

Special Needs of Children in Disasters

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Objectives

- Participants will be able to:
- Describe the special needs of children in disasters.
- List long term effects of disasters on children.
- Describe ways to help children in disasters.

CHILD VICTIMS OF DISASTERS

- Children are especially vulnerable during any disaster.
- In general, 75-80% of displaced persons in a disaster are women and children.

Convention on the Rights of the Child

- “In all actions concerning children...the best interests of the child shall be a primary consideration” (article 3)
- A State must ensure the rights “of each child within its jurisdiction without discrimination of any kind” (article 3)

What types of disasters affect children?

- Natural disasters such as tsunamis, typhoons, hurricanes, floods, earthquakes
- Technological disasters including industrial, chemical, and radioactive disasters
- Wars
- Terrorism

Definition

Humanitarian Emergencies

- Natural or manmade disaster situations that lead to displacement of populations with public health, economic and/or political consequences.
- They are situations in which a population does not have basic necessities and in which outside organizations must intervene to provide them.

Humanitarian Emergencies

- Every week there is at least one large crisis that requires external assistance.



World wide, humanitarian emergencies are increasing

- Every day in 2006 there were at least 18 million people displaced by disasters.
- Half of them were children.
- In 1983 there were 6 humanitarian emergencies; In 2006 there were 34.

Current ongoing humanitarian emergencies

- Millions of displaced persons in the Republic of the Congo
- Hundreds of thousands of internally displaced people in Darfur.
- A million displaced people on the Thai Myanmar border

RUSHFORD, MINNESOTA

my hometown

- August 18, 2007
- 18 inches of rain
- Broken dike
- 400 displaced children
- 90% of homes damaged or destroyed

WHO 58th World Health Assembly

- Currently, more than 30 countries worldwide are facing major, often long standing crises
- Twenty other countries are at high risk for serious natural or man made events
- The total number of persons at risk is between two and three billion.

» May 20, 2005

**EACH TYPE OF DISASTER
CAN CAUSE
LONG TERM TRAUMA**

**EACH TYPE OF DISASTER HAS THE
CAPACITY TO CAUSE LONG TERM
SUFFERING AND LONG TERM TRAUMA
FOR AFFECTED CHILDREN.**

Uncertainty about loss of loved ones

- This increases long term trauma
- Every effort should be made to get information and to facilitate psychologic closure with respect to loss of loved ones.

Humanitarian Emergencies

- In these emergencies, children are at risk for:
- Infectious diseases
- Loss of family members
- Physical injuries
- Abuse
- Acute psychological trauma
- Long term psychological trauma
- Malnutrition

Children in Disasters

- Physiologic differences:
 - Enhanced catecholamine responses
 - Maintain “normal vital signs” longer than adults. This leads to delays in recognizing life threatening illness or injury.
 - There is a need for training in how to “decode” vital signs in children

Physiologic Differences

- Children become dehydrated more quickly than adults.
- Careful attention must be paid to clinical signs of dehydration in children.

Children in Disasters

- Behavioral differences
 - Neuropsychologic immaturity
 - Poor judgment by children
 - Abstract reasoning begins at about age 16
 - Responses reflect presence and behavior of family

Unaccompanied Minors

- The most vulnerable children are **unaccompanied minors**, a unique and particularly vulnerable group consisting of infants, children and adolescents who are without any parent or adult guardian secondary to a variety of reasons, including death and separation.

CHILDREN ARE UNSAFE IN DISASTERS

- **PHYSICAL HAZARDS SUCH AS UNEXPLODED ORDNANCE**
- **ENVIRONMENTAL HAZARDS SUCH AS CONTAMINATED WATER AND FOOD, CHEMICAL EXPOSURES, AND EXCESSIVE COLD OR HEAT.**
- **PSYCHOLOGICAL HAZARDS SUCH AS LOSS OF PARENTS, OR CHILD ABUSE.**

RISKS FOR CHILDREN FROM THESE SAFETY HAZARDS

- INJURIES
- POISONINGS
- MALNUTRITION
- INFECTIOUS DISEASES
- ACUTE PSYCHOLOGIC TRAUMA
- LONG TERM PSYCHOLOGIC TRAUMA

The following events are of the greatest significance with respect to children and their families in a disaster.

- Death or physical injury to a family member
- A loss of home or possessions.
- Relocation (school changes)
- Job loss
- Parental disorganization or dysfunction

Factors Affecting Responses

- Perceived or actual life threat
- Duration of life disruption
- Familial and personal property loss
- Parental reactions and extent of family disruption
- Child's pre-disaster state
- Probability of recurrence

- Children require specialized medical care as well as intense psychological support during the acute emergency phase as well as during later recovery and rehabilitation phases of disaster.

Psychological trauma occurs in a child when:

- An event is sudden, unusual, unexpected.
- Disrupts to usual frame of reference with respect to family and environment.
- Overwhelms the child's perceived ability to cope and to be in control.

What does your body do when you are worried or upset?

- “Heart beats fast”
- “Hands sweat”
- “Muscles feel tight”
- “Problems breathing”
- “Face turns red”
- “Tummy hurts”

Chronic Stress in Children leads to:

- Elevated resting heart rates
- Elevated Cortisol levels
- High blood pressure

FOUR GROUPS OF SYMPTOMS EXPERIENCED BY REFUGEE CHILDREN

1. Post traumatic stress disorder
2. Symptoms related to grief and loss
3. Separation anxiety and concern for others
4. Exacerbated or renewed mental health symptoms, after exposure to a reminder of a previous traumatic experience

Pynoos and Nader, 1988

Post traumatic stress disorder

- First defined in DSM III 1980
- Kessler 1995 60% of all men and 51% of all women have at least one traumatic event in their lives.
- Estimated lifetime prevalence of PTSD was 7.8%
- PTSD symptoms usually evident within 3 months following the trauma.

DSM-IV

The person experienced, witnessed, or was confronted with an event that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.

DSM PC Child and adolescent version

- The child or adolescent has symptoms in each of the following three areas for more than one month:
- Persistent reexperiencing of the trauma
- Avoidance of stimuli associated with the trauma
- Increased arousal or hypervigilance

Many Children will suffer repeated trauma after a natural disaster

- The acute frightening experience of the tsunami
- Recognition that loved ones are gone forever
- Recognition that one's familiar home is gone
- Sexual abuse
- Hunger, infectious diseases
- Repeat natural disasters

In addition to symptoms of PTSD, depressive disorder and personality changes, including borderline personality disorder, can persist into adulthood

Dell and Eisenhower, 1990

Herman, Perry, & Von Der Kolk, 1989

More than half the children who were watching television when the space shuttle *Challenger* exploded in January 1986 reported having shuttle – related dreams 5 to 7 weeks after the event, but the occurrence of such dreams had diminished substantially by 14 months after the explosion.

**Children of Victims of September 11th:
A perspective on the Emotional and
Developmental Challenges They
Face and How to Help Meet Them.**

Swick et al. JDBP 23:378-84, 2002

We conservatively estimate that approximately 20% of the middle and upper class children and probably 30% of the poorer children who lost parent in the events of September 11th will develop serious psychiatric symptoms that will require professional attention and treatment.

General Responses of Children and Adolescents to Disasters

1. Increased dependency on parents or guardians
2. Nightmares
3. Regression in developmental achievements
4. Specific fears about reminders of the disaster (e.g., a toy airplane if the child was in an airplane crash)
5. Demonstration of the disaster via post-traumatic play and reenactments

Specific Responses of Toddlers and Preschoolers to Disasters

- Reaction reflects that of parents
- Regressive behaviors
- Decreased appetite
- Vomiting, constipation, diarrhea
- Sleep disorders (insomnia, nightmares)
- Tics, stuttering, muteness

Specific Responses of Toddlers and Preschoolers to Disasters (continued)

- Clinging
- Reenactment via play
- Irritability
- Posttraumatic stress disorder

Specific Responses of School Age Children to Disasters

- Most marked reaction
- Fear, anxiety
- Increased hostility with siblings
- Somatic complaints
- Sleep disorders
- School problems

Specific Responses of School Age Children to Disasters (continued)

- Social withdrawal
- Reenactment via play
- Apathy
- Posttraumatic stress disorder
- Decreased interest in peers, hobbies, school

Specific Responses of Adolescents to Disasters

- Decreased interest in social activities, peers, hobbies, school
- Anhedonia (inability to experience pleasure)
- Decline in responsive behaviors
- Rebellion, behavior problems
- Somatic complaints
- Sleep disorders

Specific Responses of Adolescents to Disasters (continued)

- Eating disorders
- Change in physical activity
- Confusion
- Lack of concentration
- Risk-taking behaviors

Sleep Disturbances in the Wake of Traumatic Events

Peretz Lavie, PhD.

N Engl J Med Vol 345 pgs 1825-1832, 2002

Sleep disturbances have been reported in more than half the children who were affected by a terrorist attack, a fatal sniper attack on a school playground, a storm in which lightning resulted in the death of one child and injury of others, an earthquake, and Hurricane Hugo. Exposure to distant, horrifying traumatic events may produce some of the symptoms of PTSD – most notably, dreams that are associated with increased feelings of anxiety (anxiety dreams)

THE “LOST BOYS” OF SUDAN

- Study of 304 unaccompanied Sudanese refugee children one year after resettlement in the US
- 20% had a diagnosis of posttraumatic stress disorder
- They function well in school
- Behavioral and emotional problems manifest in their home lives

Early adversity and the limbic system

The limbic-hypothalamic-pituitary-adrenal (l-hpa) system function is affected by many types of prenatal and postnatal adversity in both animals and humans.

POSTNATAL MALNUTRITION (COMMON IN DISASTER SITUATIONS) INCREASES BASAL AND RESPONSE CORTISOL LEVELS IN HUMAN CHILDREN

Social relationships appear to be critical in regulating I-hpa axis responses to stressors in human infants and toddlers.

Deprivation of maternal care influences long term I-hpa function.

Fernald and Grantham-Mcgregor

What adult problems to anticipate?

15-20% of adults who suffered major trauma as a child will have related problems throughout life

Continuing Fears...

- Obsessive behaviors
- Odd or unusual habits
- Chronic depression
- Severe PTSD
- Attachment Disorders

Recommendations

- Glib assumptions should not be made about the psychosocial status of children who have experienced disasters.
- Children and their families require help that is culturally sensitive.
- Interventions should be developmentally appropriate.
- Consider interventions to enhance sense of coping and competency.
- Services to displaced children benefit from coordination among clinics, schools, and social service agencies.

EARLY AND LATE PHASES

- **Early/Acute/Emergency phase**

- 0-1 month

- Late/Recovery Phase**

- 1-6 Months

- Rehabilitation/Development phase**

- 6 plus months, often many years.

Immediate Interventions are recommended to reduce long term problems

- It is important to provide predictability and regularity for young children.
- This includes timing of meals, a place for sleeping, same caretakers, and play times.
- Re establish school routines as soon as possible.

Suggested Activities

- Below 1 Year—Activities for parents and children include infant stimulation exercises; promotion of breast-feeding, mother-child bonding and wet-nursing. These can be carried out in health clinics or feeding centers. Sites must be easily accessible to parents.

Suggested Activities

- 1 to 4—Mother-toddler play groups incorporating pre-school activities and kindergarten for children whose parents are working, engaged in training or unable to give adequate care to their children because of their own emotional difficulties.

Suggested Activities

- 5 to 10 Years—Games, dance, music, drawing, painting, story telling and singing with small groups of children. Provide culturally appropriate relaxation training. This can be incorporated with primary school programs or carried out as extracurricular activities, organized and run by refugee adults. Older children can help care for younger ones.

Suggested Activities

- 11 to 17 Years—Group activities should emphasize peer leadership. Sports, group discussions and community projects are examples. Support adolescents in making the transition to adulthood by discussions on issues such as sexuality and adjusting to new environments and help with finding employment.

School based interventions

(Betty Pfefferbaum, MD, JD et al., 2003)

- provide access to children in developmentally appropriate environments that encourage normalcy and minimize stigma.
- Stress symptoms are likely to emerge in classroom settings. (Thoughts may affect concentration and interfere with academic performanc.)
- Schools provide accessible sites for identifying children in need of mental health services post disaster and for delivering those services.

SAFETY CONSIDERATIONS FOR CHILDREN IN DISASTERS

- Are play areas safe?
- Are insecticides being used? What are disposal routines?
- Are toilets safe? How far away from tents or other shelters?
- Are chemicals or unexploded ordnance in the area?
- Are animals such as dogs, snakes, scorpions in the living or play areas?

SAFETY CONSIDERATIONS FOR CHILDREN IN DISASTERS

- Are children at risk of abduction?
- Are children at risk of sexual abuse?
- Are children immunized?
- Are there caretakers for unaccompanied minors?
- Is the soil contaminated with lead or other poisons?

Help children make sense of disasters such as tsunamis

- Be ready to listen and to reassure
- Watch disaster coverage with children, putting the images into words
- Show them on a globe where you live and where the disaster happened
- Read to them or tell them stories of survivors

Tilly Smith

- She was on the beach of Phuket Thailand with her parents and 7 year old sister
- The tide rushed out
- She had a science lesson on tsunamis two weeks earlier
- She warned of the danger, and 100 people rushed to safety

Humanitarian Emergencies require professionals specialized in the care of children

- Pediatricians
- nurses
- midwives
- Child psychologists
- Child psychiatrists
- Pediatric nutritionists
- Child development specialists



Ideal Situation

Child health professionals who are familiar with the culture and language will be available to help children in each disaster situation.

The Future

- Urban areas are increasing in size and are vulnerable to both natural and bioterrorism types of disasters.
- Urban populations will exceed rural populations by 2020.
- Increased populations will place more children at risk in disasters.

We are guilty of many errors and many faults, but
our worst crime is abandoning the children,
neglecting the fountain of life.

Many of the things we need can wait.

The child cannot.

Right now is the time his bones are being formed,
his blood is being made and his senses are being
developed.

To him we cannot answer “Tomorrow”.

His name is “Today”.

Gabriela Mistral

Nobel Prize-winning poet from Chile