



# Posttraumatic Stress Disorder: After the earthquake

# Posttravmatik Stres Bozukluğu: Depremden sonra

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### Özet

Ruhsal örselenme, aşırı derecede korkutucu, ürkütücü, çaresiz ve çoğu zaman olağanüstü ve beklenmedik olayların etkilerinden kaynaklanır. İnsan hayatında sıkıntı ve üzüntüye neden olan pek çok olay vardır ama hepsi ruhsal örselenmeye neden olmaz. Depremler, tarih boyunca insanlığın karşılaştığı en yıkıcı ve en sık karşılaşılan afetler arasında yer almıştır. Travma sonrası stres bozukluğu (TSSB), katastrofik travmadan sonra en sık görülen akıl hastalıklarından biridir. TSSB insidansını ele alan birçok kesitsel çalışma vardır. Bu konuda tıbbi literatür taraması yapıldığında; depremden kurtulanlar arasında TSSB insidansı %1,2 ila %82,64 arasında değişmektedir.

Bu yazı, özellikle ruhsal örselenmeye, depremler gibi olaylarının ardından meydana gelen etkilere odaklanmaktadır. Hayatta kalanlar arasında post-travmatik stres bozukluğu insidansının değişkenliğine dikkat çeker. Özellikle çocukları destekleme konusunda ailelerin ve toplumların felaket sonrasındaki zorlukları vurgulanır. Çocukların direncini geliştirmenin genel toplum direnci açısından önemi vurgulanır. Metin, felaket araştırmacılarını pandemiler, depremler ve göç gibi felaketlerin ardından ortaya çıkan zihinsel sağlık zorluklarıyla başa çıkmak için çocukları içeren yeni yaklaşımlar geliştirmeye çağırarak sona erer.

**Anahtar kelimeler:** Posttravmatik Stres Bozukluğu, ruh sağlığı, başa çıkma yöntemleri

### **Summary**

Mental trauma is the effects of extremely frightening, terrifying, desperate, and often extraordinary and unexpected events. There are many events that cause distress and sadness in human life, but not all of them create psychological trauma. Earthquakes have been among the most devastating and frequently encountered disasters that humanity has faced throughout history. Post-traumatic stress disorder (PTSD) is one of the most common mental illnesses after catastrophic trauma. There are many cross-sectional studies addressing the incidence of PTSD. When a medical literature review is made on this subject; The incidence of PTSD among survivors of earthquakes ranged from 1.2% to 82.64%.

In this paper, especially, the mental trauma, focusing on its occurrence after catastrophic events like earthquakes. It notes the varying incidence of post-traumatic stress disorder among survivors. The challenges faced by families and communities' post-disaster, especially in supporting children, are highlighted. The importance of fostering children's resilience for overall community resilience is emphasized. The text concludes by urging disaster researchers to develop new approaches involving children to address mental health challenges following disasters like pandemics, earthquakes, and migrations..

**Keywords:** Posttraumatic Stress disorder, mental health, coping strategies

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### What is Mental Trauma?

We call mental trauma the effects of extremely frightening, terrifying, desperation, and often extraordinary and unexpected events. There are many events that cause distress and sadness in human life, but not all of them create psychological trauma.<sup>(1)</sup>

#### **Event:**

- has created a feeling of fear, horror or helplessness,

#### In the event:

- if there is a danger of death or injury to the person himself or his relatives

According to this definition, the death of an elderly relative after years of illness is less likely to cause mental trauma, while the unexpected loss of a relative -for example, in a traffic accident- has a more traumatic effect.

### What Events Cause Mental Trauma?

# Trauma types known to cause mental problems can be listed as follows:

- \* Natural disasters (earthquake, flood, fire)
- \* Human-made traumas (war, torture, rape)
- \* Accidents (work, traffic)
- \* Unexpected deaths
- \* Getting serious-fatal diseases

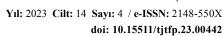
Events that cause mental trauma in society are very common. Studies show that one out of every two people has encountered such events at least once in their life. The possibility of encountering psychic

trauma is not equal for everyone. Those who live in places with high crime rates, those with other mental illnesses or alcohol-substance addiction, soldiers, police officers, firefighters encounter frightening events more frequently.

Earthquakes have been among the most devastating and frequently encountered disasters that humanity has faced throughout history. Post traumatic stress disorder (PTSD) is one of the most common mental illnesses after catastrophic trauma. There are many cross-sectional studies addressing the incidence of PTSD. When a medical literature review is made on this subject; The incidence of PTSD among survivors of earthquakes ranged from 1.2% to 82.64%. (2,3) Factors affecting this wide range can be listed as the severity of earthquake exposure, how long after the PTSD assessment was made, the extent of financial losses suffered by the victims, and whether they lost their relatives.

# The two most common diseases after mental traumas: depression and post-traumatic stress disorder.

It is known that events that frighten and terrify people and create feelings of helplessness cause long-lasting mental problems. Depression is one of the most common disorders after mental traumas. The most common symptoms of depression are reluctance, weakness, depressed mood, sleep and appetite disturbances, and a lack of pleasure in life. Depression can occur for the first time after a psychological trauma, or it can be seen as a recurrence of depression in people who have had depression before.





There are studies that deal with the effects of earthquakes on health within the framework of mortality, morbidity, disability, psychological trauma and post-disaster psychosocial arrangements. The severity of psychiatric symptoms experienced by survivors and the determination of preventable risk factors associated with these symptoms constitute the title of many studies. When we look at these related factors, we see factors ranging from age, gender, marital status, presence and degree of proximity to the missing, proximity to the epicenter, personal health status, injury and disability. When we look at the macro level, we see the inadequacy of socioeconomic support as well as the inadequacy of public health protective organizations and emergency medicine initiatives.<sup>(3)</sup>

Early psychological support initiatives in post-disaster era not only make us understand the dimensions of the trauma; it also helps to reduce the frequency of symptoms. (3) PTSD, which is the most common mental symptom after an earthquake, is frequently seen after disasters in developing countries. This highlights the importance of access to humanitarian aid as well as the resilience of advanced social support and sanitary infrastructure systems. (3,4)

These symptoms appear in most people in the days following the trauma and usually resolve spontaneously within a few weeks, but for some people they can last for months or even years. World War II veterans, who are now over 80 years old, still have traces of this disease. Symptoms can sometimes begin months after the traumatic event has happened.

This disease, which started to be recognized after the first world war, has become better known all over the world, especially due to the detailed investigation of the traumatic stress symptoms seen in American soldiers returning from Vietnam and the subject of many books and films.

Many people with Post Traumatic Stress Disease also have other mental disorders at the same time. The most common disease associated with PTSD is depression. Apart from depression, various anxiety disorders, excessive alcohol or substance use can also be seen. People who have had a previous mental illness have a higher risk of re-emerging after trauma. If there is a second mental illness other than PTSD, both the individual's distress and loss of labor increase, and it requires more intensive and longer-term treatment.

Post-traumatic stress disease is a disease that can last for many years and can lead to serious labor loss.

Although there are many people in the society who have experienced mental trauma, only some of them (for example, 20% of those who have experienced an earthquake) suffer from post-traumatic stress disease. This suggests that some people may have a predisposition to the disease, or that some are more resistant to the disease. Knowing beforehand who will get sick or who will stay sick for a long time after mental traumas is important for the society as well as for the individual and his/her family.

The fact that the number of people affected by di-



sasters such as earthquakes is expressed in millions shows that the issue is a serious public health problem. Studies show that women are more likely to get PTSD after psychological trauma than men: regardless of the type of trauma, women are 2-3 times more likely to have PTSD than men. People who have experienced other mental trauma in the past, have had a previous mental illness, or have a relative with a mental illness are more likely to develop PTSD.

Women, those who have experienced mental trauma in the past, those with other mental or physical illnesses, and those who have experienced more severe trauma are at higher risk.

The more severe the mental trauma, the greater and longer the psychological effects. For example, those who were under the rubble in the earthquake experience more mental problems than those who did not survive, those who lost their loved ones compared to those who did not, and those whose houses were damaged than those who did not. Apart from this, the degree of fear experienced during the trauma is also important: for example, PTSD rates are higher among those who say that they were very afraid at the time of the earthquake, that they could not think of anything and froze.<sup>(5)</sup>

Avoiding or trying to forget does not lessen the effects of trauma.

It is thought that the methods used by the person to cope with the effects of the event after the trauma may also affect the results. While the recovery of the disease is delayed more in those who act as if it had not happened and try to forget, those who seek help for their problems, share their problems with others and seek their rights recover more quickly. The social support that the person can obtain also has a positive effect on recovery after trauma. If social support is low, especially depression symptoms are felt more.

Time does not completely remove the effects of trauma.

Studies show that most of the people who experience the event in the first days after the trauma are affected psychologically, are afraid and have night-mares, but these symptoms disappear within days or weeks in many people. However, in one of every 5-6 affected people, the symptoms may take much longer to improve, and sometimes it may continue for years. That's why the saying "time heals everything" does not apply to everyone. (6)

### **Post Traumatic Stress Disease Symptoms:**

Re-experiencing (remembering): It is common for a traumatized person to have memories of the event after the event. Images of the event (eg, images of corpses), sounds (cries of help seekers) may come to the person's mind even when they do not want to think about them or have nothing to think about. The revival of these memories is often very disturbing and leads to symptoms of anxiety such as boredom, palpitations, sweating, trembling, and shortness of breath. Sometimes it feels like the person is actually experiencing the event. Feeling like the ground is shaking even though there is no real concussion, and having dreams about the trauma while awake are ex-



amples of this. The person experiences this situation so realistically that he can act accordingly: for example, he can talk about the dreams he sees, he can try to escape even though there is no danger.

Avoidance: The person tries to avoid places, situations, conversations, even feelings and thoughts that remind the event as much as possible. Because remembering the event causes great distress, pain, and fear, the person does not go to places that remind of the event, does not talk about these topics, or stays away from places where they are spoken. Some people who have been under the rubble may not be able to visit the place where the wreckage of the house is located, or even that city, and may not be able to talk about the event.

People who have experienced trauma can sometimes forget the details of the event. Often the most distressing parts of the event are forgotten or hardly remembered. This is different from "not wanting to think about the event" and the person cannot remember even though they want to remember.

Symptoms such as alienation from people and lack of future expectations can also be seen after mental traumas. Thinking like "No one can understand what I'm going through" is common. People may feel emotionally distant from people who have not experienced the event, their emotions may become dull, and they may not feel joy and sadness. Sometimes they may be angry with those who are trying to help them, some people may only meet with people who have experienced the same trauma and

cut off relations with others. Since there is no plan for the future, it is possible to live only that day and decrease in activities.

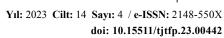
**Overstimulation:** People affected by psychic trauma may feel on their toes and constantly on the alert. At any moment it may seem as if it will happen again. They shape their behavior by considering this possibility, and they act extremely cautiously in this regard. For example, they check whether the building they entered unintentionally has a crack and whether it can be easily escaped from the door. While walking on the road, they do not approach the poles for fear of falling on them. They may take exaggerated precautions about dangers.<sup>(7)</sup>

Other indicators of overstimulation are startle or jumping at sudden noises and movements. Unexpected situations, such as slamming the door, talking loudly, and someone entering the room suddenly, can cause the person to jump and cause long-lasting symptoms of anxiety (palpitations, sweating, tremors, shortness of breath).

Difficulty falling asleep is common. It may take hours to fall asleep due to fears of trauma, and the person may be easily awakened by sounds that would not normally wake him up.

### **Treatments**

Both medications and psychological treatments have been shown to be effective in the treatment of post-traumatic stress disorder. It is clear that not everyone is affected equally by the traumatic event.





While they may have few mental symptoms associated with trauma, there are many people whose lives have not been greatly affected. For some people, traumatic stress symptoms can seriously interfere with work and social life. For this reason, different treatment approaches should be planned according to the needs of everyone in order to eliminate the effects of trauma:

Not knowing that there is a cure for the disorder and not wanting to remember the trauma delays getting help. Information for people who are less affected by trauma and can continue their lives as before:

For those who are more affected by the trauma, who experience severe symptoms, but are able to continue their work => counseling or brief psychological treatment approaches

For those with severe symptoms whose life has been severely affected => intensive psychological treatments, drug treatments or hospitalization.

If post-traumatic stress disease is accompanied by depression, drug therapy should often be added. (8)

# **Drug treatments:**

In the treatment of PTSD, antidepressant drugs are helpful in relieving many disease symptoms. Antidepressants should be used in the treatment of PTSD, especially when it is seen together with depression. Treatments should be continued under the control of the doctor, and the recommended duration and doses should be followed in order for the treatment recommended by the doctor to be effective.

### **Psychological treatments:**

The type of treatment that has been shown to be effective among psychological treatments is the method called cognitive-behavioral treatment. In this treatment, it is aimed to replace the erroneous thoughts that cause the continuation of the symptoms of the person with healthy thoughts. In addition, it is ensured that he goes over the situations that he avoids due to fear, and the fear he experiences in these situations is reduced. Psychological treatments are applied by psychiatrists and clinical psychologists who have training and experience in this field.

Post Traumatic Stress Disease is a disease that causes great distress to the person and their family but is treatable. **Many people affected by trauma:** 

- because he does not know that what he is experiencing is a mental disorder or because he attributes the symptoms to his own weakness-deficiency,
- because he does not know that problems can be cured,
- because he does not know how to access treatment opportunities,
  - because they do not have financial means,
- because he is embarrassed or bored to talk about his problems or because he is uncomfortable....

may not seek treatment.

However, these problems can be successfully treated both psychologically and with medication. Also, many people can overcome some of their problems by reading help booklets or getting help from others who have experienced the problem.



### The main obstacles to recovery include:

- Fear of seeking help
- > Feelings of despair
- Avoidance of remembering the traumatic event
- Loss of trust in people

These obstacles also serve as the main symptoms of the condition. Recognizing these challenges and seeking help are crucial steps toward resolving these issues. We encourage you to reach out to centers that offer counseling and information on mental health problems related to trauma, both for yourself and your loved ones.<sup>(9)</sup>

If we look at the breaking points that are important in the treatment of psychiatric symptoms after the earthquake; the rapid start of the normalization process will be enough to eliminate mild mental complaints in the natural flow of life. Access to treatment will expand with the provision of psychological support tools at the primary health care level. A primary care mental health initiative developed after the earthquake in Lorca, Spain, is a successful example in this context. (10) The model basically includes the integration of clinical psychologists into primary health care points.

In this approach, which is also called the replacement model, the family physician and the clinical psychologist evaluate the patient with psychiatric symptoms together and share the responsibility. In a sense, an in-house referral takes place at the primary care level. Patients can access basic psychotherapy interventions under the supervision of their family physician and with the intervention of clinical psy-

chologists. Thus, the triage of patients who need to be referred to large psychiatric centers can be done more effectively. With the rapid and effective adaptation of the layered health care approach to post-disaster mental health services, the masses can be prevented from encountering mental health epidemics, especially post-traumatic stress disorder.

Establishing mental health units in tent and container cities created after the earthquake and in regions with strong building stock will at least ensure that moderate and serious cases are separated from each other. In this sense, the role of mental health professionals like psychiatrists as clinicians is limited; its main contribution will be to train and support local health personnel in maintaining mental health services. Thus, the foundations of community-oriented mental rehabilitation can be laid.

Spiritual and sportive collective activities in harmony with the cultural norms of the population in the accommodation areas and psychoeducation for parents will contribute to mental well-being. (11) Through normalization and socialization as the natural elements of the psychosocial rehabilitation process, the individual will be able to feel the sense of belonging again and the integrity and continuity of his self. Under these conditions of spiritual well-being and security, a lasting social restoration process can be carried out. (12)

### Resillience:

If it is necessary to stage the reactions of the society and the individual after the disaster; heroic phase, honeymoon phase, disappointment phase and



restoration phase can be mentioned.<sup>(13)</sup> In the heroic phase, the surviving members of the society after the disaster mobilize their resources and work self-lessly for all humanitarian needs, especially rescue and relief activities.

This process extends from the first day to the period that includes the following few weeks. First-degree victims are placed in fortified camps in safe areas, after basic needs are met, visits are made by high-ranking administrators and numerous promises are made. This period of two to four weeks is called the honeymoon phase, the promises and guarantees given to the victims lead to the emergence of a serious social expectation. After this period, in parallel with the decrease in media and public interest, the resources of aid begin to run out.

Barriers such as administrative incompetence, bureaucratic obstacles and corruption begin to appear in transferring existing resources to economic, physical and psychosocial rehabilitation needs. This disappointment phase, which is expected to last between 3 and 36 months, can be described as a swamp that threatens mental health. This period, which includes an increase in the incidence of mental illnesses and many risks for symptom exacerbation, is also the stage where mental health professionals are most needed. After this period is over, the restoration phase will come when the self-dynamics of the society will repair the psychosocial damage.

Communities are more susceptible to the effects of disaster when children are weak. Children who lack knowledge of hazards, warnings, evacuation procedures, and other protective behaviors are probably more likely to perish or sustain serious injuries in a disaster. (3) After disasters, it is challenging, if not impossible, for families and communities to start the recovery process because children lack a sense of routine and normalcy and are experiencing physical and emotional pain.

Therefore, by putting an emphasis on fostering children's resilience, we are also fostering families' resilience and the resilience of entire communities. (14) It is crucial that disaster researchers and practitioners create new approaches to learning from and collaborating with children in order to make their lives better as disaster events become more frequent and intense around the world. (15)

#### **Conclusion:**

Pandemics, earthquakes, migrations, and other disasters can leave lasting impacts on communities, contributing to the persistence of post-traumatic stress disorder (PTSD). The aftermath of such events often extends beyond the immediate crisis, necessitating ongoing support and interventions to address the mental health challenges faced by affected individuals and communities.



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