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MODULE 9

The Emotional Impact of Disaster on Children and Families

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INTRODUCTION

In addition to their profound effects on the life and infrastructure of communities, disasters produce a massive collective stress exceeding the ability of the affected population to cope with the physical, emotional, and financial burdens. Disaster episodes affect millions of people and exert a collective social suffering that requires a monumental effort by individuals, communities, societies, and the world community to overcome.

Classically, relief efforts focus on the physical consequences of disasters by providing immediate medical attention and addressing health and environmental services (water supply, sewage disposal, and shelter). Only in recent years have the short and long-term consequences on mental health and psychosocial well being of individuals, families and communities been taken into consideration. By definition, coping with a disaster challenges individual and community adaptive capacity.

Children and adolescents are emotionally vulnerable to their experiences during a disaster. However, a child's reaction to a disaster varies widely depending on circumstances such as: (1) the extent of exposure to the event, (2) the amount of support during the disaster and its aftermath, and (3) the amount of personal loss and social disruption. In addition, the child's response and adaptation are influenced by the child's developmental stage, degree of dependency on adults, unique

individual characteristics, and the child's previous experiences. In most cases the child's emotional response after a disaster represents "expected" adaptive behaviors. However, this "expected" adaptive behavior can become a significant mental health problem that will chronically impair a child's social and emotional development when it is too intense or persistent. Therefore, identification of intense and problematic responses needs to be followed by adequate support and treatment, according to the emotional needs and developmental stage of each child and taking the social supportive networks in consideration.

Interventions to promote emotional wellbeing and to protect children against adverse outcomes should be informed by a resilience perspective and can often consist of strengthening supportive factors in social ecology of the child. Paramount is to restore safety and routine in the life of the child, and promote a sense of agency and self-efficacy. Such interventions can consist of educating adults who provide care (parents, teachers, pediatricians, and other professional staff) about how to help a distressed child, and how to differentiate between normal and abnormal adaptive reactions. Knowing when to intervene is important, because adverse experiences during childhood are associated with a higher risk of later emotional and behavioral disorders. On the other hand, well intended interventions at the wrong time can disturb the natural healing and recovery and make things worse.

Interventions need to be situated in a multilayered response system that works on various levels, such as individual support for those who need it, as well as strenghtening family and community support mechanisms. Many useful interventions can and should be done by non–specialists since the availability of pediatric mental health professionals is often limited, especially in low and middle income countries, Even high income countries may lack specialists in rural areas, and disasters may disrupt access or overwhelm resources even where the supply is nominally adequate. Training pediatricians, nurses, other professional staff and school based staff has the potential to greatly enhance the effective management, early intervention, and support for children and families affected by a disaster, so that the majority of impacted children will adjust and recover functioning.

This module provides information on the emotional consequences of exposure to massive incidents among children and adolescents. This module describes the criteria for the identification of more serious mental health disorders, and proposes strategies for the referral and management of children at different developmental stages.

EMOTIONAL VULNERABILITY IN CHILDREN AND ADOLESCENTS IN DISASTER SITUATIONS

OBJECTIVES

- Describe the types of childhood experiences that impact the vulnerability of children and adolescents.
- Identify the major factors that influence the emotional impact of disasters on children and adolescents.
- Describe how adaptation to mass adversity is a dynamic process involving interaction between interrelated systems (individual family, community, society).

The human impact of a disaster is affected by the vulnerability of the children and adolescents involved in the event.

The psychological well-being of individual children is influenced by the following: 1) the type and intensity of exposure to the event, 2) the availability of family and community support during the event and during recovery, 3) the degree of day-to-day life disruption, and 4) the amount of social disorganization and chaos and the extent to which community social cohesion is maintained. In addition, vulnerability depends on individual characteristics of the child, the social and economic circumstances of the family and community, and the available resources in the surrounding environment and community.

Individual Characteristics that Influence Vulnerability

Emotional reactions in children vary according to the personal characteristics of the child or adolescent:

- **Age or developmental stage (physical, psychological, and social)**
- **Degree of dependency on adults in the family or caregivers**
- **Gender**
- **Previous physical and mental health**

Vulnerability also depends on individual characteristics of the child, the social and economic circumstances of the family, community, and the available resources in the surrounding environment.

Age or Developmental Stage of the Child

A child's age and developmental stage will modulate the emotional response to disaster (See Appendix on page 42). If not physically impaired by the disaster, most children will be able to resume normal play, educational, and other developmentally appropriate activities.

Degree of Dependency on Adults in the Family or Caregivers

Infants, toddlers, and preschoolers are nearly completely dependent on adults for their care. School-age children are also very dependent on adults. Adolescents, while less dependent, may lack experience

In spite of their vulnerability, many girls and boys have inner resources that enable them to be more resilient than many adults in disaster situations.

and cognitive ability to understand and anticipate the immediate or longer-term consequences of the disaster. On the other hand, adolescents may be more self-sufficient and react in a manner somewhat independent from their caregivers. The adaptive capacity of nearly all children is influenced by the physical and emotional availability of their caregivers, but this is especially true for younger children. They may experience intense feelings of abandonment when separated from adults in the family who have been injured, dislocated, killed, or who are doing community work work and thus not available in ways they would normally be.

Gender

Cultural and biological differences between girls and boys make it more likely for boys to have more disruptive or externalizing behavioral symptoms and longer recovery periods than girls. Boys tend to react with aggressive behavior, violence, substance abuse and antisocial attitudes. Girls, on the other hand, are more at risk for internalizing disorders such as depression and anxiety. In some cultures, girls may be more willing and able to verbalize their experiences, though this may not extend to sexual victimization, which is often highly stigmatized and can have serious social consequences. Both girls and boys are at risk for interpersonal and sexual violence (including rape) during and following a disaster.

Previous Physical and Mental Health

Having a chronic physical disease is a risk factor for poor adaptation following a disaster. In addition, a previous history of trauma, loss, family distress, or emotional/behavioral problems increases the likelihood of a more intense and persistent emotional disturbance after disasters. Children who have been receiving medication for mood or behavior may be additionally at risk after a disaster if the supply of medication is disrupted or if they experience side effects from sudden discontinuation.

Factors that Influence the Emotional Impact on Children in Disaster Situations

Events that cause a great deal of damage or long-lasting disruptions, or occur with little warning, tend to cause a greater degree of distress. Factors that influence the type and intensity of the emotional impact experienced by affected children are shown in **Box 1**.

BOX 1. Factors that influence the emotional impact on children in disaster situations

- Characteristics, extent and duration of the disaster
- Direct exposure to disaster
- Earlier exposure to disaster and chronic adversity
- Perception of life-threat to self or significant other
- Separation from caregivers
- Physical injury
- Effects on parents or caregivers
- Inner resources of the family, and relation and communication patterns among the family members
- Exposure of children to mass media
- Cultural and context differences
- Degree of disorganization and loss of social control in the community
- Community response

Resilience

Resilience, or the ability to 'bounce back' and to thrive in the context of adversity, is the ability of a system exposed to hazards to resist, absorb, accommodate to and recover from the effects of adverse events in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. Resilience is a multidimensional construct, that is dependent on both the capacity of the individual, and the capacity of the social and physical environment to facilitate the individual's coping with adversity. It is thus a dynamic concept. Rather than a 'trait' of a person it is the outcome of a process involving developmental factors, promotive and protective influences and vulnerabilities in the person and the ecological system. Resilience is a dynamic concept that can be used to describe processes within a person (e.g., stress-response system or the immune system), or in larger systems such as the family or community. Consequently, when assessing symptoms of emotional distress of children in the aftermath of disasters also include an evaluation of the capacity of the child's social environment to provide resources that may mitigate the impact of exposure. These protective resources can be found at family, peer, school, and community levels. It is essential to make these resources easily available. More resilient children are able to focus their energy on developmentally appropriate activities such as play, friendships, and learning. To the extent possible it is best to minimize the degree to which children are made to assume parental roles that are inconsistent with their own developmental and emotional needs. Older children, however, may benefit from involvement in activities that provide meaning, structure.

Using a resilience framework implies a dynamic view on the interaction between a person and the environment: resilience can be promoted by strengthening factors in the individual child, but also by strengthening factors in the social or material ecology of a child. The resilience communities and individuals is determined by the degree to which the community and person has the necessary *resources* and is capable of organizing itself, both prior to and during or after a disaster.

Among the most important protective factors for emotional wellbeing of children after disasters are secure and ongoing attachment relationships, self regulation skills, maintaining a sense of agency, and being in an ongoing supportive social system such as school or other child-nurturing facility.

In emergencies, ensuring that basic needs are met and a basic level of safety is installed are both paramount. Efforts to strengthen families must be a priority: a loving and caring family is a key protective factor in strengthening a child's resilience and supports a healthy development in spite of a crisis and adversity. Equally important is that children as soon as possible have access to education, health services and opportunities for play and social interaction.

While reading this module it should be taken into consideration that it is not so much the risk factors and protective fac-

The emotional consequences of man-made events are more severe than those that arise from natural disasters.

Disasters may generate situations of chaos and disruption that undermine the normal rule of law and lead to desperate and criminal behavior.

tors per se, but their dynamic relationship that predict good or bad outcomes.

Type, Extent, and Duration of Disaster

Acute situations of short duration that generate few changes in everyday life cause less psychological damage than those that are prolonged and cause extensive damage to the social environment.

Direct Exposure to Disaster

When children are direct witnesses to the impact of a disaster, the emotional consequences are more severe.

Perception of Life-threat to Self or Significant Other

Children's subjective perceptions of the disaster and its effects are an important influence. A perceived threat to an individual's life is as important to assess as any objective risk, since the perception of a life-threat is a strong risk factor for developing an emotional disorder. In children, their belief that their parent might die is also a significant risk factor for developing emotional problems, more than the event itself.

Separation From Caregivers

Children who suffer potentially traumatic events are more likely to develop lasting emotional probems if they are not with their parents—or are separated from their parents—immediately after the event.

Physical Injury

Physical injury and related pain is associated with chronic PTSD symptoms.

Effects on Parents or Caregivers

Children are sensitive to how a disaster has affected families and community. Adults, who normally provide support, protection, and stability, may be unable to provide shelter, food, or safety. They may fail to respond appropriately to their child's emotional distress because they are incapacitated by their own emotional response. Children are affected by their caregiver's response to an event. An over-whelmed caregiver frequently leads to a distressed child. Emotional or behavioral disorders manifested by caregivers increase a child's feelings of insecurity and fear; making long-term emotional and behavioral disorders more likely.

Family Inner Resources: Relationships and Communication among Family Members

Families characterized by tense and conflicting relationships prior to the disaster are more likely to react in nonadaptive and disorganized manners. This reinforces feelings of helplessness and insecurity in children.

Exposure of Children to Mass Media

Repetitive exposure of children to terrifying images on television has an emotional impact on them. Children may misunderstand these images and believe that the event is ongoing or more severe or closer to them than in reality. Graphic images can overwhelm and frighten younger children, and impact older children and adolescents as well. Indirect exposure to disaster through TV images is associated with anxiety and other emotional distur-

bances in children not directly exposed to the disaster. Adults should monitor and restrict images that their children are exposed to through all media, but especially through television. Social media may also be a source of distressing images and inaccurate information. Having accurate information available on the internet may be desirable.

Cultural and Contextual Differences

Children and families who have previously endured traumatic experiences, or have lived with chronic adversity, including violence, abuse, separation from caregivers, abject poverty, discrimination and social exclusion have a greater risk of experiencing serious adverse emotional reactions to disaster. A strong and extensive social network may serve as a protective buffer. Likewise, some religious beliefs may serve as protective factors for children and their families.

Degree of Disruption and Loss of Social Control in the Community

Disasters may generate situations of chaos and disruption that undermine the normal rule of law and lead to desperate and criminal behavior such as looting, robbery, and vandalism. The frequency of interpersonal violence including rape of women and sexual abuse of children increases in these circumstances.

Community Response to the Needs of Children Affected by Disaster

The more social cohesiveness the community retains, the quicker that society will gain a sense of stability, normalcy, or, at least, hope. Communities recover quicker if prior to the disaster they have prepared a plan for responding and rebuilding. Having a community response and recovery plan that is implemented in a prompt, effective, and coherent manner will create a more supportive environment that lessens the risk for long-term emotional disorders. Schools may be a good place to have simulations and or drills for disaster preparedness.

CHILDREN'S EMOTIONAL RESPONSE TO DISASTER

OBJECTIVES

- Know the stages of the emotional response to a disaster.
- Know the most common emotional disorders in children exposed to disaster situations.
- Recognize the cases that require referral for mental health professional assistance.

Normal Emotional Response

When a child is exposed to a disaster, the emotional responses can range from minimal distress to inattention, fear, lack of enjoyment (anhedonia), anxiety, and depressed mood, to symptoms of re-experiencing, avoidance, hypervigilance, and disruptive behavior.

In many instances these symptomatic reactions are considered normal responses to a traumatic experience and are time-limited. Children, however, may also have significant impairment and chronic symptomatology. As emphasized in the mhGAP Humanitarian Intervention Guide, children in humanitarian emergencies are often exposed to major losses and/or potentially traumatic events. Such events trigger a wide range of emotional, cognitive, behavioral and somatic reactions. People with severe reactions are particularly likely to present to clinical services for help. Clinicians need to be able to distinguish between reactions that do not require clinical management, and those who need clinical management. Transient reactions for which people do not seek help and that do not impair day-to-day functioning (beyond what is culturally expected in case of bereavement) do not need clinical management. In these cases, health providers need to be supportive, help address the person's need and concerns, and monitor whether expected natural recovery occurs. People with acute stress or grief may present with a wide range of non-specific psychological and medically unexplained physical complaints. Recognize that help seeking may be a poor indicator of need—various factors including shame, fear of consequences, actual physical barriers may lead people in need to not seek services or resist being identified as in need of help.

Stages of Normal Emotional Response of Children to Disaster

There is a range of emotional responses or reactions that can be seen, some of which are more likely to occur during or immediately after the disaster and some which are more likely to be seen at a later time. The emotional response to disaster are often conceptualized as a linear model with different phases. While this may be valid for many children, it is important that many others

follow different pathways and that this is not necessarily problematic.

The first stage, occurring immediately after the traumatic experience, often include reactions of fear, denial, confusion, and sorrow as well as feelings of relief if loved ones are unharmed. It may also include dissociative symptoms: feelings of emotional numbing, being in a daze, a sense of what has occurred is not real or that one doesn't feel like oneself, or lack of memory for some aspects of the experience (amnesia).

The second stage occurs days or weeks after the disaster. In many children it may be characterized by regressive behavior (in younger children) and signs of emotional stress such as anguish, fear, sadness, and depressive symptoms; hostility and aggressiveness against others; apathy, withdrawal, sleep disturbance, somatization, pessimistic thoughts about the future, and repetitive play enactment of the trauma. Repetitive play may take the form of reenacting the trauma or of distancing the child from thinking about it.

As long as these symptoms do not impair normal childhood activities, they are considered part of the normal recovery process and they can be expected to lessen or disappear after some weeks.

Emotional responses that are persistent and impair a return to normal functioning should be considered pathologic.

Psychological trauma

Historically, humanitarian organizations working on mental health of children in disasters and other humanitarian emergencies often focused on the effects of 'trauma' and particular on post-traumatic stress disorder (PTSD). However, more recently, specialists and practitioners increasingly agree that it is essential not to assume that all children in an emergency are traumatized. In the short term most children show some changes in emotions, thoughts, behavior and social relations. The majority of children will regain normal functioning with access to basic services, security and family and community-based support. Only a smaller number of children showing persistent and more severe signs of distress are likely to be suffering from more severe mental disorders, including post-traumatic stress, and require focused clinical attention. In general, it is recommended not to use trauma terminology outside of a clinical context in order to avoid a focus on traumatic stress disorders at the expense of other mental health and psychosocial problems. See **Table 1**.

Although grief is not a mental disorder, it may require or benefit from professional attention, especially if it is prolonged longer than 6 months, unusually severe with an inability to return to normal function or complicated by an emotional disorder such as depression or PTSD. The proposed ICD-11 contains a separate diagnosis for prolonged grief disorder, characterized by persistent and severe yearning for the deceased, and associated with difficulty accepting the death, feelings of loss of a part of oneself, anger about the loss, guilt or blame regarding the death, or difficulty in engaging with new social or other activities due to the loss. To meet diagnostic criteria, the symp-

The most frequent childhood disorders following a disaster are in the areas of anxiety, mood, and behavior.

Most of the emotional responses of children in the wake of disaster are not pathological by themselves and do not require psychiatric interventions but basic supportive interventions by trusted others in their environment

TABLE 1. Appropriate terminology to use with children and youths in clinical and non-clinical settings in conflict and disaster situations.

Examples of recommended terms (can be used in place of terms to the right)	**Examples of terms that are not recommended to be used outside clinical settings**
Distress or stress Psychological and social effects of emergencies	Trauma
Reactions to difficult situations Signs of distress	Symptoms
Distressed children (children with normal reactions to the emergency) Severely distressed children (children with extreme/severe reactions to the emergency)	Traumatized children
Psychosocial well-being or mental health Structured activities	Therapy
Terrifying events	Traumatic events

Source: Jones (2008)

toms need to persist beyond 6 months after the death and lead to functional disturbance. Traumatic deaths are of particular concern for precipitating severe grief reactions in disasters.

Five factors that increase the risk of "traumatic grief" are:

- Sudden, unanticipated deaths.
- Deaths involving violence, mutilation, and destruction.
- Deaths that are perceived as random or preventable, or both.
- Multiple deaths.
- Deaths witnessed by the survivor that are associated with a significant threat to personal survival or a massive or confrontation with death and mutilation.

The most frequent childhood disorders following a disaster are in the areas of anxiety, mood, and behavior **(Box 2)**. These disorders are reviewed below.

Severe Stress Reaction and Adaptive Disorders (F43), Acute Stress Reaction, and Post-traumatic Stress Disorder (F43.1)

Post-traumatic stress disorder (PTSD) is a clinical entity that commonly occurs after exposure to a traumatic event. A traumatic event threatens the physical or psychological integrity of the affected person, and is associated with feelings of confusion, insecurity, terror, and bewilderment.

Data on the prevalence of PTSD in childhood vary widely, reflecting the individual experience of the children and families as well as the amount of personal and communal loss. However, most children,

BOX 2. Most common emotional disorders in the childhood population exposed to disaster (ICD-10)

- Severe stress reaction and adaptive disorders (F43)
- Acute stress reaction and post-traumatic stress disorder (F43.1)
- Depressive episode (F32) and recurrent depressive disorder (F33)
- Separation anxiety disorder of childhood (F 93.0),
- Phobic anxiety disorder of childhood (F93.1),
- Social anxiety disorders of childhood (F93.2)
- Conduct disorder confined to the family context (F91)

while emotionally affected by a disaster, do not develop PSTD.

The International Classification of Diseases (ICD-10) defines PTSD as a disorder that "arises as a delayed or protracted response to a stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone." The Diagnostic and Statistical Manual of Mental Disorders, 5th ed., Text Revision (DSM V-TR). There must be a documented trigger to PTSD involving exposure to actual or threatened death, serious injury or sexual violation. The exposure must result from one or more of the following scenarios, in which the individual:

- directly experiences the traumatic event;
- witnesses the traumatic event in person;
- learns that the traumatic event occurred to a close family member or close friend (with the actual or threatened death being either violent or accidental); or
- experiences first-hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related).

Diagnostic criteria for PTSD include a history of exposure to a traumatic event that meets specific stipulations and symptoms from each of four symptom clusters: intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity. The sixth criterion concerns duration of symptoms; the seventh assesses functioning; and, the eighth criterion clarifies symptoms as not attributable to a substance or co-occurring medical condition.

Younger children may "act out" the traumatic experience in all its intensity or enact the trauma through repetitive play.

Re-experiencing the Traumatic Event

Children may experience recurrent, intrusive, and pervasive thoughts regarding the traumatic event. This occurs as flashbacks or repetitive dreams, or nightmares. These dreams may not necessarily contain images drawn from the traumatic event; in fact, the frightening dreams may have no recognizable content. Younger children may act out what they have witnessed — in all of its intensity— or they may engage in joyless repetitive play in which themes or aspects of the traumatic experience are re-enacted. Other symptoms include emotional and physiological reactivity to certain reminders (cues) of the event such as smells, images, sounds, or similar emotional triggers.

Symptoms of anxiety may appear at all ages and affect uniformly the adult and childhood population.

Signs of depression such as sadness, hopelessness, and sleep disturbance are common manifestations after a disaster.

Avoidance and Numbing

Affected individuals frequently avoid passing through places, conversations, or situations that trigger any painful recollection of the traumatic event. Avoidance in children may take the form of closing or covering their eyes when in proximity to the traumatic scene or other reminder. They may also have tantrums prior to returning to a site of traumatization. Numbing behavior is recognized when children often lose interest in activities they used to enjoy. A child, who once had a full range of emotional expression, may look withdrawn, restricted, and indifferent. Affected children may also seem emotionally detached from significant others. Some older children and adolescents may report a sense of not caring or doom about the future. These sorts of reactions (both avoidance and increased arousal) can be barriers to providing help. Well-meaning supporters can mis-interpret people's changing the subject, saying they don't care, getting agitated or inappropriate, and various other behaviors during sessions that are intended to address the trauma. It is important to notice and respect these signals and help work on security and control before trying to do more.

It is necessary that children understand that they are not responsible for what happened in order to prevent inappropriate feelings of guilt.

Symptoms of Increased Arousal

Hyperarousal is manifested through sleep disturbance that can include nightmares, fear of sleeping alone, or difficulty initiating or staying asleep. Difficulties in concentration make learning difficult. Hypervigilance and an exaggerated startle response may lead to excessive irritability or angry outbursts and may make interpersonal relations quite difficult, especially within the family.

Other Symptoms

Other associated symptoms that frequently co-occur include regressive behaviors, such as thumb-sucking, enuresis, and encopresis, as well as other phobias and anxieties, multiple somatic symptoms (stomachaches and headaches), and disruptive behavior.

PTSD manifestations vary according to the development stage of the affected child, making it possible to describe them in three groups: preschool-age children, school-age children, and adolescents.

PTSD in Preschool-age Children

Toddlers and preschool-age children can experience PTSD symptoms but they often cannot verbally communicate their distress. Instead, they frequently look withdrawn, silent, indifferent, quiet, fearful, demonstrate regressive behaviors and fears especially increased separation anxiety. They may re-enact intrusive memories through repetitive play of the trauma.

PTSD in School-age Children

Older children can manifest all of the symptoms of post-traumatic stress disorder, including irritability as well as emotional constriction. They often suffer from difficulties in attention that impair their concentration at school. In addition, somatic symptoms, such as headaches and stomachaches, are typical. Their worries about the disaster might

become pervasive. They may attempt to prevent future dangers by asking questions about aspects of the event, including minor details that may seem obsessional. They may also re-enact troubling recollections through play or drawing.

PTSD in Adolescents

Adolescents can experience all of the symptoms of PTSD that adults can. They may have recurrent thoughts or dreams about the incident that may lead to feelings of anxiety, depression, helplessness, and guilt, and suicidal ideation. Occasionally, in an attempt to relieve their distress, they may increase their use of illicit substances. In addition, they may demonstrate rebellious and antisocial behavior.

Depressive Disorders

Signs of depression such as sadness, hopelessness, and sleep disturbance are common manifestations after a catastrophic event. This is especially true when the return to normal routines and settings is delayed or impossible. Symptoms of depression can be temporary or chronic and may require intervention of medical and mental health professionals. Pediatricians and general practitioners who care for children exposed to disaster should identify the appearance and persistence of the following symptoms of depression:

- Sleep disturbance: insomnia, hypersomnia, nightmares
- Eating pattern disturbances: rejection of food or excessive feeding/eating
- Feelings of hopelessness and helplessness
- Feelings of frustration, irritability, restlessness, emotional outbursts.
- Reduced or no interest in usual everyday activities, feelings of discouragement (despondency)
- Reduced or no capacity for enjoyment of activities that were usually pleasant
- Loss of interest in playing
- Loss of interest in relating with peers
- Loss of friends
- Regressive behaviors (going back to earlier developmental stages)
- Tendency towards withdrawal and annoyance
- School performance problems
- Somatic symptoms since they are sometimes equivalent to depressive symptoms (e.g. headaches, stomachaches among the most frequent)
- Suicidal thoughts or suicidal ideation in adolescents and older children, requiring immediate attention by mental health professionals

Anxiety Disorders

Symptoms of anxiety may appear at all ages. Among the most frequent include:

- Fears (often of the dark)
- Irritability
- Restlessness
- Avoidance behavior
- Recurrent stressful thoughts or feeling of being in danger
- Recurrent images
- Attention, concentration, and memory disturbances
- Shaking
- Dizziness, instability I Tachycardia, dyspnea, chest pain
- Muscle contractures
- Gastrointestinal disorders (diarrhea, constipation)
- Sweating

Conduct Disorders of Defiant and Aggressive Behavior

Aggressive behavior is also a frequent outcome among children and adolescents, in boys. Whereas younger children may hit or bite others, older children may get quite violent, especially with their peers, and pushing and fighting becomes common. Rebellious, antisocial, and even criminal behavior can also occur.

When greatly distressed, children and adolescents may enact their distress through emotional outbursts, and other disruptive behavior. Parents may be tempted to over-react to somatic symptoms or pardon disruptive behavior due to feelings of guilt related to an inability to protect their children. Parents should attempt to sensitively provide consistent limits and to provide opportunities to discuss their child's fears, anger, sadness and other emotions without relying upon the child for their own comfort.

Other Manifestations

Children and adolescents frequently express emotional distress through somatic symptoms. The most common include headaches, stomachaches, chest pain, and nausea. These symptoms typically improve when kids are given the chance to express their feelings in an appropriate modality—play, drawing, talking. It is important to be alert to these symptoms and make the corresponding consultation if they persist. Adolescents may turn to new or increased substance use and alcohol consumption.

Special mention is needed for sleep disturbances. Insomnia, refusal to go to sleep, frequent waking, nightmares, night terrors, and fears of sleeping alone are very common. Adults should be sensitive that this is related to a child's sense of security and respond appropriately and flexible. Bedtime rituals should resume; in addition, spending more time with children near bedtime, providing a soothing transitional object (doll, stuffed animal), leaving a light on, and staying with them until they are asleep are possibilities.

Younger children have cognitive processes that are egocentric, and may believe that they are to blamed for not behaving or for negative thoughts and fantasies. Excessive feelings of guilt and inappropriate self-blame may also arise in older children and adolescents for having survived or for being unable to prevent their loved ones from being injured or killed. It is necessary that children understand that they are not responsible for what happened in order to prevent inappropriate feelings of guilt.

Regressive behavior is common, especially among younger children whose developmental achievements are not as well consolidated. They become more dependent on adults, perhaps even clinging to them, and symptoms of separation anxiety or school refusal may appear. They may often regress to thumb-sucking, fearing the dark, wetting the bed, and even have encopretic episodes. For management of bedwetting as a symptom of acute stress in children see **Table 2**.

TABLE 2. Management of bedwetting in distressed children.

- Confirm that bedwetting started after experiencing a stressful event
- Rule out and manage other possible causes (e.g. urinary tract infection).
- Explain that:
  - Bedwetting is a common, harmless reaction in children who experience stress
  - Children should not be punished because punishment adds to the child's stress and may make the problem worse.
  - The carer should avoid embarrassing the child by mentioning bedwetting in public.
  - Carers should remain calm and emotionally supportive.
- Train carers on the use of simple behavioural interventions:
- Rewarding avoidance of excessive fluid intake before sleep
- Rewarding toileting before sleep
- Rewarding dry nights

(Note: With small children star charts and enjoyable activities with a parent work well as rewards)

SPECIFIC INTERVENTIONS

OBJECTIVES

- Describe the different types of interventions for emotional responses seen in children at differing developmental stages.
- Be aware of recommendations to restore routines and child and family functioning.
- Be acquainted with the possible interventions aimed at lessening the emotional impact of disasters childhood.

CASE 1.
An important part of the population in your city has been affected by a flood, prompting an evacuation plan that involves displacement of most people to shelters. You have been summoned as part of the multidisciplinary rescue teams.

- **As a pediatrician, what do you consider to be your role in helping families during the first days?**

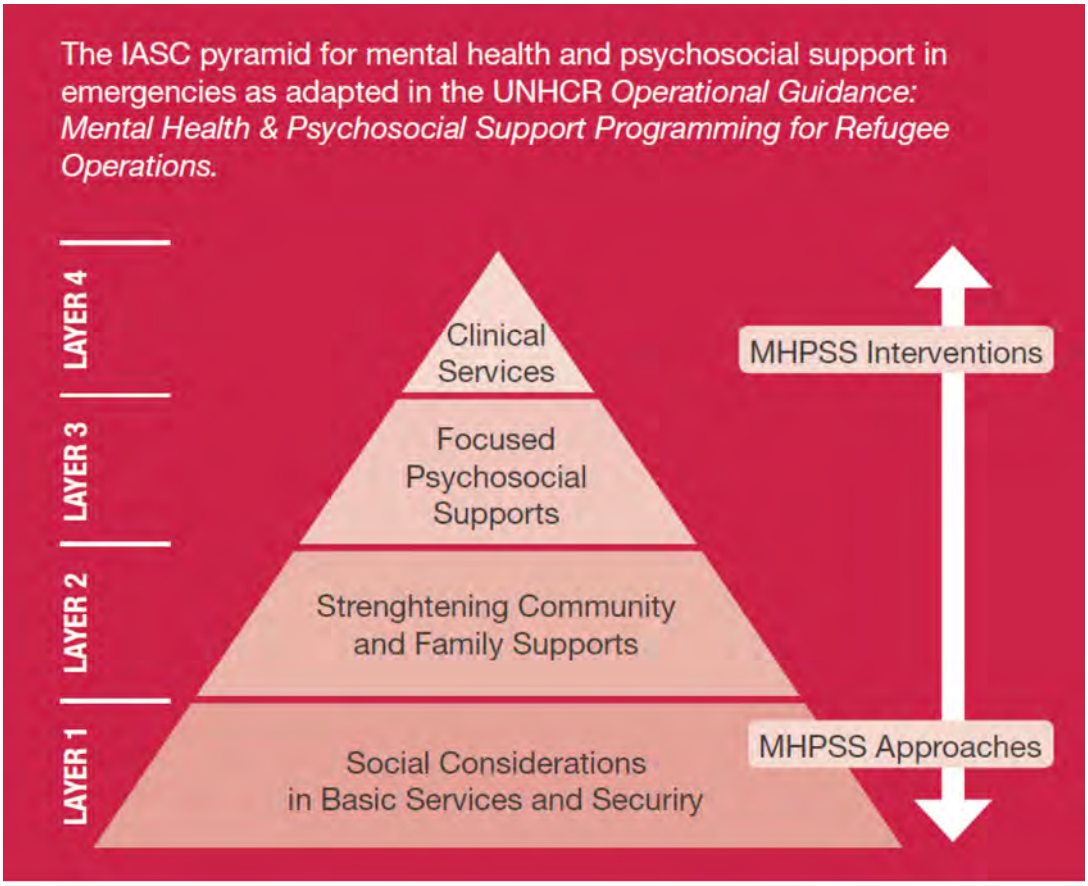
CASE 2.
After an earthquake the population of your town is progressively returning to normal. Children are gradually returning to school.

- **What do you think should be your role in this phase regarding school and school teachers?**

MHPSS Intervention Pyramid

The intervention pyramid represents the interagency consensus around mental health and psychosocial support in humanitarian emergencies as enshrined in the IASC Guidelines for Mental Health and Psychosocial Support in Emergency Settings (2007), and has been endorsed by the major organizations involved in the humanitarian response including United Nations Agencies such as the World Health Organization, UNICEF and UNHCR, and international organization such as the International Federation of Red Cross and Red Crescent Societies, The International Committee of the Red Cross, the International Organization for Migration, and major non nongovernmental organization such as Save the Children, CARE, War Child etc.

It outlines the importance of differentiating specific layers of interventions and supports adapted to different groups. Preventive interventions as well as initiatives that restore safety and a sense of normalcy are complementary to clinical support. This multi-layered framework highlights the need for services to be integrated and holistic. It is not possible for one agency to implement all levels of the pyramid and all levels might not be required at all stages of the displacement cycle or emergency. The layers are not mutually exclusive, so a child that receives support on layer 4 will also need the supports of layer 3, 2 and 1. The conceptual model fosters collaboration and encourages participatory approaches



LAYER 4. CLINICAL SERVICES and professional mental health support for children under significant distress that disrupts their ability to function on a day-to-day basis. Interventions at this level should be undertaken by specialized mental health professionals and the treatment (e.g. counselling or psychotherapy) is often more long-term and should not be disrupted. It is done via individual case management it is preferable to keep the child on site as long as

LAYER 3. FOCUSED PSYCHOSOCIAL SUPPORT is specific assistance provided to children at risk of developing mental disorders. Interventions are not specialized, but should be undertaken by staff with significant training and supervision. Examples could be support groups, peer-to-peer support programs, and structured sessions aimed at strengthening resilience.

LAYER 2. STRENGTHENING FAMILIES' AND COMMUNITIES' ABILITY TO SUPPORT children's learning and development. It is important to promote everyday activities such as attending play and social activities, going to school and options of participation in traditional and community events. Interventions could include child friendly spaces, support for family tracing and reunification, and other family, peer and community support initiatives.

LAYER 1. SOCIAL CONSIDERATIONS IN BASIC SERVICES AND SECURITY implies ensuring or advocating for basic services to be functional and accessible to children and their caregivers. Important activities are re-establishing a sense of safety, ensuring basic services such as water, food and shelter, and access to health services for the whole community, including child-friendly information on where to go for help. This should take into account 'hard to reach' categories of children such as adolescent girls, younger children and children with disabilities. This work represents a general approach carried out by all humanitarian workers.

in which the agency of survivors of disasters is promoted.

Interventions for emotional disorders in children exposed to a situation of disaster

If you are part of a disaster response it is important to have some awareness of the risks of being traumatized yourself or overly activated, especially if you are and have had minimal training. You need to recognize when you are yourself getting overwhelmed when your own resources are limited by the disaster or you have suffered losses of your own.

Children with adverse reactions to stress and behavioral symptoms for more than 1 month are at higher risk of developing emotional or behavioural in the future.

Adolescents may react with withdrawal, apathy, behavioral changes, substance abuse and risk-taking behaviors, but also feelings of guilt, hopelessness, helplessness and sadness.

The issue of early psychological or therapeutic interventions in the first months after a disaster is controversial. Two of the most well known psychological crisis interventions are critical incident stress debriefing and early grief counseling. Masten and Narayanan have stated "While these interventions were widely practiced, they appear not to have positive impacts and may even have negative effects."

In order to prevent doing inadvertently harm and to maximize the use of promotive factors, the current guidance is to use non-intrusive supportive techniques that are summarized under the name Psychological First Aid. See **Box 3**

Most children present first to primary care clinicians or to non-mental health professionals. Primary care clinicians play an important role in educating families about prevention and support strategies, providing early intervention, screening for emotional disturbance, providing less intensive interventions, and referring for mental health and community-based treatment **(Box 4)**. Pediatricians have the capacity to provide appropriate anticipatory guidance and manage emotional conditions early on when these conditions may be ameliorated. Prompt measures to minimize fear and anxiety in children exposed to a traumatic event are essential. These measures should give children the certainty that adults are in control and responding appropriately, and that previous family and community routines are returning. It is necessary to evaluate the child's context; especially the state of the parents, siblings, and disruptionof basic needs. Parents may need their own help and pediatricians

3 BOX 3. Psychological first aid (PFA)

Psychological first aid (PFA) is recommended for children, youth and adults in distress. It is meant to elicit feelings of safety, connection and self-help in people recently exposed to serious crisis events to promote recovery. The major principles of PFA are: look, listen and link. It can be done by anyone who is in the position to help by:

- Providing non-intrusive,practical care and support,
- Assessing needs and concerns
- Helping people to address basic needs (for example, food and water, information)
- Listening to people, but not pressuring them to talk
- Comforting people and helping them to feel calm
- Helping people connect to information, services and social supports
- Protecting people from further harm

PFA workshops of half to one day are helpful for all staff in direct contact with highly distressed populations (for example; health workers, child protection workers, teachers, volunteers, rescue workers, police officers, and people involved in food distribution and shelter).

BOX 3. Pediatrician's role

- Anticipatory guidance
- Manage early disturbance
- Screen for disorders
- Provide less intensive intervention
- Refer for mental health and community-based treatment

should be able to at least give some first-line advice.

Following a disaster, the primary mental health goals in the initial 1 to 2 months are to restore stability, improve social networks, decrease hyperarousal, and help natural recovery seeking. Anticipatory guidance for post-trauma emotional symptoms includes explaining that many symptoms are a normal response, and suggesting ways to help the child and family adapt to the stressor and return to previous functioning. This guidance can be given to individual families, to educators, and to the media. In general, these universal recommendations include the following:

- Return to normal routines
- Be patient and supportive and give children time to adapt to his/her distress
- Continue to set normal and appropriate limits on the child's behavior
- Allow children to talk about his/her worries and feelings if the child wants but never pressure the child to talk
- Encourage the child to spend time with friends
- Encourage children to return to his/her previous developmental tasks
- Parents are encouraged to deal with their own feelings and get support and treatment if indicated

More in-depth individual counseling and anticipatory guidance should be developmentally based **(Box 5)**.

Notification of Death

One of the most difficult experiences that a pediatrician will have during a disaster is notifying the family of a death, whether a child or parent has died. It is best to do this in person and not in a telephone call whenever possible, regardless of the time of day. It will also be preferable to deliver this news in a private place, away from the distractions of ongoing care to patients. The manual entitled Pediatric Terrorism and Disaster Preparedness: A Resource

BOX 4. How can we help children?

Recommendations for promoting adjustment to stressful and traumatic events

A. Understand emotional reactions

- Pay attention to behaviors at home and at school or daycare
- Acknowledge and accept behavior as normal adaptations to stress

B. Reduce the emotional impact

- Provide support, comfort, and time for play and discussion
- Model healthy coping behavior
- Have parents seek help if needed

C. Facilitate recovery

- Normalize routines as soon as possible
- Listen to children and validate their feelings
- Encourage activities that help them express their feelings: different type of games, art-related activities, etc.

The best way to reduce the emotional impact of disaster is to try to keep the family together and the parents functioning well.

Adolescents need a space to talk about the events, with freedom to ask all the questions they have.

for Pediatricians describes the notification process as follows:

"After notifying the survivor(s) of the death, pause to allow both the information to be processed and emotions to be expressed. Do not try to fill the silence, even though it may seem awkward. Listen more than you speak. Silence is often better than anything you can say. Stay with the family members as they are reacting to the news, even if they are not talking.

- Use clear and simple language. Avoid euphemisms such as terminated, expired, or passed away. State that the individual died or is dead.
- Don't provide unnecessary graphic details. Begin by providing basic information and allow the individual to ask questions for more details.
- Don't lie or speculate. If you do not know the answer to a question, say so. Try to get the answer if possible.
- Be conscious of nonverbal communication and cues, both those of the family as well as your own.
- Be aware of and sensitive to cultural differences. If you do not know how a particular culture deals with a death, it is fine to ask the family.
- Consider the use of limited physical contact (e.g., placing a hand on the family member's shoulder or providing a shoulder to cry on). Monitor the individual's body language and if at all in doubt whether such contact would be well received, ask first.
- Realize that the individual may initially appear to be in shock or denial. Expect additional reactions, such as sadness, anger, guilt, or blame. Acknowledge emotions and allow them to be expressed without judgment.
- Do not ignore or dismiss suicidal or homicidal statements or threats. Investigate any such statements (often this will be facilitated by the involvement of mental health professionals) and if concerns persist, take appropriate action.
- Just before and during the notification process, try to assess if the survivors have any physical (e.g., severe heart disease) or psychological (e.g., major depression) risk factors, and assess their status after notification has been completed.
- If possible, write down your name and contact information in case the family wants further information at a later time. If the situation is not appropriate for providing your name and contact information, then consider how the family may be able to obtain additional information in the future (even months later).
- Do not try to "cheer-up" survivors by making statements such as "I know it hurts very much right now, but I know you will feel better within a short period of time." Instead, allow them their grief. Do not encourage them to be strong or to cover up their emotions by saying "You need to be strong for your children; you don't want them to see you crying, do you?" Feel free to express your own feelings and to demonstrate empathy, but do not state you know exactly how family members feel. Comments such as "I realize this must be extremely difficult for you" or "I can only begin to imagine how painful this must be to hear" can demonstrate empathy. Avoid statements such as "I know exactly what you are going through" (you can't know this) or "You must be angry" (let the individual express his or her own feelings; don't tell the per-

son how to feel) or "Both my parents died when I was your age" (don't compete with the survivor for sympathy). Provide whatever reassuring information you may be able to, such as "It appears your husband died immediately after the explosion. It is unlikely he was even aware of what happened and did not suffer before he died." However, do not use such information as an attempt to cheer up family members (e.g.,"You should be happy, many people suffered painful burns or were trapped under rubble for an hour before they died. At least your husband didn't experience that.")

- Feel free to demonstrate that you are upset as well—it is fine to cry or become tearful. If you feel, though, that you are likely to become overwhelmed (e.g., sobbing or hysterical), then try to identify someone else to do the notification.
- After you have provided the information to the family and allowed adequate time for them to process the information, you may wish to ask questions to verify comprehension.
- Offer the family the opportunity to view the body of the deceased and to spend some time with their loved one. Before allowing the family to view the body, the health care team should prepare it for viewing by others. A member of the healthcare team should escort the family to the viewing and remain present, at least initially.
- Help families figure out what to do next. Offer to help them notify additional family members or close friends. Tell them what needs to be done regarding the disposition of the body. Check to see if they have a means to get home safely (if they have driven to the notification, they may not feel able to drive back safely), and inquire if they have someone they can be with when they return home.
- Help survivors identify potential sources of support within the community (e.g., member of the clergy, their pediatrician, family members, or close friends).
- In mass disasters it may be challenging to arrange for a dignified burial with appropriate and relevant religious or communal rituals. It is important that the family of a deceased child is supported to give their beloved one respectful and appropriate burial. In the chaos of mass disasters this may be difficult to realize and the pediatrician needs to support the family and may have to advocate within the humanitarian community to provide opportunities for dignified burials.
- Take care of yourself. Death notification can be very stressful to health care providers.

Counseling Interventions according to Age

The general recommendations provided by the Pan American Health Organization for children and adolescent psychosocial care in a disaster situation can be found in the Appendix page 39. The chart describes the recommendations for parents and teachers for sleep disorders, excessive clinging, incontinence, regressive behaviors, school problems, anxiety, aggressiveness, rebellious, hostile and reckless behavior, pain and somatic complaints, and bereavement.

An understanding of how children may view death and adjust to loss is critical to

providing psychosocial counseling and care. As described in *Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians*, children's understanding of death may be very different from that of adults. Children have had far less personal experience of loss and have accumulated less information about death. They can also have difficulty understanding what they have seen and what they are told unless the basic concepts related to death are explained to them. Adults will need to provide especially young children with both the basic facts about what happens to people after they die, as well as the concepts that help them to explain those facts. For example, young children may be told that after people have died, their body is buried in a cemetery or turned to ashes that can then be buried or scattered. Children can be very distressed by these facts unless they are helped to understand the concept that at the time of death, all life functions end completely and permanently—the body can no longer move, and the person is no longer able to feel pain. That is why it is okay to bury or cremate the body.

Children need to understand four concepts about death to comprehend what death means and to adjust to a personal loss: irreversibility, finality, inevitability, and causality **(Table 2)**. Most children will develop an understanding of these concepts between ages 5 and 7, but this varies widely among children of the same age or developmental level, based in part on their experience and what others have taught them. When faced with a personal loss, some children 2 years old or younger may demonstrate at least some comprehension of these concepts. Adults should not underestimate the ability of young children to understand what death means if it is explained to them properly. Therefore, it is best to ask children what they understand about death, instead of assuming a level of comprehension based on their age. As children explain what they already understand, it will be possible to identify their misunderstandings and misinformation and to correct them accordingly.

When providing explanations to children, use simple and direct terms. Be sure to use the words "dead" or "died" instead of euphemisms that children may find confusing. If young children are told that the person who died is in "eternal sleep," they may expect the deceased to later awaken and be afraid to go to sleep themselves. This description does little to help children understand death and may cause more confusion and distress.

Religious explanations can be shared with children of any age, but adults should appreciate that religious explanations are generally very abstract and therefore difficult for young children to comprehend. It is best to present both the facts about what happens to the physical body after death, as well as the religious beliefs that are held by the family. Even when children are given appropriate explanations, they still may misinterpret what they have been told. For example, some children who have been told that the body is placed in a casket worry about where the head has been placed. After explanations have been given to children, it is helpful to ask them to review what they now understand about the death.

TABLE 2. Concepts of death and implications of incomplete understanding for adjustment to loss

Concept	Example of incomplete understanding	Implication
Irreversibility		
Death is seen as a permanent phenomenon from which there is no recovery or return.	Child expects the deceased to return, as if from a trip.	Failure to comprehend this concept prevents child from taking the first step in the mourning process, that of appreciating the permanence of the loss and the need to adjust ties to the deceased.
Finality (Nonfunctionality)		
Death is seen as a state in which all life functions cease completely.	Child worries about a buried relative being in pain or trying to dig himself or herself out of the grave; child wishes to bury food with the deceased.	Can lead to preoccupation with physical suffering of the deceased and may impair readjustment; serves as the basis for many horror stories and films directed at children and youth (e.g., zombies, vampires, and other "living dead").
Inevitability (Universality)		
Death is seen as a natural phenomenon that no living being can escape indefinitely.	Child views significant individuals (i.e., self, parents) as immortal.	If child does not view death as inevitable, he or she is likely to view death as a punishment (either for actions or thoughts of the child or the deceased), leading to excessive guilt and shame.
Causality		
A realistic understanding of the causes of death is developed.	Child who relies on magical thinking is apt to assume responsibility for death of a loved one by assuming bad thoughts or unrelated actions were causative.	Tends to lead to excessive guilt that is difficult for child to resolve.

Adapted from Schonfeld D. Crisis intervention for bereavement support: a model of intervention in the children's school. *Clin Pediatr* 1989;28(1):27-33. Reprinted with permission of Sage Publications, Inc.

It is also helpful for children to find their own unique way of saying goodbye to someone they have lost; this can be achieved through painting, planting and caring for a tree, praying, lighting a candle, or any other suitable expression. The permanence of the situation can be supported over time.

Children Younger than 12 Months

Focus the care of infants on the fulfillment of their basic needs, such as feeding, sleeping, and general care, and sheltering them during the caregiver's difficult adaptation to the event. Appropriate nurturing care and developmental stimulation (e.g., singing, cuddling, playing) is desirable. Resume daily routines to the extent possible.

Preschool-age Children

The best way to reduce the emotional impact of disaster is to try to keep the family together and the parents functioning well. In this way, children can get the support and care they need.

The most important thing for the emotional health of children who experience disaster situations is to feel loved, cared for, and protected by their parents or caregivers.

The intervention for preschool-age children depends on their symptoms:

- If they become passive and listless, provide them with a routine safe place, where they can feel emotionally connected and have suitable materials for drawing, playing, or other activities. Encourage them to draw people they would like to be with, put names to those people, create a story about the drawing, and make a poster where new elements can be added.
- If they feel scared, provide supportive opportunities for them to express their fears and emotions.
- If the child is having sleep disturbance (nightmares and or fear of being alone at night), try routine calming activities before bedtime, such as reading a comforting book or telling a hopeful story.

These disturbances are usually temporary and fluctuate in severity. It is important for parents to provide gentle structure, reassurance, and some flexibility in routines.

- Regressive behaviors (e.g., thumb-sucking, bed-wetting, and baby-talk) are common responses to stress. They provide some sort of comfort to the child, are not intentional, and usually are transitory. The best manner for parents to respond is to accept this as a measure of how distressed the child is by the situation and to gently encourage her/him to return to their developmental achievements. Parents should avoid criticism, mockery, or annoyance, and should reward developmentally appropriate behavior through praise.
- Give them all the information they need, without unnecessarily alarming them. Answer questions in a truthful but plain and simple way. Do not share descriptions of specifics of loss and trauma with them at this age as it may lead to further traumatization. If they do not understand what is going on and cannot discern their own feelings, help them understand what they feel through playing or drawing, especially if it is shared with parents or caregivers. Caregivers should also share some of their similar feelings and explain how they feel safer now. This helps the child to understand that their feelings are common responses and that they are not alone in having them.
- Children may attribute magical qualities to certain objects or situations (magical thinking) through their egocentric cognitive capacity. They may believe that seeing an object related to the emergency may cause the event to be repeated. Avoid exposing the children to the news media, especially TV.

Images can be retraumatizing, and the children may not understand that the images shown are from a past discrete event rather than new disasters.

- Children separated from close relatives, even for a short period of time, may feel distressed, anxious, and irritable. It is important for parents to understand that this is also likely to be transient, and that they should try to spend more time together as a family, providing the children a safe space to express themselves.

School-age Children

The emotional impact of disaster on children of school age is also strongly related to the adaptation of their caregivers. They comprehend the notion of good and bad, and as they develop, they can verbally express their feelings and emotions. However, disasters typically surpass the ability of many people to cope and it is common for children to feel confused and worried about their own reactions.

An appropriate response for school-age children is to provide them a safe space where they can share their experience and fears. A dialogue with caregivers can be very helpful, especially if the caregiver is adapting well.

School-age children frequently worry about their behavior during the disaster. They may feel responsible for not having done enough and may blame themselves. It is important to create conditions where they can express their feelings and emotions, and to reassure them that what happened was nobody's fault (particularly in natural disasters), and especially not their fault. Children of all ages (and even adults) may worry that something they did or failed to do, or even just thought or wished about, may have caused or contributed to the disaster or the death of loved ones, even if there is no logical reason for such feelings. Children are naturally reluctant to disclose such feelings of guilt, which may significantly impair their adjustment to the disaster.

When traumatic reminders trigger specific fears, it is important to help them identify and verbalize the setting and/or emotion that elicited those feelings. Although they may be able to understand what occurred, repeated graphic images of the disaster can trigger and exacerbate feelings of fear and anxiety. One way to minimize the impact of media exposure is to watch TV together and mutually share their emotions about the images and the event. Some children will repeatedly re-enact a traumatic situation with obsessive detail, cognitive distortions, and occasionally with an absence of specific information. Frequently the intensity of the emotions is so extreme that children may become overwhelmed. It is important to allow them to cry and express anger and sadness. If this occurs in the presence of supportive parents or caregivers, it can be quite therapeutic. If they are unable to verbally express themselves, art and play material can assist them.

Encourage continued socialization of children, but without making it burdensome. Plan structured activities for the differing developmental stages and interests. These activities are beneficial for children and for the community. For example, children can help with cleaning the school

if it was affected or gathering food for those who had been displaced to shelters.

Provide additional supports, both at home and at school, to assist children in learning and meeting other academic demands.

Adolescents

Provide adolescents with a space to discuss the event and their initial and ongoing response to it. It can also be helpful for a reliable adult to share valid information with them.

Adolescents are frequently self-conscious about their emotions, especially fears generated by the traumatic event. Fears can sometimes create a sense of vulnerability and shame. It may be beneficial for them to share these feelings within a group of peers.

Adolescents may "act-out" what they cannot verbally express. Substance abuse, criminal behaviors, and sexual promiscuity are some possible behaviors. These pose a challenge for the parents and should be addressed by the family, school, and the community.

In addition, abrupt shifts in interpersonal relationships can occur during times of crisis. Changes in familial, peer, and other (teacher) relationships may occur. Provide a safe place for parents and adolescents to talk about these changes and how they affect them. Reflecting on abrupt losses or changes in relationships and how to adapt to these changes may result in a plan on how to redesign the family structure.

Typically adolescents place a high value on the sense of justice. This may lead certain individuals to a strong desire for revenge. Man-made disasters are the ideal situation for feelings of revenge to arise. It is important for adults to acknowledge these emotions discourage this kind of retaliatory behavior. Discuss the real consequences of following these emotions to discourage impulsive revenge.

Adolescents may also need a space to talk about the events, with freedom to ask all the questions they have. Adolescents should be invited to talk about their feelings, but should not be forced by parents to engage in discussions when they are not yet ready. They can also participate in family decisions and help in reconstruction tasks; being provided opportunities where they can help others may assist adolescents in coping with their own distress.

School-based Interventions

Pediatricians should work with schools (and sites that provide daycare) in disaster planning as well as during the post disaster response, because schools are often the best (and sometimes only) setting to deliver mental health services to children after a disaster. Getting children back to school as soon as possible encourages a more normal routine and provides access to emotional support from both teachers and peers. Abnormal grief reactions and mental health disorders such as PTSD are likely to emerge in the school setting. For example, intrusive thoughts and difficulty concentrating may interfere with academic performance and social adaptation. Therefore, school programs that deal with the consequences of trauma and the recovery process may be helpful. These programs should integrate efforts to identify and

refer children in need of more intensive individual evaluation and treatment.

Early Intervention and Crisis Response for Children and Families

http://www.nctsn.org/

Unfortunately, there is no clear empirical evidence for the effectiveness of any crisis response intervention. In fact, the frequently used and previously heralded Critical Incident Stress Debriefing or Management (CISD or CISM) strategies have not demonstrated effectiveness, and in some studies they have proved detrimental. It is strongly advised to stop all forms of compulsory debriefing of disaster. While it is possible that an alternative method of early crisis intervention may be helpful for assisting recently traumatized people, there is at this stage no clear evidence based intervention, apart from Psychological First Aid. There is consensus that providing comfort, information, and support, and meeting the immediate practical and emotional needs of affected individuals can help people cope with a highly stressful event. This intervention should be conceptualized as supportive and non interventional but definitely not as a therapy or treatment. This suggestion recognizes that most people do not develop PTSD and other posttraumatic symptoms immediately. Instead, they usually will experience transient stress reactions that will abate with time. The goal of early intervention is to create a supportive (but not intrusive) relationship that will result in the exposed individual being open to follow up, further assessment, and referral to treatment when necessary. Inherent in this early intervention is the recognition that interpretation or directive interventions are not to be provided. After assuring that basic necessities are available and are not a pressing concern, the basic principles of intervention should be followed. These principles should ensure that no harm is being done in the intervention process and hopefully prevent or reduce symptomatology and impairment.

An international expert panel proposes five broad intervention principles for mass trauma: promote a sense of safety, promote calming, promote a sense of self- and collective efficacy, promote connectedness, and promote hope (Hobfoll, 2007).

- Interventions should be grounded in the basic principles of child development, and providers should be experienced in working with children of different ages and levels of development.
- Mental health providers should have collaborative relationships with community providers to ensure access and community support for children and families.
- Children and families should be assessed for risk factors and symptoms, and interventions should be crafted to address the findings. An essential objective is to improve parental attention and family cohesion through assessment, psychoeducation, and treatment, when necessary, to parents and primary caregivers.
- Providers should make concerted efforts to prevent social disruption and displacement.
- Providers should identify, assess, and attempt to ameliorate or remove children and families from the continued threat of danger.

- Providers should have continued contact and monitor children for symptoms or impairment.

It is often helpful to make handouts or flyers about helpful and harmful coping strategies and where to get help if needed. Individuals should be given an array of intervention options that may best meet their needs. The goal is not to maximize emotional processing of horrific events, as in expo-sure therapy, but rather to respond to the acute need that arises in many to share their experience, while at the same time respecting those who do not wish to discuss what happened.

Seven Key Steps For Communicating With Children In Distress

1. LET THE CHILD SET THE PACE. Children should not be forced to discuss or reveal experiences and the lead should always come from the child.
2. GIVE ADEQUATE TIME TO THE CHILD. Do not expect the whole story to be revealed in one session.
3. PROVIDE EMOTIONAL SUPPORT AND ENCOURAGEMENT. Give this to the child in whatever ways are appropriate to the child's culture and stage of development.
4. ACCEPT THE CHILD'S EMOTIONS. Accept all emotions, for example guilt or anger - even if they seem to you to be illogical reactions to the event.
5. NEVER GIVE FALSE REASSURANCES. Helping the child to face the reality of her/his situation is almost always preferable to avoiding it, provided this is done in an atmosphere of trust and support.
6. TALKING MAY PROVIDE SOLUTIONS. Talking about difficult situations may enable children to work out their own solution, especially in the case of older children and adolescents. Simply listening in an attentive and supportive way can be extremely helpful.
7. SOME REGRESSION MAY BE NECESSARY. Regression is a return to behavior typical of younger children. Children or adolescents may need personal care, affection and physical contact more characteristic of younger children, in order to overcome the emotional problems they are facing.

Adapted from Action for the Rights of the Child

PREVENTION AND DETECTION OF MENTAL HEALTH PROBLEMS

OBJECTIVES

- Understand how pediatricians can provide a perspective on children and adolescents in relation to their families, schools, and communities.
- Be acquainted with the activities that may be effective before, during, and after a disaster, in the direct care of children and their families.

How can Pediatricians Detect Conditions, Intervene and Help Reduce the Emotional Impact of Disaster on Children and Adolescents?

Pediatricians can have a significant role in the assessment of the emotional impact of disasters on children and adolescents. Pediatricians can advise families, teachers, and the community on ways to minimize the emotional consequences of the disaster, help families cope and assist humanitarian workers to do their work in ways that it conducive to child mental health and wellbeing.

The pediatrician is a very significant figure for parents who have entrusted the care of their child to this physician. The pediatrician is also an important link in the child-family-school-community chain. Part of the pediatrician's role is to encourage communication between families, schools, and leaders in the community, and to develop a joint plan that aims to reduce or avoid long-term emotional consequences, and return children to a sense of routine and security. The first aspect pediatricians should address is a plan for their own security and the security of their family. Lack of planning and intense worry about one's own and family's security will undermine the ability to assist others.

Pre-disaster Intervention

Ensure that the emotional needs of children are adequately considered and addressed as part of the anticipatory planning of disasters.

Understanding the physical and emotional needs of children throughout their different developmental stages is important and pediatricians can assist in all phases of planning to create a plan that addresses the psychosocial aspects of children and families.

With this knowledge, one can advise parents, teachers, police officers, firefighters, and others on some of the basic elements needed to prevent or reduce the expected emotional impact on children, and to identify children at high risk

Pediatricians have a fundamental role in the assessment of the emotional impact of disasters on children and adolescents.

If teachers and school personnel are trained to identify the most frequent emotional manifestations of students and how to deal with them, the school can provide an adequate place for children and adolescents to feel safe and confident.

for an intense and immediate emotional disturbance and chronic mental health problems.

Pediatricians can give advice on the emotional needs of children at each developmental stage, and can assist in community collaboration. One way to prepare the community is by giving talks, distributing leaflets or other informational material, and educating the local media.

A pediatrician can also assist in the planning for the placement of available resources and structure of the rescue teams in pediatric hospitals, shelters, and emergency rooms.

Pediatricians should also work together with school personnel in the preparation of programs aimed at helping teachers deal with distressed children. It is important to train teachers and personnel in charge about the specific emotional needs and typical reactions to a disaster.

The pediatrician should talk with parents about the reactions they might expect from their children according to their developmental stage (see Section III). Implementation of this kind of anticipatory planning is especially crucial in those communities considered to be at high risk for being exposed to earthquakes, hurricanes, floods, and other natural disasters. A good and feasible way of to help communities and professionals prepare for helping others is to organize workshops in Psychological First Aid. There are various training materials and manuals. The World Health Organization has made generic materials, and Save the Children have made specific materials for child focused Psychological First Aid. In the United States the The National Child Traumatic Stress Network and the National Center for PTSD have made a comprehensive set of training materials for Psychological First Aid.

During the Disaster

Pediatricians should help community leaders identify the existing resources to deal with the disaster and make sure that those resources are distributed equitably. It is important to participate in disaster-related call centers and educate the mass media in order to educate broader segments of the population. It is also crucial to become integrated into an organized relief and recovery program. It should be kept in mind that children spend many hours at school, and disasters often occur while they are there. Hence, if teachers and school personnel are trained to identify the most frequent emotional manifestations of students and know how to deal with them, the school can provide an adequate place for children and adolescents to feel safe and confident enough to express their concerns and carry on activities appropriate for their age. This will likely reduce the emotional impact and its consequences.

After the Disaster

It is important for pediatricians to be available for consultation to families, schools, and the community in recognizing the different long-term emotional reactions that appear among the childhood/adolescent population.

Once the event is over and the threat has abated, they should give emotional support and guidance to families, especially the parents. Consider referring parents for support when needed, since the parents are the main vehicle by which chil-

dren recover. They should listen and advise parents on how to respond to their child's emotional distress. Clarifying normal reactions and those reactions that are more concerning can be very helpful to parents. If intact, the pediatrician's office should remain a safe place for children and families to feel comfortable, and free to ask for guidance and support. It is ideal to have an adequate place where meetings with the whole family can be held. Encourage dialogue between parents and their children that can be modeled by the pediatrician.

The pediatrician should continue to provide emotional support and facilitate communication among family members. He/she should help rebuild a normal routine so children can regain a sense of security. He/she should be alert to those children with special needs, e.g. those who have been direct witnesses of the disaster, children with previous diseases, or orphans. It is imperative to follow up on children in order to establish the need for specialist referral.

The role of the pediatrician also includes being an advisor to school personnel, helping to screen children for impairing symptoms, and being available for further assessment with treatment or referral of children who have more severe or chronic symptoms.

In addition to providing information that the observed emotional disturbance is transitory, the pediatrician should also counsel families, educators, and the media, that a certain percentage of children will develop long-term symptomatology and impairment benefiting from treatment.

The pediatrician should also be aware of the criteria for a child or adolescent referral to a mental health professional, a specialist, or community-based treatment. Many pediatricians believe it is their responsibility to screen for emotional distress and make referrals after trauma and disaster. Formal screening of all individual can be very helpful and is more suitable than informal screening or routine surveillance (http:/massgeneral.org/schoolpsychiatry/checklists_table.asp).

The identification of mental health disturbance can be complicated by an individual's reluctance to discuss symptoms, and ongoing fears for safety, and by shame and guilt associated with the trauma. It may be difficult for medical providers to inquire about symptoms since they may be affected by the disaster and are uncomfortable with the subject. Those who believe it is not their responsibility or lack suitable training or confidence can still provide suitable anticipatory guidance and counseling, and can identify those vulnerable individuals most at risk for persistent or severe emotional impact. In this regard, special attention should be paid to children who have been direct witnesses of terrorist attacks or slaughter or who have suffered significant losses.

When should Professional Help be Sought?

In most cases, expressions of emotional impact are transient and children go progressively back to normal activities. However there are cases that require referral to a mental health professional.

Once the event is over and the threat has abated, pediatricians should give emotional support and guidance to families, especially the parents.

It is reccommended to implement the needed measures to lessen the potential impact of the experienced disaster situations on the developing personality of the child.

Mental health professional intervention has the following goals:

- To offer the child a safe setting where he/she can talk about his/her feelings and emotions with respect to the situation he/she is undergoing.
- To prevent the symptoms from becoming chronic and interfering with everyday performance.
- To implement the needed measures to lessen the potential impact on the developing personality of the child.

Refer if the child presents:

- Suicidal thoughts or suicidal ideation.
- Symptoms that persist for more than 1 to 3 months and interfere with everyday life.
- Aggressive behavior, threatening his/her own or other people's life.
- Behavioral school problems that interfere with acceptable functioning.
- Persistent (longer than 1 month) with drawal behavior that interferes with social life.
- Frequent nightmares that persist over time.
- Frequent outbursts of anger, annoyance, explosive behavior.
- Persistent (longer than 1 month) somatic complaints.
- Avoiding behavior or anxiety symptoms that interfere with everyday life.
- Alcohol or substance abuse.
- Preexisting problems and risk factors which should be taken into special consideration, since traumatic situations can reactivate previous conflicts with over-whelming effects.

Some communities lack a formal mental health system or are overwhelmed by the needs of the populace. In these instances, innovative community-based treatments can be effective.

The pediatrician can also help mental health professionals by describing local idioms for emotional symptoms, and cultural patterns of distress as well as local stigma associated with mental disorder treatment. The pediatrician should inform parents that many individuals have chronic emotional disturbance after disaster, but that treatment is helpful. The pediatrician can also be helpful to mental health professionals by identifying suitable volunteers in the community. Mature individuals who are motivated, adapting well, and trusted within the community can be trained by mental health professionals to help implement community-based programs.

SUMMARY

Disasters place affected populations in great danger. Only in recent years have we recognized the importance of emotional impact and its short, median, and long-term consequences.

Children and adolescents are an especially vulnerable group, since the reaction to disaster in these age groups depends on their psychosocial developmental stage, individual characteristics, degree of emotional and affective dependency on adults, and previous experiences.

In the aftermath of a disaster, an emotional response is expected in the pediatric population that can be considered a "normal reaction to an abnormal situation." However, if the response becomes very intense or persistent, or the child has an increased vulnerability, more immediate specific support is necessary.

The role of the pediatrician as part of the child-family-school-community chain is crucial, for he/she knows the physical and emotional needs of children in each developmental stage and represents an important source of information, support and help for the community, school, families, and children.

Acknowledging and addressing emotional disturbances in the childhood-population at an early stage is, to a great extent, the most effective way to prevent persistent and long-term disorders.

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Useful resources for mental health and psychosocial support

- Mental Health and Psychosocial Support Network
  – www.mhpss.net
- Mental Health in Emergencies (World Health Organization)
  – http://www.who.int/mental_health/emergencies/en/
  – http://www.who.int/mental_health/publications/guide_field_workers/en/
- National Child Traumatic Stress Network
  – http://www.nctsn.org/content/psychological-first-aid
- Psychosocial Distress and Mental Disorders (Global Child Protection Working Group)
  – http://cpwg.net/resource-topics/standard-10-psychosocial-distress-and-mental-disorders/
- Save the Children: Psychological First Aid Training Manual for Child Practitioners
  – http://resourcecentre.savethechildren.se/sites/default/files/documents/final_pfa.pdf
- UNHCR website
  – www.unhcr.org

Case resolution

Case 1.

It is important to convey the message that emotional manifestations following situations of disaster are the expected adaptive reactions to a chaotic unexpected situation.

The emotional impact on children is related to a great extent to parent's or caregiver's reactions, so it is essential to first listen to them and give them support to minimize the adults' distress.

It is important for parents to know the potential emotional reactions of their children, according to their developmental stage. In the same way, it is important to identify the difference between an expected reaction and one that requires attention.

Case 2.

Children spend a great part of the day at school in contact with their teachers. Therefore, it is essential for teachers to be familiar with the different emotional needs of their students according to their specific developmental stage. Also, teachers need to know the different reactions and symptoms that may develop among their students.

It is important that the pediatrician work together with the school to implement programs aimed at early detection of emotional disturbances.

The role of the pediatrician as an advisor for school personnel is crucial, and he or she should be available whenever required for the assessment of certain students.

MODULE REVIEW

SECTION I - EMOTIONAL VULNERABILITY IN CHILDREN AND ADOLESCENTS IN DISASTER SITUATIONS

1. What individual conditions influence vulnerability in children?
2. What factors influence the emotional impact of disasters on children?
3. What is resilience and what can be done to foster resilience in children affected by disaster?

SECTION II - CHILDREN'S EMOTIONAL RESPONSE TO DISASTER

1. What are the most frequent emotional disturbances in the childhood population exposed to disaster?
2. What are the characteristics of post-traumatic stress disorder?
3. What are the major symptoms in depressive disorders?

SECTION III - SPECIFIC INTERVENTIONS FOR DEVELOPMENTAL STAGES

1. What are the most common reactions in pre-school children?
2. What are the most frequent reactions in school children?
3. How can adverse reactions in adolescents be dealt with?

SECTION IV - PREVENTION AND DETECTION OF MENTAL HEALTH PROBLEMS

1. What is the role of the pediatrician in helping reduce the emotional impact in the childhood population?
2. How should the pediatrician intervene before a disaster takes place?
3. What is the role of the pediatrician during the disaster?
4. What contributions can the pediatrician make after the disaster?
5. What is Psychologcial First Aid and who should provide it?

Summary of the main psychological reactions of children and adolescents in disaster and emergency situations

Age group	Reactions within the first 72 hours	Reactions within the first month	Reactions during the second and third months
0 - 2 years	• Agitated state • Frequent shouting and crying • Excessive clinging to parents (cannot bear separation) • They cannot fall asleep or they often wake up • They overreact to any kind of stimuli and it is difficult to reassure them	• Sleep disorders • Loss of appetite • Excessive clinging to parents • Apathy • Regressive behavior	• Sleep disturbance • Greater tolerance to physical separation • Unjustified crying
3 - 5 years	• Behavioral changes, passivity, irritability, restlessness • Excessive fear of any stimuli, especially of those reminiscent of the event • Spatial disorientation (cannot tell where they are) • Sleep disturbances: insomnia, waking up in a state of anxiety, etc.	• Regressive behavior: bed-wetting, baby talk, thumb-sucking • They cannot bear being alone • Appetite loss or increase • Sleep disorders • Loss of powers of speech or stammering • Specific fears: of real people or situations (animals or darkness) or of imaginary ones (witches, etc).	• School or day care center refusal • Headaches and bodily pain • Food refusal or excessive eating • Repetitive play enactment of the traumatic event
6 - 11 years	• Behavioral changes: passivity • Aggressiveness, irritability • Confusion (they look puzzled) and disorientation (they cannot tell date, place, etc.) • Frequent crying • Regressive behavior • Language impairments	• Unjustified fear • Difficulty keeping still • Difficulty focusing attention • Headaches and other somatic complaints • Repetitive play enactment of the traumatic event	• Difficulty concentrating at school • School refusal • They feel guilty or assume the disaster is a consequence of something they have done or thought • They look withdrawn or shy • Repetitive play enactment of the traumatic event

Age group	Reactions within the first 72 hours	Reactions within the first month	Reactions during the second and third months
12 - 18 years	• Confusion and disorientation • Withdrawal, refusal to speak • They look distracted or as if their mind were elsewhere	• Loss of appetite • Loss of sleep • Headaches and bodily pain • Loss of interest in usual activities	• Rebellious behavior against their family or any kind of authority • Behavioral problems • Escaping from home • School refusal

From: PAHO, Practical guide of mental health in disaster situations. Washington D.C., 2006

General recommendations for children and adolescent psychosocial care in a disaster situation

Observed disturbance	Recommendations for parents	Recommendations for teachers
Sleep disorders	• Reassure them • Be firm about sleeping time • Stay with them for a while • Leave a night-light on • If they wake up fully and are scared (nightmare), reassure them; should they recall the event the following day, talk about the cause of their fears. If they are not fully awaken (night terror), do not wake them, since they will not recall the event the following day	• Identify the problem (for instance, if you notice the child is exhausted)
Excessive clinging	• Reassure them • Encourage physical contact and cuddle them • In case of separation, tell them where you are going, and when you are coming back. Have somebody stay with them	• Allow parents to be in the classroom for some time, reducing it gradually
Incontinence	• Avoid punishments and mockery • Change their clothes and reassure them • Limit liquids at night • Take them to the bathroom before they go to bed and during the night • Show them how pleased you are when they do not wet the bed (tell them so; register the days they have not wet the bed in a calendar, etc.) • Leave a night-light on	• Do not allow mockery or rejection from classmates • Resume school activities as soon as possible
Other regressive behaviors	• Do not punish them (ignore these behaviors) • Make them focus on something else	• Make them focus on something else • Ignore these behaviors

Observed disturbance	Recommendations for parents	Recommendations for teachers
School problems	• Seek rapid school reintegration • Do not punish them for their faults; instead, reward any progress • Seek a return to normal routines at home • Be firm about a reasonable study schedule	• Rapid school reintegration • Partial parental presence (in the case of the youngest children) • Special support in case of poor performance: sit the child in the first row; provide individualized attention at the end of school-day, etc. • Encourage participation • Reward achievements • Prevent discrimination
Anxiety	• Reassure them • Do not transmit them adults' anxiety • Give clear and honest explanations about the past and current situation (avoid making assumptions about an uncertain future) • Explore management strategies with them (breathing techniques, physical activity, etc.)	• Bear in mind that anxiety interferes with attention and concentration and causes restlessness • Reward positive behaviors: staying seated, following instructions, etc • Make periodic evaluations of achievements with them (acknowledgment and reinforcement of positive behaviors) and ignore negative behaviors
Aggressiveness	• Help them face fears gradually; be with them • Set an example as regards self-control • Do not use either corporal or verbal punishment; the best punishment is indifference or a neutral attitude (still lovingly) • Make it clear that aggression to others shall not be allowed • Declare a truce: ignore the aggression while demanding isolation in a supervised place for a short time —"until you are able to control yourself" • Let them know what the desirable and expected behavior is • Encourage channeling of excessive energy, anxiety and anger through non-harmful strategies • Reward self-control achievements (hugs, picture cards, stickers, etc.)	• Do not allow aggressive behaviors. • Declare a truce • Explain what the desirable and expected behavior is • Reward achievements • Punish through indifference
Rebellious, hostile and reckless behavior	• Be patient • Be firm and object to unacceptable behaviors • Set clear rules in the family environment • Encourage communication	• Behavior model • Consider possible external assistance for the family

Observed disturbance	Recommendations for parents	Recommendations for teachers
Pain and somatic complaints	• Rule out any medical condition; if necessary, resort to health services • Establish the relationship between what happens and the symptoms • Do not allow manipulation through symptoms	• Warn parents and facilitate medical aid
Bereavement	• Let them perceive their own sadness • Let them express their feelings and memories freely (sadness, anger, guilt) and talk about it in the family group • Provide company and manifest affection • Do not conceal reality • Do not encourage denial; talk about losses and their permanent nature, despite which it is necessary to "carry on", and try to return to normal life as soon as possible, including individual and collective social activities • Allow their participation in funeral rites (burial, religious services in case of death, etc.) • Counteract possible feelings of anger and guilt explaining the real circumstances of the loss (or death) • Allow adolescents to deal with mourning before they assume new responsibilities	• Inform classmates before the child starts attending classes. Briefly explain what normal reactions the child will have • Provide emotional support • Facilitate spaces to talk with the child individually, but do not focus all your attention on him/her • Encourage participation in regular educational and recreational activities • Check the child's evolution and identify red flags (growing sadness, death or suicidal thoughts, etc.) • Contact parents and coordinate actions

From: PAHO, Practical guide of mental health in disaster situations. Washington D.C., 2006