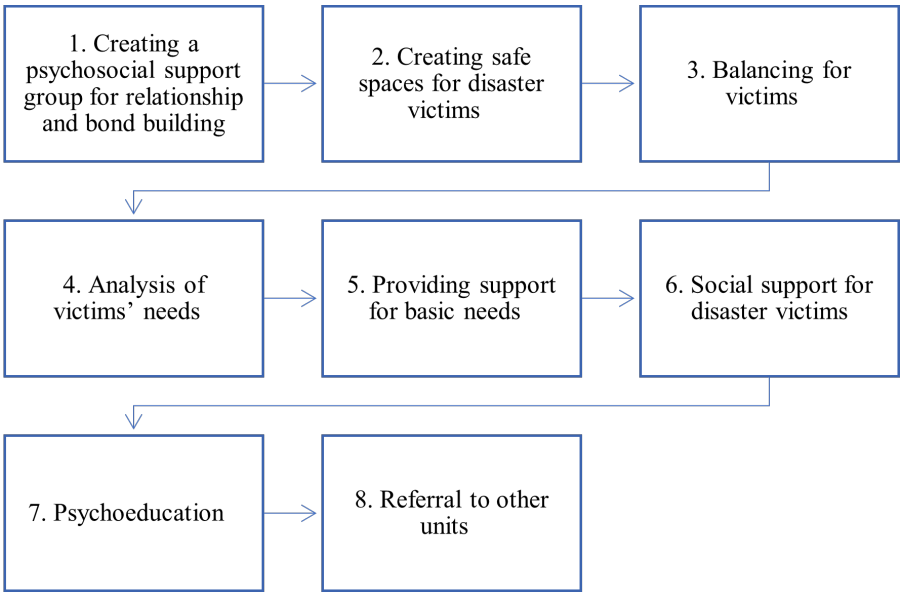
8. Referral to other units

The eighth stage of the psychological first aid model involves connecting to other services to establish cooperation. Uncertainty is one of the most important variables that prepares the ground for psychopathologies such as anxiety and worry in human nature (Carleton et al., 2007). Psychological first aid aims to lessen intolerance to post-event uncertainty, raise awareness of traumatic symptoms, assist in the normalisation and stabilisation process, and provide support in returning to daily life, thereby improving the long-term well-being of disaster victims (Demircioğlu et al., 2019). Therefore, to reduce uncertainty in the lives of disaster victims and increase their stress tolerance, relevant units were contacted regarding areas of interest (such as health, transfer, employment status, housing, and meeting basic needs), and relevant referrals were made.

The present research was conducted in accordance with an eight-step psychological first aid paradigm (Brymer et al., 2006), as indicated in Table 1. To reduce the long-term trauma responses of disaster victims and improve their well-being, after completing the eight stages, individuals were assessed based on their current situation and referred to psychotherapy or psychiatry according to their needs.

Table 1

8-Step Psychological First Aid Model



According to the American Psychological Association (APA) Clinical Practice Guidelines, two of the most effective psychotherapy methods for post-traumatic stress disorder are EMDR and CBT (cognitive behavioural therapy) (APA, 2017). In the previous phase, individual psychotherapy sessions were planned with disaster survivors to protect their mental health and increase their resilience and well-being. To analyse the effects of trauma, a series of scales, consisting of the Demographic Information Form, the Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995), and the Impact of Event Scale-Revised (IES-R) (Holmes & Rahe, 1967), were sent to disaster victims scheduled for psychotherapy. Scale scores were considered when planning psychotherapy. Initially, up to five sessions of the EMDR-RTEP and the CBT psychotherapy were planned for the selected clients. For clients identified as needing longer-term psychotherapy, long-term psychotherapy was planned, and in some special cases, psychotherapy continued one year after the earthquake. Follow-up sessions were conducted one month, three months, and 12 months later for clients deemed to need them.

Conclusion

Psychological first aid aims to minimise the physical, emotional, and mental dimensions of the situation, making it easier for individuals to cope with their circumstances. These interventions are widely implemented in a manner appropriate to the events, circumstances, and cultures involved (Fox et al., 2012). In post-disaster circumstances, systematic implementation of mental health interventions is crucial, in conjunction with emergency medical measures such as case identification and triage (North & Pfefferbaum, 2013). When psychological support is not provided to people who have experienced an earthquake directly or indirectly, they are more likely to develop various mental illnesses (Kukuoğlu, 2018). In the long term, various studies have shown that psychological first aid interventions prevent the progression of traumatic stress symptoms in individuals (Fox et al., 2012).

Studies on psychological first aid have found that initial interventions carried out in an appropriate environment and culture after an earthquake protect earthquake victims from potential psychopathologies. For sustainable mental health, it is important to provide ongoing psychological first aid training for potential disasters. Such long-term investments can prepare communities for more effective intervention in the event of potential disasters in the future (Akasaka & Kawashima, 2019). Similarly, a study conducted

after the Kahramanmaraş earthquake recommended developing training programmes for mental health professionals for the post-traumatic process, expanding partnerships with various NGOs in this direction, and increasing funding for mental health (El-Barazi, 2023). As shown in the literature, to prevent trauma and increase psychological resilience, the current study conducted training sessions (meeting hub) for all company employees after the earthquake (Brymer et al., 2006; Fox et al., 2012).

This case study presents a descriptive profile of psychological first aid (PFA) applications following the Kahramanmaraş Earthquake. However, the findings should be interpreted with consideration of several limitations. One of the fundamental limitations is that quantitative measurements were not included because the study was planned solely as a case study. This situation makes it difficult to establish causal relationships between interventions and psychological outcomes. Another significant limitation is the lack of systematic analysis regarding the potential differential effects of sociodemographic variables, including age and gender, on the intervention processes. It creates a misunderstanding about how these variables impact PFA requirements and results. Finally, since the data was obtained at a particular point (cross-sectional), no inferences can be drawn regarding the long-term effects of PFA. The pointed-out limitations provide important avenues for future research. Experimental studies incorporating control groups and longitudinal follow-up designs are essential for accurately assessing the efficacy of PFA. Utilising larger and more diverse samples would improve the generalisability of the findings. Future research should conduct statistical analyses to examine the variations in psychological responses and the effectiveness of interventions based on participants' gender and age groups. The result would allow for the customisation and increased specificity of PFA protocols. Mixed-methods research that combines qualitative and quantitative data may yield a more comprehensive understanding of the intervention processes.

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