

Take Step  
1  
For a Safe Life!

Istanbul Seismic Risk Mitigation and  
Emergency Preparedness Project  
**ISMEP**

# Psychological First Aid in Disasters



“Disaster Preparedness Training Materials for Community” which are financed in the framework of 4784-TU numbered contract of loan from World Bank and conducted by Istanbul Special Provincial Administration Istanbul Project Coordination Unit (IPCU) within the A component of “Istanbul Seismic Risk Mitigation and Emergency Preparedness Project” (ISMEP) are prepared by Beyaz Gemi Training and Consulting.

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**Prepared by:**  
F. Derya AKYILMAZ  
Okan KARKA

**Editor:**

Prof. A. Nuray KARANCI (Middle East Technical Univ.)  
Prof. Ahmet Tamer AKER (Kocaeli Univ.)

**Contributors\*:**

Prof. Mikdat KADIOĞLU (Istanbul Technical Univ.)  
Ersin SATI

\*It is alphabetically arranged according to surnames.

**Editing:**

Esen ÖZEN

**Graphic Design**

Begüm PEKTAŞ

**Cover Design:**

Begüm PEKTAŞ

**Illustration:**

Begüm PEKTAŞ

**Translated by:**

Prof. A. Nuray KARANCI (Middle East Technical Univ.)  
Ebru CAYMAZ  
Banu UTANÇ  
İlgaz KOCAOĞLAN  
Fethiye YEŞİL

**Project Management**

**Istanbul Project Coordination Unit (IPCU)**

K. Gökhan ELGİN  
Yalçın KAYA  
Fikret AZILI

**İstanbul Provincial Disaster and Emergency Directorate**  
Gökay Atilla BOSTAN

**Project Coordinator and Consultancy Service**

Beyaz Gemi Training and Consulting



Dear residents of Istanbul,

Istanbul is a city, which is under the threat of earthquakes and many other disaster risks. In many parts of the world, precautions are taken and some preparation plans are carried out against these kinds of risks. In Turkey, there are studies, which aim at the protection of public buildings, particularly schools and hospitals, and historical monuments and there are retrofitting studies for the whole infrastructure system, especially for transportation and communication, with the participation of the professionals in our country by evaluating the studies made in developed countries.

Physical retrofitting studies have the aim of eliminating the physical threats by earthquakes. But the case of earthquake preparedness is not limited with these activities. What's more important is to change our way of life in such a way to be ready for earthquakes and to be more sensitive for our surrounding.

In order to be ready for earthquakes firstly at individual and then at the national level, we should know about earthquakes, we should develop ourselves by having safe life awareness at our home, in our offices and surrounding, we should get training and above all we should become conscious about what we can do before a possible earthquake strike.

Therefore, we have prepared these awareness raising and training materials to reach you by the means of ISMEP (Istanbul Seismic Risk Mitigation and Emergency Preparedness Project), which is conducted by Istanbul Governorship Provincial Disaster and Emergency Directorate and Istanbul Governorship Special Provincial Administration Istanbul Project Coordination Unit. The documents, which are prepared with the help of specialists from civil and private sectors, are given the last shape after the controls of experts and relevant departments.

Fifteen different training titles have been defined for our editions, which require the preparation of different documents with different themes and appropriate contents for them have been developed to reach all our citizens living in Istanbul and to ensure the institutional preparedness in every sense. We wholeheartedly believe that these training materials which are thought to be appreciated by each institution and individual would meet an important need. Before anything else, to know that our dear citizens would benefit from these activities that would help earthquake preparedness, gratifies us and enlivens our studies.

In Istanbul, where the future is strengthened by us, we share happiness of looking to the future with confidence.

Best regards,  
Muammer Güler  
Governor of Istanbul





**Within the context of Enhancing Emergency Preparedness Capacity**, which is the A component of Istanbul Seismic Risk Mitigation and Emergency Preparedness Project, multiple cooperation has a significant role in Community Disaster Preparedness Training Materials shaping within the framework of best practice and achieving objectives.

Within the framework of this project, which is a product of long and intensive study, and emerged in the light of profound knowledge and experiences of a good deal of people and institutions, we thank all public corporations and institutions who do not withhold their contributions from us;

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**Istanbul Anatolian Side Neighbourhood Disaster Volunteers Association**  
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**Istanbul Union of Chamber of Merchants and Craftsmen**  
**Radio Amateurs Association**  
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# INTRODUCTION

Disasters are natural or man-made events that cause physical, economical and social losses, stop or hinder daily life and its activities and create difficulties in coping by only using the own resources of a society. Like other negative events that threat life and personal integrity, they can lead to psychological distress in survivors. The severity and the duration of the psychological distress reactions can vary. These reactions are normal reactions to an extraordinary condition and their severity declines with the passage of time.

Although the primary damages of a disaster are loss of life and property, physical and psychological damages, which occur at forthcoming periods are also extremely crucial.



Psychological problems are not only experienced by individuals who have directly experienced a disaster. The families and close acquaintances of disaster survivors, individuals helping disaster survivors and individuals witnessing the event through the media can also show psychological problems.

The aim of this book is to guide disaster survivors, disaster workers and volunteers on how to cope with the symptoms of psychological distress caused by disasters. The aim of this training is to provide information for providing psychosocial support and psychological first aid in periods immediately after disasters, when professional support is not yet available. Information on psychological response and psychological first aid is provided. With the information provided in this book, it is aimed to help individuals get over these kind of conditions with least damage during the first 72 hours after an earthquake.





# PSYCHOSOCIAL SUPPORT AND RESPONSE DURING DISASTERS

Psychosocial support can be defined as all the planned and structured services during all the stages of a disaster cycle, including preventing psychological distress/disorder after any disaster, establishing social relations at the levels of the family and a society again, enabling disaster survivors to be aware of their own capacities while returning to their normal lives. This support enables individuals to cope with the aftermaths of disasters and emergencies and also helps them get over these kind of events by using their own resources.

Psychosocial response during disasters includes some interventions aiming to accelerate these processes. This can be exemplified as facilitating the disaster survivors to return to their own pre-disaster living conditions and increasing such abilities as getting better, gathering strength, coping and intervention by using their capacities. It also includes psychosocial support to disaster workers and teams.

## Psychosocial Response Tools

The tools of psychosocial response include such practices as needs and resource assessment, psychological first aid, screening and referral, organizing an information center, mobilization of the society, social projects and support actions for disaster workers.

**Need and Resource Assessment** is the first psychosocial response conducted immediately after disasters. This assessment can be summarized as the assessment of the extent to which survivors were affected and the ways in which they were affected and also their needs and problems. It also includes an evaluation of the resource persons/organizations in a society and their organization and services and finally the formulation of the general psychosocial response plan.

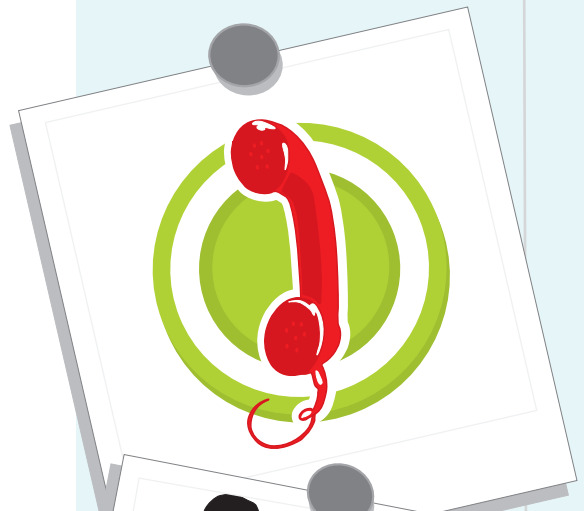


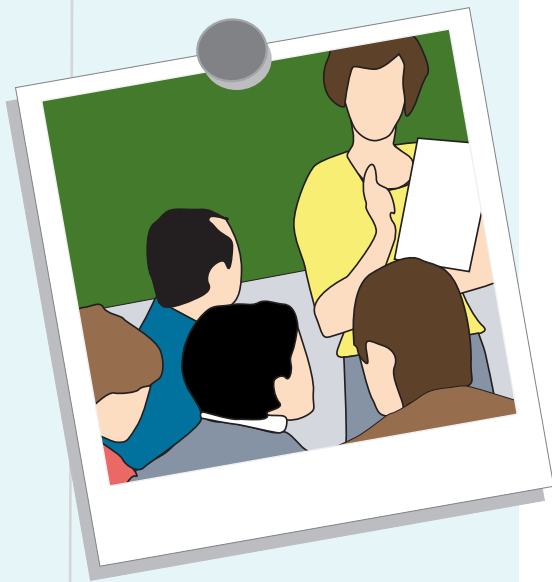
**Psychological First Aid** is a psychosocial response beginning simultaneously with the needs and resource assessment. Psychological first aid aims to relieve the psychological distress of disaster survivors by letting them express their feelings and experiences and help them to calm down by conveying basic psychological information. This also helps them to make sense of their experiences and feelings. Psychological first aid can be performed by face to face discussions with individuals and groups as well as by distributing booklets to disseminate information, using media organs, holding meetings such as a panels and a symposiums. In the case of mass disasters it is suitable to use all the methods to reach all the survivors.

**Screening and Referral** is the screening of survivors who have psychological problems and referring those who need professional psychological and psychiatric services to relevant organizations and experts (psychologists, psychiatrists).

**Forming an Information Center** is the development of an information center equipped with essential information sources that is easily accessible by the survivors and disaster workers.

**Mobilizing The Society** is to activate individuals, families and societies in order to cope with the aftermaths of disasters using internal and external resources in order to meet some common needs. In this respect returning to normal living conditions can be facilitated by increasing social participation of individuals. The quicker the individuals get involved in relevant activities and the more they participate actively, the less they will feel the effect of their traumatic experiences. The basic aim in mobilizing the society is to increase the self-help ability of individuals and to give them a sense of control.





**Social Projects** is one of the psychosocial responses that is widely used after disasters. These projects give opportunities to disaster survivors to get active to meet their own needs and problems. With the social projects the survivors can develop coping skills and, a sense of control. It enables survivors to take responsibilities.

**Trainings** is one of the most frequently used psychosocial responses. It is important to reach disaster survivors and the workers who are in a position to provide psychosocial support and/or individuals having probability to work in the disaster area (such as psychologists, social service experts, camp administrators, teachers, nongovernmental workers, community leaders) by means of education.

**Support for Disaster Workers** is the most general expression used for the psychosocial response given to support teams. The support applications for workers include such activities as informing help teams about relevant information for their disaster work by booklets, meetings and such like activities. It also includes holding support and sharing meetings, identifying negative factors affecting workers and attempting to minimize the effects of these factors.

### **Fundamental Principles of Psychosocial Responses**

- In psychosocial response the disaster survivors need to be taken as strong individuals who can manage to survive after the disaster, rather than passive victims.
- In all support activities it is important to focus on developing the capacity of disaster survivors and providing continuity of given services.
- Focussing on the protection and rebuilding of social bonds by taking into consideration cultural, political and religious structures and ethnicity during all the responses.

- The interventions need to maintain social relations and develop the coping capacity and skills for dealing with problems.
- Decision making about problem definitions, aims and methods for solutions needs to be taken together with disaster survivors or the representatives of this group and full participation needs to be obtained.
- In interventions it is important to establish clear and reliable information flow, make it accessible for the target groups and maintaining the flow.
- Emphasizing that such reactions as psychological, physiological, mental and behavioral are normal reactions given to an abnormal condition after disasters.
- Assessing stress factors and coping skills and what the psychological condition of an area is after a disaster and how it is destroyed with the disaster is needed for planning the psychosocial responses matching the needs of disaster survivors.
- Primarily, providing such basic needs as sheltering and nourishment are considered first in the planning of psychosocial responses.
- Paying attention that those who receive help are not stigmatized in their communities.
- Giving priority to team personnels, local personnels and volunteers in psychosocial training programs in order to reach the ones needing help easily and swiftly. If these individuals learn how to cope, they can help both themselves and other disaster survivors.
- In psychosocial programmes the local workers, local organizations and volunteers are valuable in providing reliable information about the priorities, anxieties and needs of local communities.
- Not using the information from psychosocial responses of disaster survivors during the initial periods after a disaster (acute period), for scientific research.
- Paying attention to give information about coping with stress, communication with disaster survivors, self-care and similar information to help teams who will be involved in psychosocial practices during disaster in the preparedness period.



# THE FEATURES AND TYPES OF DISASTERS AND TRAUMATIC LIFE EVENTS

Disaster can be defined as natural, technological or man-made events that cause physical, economical and social losses, hinders normal living conditions and the actions of individuals or suspends and makes it difficult to cope with their own resources.

Hazards turn into disasters if they create substantial damages on life, natural environment, property, possession and work sustainability. So, according to the definition of 'The United Nations', disasters are conditions in which the local resources become inadequate to cope with the negative influences on life, property, environment, economy and cultural heritage. If natural events such as earthquakes, floods, landslides, storms cause loss of life and property that require help at a the level of an area or the country or international level, they are defined as natural disasters. As it is understood, a disaster is basically the consequences of an event rather than the event itself. When we examine the results of disasters, primarily they cause loss of life and property. Loss of life is the death of people and animals; where as loss of property, refers to the damage of belongings, structures and agricultural lands and economic activities.

While some losses occur concurrently with a disaster, some others occur after a certain period of time. For example, loss of life and property occurs during an earthquake. However, the earthquake can also cause long term physical and mental problems.

A traumatic life event is an event that threatens the lives of individuals and their personal integrity or causes serious injuries or witnessing such events and circumstances experienced by others. The reactions of an individual to an traumatic event should be taken into consideration for defining a traumatic life event into the category of events that cause psychic traumas. Responding to traumatic events with extreme fear, terror or helplessness are the main subjective responses required to classify the event as traumatic. Natural disasters, serious accidents causing deaths or serious injuries, sexual and physical assaults and the sudden and unexpected death of a loved one are examples of traumatic life events. Therefore, in defining psychologically traumatic events, both the features of an event and the reactions of individuals are assessed together.

Natural disasters, can become psychologically traumatic events, within the scope of the above definition and thus may cause psychological distress. These distress reactions which will be presented in detail later, are normal reactions given to an unusual event and the severity of these reactions declines with the passage of time. However, for some individuals a more serious condition can occur after a traumatic event and/or a disaster. This psychological disorder can be initially labelled as Acute Stress Disorder and later Post-traumatic Stress Disorder (PTSD). Apart from this, other serious psychological conditions, such as anxiety disorders (as panic disorder, phobias), depression, drug addiction, aggression and anger, personality disorders and pathological bereavement can be observed. When the problems are serious, these individuals should be referred to a specialist in this field.

# THE STAGES OF RESPONSE TO EARTHQUAKES AND OTHER NATURAL DISASTERS FOR A SOCIETY

## The Reactions and Their Stages Observed in Societies After a Disaster

It is useful to have some knowledge about the stages through which communities react after disasters for disaster workers. These stages and their features are different as compared to individual reactions to disasters, which will be presented in later parts. These stages are:

### Heroic Stage:

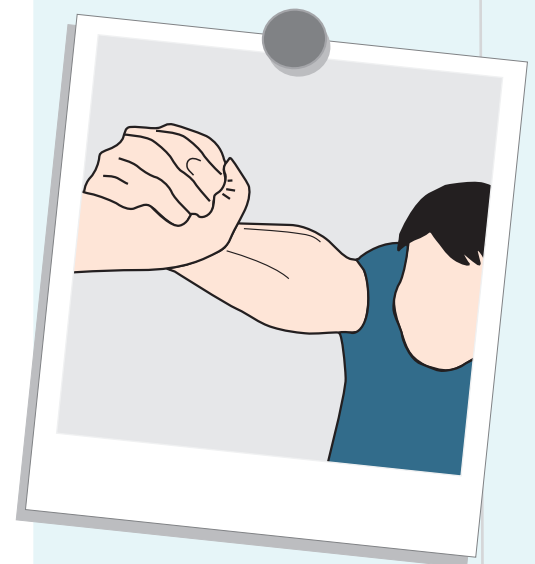
This stage is a stage that includes activities such as rescue, temporary settlement, first aid and cleaning performed by individuals and a society directly, in a disorganized and uncoordinated fashion. This stage starts in the first few hours after a disaster event and lasts for the first two or three days.

### Honeymoon Stage:

During this stage, both the community and the survivors are optimistic. The support and legal attempts of media, government authorities, internal and external resources, help organizations, nongovernmental organizations are very intensive during this stage. However, usually after three weeks the support, interest and concern starts to decline seriously in comparison with the first days of a disaster. Optimistic ideas that disaster survivors have at the beginning, disappear remarkably in the later parts of this stage.

### Disillusionment Stage:

During this stage, disaster survivors become aware of the inadequacy of help organizations, the insufficiency of government support, and the withdrawal of internal and external helps. They are also aware that they need more help in order to reestablish their lives but the support provided is inadequate. Sheltering problems become more pronounced as the time progresses. This stage usually starts after 2 days after a disaster and lasts approximately 3 months.







### **Restabilization Stage:**

This is a stage in which long term sheltering and work problems are resolved. Individuals adapt to the changes in their life styles and gain experience in this stage. This stage starts approximately 6 months after a disaster and lasts on the average for 36 months.

### **Who Are Affected from Disasters?**

Individuals affected from an earthquake and such like disasters constitute a large group. There are four different types of disaster survivors after an earthquake and such like disasters. These can be listed as follows:

**Primary survivors:** These are the individuals residing in an earthquake zone and they directly experience the earthquake.

**Secondary survivors:** These are defined as individuals who have a family bond or a personal bond with primary survivors.

**Tertiary survivors:** These are individuals who provide services and carry out duties because of their locations after an earthquake and such like disasters.

**Quaternary survivors:** These are individuals who are exposed to an earthquake and such like disasters through the media.



# THE GENERAL REACTIONS OF INDIVIDUALS AFTER DISASTERS

The general reactions of survivors after disasters can be analysed under five titles. These are emotional, physical, cognitive, behavioral and social (interpersonal) reactions. These are normal reactions given to an extraordinary condition. Individuals should know that these are normal reactions and this normalization process has an important place among the principles of first aid.

## **Emotional Reactions:**

Shock, anger, helplessness, feelings of emptiness, numbness, extreme fear state, guilt feelings, mourning, hopelessness, nervousness, pessimism, disassociation, feelings of worthlessness, panic and shame are emotional reactions after natural disasters.

## **Cognitive (thoughts and the thought processes) Reactions:**

The cognitive reactions of disaster survivors are concentration problems, difficulties in decision making, memory problems and/or amnesia, having false beliefs (for example; 'It was all my fault'), confusion/dysregulation in thoughts, distorting/altering experiences, having no self esteem, self disenchantment, self accusation, having undesirable and unavoidable thoughts and memories.

## **Physical Reactions:**

Fatigue/exhaustion, sleeplessness, disruption of regular sleep routine, hypersomnia, insomnia or inability to sustain sleep, uneasiness, widespread aches, headaches, decline in sexual desire, loss of appetite, immune system disorders, stomach and intestinal problems, tension, palpitation, nausea, dizziness and chest pains are common physical reactions among disaster survivors.

## **Behavioral Reactions:**

Avoidance of stimuli reminding earthquakes, fidgeting and sudden jumpiness are among the behavioral reactions of survivors.

## **Social (interpersonal) Reactions:**

Alienation, social withdrawal, interpersonal conflicts and problems in relations (family, work, school, marriage), mistrust, suspiciousness, being judgmental and accusatory are social (interpersonal) reactions seen among survivors after disasters.

It has been shown that survivors may show different reactions after earthquakes and such like disasters. This variation is related to the differences in the severity of their trauma exposures, how they interpret the event and their personal backgrounds.

Disasters/traumatic life events are extraordinary life conditions faced by individuals. From this point of view, the reactions given below are normal psychological reactions. These normal reactions can be analysed in various stages after a disaster period. The stages and reactions undergone by individuals after a traumatic event and/or a disaster can be generally described as follows (Karancı, A.N., 2008; Saari, S., 2007):

### **Shock Period**

It can be described as a protection against an experience that poses a threat on the limits of the person. During the first 24 hours and may be a little longer period, the following reactions may be seen in disaster survivors:

- Physiological arousal
- Sensitivity in perceptions but also narrowed perceptions
- Not being able to think logically and difficulties in making decisions
- Difficulties in focussing attention and memory
- Seeing everything as unreal (disassociation)
- Blunting of emotions
- Not feeling pain
- Shock
- Some might show panic and freezing reactions (20%).

### **Reaction Period**

It is a period in which individuals become aware of what has happened and what this event means for them. It appears approximately 2-6 days later after a disaster. During this period, the individual starts to feel safe and becomes aware of all the things that has happened. General reactions during this period are as follows:



- **Emotional chaos:** Anxiety, fear, anger, nervousness, hopelessness, helplessness, sadness, guilt feelings, shame, mistrust, feeling lonely and detached from real life
- **Somatic/Physiological reactions:** Tremor, nausea, cardiac problems (such as palpitations), muscle pains, dizziness, fatigue, fidgeting, sleep problems and appetite changes
- Avoiding stimuli that remind them of the disaster
- Repetitive thoughts and images (flashbacks) related to the disaster
- Terrifying and frightening dreams and nightmares



All these reactions are very terrifying and disaster survivors may get frightened and they may even think that they are losing their sanity. The use of sleeping pills, tranquilizers, cigarette and alcohol might increase during this period. But these are not healthy methods to cope with disaster distress.

### Processing Period

A traumatic experience should be processed. In other words, experience and its emotional, cognitive and behavioral reactions should be reviewed and given a meaning. A disaster survivor should be able to put a distance between him/her self and the event. General reactions during this period are as follows:

- The disaster survivor no longer wants to talk about the disaster
- They mourn for the ones they have lost
- Processing (thinking and evaluating the disaster) continues internally
- Strong emotions such as sadness and yearning can be felt
- Memory and attention problems may occur
- Problems in interpersonal relations, nervousness and conflicts, temper outbursts for external resources/individuals can occur
- They want to be left alone and they may not be absent in their environment psychologically

### Rehabilitation/Reorientation Period

Disaster survivors start to make plans for their futures and the severity of their reactions declines during this period. General reactions of this period are as follows:

- The disaster survivors start to accept what has happened
- The severity of reactions are reduced.

- The disaster survivors start to show interest in daily living matters
- They make plans about their futures
- They feel better emotionally
- The event of disaster/trauma becomes a part of their lives, but it does not preoccupy their minds

However, time is needed to process what has happened. Using coping methods such as denial, repression and avoidance after a disaster and/or having to return to work without being ready may hinder the processing and giving meaning tasks. Under these circumstances the survivor may get stuck in certain periods and psychological problems that might affect their future life may occur.

We should not forget that these stages and the reactions in them are normal reactions given to an unusual experience. However, some disaster survivors may have difficulties in going through the above described stages successfully and they can develop an anxiety disorder which is labelled as the Post-Traumatic Stress Disorder (PTSD). This condition results from being exposed to an event which threatens the life or physical integrity of an individual or witnessing such as an event happening to someone else and responding to the event with horror, helplessness and extreme fear and the inability to process and give meaning to the event.

Research has shown that certain demographic characteristics (for example; being a woman, low education and income) before a disaster/trauma, having previously experienced another traumatic event, having a psychiatric disorder and certain personality traits (for example; emotional inconsistency, pessimism, lack of self esteem) creates a vulnerability to develop PTSD. In other words, some people have a higher vulnerability for PTSD. Furthermore, the type of a disaster/traumatic event is also associated with the likelihood of PTSD. Sexual and physical abuse or violence, in other words, man-made, intentional traumatic events are more likely to lead to PTSD (Karanci, et al., 2009). After earthquakes, psychological problems other than PTSD, such as depression, anxiety disorders, drug abuse can also occur. The model of Parkinson (2000) gives schematically the variables that may be related to psychological reactions to disasters.

## Factors Affecting Adaptation to Disasters (Parkinson, 2000)



The effects of disasters depend on the characteristics of an individual before a disaster and how severely the disaster has been experienced. Furthermore, as it is shown in the figure, the problems in the post-disaster period and context can also affect psychological reactions.

Social support has a protective factor for both coping with the effects of disasters and also increasing self esteem. In this regard, giving social support to disaster survivors and enabling them to get in contact with their friends and relatives is a significant first aid principle.

In the following part, the features of PTSD will be presented. Knowing these features are important in terms of understanding the problems of disaster survivors and referring them to experts when necessary.



# POST-TRAUMATIC STRESS DISORDER (PTSD)



Post-traumatic stress disorder (PTSD) is an anxiety disorder that needs to be treated by an expert professional in this field. This disorder results from being exposed to an event that threatens the life of an individual or his/her physical integrity and showing intense fear, horror or helplessness to the event. Being exposing to a trumatic/disaster life event such as a physical, emotional or sexual violence during childhood or adulthood or witnessing them, accidents that seriously threaten life, illnesses, war and natural disasters are among some of the events leading to post-traumatic stress disorder (PTSD).

The diagnostic criteria of Post-traumatic Stress Disorder in DSM IV TR (2001), which is used for psychiatric diagnosis, is defined as follows

**A.** An individual has experienced a traumatic event in a way that both of the following two criteria are present:

- 1) An individual has experienced or witnessed such an event as a real death or threat of death, a serious injury or a threat to his/her physical integrity or to others.
- 2) The individual showed extreme fear, helplessness or being terrified as a response to this event (Instead of these reactions children can express their reactions by disorganised or agitated behaviours).

**B.** A traumatic event is constantly experienced over and over again by one (or more than one) of the ways listed below:

- 1) Distressing memories of the event are unwantedly remembered over and over again. There are images, thoughts or perceptions within these unwanted intrusions (Small children may play games about the traumatic event or its different aspects over and over again).

2) Having dreams about the event in a distressing way (Children can have terrifying dreams without understanding their meaning).

3) Behaving and feeling as if the traumatic event is rehashing (Even if they occur when the person is waking up or drunk; illusions, hallucinations and disassociative flashbacks (reliving) are included in the emotion of experiencing this event over and over again).

4) Being psychologically distressed when encountering events that remind the person of an aspect of the event.

**C.** Avoidance of certain stimuli that accompanied the trauma and a decrease in the level of general arousal, in at least in three of the following (or more than these):

1) Attempts to avoid thoughts, emotions or dialogues that accompanied the trauma

2) Keeping away from activities, places or individuals that trigger memories of the trauma

3) Not being able to remember an important aspect of the trauma

4) A noticeable decrease in the interest or participation in important activities

5) Keeping away from people or the feeling of alienation against people

6) Restriction in affect (for example; not being able to live the feeling of loving)

7) The feeling of having no future (for example; having no expectations about a profession, marriage, children or a usual lifetime)

**D.** Having increased symptoms of arousal continuously as exhibited by two (or more than two) of the below given symptoms:

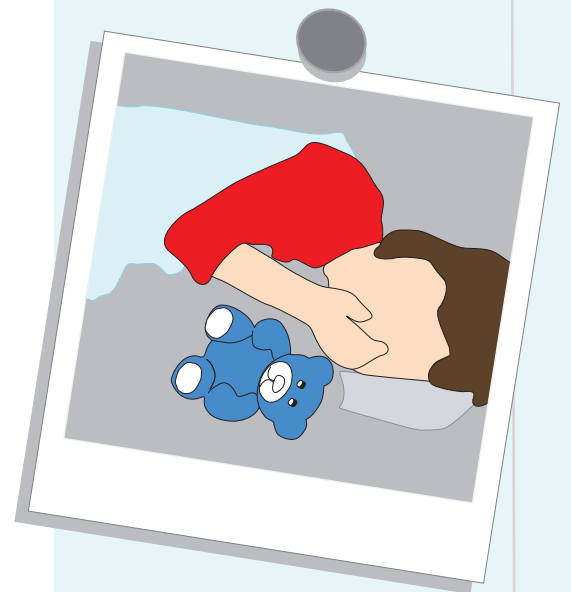
1) Difficulty in falling asleep or maintaining sleep

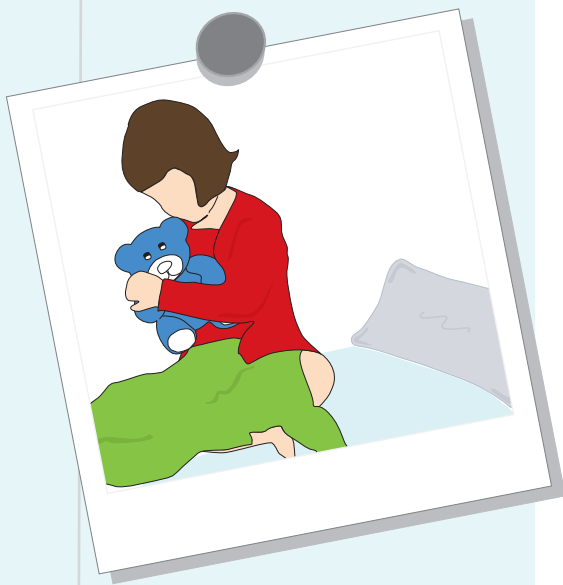
2) Bad temper or temper tantrums

3) Difficulty in concentrating thoughts on a certain subject

4) Hypervigilance (excessive attention to various stimuli)

5) Showing extreme startle response





**E.** This disorder (symptoms in B, C and D diagnostic criteria) lasts for more than 1 month.

**F.** This disorder causes clinically apparent distress or dysfunction in social, occupational or in another area.

Post-traumatic Stress Disorder can be seen in three different ways according to the stated diagnostic criteria:

- Acute Post-traumatic Stress Disorder: Symptoms last for less than three months.
- Chronic Post-traumatic Stress Disorder: Symptoms last for more than three months.
- Delayed-onset Post-traumatic Stress Disorder: Symptoms start at least 6 months after the stress factor.

## **Other Reactions That May Occur Right After a Traumatic Event**

### **Disassociation (Separation, Splitting)**

Depersonalization occurs in the form of the loss of reality feeling (derealization), becoming aimless and having amnesia. These symptoms occur generally among individuals after a traumatic event resulting from the detachment of two or more mental processes from consciousness and/or losing the unity in itself. There is a decline in awareness about emotions and thoughts and the person wants to avoid awareness about the trauma. This condition has two types of effect on individuals; psychological and physiological.

Psychological effect occurs in the form of continuously forgetting and trying to repress painful and unwanted emotions. So, the negative emotions about the trauma cannot be resolved. On the other hand, emotional experiences occurring as a result of a trauma can not be

processed and this leads to a constant loss of energy and exhaustion in the person.

### **Intrusive and Unwanted Reexperiencing of The Event**

Unwanted thoughts and images about the disaster can occur even though the person does not intentionally want them. Generally the most painful and distressing parts of the traumatic event come to mind. Individuals may feel reliving every stage of the traumatic event or seeing every thing that has happened. Some individuals may experience sounds and smell related to the traumatic event.

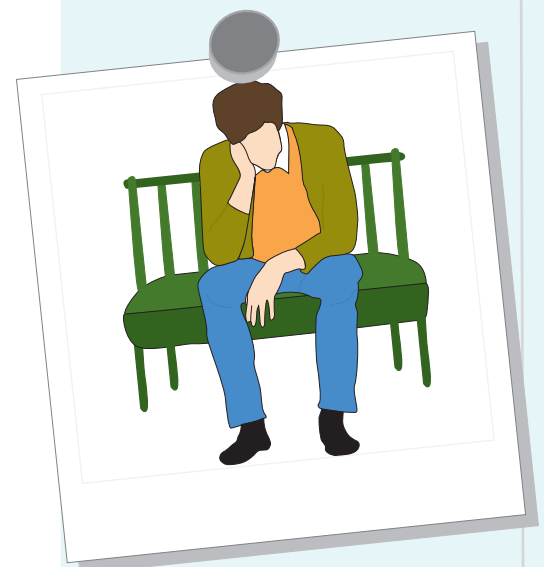
### **Avoidance**

The avoidance is observed as social withdrawal. It is the avoidance of thoughts, emotions, activities and contexts that are related to the traumatic event. Because the memories that are remembered after a traumatic event are very painful, individuals try to avoid these memories and all the things that remind them of the trauma. This condition can cause individuals to loose interest in activities of daily living and to be alienated from others. It can also cause emotional blunting or to restricted affect and causes individuals to have pessimistic expectations for the future.

### **Restlessness/Extreme Arousal Reactions**

There is a very powerful physiological bases of memories occuring after a traumatic event and the symptoms of avoidance from them. It causes both mental and physical intensive arousal.

Physically the intensive arousal causes such symptoms as fast heartbeat, perspiration of palms, concentration and sleep problems. Related to these such complaints as muscle and back pain and/or stomach ache can be reported.





### **Anxiety Reactions**

Individuals may display a permanent anxiety state after a traumatic event. The individual constantly gives reactions as if their bodies and minds are exposed to a danger. This reaction is seen together with avoidance, over arousal and disassociation reactions.

### **Depression**

It manifests itself with symptoms as worthlessness, yearning for the lost ones, losing interest in daily activities, lack of motivation, insomnia or hypersomnia, chronic fatigue, gaining or losing extreme weight, extreme anxiety, extreme slowness and guilt feelings or inappropriate guilt feelings, repetitive thoughts about death. Although these symptoms can also be seen in a normal life, individuals who have experienced a traumatic event, become unable to perform their daily activities as a result of these.

### **Drug Use**

It occurs in the form of excessive use of medical pills or an increase in substance dependence such as sedatives, alcohol, etc.

## **The Relationship Between Earthquakes and PTSD**

Earthquakes and their results cause a global public health concern. Earthquakes, like other natural disasters, are natural events that develop suddenly, cannot be controlled and predicted and have such effects as the death of large parts of a population or permanent physical damages and the destruction of life spaces. Earthquakes turn into disasters as a result of the destruction they cause.



Research after the 1999 Marmara Earthquake and other earthquakes revealed that earthquake survivors have a high risk to develop Post Traumatic Stress Disorder (PTSD). Bal and Jensen (2007) conducted a research study three years after the Marmara Earthquake on 293 children and adolescents ,ages ranging between 8-15. They reported that the PTSD rates were 60%. In a longitudinal research conducted by Altındağ, Özen and Sır (2005) on 105 consecutive adult clients using the psychiatric service, it was found that one month after the Marmara earthquake the PTSD prevalence was 42%, whereas 13 months later PTSD was seen in 23% of the participants. In the same research, it has been reported that PTSD prevalence among earthquake survivors ranges between 10% and 80%. These findings vary according to the features of the samples. Therefore, while PTSD rates are higher among participants from clinical services it is lower in samples from the general community.

In Turkey, especially after the Marmara Earthquake, research on traumatic life events, post-traumatic distress reactions and post-traumatic stress disorder (PTSD) and post-traumatic growth (PTG) have gained some momentum. Research on the survivors of the Marmara Earthquake living in tents by Tural and his colleagues, showed that 25% of these individuals met the criteria for PTSD. The most important factors increasing the risk for PTSD were pre-disaster factors such as having psychiatric history, having experienced another traumatic life event in the past and demographic factors such as being a woman and being single and having a low level of education. Furthermore, it has been found that the PTSD prevalence rates amongst earthquake survivors in Turkey is comparable to the rates for developing countries , but it is higher than the rates found for developed countries (Tural, Coşkun, Önder, Çorapçioğlu, Yıldız, Kesapara, Karakaya, Aydın, Erol, Torun & Aybar, 2004).

Although the results of research showed that there is a relation between PTSD and earthquakes, the responses of individuals to an event differ according to factors such as gender, age and/or socioeconomic levels and experiences before and after earthquakes. Every individual experiences a trauma in a personally unique way. Therefore, no individual should be compared and contrasted with another individual who has experienced the same trauma. Personal and familial characteristics, social beliefs, values and resources shape how individuals experience the traumatic event, what meaning they give to the event and how they respond to the interventions offered after the traumatic event (Karancı, Aker, Işıklı and their colleagues, 2009).

Research conducted in three provinces of Turkey has revealed that sexual harassment and physical abuse are the events leading to highest rates of PTSD (70-80%) (Karancı and her friends, 2009). Whereas, PTSD rates were comparatively much lower among individuals experiencing natural disasters (13%). In other words, it can be said that natural disasters cause much less PTSD than deliberate man-made traumatic events (such as violence, terror).



Young, Ford, Ruzek, Friedman and Gusman (2001) have stated that personal and cultural differences before, during and after a traumatic event are very important factors for understanding why individuals give different reactions to the same traumatic event. They have suggested that before evaluating the reactions of trauma survivors it is important to consider the features listed below:

- Ethno-cultural traditions, beliefs and values
- Social practices, norms and resources
- Inherited family characteristics and dynamics
- The socio-economic level of the individual
- The bio-psychological state and inclinations of the individual
- Other traumatic experiences (if there are any) before this event
- Specific traumatic experiences during and/or after the traumatic event

## **The Reactions of Children, Adolescents and Elderly After a Disaster**

Research has shown that children and adolescents are in the high risk group in terms of being affected from disasters. Children, like adults experience such reactions as reexperiencing the event, emotional numbness, avoiding stimulus that reminds of the disaster and physical arousal after a traumatic event. However, children can be at a higher risk after a traumatic event because their coping strategies are not yet as developed as in adults. The traumatic reactions of children and adolescents vary depending on the developmental features of different age groups. Furthermore, it has been found that the reactions of children are much affected from the reactions of adults (mother-father-adult care giver). The reactions of children and adults are these: regression (exhibiting behaviors that they engaged in younger ages), mistrust, excessive overinvolvement with parents, guilt feelings, fear, anxiety disorders, emotional and cognitive chaos, hallucinations, delusions (developing delusions), weird supernatural thoughts, images, catatony/freezing (an individual staying without moving in a certain posture and not responding to any external stimulus).

The reactions of children according to their age ranges after a traumatic event and the psychological support that should be given, can be listed as:

### **The Reactions of Preschool Children to a Trauma (0-6 age group)**

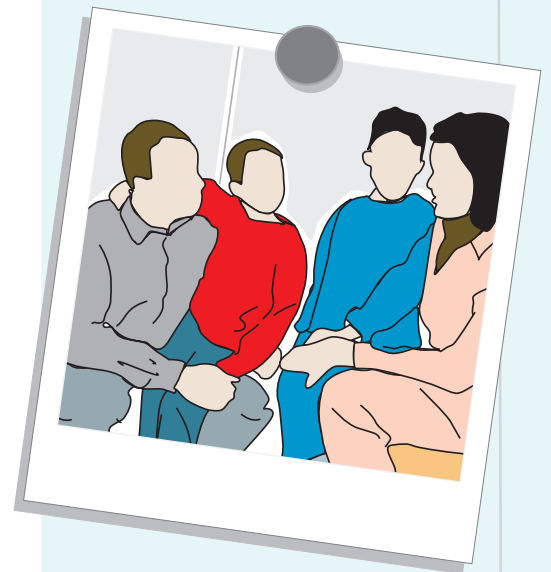
In this age group, after traumatic events reactions such as crying frequently, sleep problems, nightmares, restlessness and loss of appetite can be observed. Such problems as excessive attachment and overinvolvement with parents and unwillingness to separate from them, a return to behaviours they exhibited in earlier ages (for example: enuresis or thumb sucking) and speech disorders (like stuttering) can occur.

They may also have bad temper, obstinacy and anxiety. Such problems as verbal compulsions (they use some words related to the trauma much more or they do not use them) can also occur. Egocentric approach of preschool children can lead them to hold themselves responsible for an event, (for example; “ The earthquake occurred because I was naughty”) and to feel guilty. For the preschool children, it is important to meet their needs and to give them a sense of trust. For this reason the support and tenderness of parents or adults in the post-disaster period is very important. The daily routines of babies should not be changed and kept the same as much as possible and it is also very important to be pay attention to the physical health of babies. For the 3-6 age group of children it is very important that families return to their normal routines as much as possible and make their children feel safe (Erden 2000). It is very to answers the questions of children in a truthful manner in order to enable them to give meaning to the circumstances. During this process of explanation, it is going to be useful to support such activities as playing games and drawing pictures. Necessary materials for these activities needs to be provided. The child will have the opportunity to express his/her feelings through these activities.

### **The Reactions of Children Between 6-12 ages to a Trauma**

Helplessness, passiveness, generalized fear, cognitive chaos, difficulty in expressing emotions, regressive behaviors, speech disorders, sleep disregularities, worry (for himself and others), anxiety about death, blaming self for the disaster and guilt are some of the reactions of this age gorup. They are afraid of the direct or indirect reminders of the event. The support of their families and other adults around them has a great importance for the children in this age group.

The parents can provide psychological support by repeatedly giving explanations about the event, by



helping them in identifying their emotions and by giving them consistent attention and care. They should also establish an environment in which their children can express their thoughts and their imaginations in order to give meaning to the event. Showing consistent interest, enabling them to understand the event, giving realistic information, enabling their children to control their impulses and stimuli, supporting them to establish a connection between their emotions and the event, providing creative and positive activities and making them get involved in these activities, making relevant explanations about death and enabling their children to remember and to talk about their positive memories are among the things that should be done by parents for providing psychological support for 6-12 age group children.

### **The Reactions of Adolescent Children to a Trauma**

Changes in sleep routines and appetite, problems in schools performance and peer relations, decline in concentration, physical complaints, rebelliousness, lack of energy and apathy are among the psychological symptoms of children in this stage. They feel guilty and reflect this in their behaviors and display behaviours that may be threatening to their lives. Also feelings of revenge, radical changes in attitudes, early transition adulthood and sudden changes in relationships can be listed as the reactions of adolescent children. In order to provide psychological support for the children in this age group, we should discuss the event, their emotions and feelings and provide opportunities for them to talk about the event. Adolescents need to be responded to with mature and moderate reactions. We should also enable them to make contact between their behaviours and the event and to express impulses which may otherwise lead them to take risks and behave thoughtlessly. We should give a chance to them to reveal their thoughts and think about probable results. We can make a cost-benefit analysis and support them to understand possible difficulties and tensions. Furthermore, emphasizing the need for delaying some radical decisions is necessary for psychological support.

### **The Reactions of Elders (65 age and over) to a Trauma**

Another group evaluated as being a high risk one are the elders (65 age and over). Elders, like children and adults experience such reactions as reexperiencing the disaster event, emotional numbness, avoidance of reminders of the trauma, physical arousal reactions. This group is considered to be at high risk because these symptoms can be a sign of the deterioration of their functioning and the worsening of their physical and mental problems. Furthermore, this group might have problems to get support.

Such problems as the feelings of insecurity in daily life, hopelessness and death anxiety, extreme distress, lack of coping skills may be more pronounced in this age group. Creating suitable environments to enable them to express themselves, making them a part of decision making so that they feel they are in control and giving social support are important for elders after disaster events.

## The Reactions of Authorities Responsible from Society, Health Personnel and The Members of Non-governmental Organizations Working in Disaster Areas

For the individuals in this group the risk of being negatively affected from traumatic events increases for the young ones and those with little experience in the disaster areas. Also, the ones having previous traumatic experiences are at higher risk for negative reactions. On the other hand, for those who are experienced in working in disaster areas, and those who are trained and prepared beforehand the negative effects are less. The reactions that are seen among these individuals who provide assistance during disasters are as follows:

- Apart from the stress of the disaster area, feeling obliged to take on many tasks simultaneously with their own tasks
- Stress and chronic fatigue becoming part of their daily lives
- Feeling sad and guilty due to the feeling of inadequacy and not performing their tasks well
- Feeling embarrassed and guilty by comparing their own conditions with the conditions of survivors directly affected from the disaster and their acquaintances
- Making excessive identification with the conditions of the disaster survivors,
- Feeling depressed, angry and helpless
- Feeling uncertainty and confusion about their jobs and responsibilities,
- Hypersensitivity or excessive insensitivity,
- Being exposed to the anger, ungratefulness and accusations of disaster survivors and feeling distressed
- Feeling burnout as a result of these

The main reasons causing burnout in this group are being subjected to excessive workloads, having no supervision and control over their work, inadequate rewarding, unfair treatment from others, not feeling part of a group and being exposed to value conflicts. It is important for individuals to be aware of early signs of burnout in order to protect themselves and identify these symptoms before the feeling of burnout takes over. These prodromes are being disappointed in ideals, developing a pessimistic and ironic point of view, thinking that their value is not appreciated by their organizations, the feeling of mistrust against workmates and authorities, losing their ambition and enthusiasm about their work, decrease in productivity and attaching too much importance for their own value and seeing themselves as essentials. The most effective way to deal with these problems is to organize support groups and to establish environments where anxieties are expressed, shared and normalized. At the same time, they should pay particular attention to self care and have regular sleep routines, and keep a balanced and good diet. It is also important to plan to have time for themselves and engage in relaxing activities (for example; a short walk, listening to music).

# PSYCHOLOGICAL FIRST AID



Psychological first aid is an intervention aiming to help individuals cope with difficulties and to minimize the negative effects of disasters. Psychological first aid includes protective responses that are performed with the aims of minimizing negative influences of extraordinary conditions such as a disaster, accident or a sudden illness on individuals, helping individuals to cope with such circumstances and to return to their normal lives.

The principles, aims and methods of this approach are formulated by experts around the four principles listed below:

- Explaining the psychological and physiological symptoms of individuals who have experienced the event and the methods of healing based on research results
- Being practical and applicable in the environment where the event has occurred
- Being suitable for individuals from every age and gender who have experienced the event,
- Being culturally appropriate and flexibly applicable

Psychological first aid, as different from other psychological approaches is a protective approach which is not performed with the aim of treatment after disorders but it is performed in environments where events have occurred and before disorders progress as a protective measure. Another difference from other psychological approaches is that an expert health personnel is not necessary to perform them. It is a type of emergency approach performed during the first 72 hours after a disaster in order to protect the psychological state of individuals. Five basic psychological first aid principles are developed and accepted by scientists. According to these principle, the basic tenets of psychological first aid are as follows:

- Assuring and calming

- Enabling sharing
- Normalization (the recognition of possible reactions)
- Returning into normal life and making social support resources available
- Minimizing negative events after disasters
- Informing
- Encouraging the participation of disaster survivors in decisions and tasks and giving the feeling of control
- Assessing to screen for those who may need professional help

These basic features are given in various stages after disasters with the following principles:

- Giving sense of safety
- Calming
- Encouraging self-efficacy and social efficacy feelings
- Improving sense of attachment with others
- Instilling hope

The necessity of taking into consideration these principles within every stage of psychological first aid after a disaster has been recommended (Hobfoll and his colleagues, 2008):

### **Protection**

Survivors need to be directed away from dangerous situations immediately. Since, the less disaster survivors see, smell, hear and feel the stimuli that can cause damage the less they will be affected.

### **Direction and Guidance**

Disaster survivors may not be able to think logically and clearly and can be shocked or can live dissociation or splitting due to the effect of the event. So individuals should be directed away from the disaster area, physically injured survivors and ongoing dangers by giving thoughtful, calm and informative directives.







### **Communicating**

After a disaster disaster survivors may lose contact with their environment. At this stage, supporting, sympathetic and non-judgmental verbal or body language communication is very valuable. However, it is not always possible to provide this. In this case an individual should be directed to support centers where they can contact their close ones and other individuals and reach right and reliable information sources to meet their personal needs.

### **Ranking According to Urgency**

Some disaster survivors may need a crisis intervention to overcome their first panic or mourning reactions right after a disaster. The symptoms of panic are tremor, overexcitement, inconsistency and irregular speech. The symptoms of mourning state are shouting loudly, excessive anger and catatony (freezing). In these cases you should connect to the person in a way to show that you really understand them and have empathy for their pain

### **Accompanying**

In some cases, we can help disaster survivors to overcome psychological effects after the event by just being with them and making them feel that they are not alone

### **The Things That Should Not Be Done During Psychological First Aid:**

- Survivors should not be compelled to share their stories or special private details
- Unrealistic consoling statements should not be made
- Individuals should not be directed about what they should have felt in the past or now, about what they should think or do
- Statements about the past actions, that can not be changed, "I wish you did not do this" should not be made



- Trying to explain and comment about the problems of disaster survivors in terms of our own value system
- Giving promises that cannot be kept
- Criticising help activities in front of the disaster survivors even if failures are noticed

### **The Things That Should Be Done During Psychological First Aid:**

- Establishing empathy and showing survivors that they are understood
- Getting permission from the disaster survivors for psychological first aid applications and introducing oneself. Talking warmly and softly, making eye contact and addressing the survivor if possible by using his/her name
- First of all, meeting basic physical needs of survivors and paying attention to urgent medical conditions
- Listening to the survivors who want to share their stories and feelings and not commenting whether it is a true or a false feeling. Being friendly, compassionate and calm
- Asking support for collaboration from survivors and giving simple but exact information about the event, losses, rescue and help works and needs and repeating this frequently
- Ensuring that disaster survivors are together with their families and acquaintances. Family members need to be kept together
- Giving practical advice to the survivors to ensure that they can themselves meet their own needs
- Directing disaster survivors to resources from where they can get help and instilling hope by giving information to remove their fears and anxieties





# SUGGESTIONS FOR VOLUNTEERS AND OFFICERS WORKING IN DISASTER AREAS

## **The required features of individuals helping survivors of an earthquake and similar disasters**

- Having taken psychological first aid training.
- Being accessible in long working hours.
- Being suitable to work in difficult circumstances, in temporary shelters and primitive circumstances.
- Having the tolerance to work in ambiguous and changable circumstances.
- Being able to establish relationships with individuals coming from different age, ethnic origin, social, economic and educational levels.
- Being sensitive about taking responsibilities and being able to work in an organizational structure.
- Being able to make educational and instructional presentations to survivors and nonexpert volunteers.
- In contacting survivors being able to take all the details of what they went through and giving information to survivors about suitable resources and problem solving skills.
- Being able to make eye contact with the survivors, displaying a self-assured attitude and making them feel that they are listened to in a friendly way.
- Having respect for survivors and not being judgmental.
- Being able to use active listening principles during an interview with a survivor; allowing silences and communicating also with body language.
- Being able to reflect all the things told by a survivor and the emotions they have shown back to the survivor and to get feedback about whether the survivor was understood correctly.
- Giving feedback to survivors about the feelings that they have displayed during the communication and making them aware of these feelings.
- Letting the survivors express their feelings and give them adequate time.

## **Suggestions for volunteers and other non-expert individuals providing psychological first aid:**

### **The Things That Should Be Said**

- Their reactions to the event are normal.
- Their feelings are very understandable.
- The severity of their reactions and emotions will decrease over time.
- They are doing the best they can.
- Nothing may be as before but the conditions will change and get better with time and they will feel better.
- Ask survivors what you can do for them.
- Tell them that you have got time and if he/she wants, you can listen to him/her.

## **The Things That Should Not Be Said**

- Worse could have happened.
- Whenever you want, you can buy a house, car and animal again. You can start life again.
- I know how you feel now.
- You should go on with your life.
- You cannot die with the dead ones.
- Health is more important than loss of wealth.
- You should forget as soon as possible what has happened.
- They are in heaven now.
- Look at your state, you should think about your dearest ones, they need you.
- Think of the ones who are in a worse condition than you.
- You are young and you will get over it.
- This is fate and you should accept it.

In brief, individuals help providers should give an opportunity to survivors to express their experiences, emotions and perspectives and should respect and understand them. This is the right way to help.

## **Suggestions for psychological first aid providers for combatting feelings of burnout:**

- Getting support and approval from colleagues and family members before going to the disaster area.
- Not to carry unnecessary belongings to the area and making preparations to have sufficient personal supplies.
- Taking along the necessary training materials and equipments.
- Sparing some time to himself/herself after returning home.
- Giving breaks for resting.
- Being careful about nutrition and sleep.
- If he/she smokes, trying not to increase cigarettes and avoiding using alcohol.
- Sparing some time for activities that will reduce his/her stress and make him/her relax.
- Keeping contact with family and friends.
- Making new friends.
- If the stay in the disaster area is for a long period of time, taking special care of the physical surrounding and trying to enrich it.

# GLOSSARY

**Agitated:** restless, irritable, expansiveness.

**Depression:** a mood disorder which negatively affects the feelings, thoughts and behaviors of an individual and causes dysfunctions in physical health and various areas of life.

**Delusion:** a belief that does not fit with the reality.

**Disassociative disorder:** separation, splitting, depersonalization, loss of the sense of reality.

**Disorganised behavior:** strange, weird and dissociative behaviours.

**Empathy:** being able to understand the feelings of others and their conditions or the motivation in their actions and being able to put oneself in another's place.

**Flashback:** revival of the trauma mentally again in a disturbing way /Conjuring up a mental picture of it, having intrusive images of the trauma.

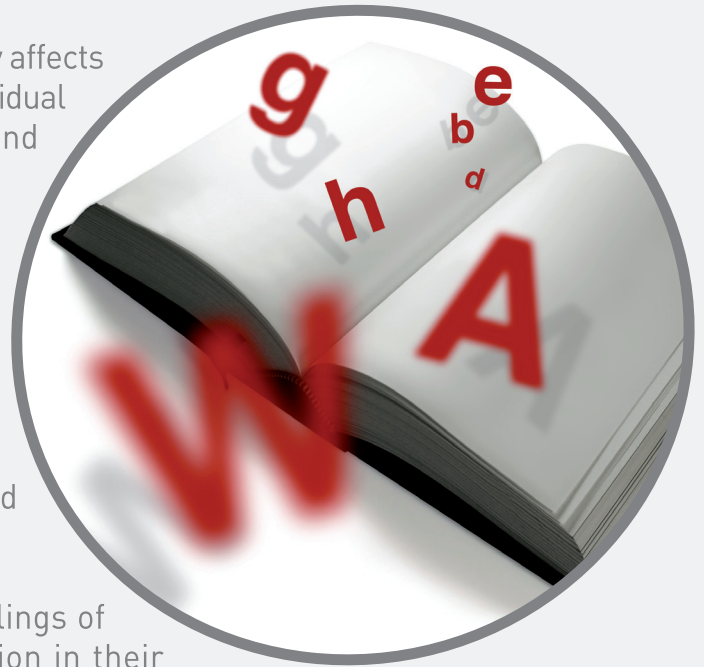
**Hallucinations:** false perceptions that occur in the absence of objective stimulation.

**Illusion:** is a perceptual experience of a stimulus pattern in a false manner.

**Catatony:** standing without moving for a long time in a certain condition.

**Post-traumatic growth:** it is a concept that is used to describe some positive changes that may occur after the trauma, as a result of coping with traumatic events.

**Trauma:** events that threaten the personal integrity of the individual, involving death and injury to self or others and are reacted with extreme fear and terror.



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## **ISMEP DISASTER PREPAREDNESS TRAINING PROGRAMS FOR COMMUNITY**

- Non-structural Risk Mitigation Against Earthquake
- Structural Retrofitting Against Earthquake
- Structural Risk Mitigation Against Earthquake
- Disaster Emergency Aid Planning Guide for Educational Institutions
- Disaster Emergency Aid Planning Guide for Healthcare Organizations
- First 72 Hours for The Individual and a Family in an Earthquake
- First 72 Hours for Disabled People in an Earthquake
- Disaster Emergency Aid Planning Guide for Industries and Working Places
- Survival Under Extraordinary Conditions
- Psychological First Aid in Disasters
- Disaster Preparedness for Local Disaster Volunteers
- Compulsory Earthquake Insurance Awareness
- Urban Planning and Construction for Disaster Mitigation
  - For Local Decision Makers
  - For Technical Staff
  - For Community Representatives

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