CARING FOR CALIFORNIA'S CHILDREN: Preparing for Mental Health Consequences in Time of Crisis

SUPPORTED BY THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES (05-45835) AND THE NATIONAL INSTITUTE OF MENTAL HEALTH (NIMH, P30 MH068639)

Program Goal: To provide pediatric primary care providers and their staff with resources and tools to assess and address the mental health needs of children in a large scale disaster or bioterrorism event, using a curriculum based on scientific evidence and expert clinical judgment.

Target audience: This program is designed to meet the needs of pediatric primary care providers, including physicians, nurse practitioners, and physician assistants, as well as their office staff who care for and support the needs of children in the state of California.

Accreditation: The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this educational activity for a maximum of 2 *AMA PRA Category 1 Credits*™.

CME credits are only available when taking the online version of this course. This PDF differs from the online version, in that no test questions or answers are included. In addition, all pop-ups within the online content can be found in Appendix A, and all linked-to screening tools can be found in Appendix B.

Online Course Location: http://www.californiaschildren.org

Disclosure Statement: The FDA has issued a concept paper that classifies commercial support of scientific and educational programs as promotional unless it can be affirmed that the program is "truly independent" and free of commercial influence. In addition to independence, the FDA requires that non-promotional, commercially supported education be objective, balanced, and scientifically rigorous. The policy further states that all potential conflicts of interest of the CME staff and faculty be fully disclosed to the program's participants. In addition, the Accreditation Council for Continuing Medical Education policy now mandates that the provider adequately manages all identified potential conflicts of interest prior to the program. We at UCLA fully endorse the letter and spirit of these concepts.

Disclosure Declaration: The following faculty members have indicated that they do not have an affiliation with organizations that have interests related to the content of this program:

Carol Berkowitz, MD
John Blossom, MD
Linda B. Bourque, PhD
Margaret Dolan, MD
Joseph Duke, MD
Sheryl Kataoka, MD, MSHS
Penny Knapp, MD
Danielle Laraque, MD
Patricia Lester, MD
Fran Norris, PhD
Susan Stockdale, PhD
Ken Wells, MD, MPH
Peter Yellowlees, MD
Bonnie Zima, MD, MPH

Acknowledgements: This course is funded by the California Department of Health Services (05-45835) and the NIMH (P30 MH068639).

Release Date: March 12, 2007

Expiration Date: March 11, 2010

Estimated time to complete activity: 2 hours

Hardware/Software requirements (if you were to take the course online): This activity works on a PC or Macintosh computer with the browsers Internet Explorer 5.x and up, Netscape Navigator 4.x and up, Firefox 1.0, or AOL 7.x and up. *(Mac Safari users may experience page errors.)* JavaScript should be enabled in all browsers, the free Acrobat reader (http://www.adobe.com/products/acrobat/readstep2.html) should be installed, and pop-ups need to be accepted from www.californiaschildren.org. There are no specific hardware requirements beyond the capacity to run the above-mentioned software.

Project Team

Agency Leaders:

Joleen Heider-Freeman, MS, RD
Statewide Programs Section Chief
Children's Medical Services Branch
California Dept. of Health Services
1515 K Street Suite 400 MS 8100
PO Box 997413
Sacramento, CA 95899-7413

Maggie Petersen, PNP, MSN
Nurse Consultant
Department of Health Services
Children's Medical Services Branch
1515 K Street Suite 400
PO Box 942732
Sacramento, CA 94234-7320

Nancy Snyder, RN, MS
Nurse Consultant Program Review – Public Health
Health Care Services Division/CDCR
524 I Street
Sacramento, CA 95814

Faculty:

Penny Knapp, MD
Department of Mental Health Medical Director
1600 9th St., Suite 151
Sacramento CA, 95814

Susan Stockdale, PhD
Assistant Research Sociologist
UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Bonnie Zima, MD, MPH
Professor in Residence (Child Psychiatry)
Associate Director, UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Contributors/Expert Reviewers:

Carol Berkowitz, MD
Professor of Clinical Pediatrics
Harbor – UCLA Medical Center
1000 West Carson St. Box 437
Torrance, CA 90509

John Blossom, MD
Director calPEN (California Preparedness Education Network) Program
550 E Shaw Ave Suite 210
Fresno, CA 93710

Linda B. Bourque, PhD
Associate Director
UCLA Center for Public Health and Disasters
1145 Gayley Avenue, Suite 304
Los Angeles, CA 90024

Margaret Dolan, MD
Attending Physician
Team Health Midwest
7123 Pearl Rd. Suite 201
Middleburg Heights, OH 44130

Joseph Duke, MD
Director, CHDP Program
9320 Telstar Ave. Suite 226
El Monte, CA 91731

Danielle Laraque, MD
Mount Sinai School of Medicine
One Gustave L. Levy Place
Box 1198
New York, NY 10029

Patricia Lester, MD
Medical Director
Child and Family Trauma Clinic
UCLA Trauma Psychiatry
10920 Wilshire Blvd., #350
Los Angeles, CA 90024-6505

Fran Norris, PhD
National Center for PTSD
VA Medical Center 116 D
215 North Main Street
White River Junction, VT 05009

Ken Wells, MD, MPH
Director
UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Peter Yellowlees, MD
Professor of Psychiatry
UC Davis
Suite 2856, Admin. Support Building
2450 48th St.
Sacramento, CA 95817

Staff:

Donna Woo, MA
Project Administrator
UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Lynn Ferro, BA
Project Coordinator
UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Angelina Arbisi, BA
Project Assistant
UCLA Health Services Research Center
10920 Wilshire Blvd., #300
Los Angeles, CA 90024-6505

Web Design and Development

Medical Directions, Inc.
6101 E. Grant Rd.
Tucson, AZ 85712
John M. Harris Jr., MD
President

COURSE OUTLINE

INTRODUCTION

Section I: DISASTER EXPOSURE

Section II: ASSESSMENT

Section III: INTERVENTION STRATEGIES & TREATMENT

Section IV: MENTAL HEALTH DISASTER PREPAREDNESS RESOURCES

INTRODUCTION

Background

Need for This Training Program

This course was funded by the California Department of Health Services (DHS), Children's Medical Services Branch in response to national reports and professional organization recommendations to provide additional training to pediatric primary care providers in the assessment and care of child mental health problems related to the exposure to severe trauma and disasters. As noted by the American Academy of Pediatrics (2006), "For all, but especially for children, there are many recognized gaps in knowledge, resources, and professional education". Findings from studies examining the impact of the September 11, 2001 World Trade Center Bombing suggest high levels of unmet need for mental health services among children and low levels of confidence among pediatricians for addressing child mental health problems. Additionally, the HRSA-funded "Assessment of Bioterrorism Preparedness in California Hospitals" found that alternative providers of mental health services would be required during a large-scale emergency in the state of California, as existing mental health referral sources would be overwhelmed. The continuing occurrence of human-caused and natural disasters necessitates an ongoing need for preparedness at all levels of government as well as in the schools and in the public health and medical community.

Target Audience

A pediatric primary care provider (PPCP) is defined broadly to include medically-trained (i.e., physicians, physician assistants, nurse practitioners, nurses) and non-medically trained staff in programs serving CMS patients. This approach recognizes that in an extreme event, the response to identifying and addressing child mental health needs requires the efforts of the entire clinical team.

Research Basis/Frame of Reference

The information, tools, and resources in this course are based on the best available research. In addition, the materials have been evaluated for accuracy and comprehensiveness by a panel of disaster experts, child psychiatrists, and pediatricians.

Overall Course Learning Objectives:

To provide pediatric primary care providers and their staff with resources and tools to assess and address the mental health needs of children in the event of a large scale disaster or bioterrorism event, using a curriculum based on scientific evidence and expert clinical judgment. Specifically, the objectives of the training program are to:

Section I

- **Identify four key elements of a disaster**
- **Recognize that child mental consequences vary widely following exposure to a disaster**
- **Identify clinically relevant dimensions of disaster exposure**

Section II

- **Identify pre-existing clinical risk and protective factors at the child, parent/caregiver, family, and community levels**
- **Use disaster exposure characteristics to help assess vulnerability**
- **Recognize common psychological reactions to traumatic stress based on child age**
- **Review diagnostic criteria for common psychiatric disorders related to childhood exposure to disaster**

Section III

- **Identify common acute phase intervention strategies for children exposed to traumatic events**
- **Review appropriate psychosocial treatment options for common child mental health problems related to disaster exposure**
- **Recognize when extreme care is warranted for medication treatment, and when consultation with a psychiatric professional is indicated**

Section IV

- **Increase your awareness of local mental health, public health, and community disaster-preparedness networks**

Needs Assessment References

American Academy of Pediatrics. (2006). Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians, Agency for Healthcare Research and Quality.

Agency for Healthcare Research and Quality. (2006). "Public Health Emergencies: Strategies and Tools for Meeting the Needs of Children. (A web conference)." From http://www.ahrq.gov/news/ulp/btpediatric/.

Alexander G and Wynia M (2003). Ready and Willing? Physicians' Sense of Preparedness for Bioterrorism. *Health Affairs, 22* (5): 189-197.

Fairbrother G, Stuber J, Galea S, Pfefferbaum B, Fleischman A (2004). Unmet Need for Counseling Services by Children in New York City After the September 11th Attacks on the World Trade Center: Implications for Pediatricians. *Pediatrics, 113* (5): 1367-1374.

Flynn B, Nelson M (1998). Understanding the needs of children following large-scale disasters and the role of government. *Child and Adolescent Psychiatric Clinics of North America, 7* (1): 211-27.

Hagan J and the Committee on Psychosocial Aspects of Child and Family Health and the Task Force on Terrorism (2005). Psychosocial Implications of Disaster or Terrorism on Children: A Guide for the Pediatrician. *Pediatrics, 116* (3): 787-795.

Hagan J (2006) Psychosocial Implications of Disaster or Terrorism on Children: A Guide for the Pediatrician. In Reply. *Pediatrics 117* (5): 1866.

Laraque D, Boscarino J, Battista A, Casalino M, Hu Y, Ramos S, Adams R, Schmidt J, Chemtob C (2004). Reactions and Needs of Tristate-Area Pediatricians after the Events of September 11th: Implications for Children's Mental Health Services. *Pediatrics, 113* (5): 1357-1366.

Reijneveld S (2006) Psychosocial Implications of Disaster or Terrorism on Children: A Guide for the Pediatrician. Letter to the Editor. *Pediatrics, 117* (5): 1865-1866.

Schonfeld D (2003). Supporting children after terrorist events: Potential roles for pediatricians. *Pediatric Annals, 32* (3): 182-187.

Schuster M, Stein B, Jaycox L, Collins R, Marshall G, Elliott M, Zhou A, Kanouse D, Morrison J, Berry S (2001). A National Survey of Stress Reaction after the September 11, 2001, Terrorist Attacks. *New England Journal of Medicine, 345* (20): 1507-1512.

Stein B, Tanielian T, Eisenman D, Keyser D, Burnam A, Pincus H (2004). Emotional and Behavioral Consequences of Bioterrorism: Planning a Public Health Response. *The Milbank Quarterly, 82* (3): 413-455.

Section I. DISASTER EXPOSURE

The purpose of this section is to define "disaster" and present a rationale for why disaster exposure characteristics should be integrated into the assessment of child mental health problems.

Learning Objectives: At the conclusion of this section, you should be able to:

- **Identify four key elements of a disaster**
- **Recognize that child mental consequences vary widely following exposure to a disaster**
- **Identify clinically relevant dimensions of disaster exposure**

Content:

1. What Constitutes a "Disaster"?

2. What Do We Know About Disaster Exposure: Impact on Child Mental Health
- **2.1 Spectrum of Mental Health Problems**
- **2.2 Variable Clinical Course**

3. Clinically Relevant Dimensions of Disaster Exposure
- **3.1 Dose**
- **3.2 Characteristics**
- **3.3 Type**
- **3.4 Impact**
- **3.5 Recovery Environment**
- **3.6 Disaster Phases**

4. Clinical Implications

5. Web Resources

6. Section I References

1. **What Constitutes a "Disaster"?**

In common, everyday usage, the term "disaster" typically refers to any sudden event with adverse consequences for one or more individuals. The definition of disaster adopted for this training is the one proposed by McFarlane and Norris (2006, p 4): "a potentially traumatic event that is collectively experienced, has an acute onset, and is time-delimited".

The key elements of a disaster are:

- **Potentially Traumatic Event**
  - Although disasters have the potential to create traumatic effects, not every one exposed to a disaster will be traumatized by it. In fact, one's chances of suffering severe mental health consequences, such as Posttraumatic Stress Disorder (PTSD), as a result of exposure are relatively low compared to those who have experienced other types of trauma (such as interpersonal violence)

- **Collectively Experienced**
  - Disasters are collectively experienced in that they create stress for many people simultaneously. This has important implications for physical and social impacts, as well as political constituencies and policy concerns

- **Acute Onset**
  - Many disasters begin with an acute event such as an earthquake, flood, or bombing and are followed by a period of disruption that may be long-lasting
  - This criterion thus distinguishes disaster from other events that may produce chronic, ongoing stress, such as war and political and social unrest

- **Time-Limited**
  - Although the distinction between an event that produces chronic and/or ongoing stress and a disaster can be fuzzy, the term disaster should be reserved for events with relatively clear beginnings and endings

2. What We Know About Disaster Exposure: Impact on Child Mental Health

2.1 The Spectrum of Mental Health Problems

Although disaster mental health research is an emerging field, the materials presented in this training are based on the best available information and evidence-based practices. Much of what we know about the mental health consequences of disasters comes from published research studies of adult victims and rescue workers. While there are too few studies of pre-school aged children to make strong conclusions, a recent review of the psychosocial consequences of disasters identified 37 studies involving school-age child victims (ages 5-17 years). In all the identified studies, posttraumatic stress disorder (PTSD) was the most commonly examined mental health condition, with depression and anxiety also commonly assessed. This was true for studies of both adults and

children. Other mental health effects examined in disaster studies included stress-related psychological and psychosomatic symptoms, chronic problems in living, and psychosocial resources. Children with posttraumatic stress symptoms also frequently had co-occurring psychological problems, such as depression and anxiety.

Posttraumatic stress symptoms are common among children and adolescents who have been exposed to trauma (including community and interpersonal violence); with 50% of children showing at least moderate (sub-clinical) levels 3 to 4 months after exposure. For example, in studies of the 2001 World Trade Center bombing, children directly and indirectly exposed were found to be at greater risk for PTSD six months after the attack. There was also a higher incidence of many psychiatric disorders, including PTSD, major depression, generalized anxiety, agoraphobia (fear of going out or public transportation), separation anxiety, conduct disorder, and alcohol abuse, in children after the attack as compared with before. Another study conducted 4 months after the attack found that children living in Manhattan had more severe posttraumatic stress reactions, as compared with children living in other boroughs of the city.

About half of the disaster studies reviewed by Norris and colleagues showed moderate mental health effects, indicating prolonged stress but relatively little severe psychological effects that were long-lasting. About 41% of the remaining studies demonstrated severe or very severe effects, meaning more than 25% of the people in each of these studies had “clinically significant stress” (i.e., could benefit from professional mental health care). The remaining 9% of the studies showed minimal or transient mental health effects. Although an earlier review of the literature had suggested that children (as compared with adults) were more likely to show severe effects, the more recent review found no difference in severity between child and adult samples of survivors.

2.2 Variable Clinical Course

Some studies have shown that children’s psychological reactions to disaster tend to linger and can persist for many months, or longer. Delayed reactions, however, are uncommon. Symptoms will be the worst within the first year after the disaster, appearing within the first few weeks and persisting for as long as a few years. It is common for children to experience anxiety without posttraumatic stress symptoms. The reviews of disaster studies literature found that 70% of the samples (adults and children) showed improvement over time, but severity of symptoms in the early phases of disaster was a good predictor of severity in later phases. However, in the absence of re-exposure, posttraumatic stress symptoms occur with less frequency and lower intensity over time. For example, studies of hurricane Andrew (in the US in 1994) showed steadily decreasing frequency and intensity of symptoms, with 7%-10% of children experiencing substantial difficulties 4 years after the disaster.

3. Clinically Relevant Dimensions of Disaster Exposure

Exposure to disaster is conceptualized by a variety of domains, such as dose (i.e. size or intensity), disaster characteristics (i.e., cause, boundaries, rapidity of onset, duration), exposure type (i.e., proximity, impact), recovery environment, and phases. Described below are reported dimensions of disaster exposure with annotations of how they relate to a person's risk of developing a mental health problem.

3.1 Dose

- **Size or Intensity**
  - Severity of exposure, or "dose", is sometimes expressed as an impact ratio, or *the proportion of the population directly affected by the disaster* (in general, the higher the impact ratio, the greater will be the mental health consequences of the disaster)
  - "Dose" can also be characterized in terms of the level of terror and horror associated with the event
  - Children with a larger "dose" of exposure to the disaster are more likely to display symptoms of PTSD or Acute Stress Disorder (ASD), and may be more likely to develop PTSD
  - Multiple exposures to traumatic events increase the likelihood of developing PTSD after a disaster
  - Greater number of disaster-related stressors (indicating greater severity of exposure) is related to an increase in the disaster victim's (child or adult) symptoms

3.2 Characteristics

- **Agent or Cause of Destruction**
  - Natural
    (Examples: floods, earthquakes, hurricanes, tsunamis, and other events not due to direct human intervention)
  - Human-caused
    - Technological accidents
      - Typically caused by human error, neglect, or failure of technology
        (Examples: dam collapses, plane crashes, train derailments, nuclear power plant accidents, and toxic chemical spills)
      - Contrary to what has previously been believed, technological accidents do *not* have a greater mental health impact than natural disasters
    - Mass violence
      - Intentional and most often malevolent
        (Examples: sniper attacks, bombings, or bioterrorism)
      - A recent review of the disaster literature suggests that mass violence disasters have the greatest impact on mental health, attributed by fear generated by the element of intent, the uncertainty, and the continued threat of harm
        (Examples: In a chemical or biological attack, the course of risk is extended, as there may be multiple covert releases creating a climate of fear over time and generating confusion and concern about exposure, risks and treatment)

        - If the threat is biological, mass prophylaxis and a complex public health emergency response will be necessary, including possible social distancing strategies such as quarantine and isolation
        - Biological terrorism may produce psychological symptoms as a result of physical (medical) conditions

- **Boundaries**
  - Centripetal disasters
    - Those that impact geographically bounded communities
      (Example: bombing of small village)
  - Centrifugal disasters
    - Those that affect a group of people who have congregated in the impacted location for a specific purpose
      (Example: bioterrorism attack in crowded airport)
    - Victims are not as easily identified
      - Service provision in the aftermath of the disaster may be more complicated.
      - Research to study the effects of the disaster on mental health can be more difficult

- **Rapidity of Onset**
  - Shorter warning periods result in more casualties and, consequently, a greater mental health impact

- **Duration of the Crisis**
  - A prolonged period of recovery may result in a greater mental health impact
  - Some events that begin as disasters may be reclassified as chronic or prolonged threats if the detrimental aftermath of the disaster is ongoing. (example: Chernobyl nuclear disaster)

3.3 Type

- **Proximity**
  - Direct
    - Witnessing or experiencing an event first-hand. Closer physical proximity to the event is related to greater risk of post-traumatic stress
      (Example: being present during a school shooting)
  - Interpersonal
    - Contact with acquaintances, friends, or family members recounting their own witnessing or experiencing of the event
  - Indirect
    - Viewing television programs or reading news stories about the event. Greater levels of indirect exposure through television were associated with more severe reactions

3.4 Impact

- **Presence or Perception of Life Threat**

- Perception of life threat (i.e., the child thought she/he or a loved one might be killed or seriously injured, even if no one was actually hurt) has been linked with the development of PTSD symptoms
- Panic during a disaster is related to greater risk of mental health problems

- **Injury to Self or a Family Member**
  - Injury to self or a family member during a disaster is also related to greater risk of mental health problems

- **Personal Loss**
  - The sudden and unexpected death of a parent or loved one may increase a child's risk of mental health consequences following a traumatic event

- **Relationship to Victim**
  - Events that are more emotionally salient (i.e., a threat to the immediate family vs. a threat to a stranger) are more likely to increase the child's risk of developing post-traumatic stress

- **Disruption of Normal Routines**
  - Events that more directly affect the child's life (i.e., loss of home, school closure) are related to greater risk of posttraumatic stress
  - Disruption of routine activities is common with natural disasters and can be a significant stressor, especially in a prolonged recovery period
  - If the disruption lasts several months (or years), the resulting stress may interfere with the family's and/or child's ability to cope with the event

- **Family Disruption**
  - Family disruption may put children at greater risk of mental health problems after a traumatic event

- **Economic Loss**
  - Property damage or financial loss is also related to a greater risk of mental health problems

3.5 Recovery Environment

- **Availability of Social Support**
  - The perception that someone is available to provide physical assistance and emotional support from family, friends, teachers, classmates and others in the community has been found to buffer the impact of disasters on children

- **Major Life Events**
  - Similar to the earlier concept of impact, major life events that introduce more stress (i.e., moving, divorce, death or hospitalization of a family member) may interfere with a child's recovery
  - This additional burden has been associated with the persistence of posttraumatic stress symptoms over time

3.6 Disaster Phases

- **Duration of Mental Health Consequences**
  - Acute period (0-3 months after initial onset)
  - Medium to long-term recovery period (3 months to several years post-onset)

- **National Expert Panel Recommendations for Timing of Interventions** (National Institute of Mental Health 2002, http://www.nimh.nih.gov/Publicat/massviolence.pdf):
  - Pre-incident
  - Impact (0-48 hours)
  - Recovery (1-4 weeks)
  - Rescue (0-1 week)
  - Return to life (2 weeks to 2 years)

4. Clinical Implications

To determine the most appropriate intervention, primary care providers treating children with mental health symptoms due to disasters should assess:

- **The level of exposure, including proximity to the site**

- **Child level of fear and perceived danger or threat to life or loss of life**

- **Whether a parent, family member, or pet was injured or died in the disaster**

- **Whether the child was injured**

- **Whether the family experienced property damage or significant financial loss**

In order to do this, the provider will need to ask children and parents about specific details of the child's proximity to the event, how and to what exactly the child was exposed, what the child saw, and how the child felt. Section II presents a clinical assessment example of how disaster exposure characteristics could be integrated in the assessment of child vulnerability to mental health problems.

5. Web Resources

- American Academy of Pediatrics: Children and Disasters – Provides extensive information about exposure to biological, chemical, and radiological agents, disaster preparedness, hand-outs for parents, etc.
  http://www.aap.org/terrorism/index.html

- The National Child Traumatic Stress Network – Provides information and resources for medical and mental health professionals, educators, parents, and others about traumatic stress in children, including information and resources related to terrorism and natural disasters.
  http://www.nctsn.org/nccts/nav.do?pid=hom_main

- Biological Terrorism – Provides information on children's reactions specific to biological terrorism events; includes information for parents, teachers, and other caregivers.
  http://www.disastermh.nebraska.edu/files/Biological_Terrorism-NCTSNET.pdf

- PILOTS Database – A searchable database of studies conducted on PTSD and the traumatic stress literature.
  http://www.ncptsd.va.gov/ncmain/publications/pilots/index.html

6. Section I References

Asarnow J, Glynn S, Pynoos R, Nahum J, Guthrie D, Cantwell D (1999). When the earth stops shaking: Earthquake sequelae among children diagnosed for pre-earthquake psychopathology. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*:1016-1023.

Bokszczanin A (2002). Long-term negative psychological effects of a flood on adolescents. *Polish Psychological Bulletin, 33*:55-61.

Bolton D, O'Ryan D, Udwin O, Boyle S, Yule W (2000). The long-term psychological effects of a disaster experienced in adolescence II: General psychopathology. *Journal of Child Psychology and Psychiatry, 41*:513-523.

Bradburn I (1991). After the earth shook: Children's stress symptoms 6-8 months after a disaster. *Advances in Behaviour Research and Therapy, 13:173*-179.

Bromet E, Parkinson D, Schulberg H, Gondek P (1982). Mental health of residents near the Three Mile Island reactor: A comparative study of selected groups. *Journal of Preventive Psychiatry, 1*:225-276.

Bromet E, Goldgaber D, Carlson G, Panina N, Golovakha E, Gluzman S, Gilbert T, Gulzman D, Lyubsky S, Schwartz J (2000). Children's well-being 11 years after the Chornobyl catastrophe. *Archives of General Psychiatry, 57*:563-571.

Chen S, Lin Y, Tseng H, Wu Y (2002). Posttraumatic stress reactions in children and adolescents one year after the 1999 Taiwan Chi-Chi Earthquake. *Journal of the Chinese Institute of Engineers, 25*:597-608.

Cornely P, Bromet E (1986). Prevalence of behavior problems in the three-year-old children living near Three Mile Island: A comparative analysis. *Journal of Child Psychology and Psychiatry, 27*:489-498.

Davidson J, McFarlane S (2006). The extent and impact of mental health problems after disaster. *Journal of Clinical Psychiatry, 67* (suppl 2):9-14.

Durkin MS, Khan N, Davidson L, Zaman S, Stein Z (1993). The effects of a natural disaster on child behavior: Evidence for posttraumatic stress. *American Journal of Public Health, 83:* 1549-1553.

DeWolfe D (2000). Training manual for mental health and human services workers in major disasters. Edited by Department of Health and Human Services, Substance Abuse and Mental Health Services Administration.

Fairbrother G, Stuber J, Galea S, Fleischman A, Pfefferbaum B (2003). Posttraumatic Stress Reactions in New York City Children after the September 11, 2001 Terrorist Attacks. *Ambulatory Pediatrics, 3*(6):304-311.

Green BL, Korol M, Grace MC, Vary MG, Leonard AC, Gleser GC, Smitson-Cohen S (1991). Children and disaster: age, gender, and parental effects on PTSD symptoms. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*(6):945-51.

Galante F, Foa D (1986). An epidemiological study of psychic trauma and treatment effectiveness for children after a natural disaster. *Journal of the American Academy of Child Psychiatry, 25*:357-363.

Garrison C, Bryant E, Addy C, Spurrier P, Freedy J, Kilpatrick D (1995). Post-traumatic stress disorder in adolescents after Hurricane Andrew. *Journal of the American Academy of Child and Adolescent Psychiatry, 34* (9):1193-1201.

Garrison C, Weinrich M, Hardin S, Weinrich S, Wang L (1993). Post-traumatic stress disorder in adolescents after a hurricane. *American Journal of Epidemiology, 138*:522-530.

Gleser G, Green B, Winget C (1981). Prolonged psychological effects of disaster: A study of Buffalo Creek. New York: Academic Press.

Goenjian A, Molina L, Steinberg A, Fairbanks L, Alvarez ML, Goenjian H, Pynoos R (2001). Posttraumatic stress and depressive reactions among Nicaraguan adolescents after Hurricane Mitch. *American Journal of Psychiatry, 158*:788-794.

Goenjian A, Pynoos R, Steinberg A, Najarian L, Asarnow J, Karayan I, Ghurabi M, Fairbanks L (1995). Psychiatric comorbidity in children after the 1988 earthquake in Armenia. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*:1174-1184.

Green B, Grace M, Vary M, Kramer T, Gleser G, Leonard A (1994). Children of disaster in the second decade: A 17-year follow-up of Buffalo Creek survivors. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*:71-79.

Green B, Lindy J, Grace, M., Gleser G, Leonard A, Korol M, Winget C (1990). Buffalo Creek Survivors in the second decade: Stability of stress symptoms. *American Journal of Orthopsychiatry, 60*:43-54.

New York State Psychiatric Institute and Applied Research and Consulting, LLC (2002). Effects of the World Trade Center attack on NYC public school students - initial report to the New York City Board of Education. New York, Columbia University Mailman School of Public Health.

Hardin S, Weinrich M, Weinrich S, Hardin T, Garrison C (1994). Psychological distress of adolescents exposed to Hurricane Hugo. *Journal of Traumatic Stress, 7*:427-440.

Havenaar J, Galina M, Bring W, Poelijoe N, Bout J, Engeland H, Koeter M (1997). Long-Term Mental Health Effects of the Chernobyl Disaster: An Epidemiologic Survey in Two Former Soviet Regions. *American Journal of Psychiatry, 154*:1605-1607.

Jones R, Frary R, Cunningham P, Weddle J, Kaiser L (2001). The psychological effects of Hurricane Andrew on ethnic minority and Caucasian children and adolescents: A case study. *Cultural Diversity and Ethnic Minority Psychology, 7*:103-108.

Jones R, Ribbe D (1991). Child, adolescent, and adult victims of residential fire. *Behavior Modification, 15*:560-579.

Koplewicz HS, Vogel JM, Solanto MV, Morrissey RF, Alonso CM, Abikoff H, Gallagher R, Novick RM (2002). Child and parent response to the 1993 World Trade Center bombing. *Journal of Traumatic Stress, 15*(1):77-85.

La Greca AM (2001). Children Experiencing Disasters: Prevention and Intervention in *Handbook of psychological services for children and adolescents*. Hughes JN, La Greca AM, Conoley JC (Eds). New York, Oxford University Press, 195-224.

McDermott BMC, Palmer LJ (2002). "Wilderness Area and Wildfire Disasters: Insights from a Child and Adolescent Screening Program." In *Helping children cope with disasters and terrorism*. La Greca AM, Silverman WK, Vernberg EM, Roberts MC (Eds). Washington, American Psychological Association, 139-156.

McFarlane A (1987). Posttraumatic phenomena in a longitudinal study of children following a natural disaster. *Journal of the American Academy of Child and Adolescent Psychiatry, 26*:764-769.

McFarlane A, Norris F (2006). "Definitions and Concepts in Disaster Research." In *Methods for Disaster Mental Health Research*. Norris FH, Galea S, Friedman MJ, Watson PJ (Eds). New York, Guilford Press, 3-19.

Mirzamani M, Bolton D (2002). PTSD symptoms of mothers following occurrence of a disaster affecting their children. *Psychological reports, 90*(2):431-8.

Nader K, Pynoos R, Fairbanks L, Frederick C (1990). Children's PTSD reactions one year after a sniper attack in their school. *American Journal of Psychiatry, 147*:1526-1530.

National Institute of Mental Health (2002). Mental Health and Mass Violence: Evidence-Based Early Psychological Intervention for Victims/Survivors of Mass Violence. A Workshop to Reach Consensus on Best Practices. Washington, D.C., U.S. Government Printing Office.

Norris FH, Friedman MJ, Watson PJ, Byrne CM, Diaz E, Kaniasty K (2002). 60,000 Disaster Victims Speak: Part I. An Empirical Review of the Empirical Literature, 1981-2001. *Psychiatry, 65*(3):207-239.

Norris FH, Elrod CL (2006). "Psychosocial Consequences of Disaster: A Review of Past Research." In *Methods for Disaster Mental Health Research.* Norris FH, Galea S, Friedman MJ, Watson PJ (Eds). New York, Guilford Press: 20-44.

Pynoos RS, Steinberg AM, Piacentini JC (1999). A developmental psychopathology model of childhood traumatic stress and intersection with anxiety disorders. *Biological Psychiatry; 46*(11):1542-54.

Pfefferbaum B, Doughty D, Gurwitch R, Nixon S, Reddy C, Patel N, Tivis R (2002). Exposure and Peritraumatic Response as Predictors of Posttraumatic Stress in Children Following the 1995 Oklahoma Bombing. *Journal of Urban Health: Bulletin of the New York Academy of Medicine, 79*(3):354-363.

Pfefferbaum B, North C, Doughty D, Gurwitch R, Fullerton C, Kyula J (2003). Posttraumatic stress and functional impairment in Kenyan children following the 1998 American Embassy bombing. *American Journal of Orthopsychiatry, 73:*133-140.

Pfefferbaum B, Seale T, McDonald N, Brandt E, Rainwater S, Maynard B, Meierhoefer B, Miller P (2001). Posttraumatic stress two years after the Oklahoma City bombing in youths geographically distant from the explosion. *Psychiatry,* 63:358-370.

Pfefferbaum B, North C, Bunch K, Wilson T, Tucker P, Schorr J (2002). The impact of the 1995 Oklahoma City Bombing on the partners of firefighters. *Journal of Urban Health: Bulletin of the New York Academy of Medicine, 79*:364-372.

Pynoos R, Frederick C, Nader K, Arroyo W, Steinber A, Eth S, Nunez F, Fairbanks L (1987). Life threat and posttraumatic stress in school-age children. *Archives of General Psychiatry, 44*:1057-1063.

Pynoos R, Goenjian A, Tashjian M, Karakashian M, Manjikian R, Manoukian G, Steinberg A, Fairbanks L (1993). Post-traumatic stress reactions in children after the 1988 Armenian earthquake. *British Journal of Psychiatry, 163*:239-247.

Rustemli A, Karanci A (1996). Distress reactions and earthquake-related cognitions of parents and their adolescent children in a victimized population. *Journal of Social Behavior and Personality, 11*:767-780.

Schwarz E, Kowalski J (1991). Posttraumatic stress disorder after a school shooting: Effects of symptom threshold selection and diagnosis by DSM-III, DSM-III-R or proposed DSM-IV. *American Journal of Psychiatry, 148:* 592-597.

Scott RL, Knoth RL, Beltran-Quiones M, Gomez N (2003). Assessment of psychological functioning in adolescent earthquake victims in Colombia using the MMPI-A. *Journal of Traumatic Stress, 16*:49-57.

Shannon M, Lonigan C, Finch A, Taylor C (1994). Children exposed to disaster I: Epidemiology of post-traumatic symptoms and symptom profiles. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*:80-93.

Sharan P, Chaudhary G, Kavathekar S, Saxena S (1996). Preliminary report of psychiatric disorders in survivors of a severe earthquake. *American Journal of Psychiatry, 153*:556-558.

Shaw J, Applegate B, Tanner S, Perez D, Rothe E, Compo-Bowen A, Lahey B (1995). Psychological effects of Hurricane Andrew on an elementary school population. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*:1185-1192.

Shaw J, Applegate B, Schorr C (1996). Twenty-one-month follow-up study of school-age children exposed to Hurricane Andrew. *Journal of the American Academy of Child and Adolescent Psychiatry, 35:*359-364.

Terr L (1991). Childhood traumas: An outline and overview. *American Journal of Psychiatry, 148*(1):10-20.

Trappler B, Friedman S (1996). Posttraumatic stress disorder in survivors of the Brooklyn Bridge Shooting. *American Journal of Psychiatry, 153*:705-707.

Vila G, Witkowski P, Tondini M, Perez-Diaz F, Mouren-Simeoni M, Jouvent R (2001). A study of posttraumatic disorders in children who experienced an industrial disaster in the Briey region. *European Child and Adolescent Psychiatry, 10*:10-18.

Vlahov D, Galea S, Ahern J, Resnick H, Kilpatrick D (2004). Sustained Increased Consumption of Cigarettes, Alcohol, and Marijuana among Manhattan Residents after September 11, 2001. *American Journal of Public Health, 94*(2):253-254.

Waelde LC, Koopman C, Spiegel D (1998). Dissociative and Posttraumatic Reactions to the Northern California Flooding of 1997: Quick Response Report #104.

Warheit G, Zimmerman R, Khoury E, Vega W, Gil A (1996). Disaster related stresses, depressive signs and symptoms, and suicidal ideation among a multi-racial/ethnic sample of adolescents: A longitudinal analysis. *Journal of Child Psychology and Psychiatry, 37*:435-444.

Yule W, Bolton D, Udwin O, Boyle S, O'Ryan D, Nurrish J (2000). The long-term psychological effects of a disaster experienced in adolescence: I: The incidence and course of PTSD. *Journal of child psychology and psychiatry, and allied disciplines, 41*(4):503-11.

Section II. ASSESSMENT

The purpose of this section is to review pre-existing risk and protective factors, introduce a clinical approach that integrates these with disaster exposure characteristics, and summarize common reactions and psychiatric disorders related to disaster exposure.

Learning Objectives: At the conclusion of this section, you should be able to:

- **Identify pre-existing clinical risk and protective factors at the child, parent/caregiver, family, and community levels**
- **Use disaster exposure characteristics to help assess vulnerability**
- **Recognize common psychological reactions to traumatic stress based on child age**
- **Review diagnostic criteria for common psychiatric disorders related to childhood exposure to disaster**

Content:

1. Assessment of Vulnerability

- **1.1 Child Risk Factors**
- **1.2 Parent/Caregiver Risk Factors**
- **1.3 Family Risk Factors**
- **1.4 Community Risk Factors**
- **1.5 Child Protective Factors**
- **1.6 Parent Protective Factors**
- **1.7 Family Protective Factors**
- **1.8 Community Protective Factors**
- **1.9 Weighing Exposure, Risk, and Protective Factors**

2. Assessment of Child Mental Health Problems

- **2.1 Common reactions**
- **2.2 Psychiatric Disorders**
- **2.3 Other Disorders**

3. Screening Tools and Web Resources

4. Section II References

1. Assessment of Vulnerability

Studies of child resilience suggest that a child's risk of experiencing mental health problems following trauma is influenced by pre-existing risk and protective factors at the child, parent/caregiver, family, and community levels. In addition, disaster research has shown that several characteristics of children are predictive of post-disaster mental health response.

1.1 Child Risk Factors

- **Sex**
  - Girls are more likely to suffer from the mental health consequences of trauma

- **Prior Mental Health Problems or Cognitive Delays**
  - Children with poor impulse control, behavior problems, or low intelligence have a more difficult time adjusting to adversity

- **Prior Psychiatric Disorder**
  - Children with a history of psychiatric problems, particularly anxiety or depression, may be more at risk to the consequences of trauma

1.2 Parent/Caregiver Risk Factors

- **Poor Discipline Skills**
  - Inconsistent or harsh parental discipline can affect a child's vulnerability to trauma

- **Poor Parental Functioning**
  - Children of parents who lack parenting, relationship, communication, or stress-management skills are more vulnerable to the negative effects of violence

- **Parental Mental Illness**
  - Parental mental illness may affect risk through its affect on parenting behaviors and parents' response to disaster
  - Parental psychopathology has been found to be related to higher levels of PTSD symptoms in children and adolescents. Some studies have shown this to be the strongest predictor of children's mental health responses following disaster

1.3 Family Risk Factors

- **Poor Family Functioning**
  - Family dysfunction predicts higher psychological morbidity in children exposed to disasters
  - A depressed or irritable family situation may make children more vulnerable to trauma

1.4 Community Risk Factors

- **Prior Exposure to Community Violence**

- Violence in the community or repeated exposure to violence can make children more vulnerable to trauma-related stress

- **Prior Exposure to War**
  - Children who experience war trauma are more at risk for developing PTSD and depression than those in the general population. For most children symptoms mitigate once exposure to hostilities ceases

- **Poverty**
  - Poverty is a well-established risk factor for child mental health problems that likely encompasses multiple child risk factors
  - Findings from studies suggesting that children from minority ethnic groups may be more vulnerable to the mental health consequences of disaster should be interpreted cautiously, because the influence of socioeconomic factors may also explain this finding

1.5 Child Protective Factors

- **Perceived Sense of Control and Self-Efficacy**
  - Children with an internal locus of control fare better in the face of adversity
    - Internal locus of control refers to an individual's perception about the underlying main causes of event in his/her life
    - Locus of control is conceptualized on spectrum, ranging from external to internal
    - A person with more of an external locus of control believes that his/her behavior is guided by fate, luck or other external circumstances
    - A person with more of an internal locus of control believes his/her behavior is guided by his/her personal decisions and efforts
  - A high sense of self-efficacy, competence, or realistic control may help children to mobilize coping resources

- **Easy-going Temperament**

- **Good Coping Skills**

- **Supportive Relationship with at Least One Adult**

1.6 Parent Protective Factors

- **Parental Warmth**
  - Emotionally responsive caregiving, or parental warmth, can help children face adversity

- **Parental Self-efficacy**
  - A parent's sense of self-efficacy and psychosocial resources can help a child deal with a stressful situation

- **Appropriate Developmental Expectations**
  - Parental expectations appropriate for developmental stage are associated with more resilient responses to stress

- **Good Coping Skills**
  - Children of parents who provide a model of coping and/or a moral framework for understanding the disaster have a greater ability to cope with it

1.7 Family Protective Factors

- **Supportive Parent/child Relationships**
  - Supportive parent/child relationships are associated with resilient responses to stress

- **Adequate Economic Support**

1.8 Community Protective Factors

- **Supportive Child Relationships with School Personnel**

- **Social Support**

- **Political or Community Action Plan To Reduce Violence or Protect Children**
  - A study of Palestinian children affected by the 1987 uprisings indicated that an ideological explanation of violent conflict, along with a sense of being on the "right side," may buffer children against some of the negative psychological effects of violence
  - Political or community action plan to combat violence or protect children and families may provide models for coping and, at the same time, furnish children and their families with a cognitive framework or "healing theory"

1.9 Weighing Exposure, Risk, and Protective Factors

How can we predict those children who will be vulnerable to mental health disorders after a disaster, and how can we protect those children? Some studies have found that the more risk factors that are present, the more mental health symptoms a child will have following exposure to a disaster. Nevertheless, to date it is not known conclusively how pre-existing factors increase risk or protect against child mental health problems when exposed to different types and levels of disaster.

The combination of risk and protective factors is unique to each child, and thus rates of PTSD and other disorders following a disaster are extremely variable. Disasters also often set in motion a series of stressors that interfere with families' and children's ability to cope with the disaster and return to normal life, making it difficult to predict how a child will respond.

To address this complexity, Vernberg, LaGreca, and others (1996) developed a model of child stress reactions following exposure to trauma based on their studies of Hurricane Andrew as well as the research of others. They emphasize that the factors that predict children's responses to trauma are multiple and complex, and include:

1. The level of exposure
2. Pre-existing characteristics of the child (including developmental level)
3. The child's ability to process and cope with stress
4. Characteristics of the recovery environment

This model combines disaster exposure characteristics, particularly those related to the impact of disaster on child and family, with pre-existing clinical risk and protective factors.

The first two parts of this section and the last part of Section I of this training have reviewed many exposure characteristics, risk and protective factors associated with children's mental health responses to disaster. The following short list of characteristics of youth at risk for severe or persistent symptoms of posttraumatic stress is taken from La Greca and colleagues' model and is based on their review of the disaster literature specific to children. Children with several of these characteristics should be closely followed after a disaster, and if symptoms persist, further screening and assessment for specific disorders may be necessary.

- **Level of Exposure to the Disaster**
  - High reported life threat or perceived life threat
  - High level of life disruption (changing schools, moving)
  - High level of personal loss (family, friends, pets)
  - High level of property loss (home, clothes, toys)

- **Pre-existing Risk Factors**
  - Female sex
  - High levels of anxiety
  - Attention problems
  - Depressive symptoms
  - Poor academic achievement
  - Poor family/parental functioning, parental PTSD

- **Protective/Coping Factors**
  - Problems coping with events (e.g., blame, anger)

- **Recovery Environment**
  - Low levels of support from family, friends, classmates
  - Presence of intervening life events (loss or illness in family)
  - High levels of PTSD symptoms (e.g. re-experiencing, hyperarousal, numbing/disinterest)

2. Assessment of Child Mental Health Problems

2.1 Common Reactions

In the days and weeks following a disaster, it is common for children directly exposed to the disaster to experience symptoms from transient mild stress reactions to severe and prolonged PTSD. However, not all children who experience these symptoms will develop a psychiatric disorder.

Although it is common for children to experience some or all of the typical post-disaster symptoms, these symptoms should diminish over time with the support of parents and caregivers. The duration of symptoms depends partially on the characteristics of the disaster, the nature of exposure, and the support received afterwards. If symptoms last longer than a few months, particularly if accompanied by substantial functional impairment, a more thorough assessment and referral to a mental health professional may be clinically indicated.

Depending on age and developmental stage, a child will process trauma differently and display different symptoms. Research on whether disaster has a greater impact in children depending on age has been inconclusive. Age and developmental stage also determine the most appropriate method and screening tool to use to assess PTSD or other disorders in children.

Reactions to Disaster and Approaches to Monitoring
Based on Child Age and Development

Preschool (1-5 years)

- **Developmental Context**

  Preschool-aged children are vulnerable to disruptions in their social environment, and thus disasters that upset the predictability and stability of their normal routines, affect the availability of their usual caretaker, or cause separation from or loss of parents could result in distress symptoms. Children are likely to feel considerable powerlessness, fear, anxiety, and insecurity. Further, young children lack the verbal and cognitive skills needed to understand what is happening and to cope with stressful situations. They tend to rely on cues from parents and older siblings about how to behave and react to stress, and some evidence indicates that family members' reactions to disaster have a greater influence on young children's reactions than the actual characteristics of the disaster itself.

- **"Normal" Reactions Following Direct Exposure to a Disaster**

  - Re-enactment of the traumatic event in play activities
  - Regressive behaviors, such as resumption of bed-wetting or thumb-sucking
  - Clinging to parents
  - Fear of the dark and sleeping alone
  - Increased crying
  - Loss of appetite, stomach aches, and/or nausea
  - Difficulty sleeping and nightmares
  - Speech difficulties

- Tics
- Anxiety, fear, and/or irritability
- Angry outbursts, temper tantrums
- Sadness
- Withdrawal

Monitoring Approach

- Observation and parent report. Preschool age children may not have the verbal or cognitive capacity to report their symptoms and subjective experiences, thus it will be necessary to involve parents and caretakers in the assessment of their symptoms. Studies have shown that the most accurate way to assess PTSD in children under 5 is through a combination of observation, questions during or directions regarding play, and supplemental information from adult care takers.

- Evaluate over time. For all children, in order to clearly establish the developmental course of PTSD, it may be necessary to assess changes in symptoms over time in addition to onset, frequency, and duration of symptoms.

School Age (6-11 years)

Developmental Context

School-aged children have more developed cognitive functioning than pre-schoolers and are developing the capacity to understand the threats posed by large-scale disasters. They will have a better understanding of the disaster and what can be done to mitigate its impact. They are likely to become preoccupied with specific aspects of the disaster, such as the weather in the aftermath of a hurricane, and are also likely to have specific fears in connection with disasters (fears of parents or family members being injured, for example). School-aged children are capable of experiencing the full range of human emotions but may not yet have the capacity to express what they are feeling. Consequently, they are likely to experience intense grief over the loss of loved ones, close companions, or pets, but they may not be able to fully communicate the severity of their grief.

"Normal" Reactions Following Direct Exposure to a Disaster

- Whining, clinging, acting like a younger child
- Changes in appetite, stomach aches
- Headaches
- Difficulty sleeping and nightmares
- Decline in academic performance and/or school avoidance
- Difficulty concentrating
- Aggressive behavior, hyperactivity, and/or silly behavior
- Angry outbursts
- Increased competition with younger siblings for parents' attention
- Withdrawal from family and friends
- Obsessive preoccupation with disaster and safety

- **Monitoring Approach**

  - Child and parent interviews. The most accurate assessments involve a combination of child and caretaker interviews; however, parents and caregivers may underreport children's symptoms, particularly those that are internalizing (i.e., depression, anxiety).

  - Evaluate over time. For all children, in order to clearly establish the developmental course of PTSD, it may be necessary to assess changes in symptoms over time in addition to onset, frequency, and duration of symptoms.

Pre-adolescence and Adolescence (12-18 years)

- **Developmental Context**

  Adolescents and pre-adolescents are struggling with identity and independence issues and are concerned with approval and acceptance by peers. It is important to them to present an image of competence and to feel that their anxiety and fears related to the event are shared by others who are experiencing it. They are capable of understanding the disaster, both its causes and consequences, but may feel uncomfortable verbalizing their feelings.

- **"Normal" Reactions Following Direct Exposure to a Disaster**

  - Changes in appetite and/or gastrointestinal problems
  - Skin eruptions
  - Headaches, vague complaints of aches and pains
  - Difficulty sleeping
  - Decline in academic performance and/or previously responsible behavior
  - Rebellion at home or school, resistance to authority
  - Delinquent behavior
  - Agitation
  - Decreased energy level, apathy
  - Social withdrawal, loss of interest in activities with peers, hobbies, etc.
  - Sadness or depression
  - Feelings of inadequacy and helplessness

- **Monitoring Approach**

  - Child and parent interviews. The most accurate assessments involve a combination of child and caretaker interviews; however, parents and caregivers may underreport an adolescent's symptoms, particularly those that are internalizing (i.e., depression, anxiety) or related to high-risk or delinquent behaviors.

  - Evaluate over time. For all children, in order to clearly establish the developmental course of PTSD, it may be necessary to assess changes in symptoms over time in addition to onset, frequency, and duration of symptoms.

2.2 Common Psychiatric Disorders

Although most children exposed to disaster will not develop a psychiatric disorder, screening and monitoring for the diagnostic criteria of common conditions related to disasters in children and adolescents over time is recommended. Please review the following criteria for PTSD and ASD.

Diagnostic Criteria for Posttraumatic Stress Disorder (PTSD, DSM IV: 309.81)

A. The person has been exposed to a traumatic event in which both of the following were present:

1. The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
2. The person's response involved intense fear, helplessness, or horror. **Note:** In children, this may be expressed instead by disorganized or agitated behavior.

B. The traumatic event is persistently reexperienced in one (or more) of the following ways:

1. Recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.
2. Recurrent distressing dreams of the event. **Note:** In children, there may be frightening dreams without recognizable content.
3. Acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated). **Note:** In young children, trauma-specific reenactment may occur.
4. Intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.
5. Physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma
2. Efforts to avoid activities, places, or people that arouse recollections of the trauma
3. Inability to recall an important aspect of the trauma
4. Markedly diminished interest or participation in significant activities
5. Feeling of detachment or estrangement from others
6. Restricted range of affect (e.g., unable to have love feelings)
7. Sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:

1. Difficulty falling or staying asleep
2. Irritability or outbursts of anger
3. Difficulty concentrating
4. Hypervigilance
5. Exaggerated startle response

E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

See Appendix A to learn more about the diagnostic features of PTSD.

Diagnostic Criteria for Acute Stress Disorder (ASD, DSM IV: 308.3)

A. The person has been exposed to a traumatic event in which both of the following were present:

1. The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
2. The person's response involved intense fear, helplessness, or horror.

B. Either while experiencing or after experiencing the distressing event, the individual has three (or more) of the following dissociative symptoms:

1. A subjective sense of numbing, detachment, or absence of emotional responsiveness.
2. A reduction in awareness of his or her surroundings (e.g., "being in a daze").
3. Derealization.
4. Depersonalization.
5. Dissociative amnesia (i.e., inability to recall an important aspect of the trauma).

C. The traumatic event is persistently reexperienced in at least one of the following ways: recurrent images, thoughts, dreams, illusions, flashback episodes, or a sense of reliving the experience; or distress on exposure to reminders of the traumatic event.

D. Marked avoidance of stimuli that arouse recollections of the trauma (e.g., thoughts, feelings, conversations, activities, places, and people).

E. Marked symptoms of anxiety or increased arousal (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, exaggerated startle response, motor restlessness).

F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning or impairs the individual's ability to pursue some necessary task, such as obtaining necessary assistance or mobilizing personal resources by telling family members about the traumatic experience.

G. The disturbance lasts for a minimum of 2 days and a maximum of 4 weeks and occurs within 4 weeks of the traumatic event.

H. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition, is not better accounted for by Brief Psychotic Disorder, and is not merely an exacerbation of a preexisting Axis I or Axis II disorder.

To learn more about the diagnostic features of ASD, see Appendix A.

2.3 Other Disorders

Anxiety, depression, eating disorders, and substance abuse are also common, and may co-occur with PTSD in individuals with previous trauma. In the clinical context, the clinician might struggle with deciding whether a child's anxiety is expected situational anxiety or whether it satisfies criteria for PTSD. Screening tools for mental health disorders common after disaster, including PTSD, are included at the end of this section.

In addition, the sudden loss of a loved one in a traumatic event may compound traumatic stress reactions with traumatic bereavement; while resembling the symptoms of PTSD, the symptoms experienced with traumatic bereavement differ in important and subtle ways. The key issue with traumatic bereavement is that if the lost loved one cannot be remembered without re-activating the trauma that caused the loss, the process of grief – successive reminiscences and resolution of feelings – is obstructed.

To learn more about the following, see Appendix A:

- **Generalized Anxiety Disorder**
- **Major Depression**
- **Substance Abuse**
- **Substance Dependence**
- **Bereavement**

3. Screening Tools and Web Resources

Screening Tools

The following tools can be used before (or after) a disaster to collect information for children in your practice in order to prepare for a large-scale disaster. They may also be useful for early identification of a developing disorder. Having a "baseline" of developmental progress and any emerging problems before a disaster may help with tracking and determining whether a child is developing a more severe disorder. To our knowledge, these forms have not previously been used to collect information in disaster situations.

Some of these documents can be found in Appendix B.

- Kyss Assessment Questions for Parents of Older Infants and Toddlers – A questionnaire that can be completed by parents to identify known risk factors for mental health disorders in children.
  http://napnap.org/Docs/KySS%20Assess.pdf
- Bright Futures in Practice: Mental Health, Vols I and II – Provides comprehensive information about child psychosocial development and tools for assessing development. Also contains tools for assessing mental health disorder symptoms.
  http://www.brightfutures.org/mentalhealth/index.html

- All Hazards Preparedness forms – (Parent and Healthcare Provider versions) –A form that can be completed by parents or healthcare providers before a disaster to track child health and mental health risk and protective factors in order to develop strategies to build child resilience.

Several screening tools have been developed for assessing PTSD, major depression, and other common psychiatric disorders that are likely to occur in the event of a disaster. If your patient's behavioral and psychological reactions to a traumatic event do not subside within a few weeks, you may want to use a screening tool to assess whether a child needs further intervention. Below are links to some brief tools for common conditions. Some of these can be completed by parents for their children. However, it is important to note that some studies have shown that parents, due to their own psychological distress, may underreport or over report their children's symptoms.

- Mental Health Survey Instrument – Developed by the Center for Disease Control and Prevention for assessing mental health symptoms in adults following disasters. The instrument includes items to assess exposure to disaster. Providers may want to use this tool post-disaster on adult family members of their patients, to assess the family's exposure to disaster and mental health symptoms of adult family members. Scoring information is not provided for this instrument, but references with information on scoring are included.
  http://www.bt.cdc.gov/masscasualties/pdf/mhsurvey-instrument.pdf

- The UCLA PTSD Reaction Index for Children (DSM-IV): A short instrument that can be used for children 7-18 years of age, completed by the child or parent as either a self-administered or interview format. Video by the developers available for download explains

the DSM-IV criteria and administration. Instrument and scoring sheets also available from the UCLA site.
http://www.nctsn.org/nctsn_assets/video/ptsdproducer_files/Default.htm

- Posttraumatic Stress Disorder in Children Screening Checklist –An online screening tool with 17 items developed by the New York Child Study Center. The instrument has 2 stem items to screen for Criteria A of PTSD. If a positive response to these items is entered, the tool links to a screen with the remaining 15 items. Can be completed by parents or adult care givers. *A positive screen results in a message that encourages parents to seek a professional mental health evaluation.*
http://www.med.nyu.edu/cgi-bin/aboutourkids/ptsd/ptsd_screen.cgi?action=start

- STEPP – Developed by Kassam-Adams and colleagues and used with their permission, the Screening Tool for Early Predictors of PTSD (STEPP) is a 12-item instrument (4 questions each completed by parent, child, and physician) to assess PTSD risk in children (over 5 years of age) who have sustained unintentional injury (i.e., car accident). An important caveat for use of the STEPP with children injured in a disaster is that it has not been validated for that population. It was developed in a single sample, and in preliminary subsequent work the authors are finding that the optimal items for predicting PTSD risk may vary somewhat in different injured populations.

- ASC-Kids –Developed by Kassam-Adams, the Acute Stress Checklist for Children (ASC-Kids) is a 29-item instrument developed to assess acute stress disorder symptom clusters in children (over 5 years of age) who have experienced trauma. It has been validated in a broad injury and medical population, and appears to be a solid measure of acute stress reactions in children. The developers will soon undertake a second large validation study that will assess both the ASC-Kids and a Spanish version (the RAP-M).

- Major Depressive Disorder in Children and Adolescents Screening Checklist –An online screening tool with 12 items, developed by the New York Child Study Center. Can be completed by a parent or adult care giver. A positive screen results in a message that encourages parents to seek a professional mental health evaluation.
http://www.med.nyu.edu/cgi-bin/aboutourkids/depression/depression_test.cgi

- Center for Epidemiological Studies Depression Scale for Children (CES-DC) – A 20-item self-administered instrument for assessing depressive symptoms in school-age children, developed by Weissman and colleagues. Scoring and instructions are included.
http://www.brightfutures.org/mentalhealth/pdf/professionals/bridges/ces_dc.pdf

- Pediatric Symptom Checklist 17 (an abbreviated version of the Pediatric Symptom Checklist with 17 items) – Based on the full version of the Pediatric Symptom Checklist, this version has 17 items and is designed to be completed by parents or caregivers. Developed by Gardner and colleagues, it includes 3 subscales to assess internalizing, externalizing, and attention problems.
http://ocs.ccri.ws/pdf/PEDIATRIC%20SYMPTOM%20CHECKLIST17.pdf

    - Chinese version of PSC-17, courtesy of Danielle Laraque, MD
    http://ocs.ccri.ws/pdf/PSC17_Chinese.pdf

- Alternative English version of PSC-17, courtesy of Danielle Laraque, MD
  http://ocs.ccri.ws/pdf/PSC17_English.pdf

- Scoring for Laraque versions of PSC-17
  http://ocs.ccri.ws/pdf/PSC-17_scoring.pdf

- Pediatric Symptom Checklist- Full version – A 35-item instrument with versions that can be completed by parents or adolescents 11 years or older, this instrument was designed by Jellinek and colleagues to facilitate early recognition of cognitive, emotional and behavioral problems in children. Instructions for completion and scoring included.
  http://www.brightfutures.org/mentalhealth/pdf/professionals/ped_sympton_chklst.pdf

- Screening tools for PTSD and traumatic stress in children
  http://www.ncptsd.va.gov/ncmain/assessment/childmeas.jsp

- National Child Traumatic Stress Network Measures Review Database – A searchable database with reviews of assessment and screening tools used to assess children's exposure to trauma and mental health symptoms.
  http://www.nctsn.org/nccts/nav.do?pid=ctr_tool_searchMeasures

Web Resources

Information on Risk Factors, Protective Factors, and Resilience in Children

- Kids and Terrorism: Supporting Our Kids in Times of Crisis - Begins with scenarios of children's experiences of the September 11, 2001 attacks, provides information on risk and protective factors. Could be given as a handout to parents and caregivers. http://www.aboutourkids.org/aboutour/articles/testimony.html
- Children's Resilience in the Face of Trauma - A newsletter from the Child Study Center (Jan/Feb 2004) explaining the concept of resilience. http://www.mainechildtrauma.net/Resilience_Trauma_tip.pdf
- Fact Sheet: Fostering Resilience in the Face of Terrorism - From the American Psychological Association, intended primarily for psychologists; provides more detailed information on resilience, mental health symptoms likely to occur with a traumatic event, and how to intervene. http://www.apa.org/psychologists/pdfs/children.pdf

Information on Mental Health Symptoms, Typical Reactions

- Feelings Need Checkups Too - The American Academy of Pediatrics is pleased to announce it has produced, with support from the 9-11 Children's Fund at the National Philanthropic Trust, a comprehensive CD-ROM and upcoming comprehensive 30-page toolkit for pediatricians who are helping children experiencing emotional distress related to 9-11 and other catastrophic events. The CD-ROM has been distributed to over 40,000 pediatricians and pediatric care providers. http://www.aap.org/profed/childrencheckup.htm.
  To order the toolkit, please send an e-mail message to: feelings@aap.org

- Understanding Child Traumatic Stress – A guide (produced by the National child Traumatic Stress Network) to traumatic stress in children, symptoms associated with traumatic stress. http://www.nctsnet.org/nccts/nav.do?pid=faq_under

- Pediatric Traumatic Medical Stress – A Comprehensive Guide - A guide (produced by the National child Traumatic Stress Network) to understanding stress in children coping with illness or injury; includes information on screening and interventions. http://www.nctsnet.org/nctsn_assets/acp/hospital/brochures/GuideBrochure.pdf

- Childhood Traumatic Grief Educational Materials for Pediatricians and Pediatric Nurses – Comprehensive information for understanding uncomplicated bereavement following death, with information on treatment. http://www.nctsnet.org/nctsn_assets/pdfs/reports/pediatrics_package1-15-04.pdf

- Mental Health Aspects of Terrorism – 2-page brief from the U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) on typical reactions to terrorism, how one can help, and when to refer for mental health services. http://mentalhealth.samhsa.gov/publications/allpubs/KEN-01-0095/default.asp

Information and Hand-Outs for Parents on the Web

- Terrorist Attacks and Children – From the Veteran's Administration National Center for PTSD. Provides tips for parents on how to help children cope, explains how children react to terrorism and common symptoms by developmental stage. http://www.ncptsd.va.gov/ncmain/ncdocs/fact_shts/fs_children_disaster.html

- Helping Children Cope with Stress – From the North Carolina Cooperative Extension Service. Explains different types of stress and children's common reactions, provides information for parents to help children cope with stress. http://www.ces.ncsu.edu/depts/fcs/human/pubs/copestress.html

- Posttraumatic Stress Disorder (PTSD) – From the American Academy of Child and Adolescent Psychiatry. Explains the symptoms of PTSD, what types of traumatic events are likely to cause PTSD, who is likely to develop PTSD. http://aacap.org/page.ww?name=Posttraumatic+Stress+Disorder+(PTSD)&section=Facts+for+Families

- Coping with Trauma – A brief article by Margery Rosen directed to parents. Presents examples of traumatic events children are likely to experience, discusses common symptoms children may experience, what parents can do to help children cope. http://www.aboutourkids.org/aboutour/articles/copingtrauma.html

- Children and Grief: What They Know, How They Feel, How to Help – A brief article by Robin Goodman. Describes how the characteristics of the loss, as well as the quality of the relationship prior to loss, affect response. Also explains developmental-dependent symptoms related to loss and how parents and other adults can help children cope. http://www.aboutourkids.org/aboutour/articles/grief.html

- "When Terrible Things Happen: A Parent's Guide to Talking with Their Children", by Lewis A Leavitt, 2002. *Journal of Pediatric Health Care,* vol. 16, pages 272-274. See Appendix B.

4. Section II References

Billings A, Moos R (1981). The Role of Coping Responses and Social Resources in Attenuating the Stress of Life Events. *Journal of Behavioral Medicine, 4*(2):139-57.

Bryant RA (2004). "Assessing Acute Stress Disorder". In *Assessing Psychological Trauma*. Wilson JP, Keane T (Eds). New York: The Guilford Press.

Brick N (2003).The neurological basis for the theory of recovered memory [research paper].

Cheever K, Hardin S (1999). Effects of traumatic events, social support, and self-efficacy on adolescents' self-health assessments. *Western Journal of Nursing Research, 21*(673-684).

Connor K, Zhang W (2006). Resilience: determinants, measurement, and treatment responsiveness. *CNS spectrums, 10* (Suppl 12):5-12.

Covell N, Essock S, Felton C, Donahue S (2006). Characteristics of Project Liberty Clients That Predicted Referrals to Intensive Mental Health Services. *Psychiatric Services, 57*(9):1313-1315.

Cowen EL, Wyman, PA, Work, WC (1996). Resilience in highly stressed urban children: concepts and findings. *Bulletin of the New York Academy of Medicine, 73*(2): 267-84.

Dalgleish T, Joseph S, Thrasher S, Tranah T, Yule W (1996). Crisis support following the herald of free-enterprise disaster: A longitudinal perspective*. Journal of Traumatic Stress, 9*:833-845.

Flynn B, Norwood A (2004). Defining Normal Psychological Reactions to Disaster. *Psychiatric Annals, 34(*8):597-603.

Flouri E (2005). Post-Traumatic Stress Disorder (PTSD): What We Have Learned and What We Still Have Not Found Out. *Journal of Interpersonal Violence, 20*(4): 373-379.

Foy D (1992). "Introduction and description of the disorder." In *Treating PTSD: Cognitive-Behavioral Strategies*. Foy DW (Ed). New York: Guilford, 1-12.

Foa E, Stein D, McFarlane A (2006). Symptomatology and Psychopathology of Mental Health Problems after Disaster. *Journal of Clinical Psychiatry, 67* (Supplement 2):15-25.

Hagan JF, Jr. (2005). Psychosocial implications of disaster or terrorism in children: A guide for the pediatrician. *Pediatrics, 116*(3): 787-795.

Hoge E, Austin E, Pollack M (2006). Resilience: research evidence and conceptual considerations for posttraumatic stress disorder. *Depression and Anxiety:* 1-14.

Jones R, Ribbe D, Cunningham P (1994). Psychosocial correlates of fire disaster among children and adolescents. *Journal of Traumatic Stress, 7*:117-122.

Joseph S, Williams R, Yule W (1992). Crisis support, attributional style, coping style, and post-traumatic symptoms. *Personality and Individual Differences, 13*:1249-1251.

Kazak A, Alderfer M, Rourke M, Simms S, Streisand R, Grossman J (2004). Posttraumatic Stress Disorder (PTSD) and Posttraumatic Stress Symptoms (PTSS) in Families of Adolescent Childhood Cancer Survivors. *Journal of Pediatric Psychology, 29*(3):211-219.

Khoury E, Warheit G, Hargrove M, Zimmerman R, Vega W, Gil A (1997). The impact of Hurricane Andrew on deviant behavior among a multi-racial/ethnic sample of adolescents in Dade County, Florida: A longitudinal analysis. *Journal of Traumatic Stress, 10*:71-91.

Kitayama S, Okada Y, Takumi T, Takada S, Inagaki Y, Nakamura H (2000). Psychological and physical reactions of children after the Hanshin-Awaji earthquake disaster. *Kobe Journal of Medical Sciences, 46*:189-200.

Kilic EZ, Ozguven HD, Sayil I (2003). The Psychological Effects of Parental Mental Health on Children Experiencing Disaster: The Experience of Bolu Earthquake in Turkey. *Family Process, 42*(4): 485-495.

Knopp F, Benson A (1996). A Primer on the Complexities of Traumatic Memory Childhood Sexual Abuse: A Psychobiological Approach. Brandon: Safer Society Press.

LaGreca A, Silverman W, Vernberg E, Prinstein M (1996). Symptoms of posttraumatic stress in children after Hurricane Andrew: A prospective study. *Journal of Consulting and Clinical Psychology, 64*:712-723.

Laor N, Wolmer L, Kora M, Yucel D, Spiriman S, Yazgan Y (2002). Posttraumatic, dissociative and grief symptoms in Turkish children exposed to the 1999 earthquakes. *Journal of Nervous and Mental Disease, 190*:824-832.

Lawyer S, Resnick H, Galea S, Ahern J, Kilpatrick D, Vlahov D (2006). Predictors of Peritraumatic Reactions and PTSD Following the September 11th Terrorist Attacks. *Psychiatry, 69* (2):130-141.

Lavigne JV, Arend R, Rosenbaum D, Binns HJ, Christoffel KK, Gibbons RD (1998). Psychiatric disorders with onset in the preschool years: I. Stability of diagnoses. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*: 1246-1254.

Luthar SS, Cicchetti D (2000). The Construct of Resilience: Implications for Interventions and Social Policies. *Development and Psychopathology, 12*: 857-885.

March JS, Amaya-Jackson L, Terry R, Costanzo P (1997). Posttraumatic symptomatology in children and adolescents after an industrial fire*. Journal of the American Academy of Child & Adolescent Psychiatry, 36*(8):1080-8.

Meichenbaum D (1994). A Clinical Handbook/Practical Therapist Manual for Assessing and Treating Adults with Post-Traumatic Stress Disorder (PTSD). Waterloo, Ontario: Institute Pres.

Mukerjee M (1995). Sexual and Other Abuse May Alter a Brain Region. *Scientific American, 273*(4):14.

Nader K (2004). "Assessing Traumatic Experiences in Children and Adolescents: Self Reports of DSM PTSD Criteria B-D Symptoms." In *Assessing Psychological Trauma and PTSD.* Wilson JP, Keane TM (Eds). New York: Guilford Press, 513-537.

O'Grady D, Metz, R (1987). Resilience in Children at High Risk for Psychological Disorder. *Journal of Pediatric Psychology, 12*(1): 3-23.

Poole N, Best S, Metzler T, Marmar C (2005). Why Are Hispanics at Greater Risk for PTSD? *Cultural Diversity and Ethnic Minority Psychology, 11*(2):144-161.

Pynoos RS, Steinberg AM, Piacentini JC (1999). A developmental psychopathology model of childhood traumatic stress and intersection with anxiety disorders. *Biological Psychiatry, 46*(11):1542-54.

Rousseau C, Drapeau A, Rahimi S (2003). The Complexity of Trauma Response: A 4-Year Follow-Up of Adolescent Cambodian Refugees. *Child Abuse & Neglect, 27*: 1277-1290.

Solomon Z (1985). Stress, social support and affective disorders in mothers of pre-school children – A test of the stress-buffering effect of social support. *Social Psychiatry, 20*:100-105.

Steinberg A, Brymer M, Steinberg J, Pfefferbaum B (2006). "Conducting Research with Children and Adolescents after Disaster." In *Methods for Disaster mental Health Research*. Norris FH, Galea S, Friedman N, Watson P (Eds). New York: The Guilford Press.

Shaw JA (2000). Children, adolescents, and trauma. *Psychiatric Quarterly, 71*(3): 227-243.

Shonkoff JP, Phillips DE, Committee on Integrating the Science of Early Childhood Development, National Research Council (2000). *Neurons to Neighborhoods- the Science of early childhood development.* Washington DC, National Academy Press.

Thabet AA, Vostanis P (2000). Posttraumatic Stress Disorder Reactions in Children of War: A Longitudinal Study. *Child Abuse & Neglect, 24*(2): 291-298.

Wallen J (1993). Protecting the Mental Health of Children in Dangerous Neighborhoods. *Children Today, 22*(3).

van der Kolk B (1994). The Body Keeps the Score: Memory and the Evolving Psychobiology of Posttraumatic Stress. *Harvard Review Psychiatry, 1*(5):253-65.

Vernberg E, La Greca A, Silverman W, Prinstein M (1996). Prediction of posttraumatic stress symptoms in children after Hurricane Andrew. *Journal of Abnormal Psychology, 105:*237-248.

Wasserstein S, LaGreca A (1998). Hurricane Andrew: Parent conflict as a moderator of children's adjustment. *Hispanic Journal of Behavioral Science, 20*:212-224.

Wilson JP (2004). "PTSD and Complex PTSD: Symptoms, Syndromes, and Diagnoses." In *Assessing Psychological Trauma and PTSD*. Wilson JP, Keane T (Eds). New York: The Guilford Press.

Wooding S, Raphael B (2004). Psychological Impact of Disasters and Terrorism on Children and Adolescents: Experience from Australia. *Prehospital and Disaster Medicine, 19*(1): 10-20.

Wyman PA, Cowen EL, (1999). Caregiving and Development Factors Differentiating Young At-Risk Urban Children Showing Resilient versus Stress-Affected Outcomes: A Replication and Extension. *Child Development, 70*(3): 645-659.

Yehuda R, Halligan SL, Grossman R (2001). Childhood Trauma and Risk for PTSD: Relationship to Intergenerational Effects of Trauma, Parental PTSD, and Cortisol Excretion. *Development and Psychopathology, 13*: 733-753.

Section III. INTERVENTION STRATEGIES & TREATMENT

The purpose of this section is to present evidence-based intervention strategies and treatments for children with trauma-related mental health problems and their families.

Learning Objectives: At the conclusion of this section, you should be able to:

- **Identify common acute phase intervention strategies for children exposed to traumatic events**
- **Review psychosocial treatment options for common child mental health problems related to disaster exposure**
- **Recognize when extreme care is warranted for medication treatment, and when consultation with a psychiatric professional is indicated**

Content:

1. Overview

2. Acute Phase Interventions

- **2.1 Address Critical Needs First**
- **2.2 Watch and Wait**
- **2.3 Parent Education**
- **2.4 Acute Crisis Management Strategies**

3. Treatment Options

- **3.1 Psychosocial Treatment**
- **3.2 Medication Treatment**
- **3.3 Other Interventions**
- **3.4 Immediate Referral to Specialty Mental Health**

4. Web Resources for Parent Education

5. Section III References

1. Overview

In the aftermath of a large scale disaster, primary care providers may become the "first responders" for children and families suffering psychological and emotional consequences. The need for mental health services could exceed the capacity of existing resources, and thus pediatric primary care providers will play an important role in identifying and addressing children's and families mental health needs. Thus, intervention before, during, and after a large-scale disaster should be based on the priorities of the disaster phase (i.e., acute, recovery) and actual need. As discussed in previous sections of this training, child/family risk/vulnerability and the disaster exposure will determine the most appropriate intervention strategy. Screening and monitoring can assist in identifying common reactions and childhood psychiatric disorders in children.

For most children and families, one or more of the strategies presented will be sufficient in the post-disaster phase. After assessing vulnerability and exposure, and determining that your child patient's reactions are within the range of what could be expected after a disaster (Section II), a "watch and wait" strategy will be appropriate in most cases. Psycho-education for parents and children can help the family understand what is happening to the child, such as explaining the normal post-traumatic response, what to expect, what is normal, and when additional intervention or support is needed. Primary caregivers should also be involved in monitoring the child's progress and reporting any distressing behaviors or symptoms. Follow-up care to regularly monitor progress, such as arranging a series of contacts to assess symptoms and adaptive functioning over time, is recommended. A mental health referral may also be clinically indicated for children and families requiring more intensive psychotherapeutic intervention (discussed at the end of this section).

2. Acute Phase Interventions

The goal of acute phase interventions is to provide comfort, information, and support. Meeting the immediate practical and emotional needs of affected individuals can help people cope with a highly stressful event. Priority should be placed on establishing a supportive relationship that leaves the individual open to further follow-up if and when necessary. One or more of the following intervention strategies should be implemented as soon as possible following exposure.

2.1 Address Critical Needs First

In the days and weeks following a disaster, supportive interventions must address the most critical needs first. In addition to physical needs, the priorities for acute phase interventions are:

- **Ensure the Safety and Security of the Child**
- **Provide Age-appropriate Information to the Child and Parents**
  - The pediatric provider should use her/his best clinical judgment and familiarity with the child's developmental level to determine how much and what type of information is appropriate to provide the child.
  - Primary caregivers should be involved in monitoring the child's recovery and subsequent developmental progress, as well as assisting the child with understanding his/her psychological and behavioral response and learning ways of coping.

- **Limit Exposure to Traumatic Aspects of the Event** (i.e., television news coverage)

- **Restore Family Functioning**

  - Reunite family members
  - Restore child and family routine
  - Refer parents who are having difficulty dealing with coping and/or parenting for mental health care

2.2 Watch and Wait

This is clinically indicated for children and families that appear to be experiencing "normal" reactions. Monitoring child emotional and behavioral symptoms is anticipated to take place in a primary care setting because existing community-based specialty mental health resources are likely to be overwhelmed. Most individuals, including children, will experience transient stress reactions that will be reduced with time, and only some will eventually develop PTSD.

2.3 Parent Education

- **Psycho-education for Both Adults and Children**

  - This is an essential component of acute interventions post-disaster
  - Links to online materials for parents that explain common child reactions to stress and things they can do to help their children cope are provided below (see Web Resources for Parent Education) and throughout this training

- **Communication with Children**

  - Parents and families can help children deal with psychological and behavioral reactions by communicating that it is normal to feel anxious or frightened and that they will help their children to manage this difficult time

- **Goals**

  - To aid parents and caregivers to recognize normal signs of stress (i.e., sadness, anxiety, tantrums, aggression, regressive behaviors, somatic complaints, reluctance to separate from family members)
  - To promote social support and healthy forms of coping

- **Benefits to Parents**

  - One or more family members are likely to experience trauma
  - Parents and other adults may benefit from education about:
    - Symptoms
    - What reactions are normal
    - How to manage them
    - How to minimize exposure to traumatic reminders

2.4 Acute Crisis Management Strategies

- **Determining the Need for Mental Health Care**

  - Existing medical and mental health resources are likely to be overwhelmed with need in the aftermath of a disaster, and thus determining which individuals are most in need of immediate treatment will be crucial
  - Children who have experienced more severe exposure (i.e., greater intensity, proximity, impact) should be ideally assessed and counseled individually
  - Assessment of child need for mental health care can also be efficiently performed in groups
  - Details of assessment are described in Section II

- **Patient Education**

  - Distribution of educational materials
    - Flyers that describe trauma and what to expect
    - Brochures that describe elements of brief Cognitive Behavioral Therapy (CBT) (may be reviewed in individual or group sessions to help individuals understand and manage their reaction).
  - Group sessions can be particularly effective for providing age-appropriate information to children about the most common reactions they could experience and how to manage their emotions and behavior, as well as how to cope with traumatic reminders, anniversaries of traumatic events, and the secondary effects of disaster such as disrupted routines and re-exposure through television viewing.
  - Some children will not feel comfortable expressing their feelings in a group setting, and extreme care must taken to avoid further traumatizing children by re-experiencing their own or other individuals' exposure to the event.

Of note, federal crisis counseling programs, through existing public mental health systems, are provided only after disaster funds are appropriated. They are directed to individuals with new symptoms directly related to the disaster. Further, scientific evidence has not yet demonstrated the effectiveness of crisis response interventions.

3. Treatment Options

3.1 Psychosocial Treatment

- **Overview**

  - Psychotherapeutic treatment may be indicated for children directly exposed or bereaved, and for children experiencing prolonged reactions, those with pre-existing mental health or behavioral problems, prior trauma, or family problems
  - Psychosocial treatment should address:
    - The child's unique experience of the event
    - The development of strategies to cope with traumatic reminders
    - Grief and the combined effects of trauma and bereavement
    - Post-trauma problems such as decline in school performance

- The identification of and compensating for missed developmental opportunities
- Repairing trauma-based self-attributions and world view

Trauma-focused Cognitive Behavioral Therapy (TF-CBT)

- Cognitive behavioral therapy has the strongest evidence base as an effective treatment for PTSD symptoms in children and should be the first-line approach.
- Core elements of CBT are manageable exposure to the specific thoughts of the trauma and cognitive restructuring to influence the fear network.
- CBT interventions typically include exposure, cognitive restructuring, anxiety reduction, and psycho-education, but research has not yet determined the relative importance of these elements.
    - This alters the memory, so that reminders of the threat are re-experienced without the frightening consequences, in a setting that allows habituation.
- Established effectiveness for multiple types of trauma (i.e., sexual abuse, physical abuse, disaster), mostly for children younger than 14.
- A Trauma Focused Cognitive Behavioral Therapy for children has been developed by Judith Cohen and colleagues at the Drexel University College of Medicine in Pittsburgh, PA, and has been shown to be effective with sexually abused children.
    - This intervention showed significant reductions in PTSD symptoms, general anxiety, depression, externalizing behavior, and social skills deficits.
    - This intervention is currently being tested in a community setting with children and families exposed to Hurricane Katrina.
- A few studies have demonstrated continued improvements at one-year follow-up.
- Greater improvements result when parents and caregivers of traumatized children participate in CBT.
- For younger children, it is important to focus on the specific event, and to include their parents or caregivers.
- If there are ongoing family problems with anger, excessive physical discipline, these should be monitored, as they may have a negative effect on treatment success.
- Frequency and duration should be based on clinical improvement of symptoms and successful restoration of the child's developmental progress.
- Little is known about how many sessions are necessary and what level of exposure detail is necessary.
- In most of the studies of CBT effectiveness, interventions included eight to 16 sessions, but some children (those with comorbid conditions, chronic trauma exposure, prolonged victimization, etc.) may require more session.
- Length of the intervention should be tailored to the nature of the trauma (i.e., protocol focuses on abuse or sudden trauma)

Brief Counseling

- Brief counseling may be most effective immediately after single-incident trauma, with defined and limited target symptoms and treatment goals.
- Can be used to expose underlying fears, fantasies, distorted perceptions, and a host of other emotions.

- Over the course of therapy, the child can learn to identify, understand, and overcome the terror and helpless feelings they experienced during the traumatic event. Eventually the child will be able to cope with painful memories associated with the event.
- Approaches to therapy for children may include art and play therapy, therapeutic games, and psychodrama.
- Eye Movement Desensitization and Reprogramming (EMDR), a type of short-term therapy, has been anecdotally reported to reduce symptoms of PTSD, generalized anxiety, and depression.

3.2 Medication Treatment

Medication is rarely indicated for children after exposure to trauma; however medications may be necessary when no therapy is available, as an adjunct for children receiving therapy, or for children experiencing prolonged, extreme reactions. Psychosocial treatment will most likely be provided by a mental health professional. However, a child may need medication to alleviate his/her distressing symptoms in order for psychosocial treatment to be successful and the pediatric provider may be the one asked to prescribe and manage that medication. Ideally, medication should be used to treat symptoms, such as PTSD symptom clusters (i.e., re-experiencing, hyper-arousal, and numbness/withdrawal), minimize impulsivity, improve sleep, treat secondary disorders, facilitate CBT, and improve function.

- **Care Is Required and Consultation Is Advisable**

  - Currently no objective evidence supports the effectiveness of pharmacotherapy to treat children's posttraumatic symptoms.
  - Metabolic and neurodevelopmental factors in children can affect the dosage and response. Psychotropic medications are difficult to use with younger children and, in all children, may have adverse side effects.
  - Medication choice is complicated if a comorbid condition (e.g. depression, anxiety) is present, which, in usual mental health clinical practice, is the rule rather than the exception, particularly for adolescents.
  - Parent or caregiver's symptoms should also be assessed during medication treatment. Posttraumatic reactions of parents are highly transferable to children.

- **A Common Rationale Is To Address Altered Neurobiology**

  - Dysregulation of the adrenergic system may result in anxiety, nightmares, poor sleep, hypervigilance, and panic attacks. The best medications for treating these symptoms are the α_2-blockers clonidine and guanfacine, although beta blockers (e.g., propranolol) have also been shown to be useful in the acute phase.
  - Dysregulation of the dopaminergic system can also cause anxiety and hypervigilance, as well as aggressive impulsivity, flashbacks, and paranoia. Evidence suggests that risperidone may be effective for treating these symptoms.
  - Dysregulation of the serotonergic system, particularly 5-HT deficiency, may result in depression, suicidality, aggression, impulsivity, anxiety, and obsessive thoughts. Drugs that increase 5-HT may alleviate these symptoms.

- Studies in adults have found that selective serotonin reuptake inhibitors (SSRIs) are the only class of medications that reduce all the symptom clusters associated with PTSD. These drugs should be considered first-line choices in such cases.
- A therapeutic trial of an SSRI may take up to 2 months because SSRIs may take 6-8 weeks to begin working.
- SSRIs should be used with caution in children and only for those who meet the DSM criteria for PTSD. The currently recommended SSRIs are fluoxetine and citalopram.
- The use of benzodiazepines for treating posttraumatic symptoms is controversial, as one trial demonstrated an increased risk of developing PTSD with their use.

3.3 Other Interventions

Psychological First Aid

- An approach developed by the National Child Traumatic Stress Network (http://www.nctsnet.org/nccts/nav.do?pid=hom_main)
- Designed to be delivered in the immediate aftermath of a disaster by first responders as part of an organized disaster response effort.
- Not yet been tested in a disaster situation. Its components are guided by research on catastrophic events.

School-based Interventions

- Easy access to children and families in a community that has experienced a large-scale disaster.
- Ideal settings for mental health interventions:
  - Re-establish familiar routines
  - Establish normalcy of psychological and behavioral reactions
  - Reduce the stigmata frequently associated with receiving mental health services
- Some posttraumatic stress reactions and symptoms (i.e., difficulty concentrating, poor academic performance, poor social adaptation) are likely to emerge in the school setting.
- Evidence indicates that directed CBT delivered in a school setting can be effective for reducing the impact of trauma on children.

3.4 Immediate Referral to a Specialty Mental Health Provider

Important Indications

- Referral decision may be influenced by availability of mental health resources as well as the primary care provider's expertise, experience, and comfort level.
- Immediate referral to a mental health specialist is recommended for clinical indicators of a psychiatric emergency:
  - Self-harm
  - Harm to others
  - Rapid deterioration in functioning
  - Extreme family pathology or stress

4. Web Resources for Parent Education

- Responding to Children's Emotional Needs During Times of Crisis – Contains tips for parents and caregivers to provide for children's emotional needs.
  http://www.aap.org/terrorism/topics/parents.pdf

- Tips for Talking to Children in Trauma: Interventions at Home for Preschool to Adolescence – Developmentally-appropriate strategies for parents to help children cope with traumatic stress.
  http://mentalhealth.samhsa.gov/publications/allpubs/NMH02-0138/default.asp

- Helping Young Children and Families Cope with Trauma in a New Era – Strategies to help children ages 0-3 years to cope with trauma.
  http://www.zerotothree.org/ztt_professionals.html

- Helping America Cope – Comprehensive guide for parents with strategies and activities to help children cope in the aftermath of terrorism. Available for download in Spanish, Chinese, and Arabic, as well as English.
  http://www.7-dippity.com/other/op_hcc.html

- Understanding Children – Fears – Information on a variety of fears that young children may experience, and how to help them cope.
  http://www.extension.iastate.edu/Publications/PM1529D.pdf

- When Hurt Leads to Hate: Preventing Your Child's Feelings of Anger from Leading to Actions of Bias and Hate – For parents to help children dealing with anger following an attack or terrorist incident.
  http://www.aboutourkids.org/aboutour/articles/hate.html

- Talking to Kids About Terrorism or Acts of War – Common questions to help parents talk to their children about war and terrorism.
  http://www.aboutourkids.org/aboutour/articles/war.html

- Helping Children with Developmental Disabilities Cope with Traumatic Events – Strategies for parents to reduce the impact of traumatic events for children with developmental disabilities.
  http://www.aboutourkids.org/aboutour/articles/disable_trauma.html

- The Parent Letter – Psychotherapies for Children – Information for parents about psychotherapies for children.
  http://www.aboutourkids.org/aboutour/parent_letter/2006/english_parent_letter_june_06.pdf

- Helping Children Cope with Disaster – A guide for parents explaining "normal" reactions to traumatic events and strategies to help children cope.
  http://www.pueblo.gsa.gov/cic_text/family/children-disaster/children.htm

Other Web Resources

- National Child Traumatic Stress Network Empirically Supported Treatments and Promising Practices – Describes the clinical treatment and trauma-informed services implemented by NCTSN grant sites; focus is primarily on violence and abuse.
  http://www.nctsnet.org/nccts/nav.do?pid=ctr_top_trmnt_prom

- Childhood Traumatic Grief Educational Materials for Pediatricians and Pediatric Nurses – Comprehensive information for understanding uncomplicated bereavement following death, with information on treatment.
  http://www.nctsnet.org/nctsn_assets/pdfs/reports/pediatrics_package1-15-04.pdf

- The Center for Traumatic Stress in Children and Adolescents – Located at Allegheny General Hospital in Pittsburgh. A Website with more information on Trauma-Focused Cognitive Behavioral Therapy for children.
  http://www.pittsburghchildtrauma.com/

- Post-traumatic stress disorder. The management of PTSD in adults and children in primary and secondary care. – A clinical guideline for the management of PTSD from the National Collaborating Centre for Mental Health, National Institute for Clinical Excellence (NICE) in the UK.
  http://guideline.gov/summary/summary.aspx?doc_id=6850&nbr=004204&string=ptsd

5. Section III References

American Academy of Pediatrics (2006). Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians. Agency for Healthcare Research and Quality.

Benedek DM, Holloway HC, Becker SM (2002). Emergency mental health management in bioterrorism events. *Emergency medicine clinics of North America, 20*(2):393-407.

Brown E, Albrecht A, McQuaid J, Munoz D, Silva R (2004). Treatment of Children exposed to Trauma, in *Posttraumatic Stress Disorders in Children and Adolescents (Handbook).* R. Silva. New York, New York, WW Norton Co**:** 257-286.

Brown EJ and Bobrow AL (2004). School Entry After a Community-Wide Trauma: Challenges and Lessons Learned from September 11th, 2001. *Clinical Child and Family Psychology Reviews, 7*(4): 211-221.

Cohen JA and Mannarino AP (1997). A treatment study for sexually abused preschool children: outcome during a one-year follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*(9): 1228-35.

Cohen JA, Mannarino AP, Deblinger E (2006). Treating trauma and traumatic grief in children and adolescents. New York: Guilford Press.

Davidhizar R, Shearer R (2002). Helping children cope with public disasters. *American Journal of Nursing,102*(3):26-33.

DeWolfe DJ (2004). Mental Health Response to Mass Violence and Terrorism: A Training Manual. *U.S. Department of Health and Human Services; Center for Mental health Services, Substance Abuse and Mental health Services Administration:* 184.

Donnely C, Amaya-Jackson L (2002). Posttraumatic stress disorder in children and adolescents: epidemiology, diagnosis and treatment options. *Pediatric Drugs, 4*(3): 159-170.

Donohue S, Lanzara C, Felton C, Essock S, Carpinallo S (2006). Project Liberty: New York's Crisis Counseling Program Created in the Aftermath of September 11, 2001. *Psychiatric Services, 57*(9):1253-1258.

Famularo R, Kinscherff R, Fenton T (1988). Propranolol treatment for childhood posttraumatic stress disorder, acute type. *American Journal of Disorders in Children, 142*: 1244-1247.

Foa E, Steketee G, Rothbaum BO (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavioral Therapy, 20*: 155-176.

Foa EB, Keane TM, Friedman MJ (2000). Guidelines for Treatment of PTSD. *Journal of Traumatic Stress, 13*(4): 539-587.

Friedrich W (1996). "An integrated model of psychotherapy for abused children". In *The APSAC Handbook of Child Maltreatment.* Briere J, Berliner L, Bulkley J, Jenny C, Reid T (Eds). Thousand Oaks, CA, Sage Publications: 104-118.

Gibson L, Hamblen M, Zvolensky M, Vujanovic A (2006). "Evidence-Based Treatments for Traumatic Stress: An Overview of the Research with an Emphasis on disaster settings". In *Methods for Disaster Mental Health Research.* Norris FH, Galea S, Friedman N, Watson, P (Eds). New York: The Guilford Press.

Gray MJ, Maguen S, Litz B (2004). Acute psychological impact of disaster and large-scale trauma: limitations of traditional interventions and future practice recommendations. *Prehospital and Disaster Medicine, 19*(1): 64-72.

Kataoka SB, Stein BD, Jaycox LH, Wong M, Escuerdo P, Zaragoza C, Fink A (2003). A school-based mental health program for traumatized Latino immigrant children. *Journal of the Academy of Child and Adolescent Psychiatry, 42:* 311-318.

Katz C, Smith R, Silverton M, Holmes A, Bravo C, Jones K, Killiman M, Lopez N, Malkoff L, Marrone K, Neuman A, Stephens T, Tavares W, Levin S, Herbert R (2006). A Mental Health Program for Ground Zero Rescue and Recovery Workers: Cases and Observations. *Psychiatric Services, 57* (9):1335-1338.

Kolko D (1996). Individual cognitive behavioral treatment and family therapy for physically abused children and their offending parents: a comparison of clinical outcomes. *Child Maltreatment, 1*: 322-342.

Marmar CR, Foy D, Kagan B, Pynoos RS (1993). "An integrated approach for treating posttraumatic stress". In *Posttraumatic Stress Disorder: A Clinical Review.* Pynoos RS (Ed). Luterville, MD, Sidran Press**:** 239-271.

National Institute of Mental Health (2002). Mental Health and Mass Violence: Evidence-Based Early Psychological Intervention for Victims/Survivors of Mass Violence. *A Workshop to Reach Consensus on Best Practices.* Washington, DC: Government Printing Office.

Perrin S, Smith P, Yule W (2000). Practitioner review: The assessment and treatment of post-traumatic stress disorder in children and adolescents. *Journal of Child Psychology & Psychiatry & Applied Disciplines, 41*(3): 277-289.

Points of Light Foundation (2002). Preventing a Disaster within a Disaster: The Effective Use and Management of Unaffiliated Volunteers.

Points of Light Foundation (2004). Managing Spontaneous Volunteers in Times of Disaster: The Synergy of Structure and Good Intentions.

Putnam FW and Hulsmann JE (2002). Pharmacotherapy for survivors of childhood trauma. *Seminars in Clinical Neuropsychiatry, 7*(2): 129-136.

Rowan AB (2002). Air Force Critical Incident Stress Management Outreach with Pentagon Staff after the Terrorist Attack. *Military Medicine, 167* (Supplement 4):33-35.

Ruzek J (2006). Coping with PTSD and Recommended Lifestyle Changes for PTSD Patients: A National Center for PTSD Fact Sheet. US Department of Veterans Affairs.

Spitalny K (2004). "Clinical findings regarding PTSD in Children." In *Posttraumatic Stress Disorders in Children and Adolescents.* Silva R (Ed). New York: WW Norton Co**,** 141-116.

Section IV. MENTAL HEALTH DISASTER PREPAREDNESS RESOURCES

The purpose of this section is to provide links to disaster preparedness information and links to local, national, and other disaster preparedness resources.

Learning Objective: In this section, you will

- **Increase your awareness of local mental health, public health and community disaster-preparedness networks**

Content:

1. Mental Health Referrals

2. Mental Health Disaster Preparedness Resources

2.1 Resources for your Practice
2.2 National Resources
2.3 State Resources
2.4 Local Resources
2.5 Other Resources

3. Recommended Reading

1. Mental Health Referrals

Some pediatric primary care providers may be members of a healthcare network with built-in referral mechanisms for child mental health. However, if you do not have access to this type of resource, you (or your office staff) can compile a list of child mental health providers with some basic information for each about specialization, insurance plans accepted, emergency contact information, etc. This will most likely require calling each child mental health specialist to familiarize yourself with their services and to begin developing a relationship with that provider. You should also check with your county Department of Mental Health to find out which directly-operated and/or contract mental health clinics provide services for children (and families), and what type of services are provided.

2. Mental Health Disaster Preparedness Resources

2.1 For Your Practice

- American Academy of Family Physician's Disaster Preparedness Website- http://www.aafp.org/online/en/home/clinical/disasterprep.html
- Center for the Study of Traumatic Stress - Stress Management for Health Care Providers http://www.usuhs.mil/psy/StressManagement-HealthCareProviders.pdf
- Fostering Resilience in Response to Terrorism - For psychologists working with children. http://www.apa.org/psychologists/pdfs/children.pdf

2.2 National

- CDC Emergency Preparedness and Response Website - Disaster Mental Health Resources http://www.bt.cdc.gov/mentalhealth/
- Emergency Medical Services for Children National Resource Center http://bolivia.hrsa.gov/emsc/
- FEMA for Kids - Federal Emergency Management Agency's resource for kids to learn about disaster preparedness. Includes information for teachers and students. http://www.fema.gov/kids/
- Ready Kids - From the U.S. Department of Homeland Security and the Advertising Council. A family-friendly tool that helps parents and teachers educate children, ages 8-12, about emergencies and how they can help their families better prepare. http://www.ready.gov/kids/home.html
- Substance Abuse and Mental Health Services Administration (SAMHSA) - Center for Mental Health Services - Tips for talking about disasters http://mentalhealth.samhsa.gov/cmhs/EmergencyServices/after.asp

- United States Department of Health & Human Services - Agency for Healthcare Research and Quality (AHRQ) - Bioterrorism Planning and Response
  http://www.ahrq.gov/browse/bioterbr.htm

2.3 State

- California Department of Health Services (CDHS) - Emergency Preparedness Office
  http://www.dhs.ca.gov/epo/EPOLinks.html

- California Emergency Medical Services Authority
  http://www.emsa.cahwnet.gov/default.asp

- California Preparedness Education Network (cal-PEN) - Prepares California's healthcare professionals caring for the state's multicultural, underserved populations to rapidly and effectively respond to bioterrorism and other public health emergencies.
  http://161.58.103.51/calpen/Home/tabid/75/default.aspx

- Northern California Bioterrorism Website
  http://www.norcalbt.com/region3/default.htm

2.4 Local

Alameda County http://www.acgov.org/PublicHealth/bioterrorism/bioterrorism.htm	San Diego County http://www.emansandiego.com/
El Dorado County http://www.co.el-dorado.ca.us/publichealthpreparedness/BioterrorismPlanning.html	San Luis Obispo County http://www.slopublichealth.org/communityhealth/bioterrorism.htm
Plumas County http://www.norcalbt.com/CountyPlumas/default.htm	Shasta County http://www.norcalbt.com/CountyShasta/default.htm
Mono County http://www.monohealth.com/bt.html	San Mateo County http://www.co.sanmateo.ca.us/smc/department/health/home/0,2151,1954_8420868,00.html
LA County http://labt.org/	Santa Clara County http://www.sccphd.org/odms
Madera County http://www.madera-county.com/publichealth/bioterror.html	Santa Cruz County http://www.santacruzhealth.org/phealth/cd/bioterrorism/4bioterrmain.htm
Marin County http://www.co.marin.ca.us/depts/HH/main/bio/index.cfm	Sierra County http://www.sierracountybt.org/
Monterey http://www.co.monterey.ca.us/health/Publications/pdf/MCHDDisasterPlan.pdf	Sacramento County http://www.sacdhhs.com/article.asp?ContentID=328
Tehama County http://www.norcalbt.com/Tehama/	

2.5 Other

- Are You Ready Guide: Terrorism Preparedness
  http://www.fema.gov/pdf/areyouready/terrorism.pdf

- Are You Ready Guide - An In-depth online Guide to Citizen Preparedness
  http://www.fema.gov/areyouready/index.shtm

- Helping Children Cope with Disasters and Terrorism - APA book
  http://www.apa.org/books/431794At.html
- International Critical Incident Stress Foundation, Inc. (ICISF) - Non-profit, open membership foundation dedicated to the prevention and mitigation of disabling stress through the provision of: education, training and support services for all Emergency Services professions; Continuing education and training in Emergency Mental Health Services for the Mental Health Community; and Consultation in the establishment of Crisis and Disaster Response Programs for varied organizations and communities worldwide.
  http://icisf.org/

- Mental Health Response to Mass Violence and Terrorism: A Training Manual
  http://mentalhealth.samhsa.gov/publications/allpubs/SMA-3959/default.asp

- National Child Traumatic Stress Network
  http://www.nctsnet.org/nccts/nav.do?pid=hom_main

- National Center for Posttraumatic Stress Disorder - Disaster and Terrorism Website - Information on disasters, specific types of disasters, terrorism, fact sheets with clinical advice, and specific disasters such as the 2004 Tsunami.
  http://www.ncptsd.va.gov/ncmain/providers/fact_sheets/trauma_type/type_disaster.jsp

- National Center for Posttraumatic Stress Disorder - Disaster Mental Health Services - Guidebook for Clinicians and Administrators
  http://www.ncptsd.va.gov/ncmain/ncdocs/manuals/nc_manual_dmhm.html

- Research Education in Disaster Mental Health (REDMH)
  http://redmh.org/

1. Recommended Reading

American Academy of Pediatrics (2006). Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians, Agency for Healthcare Research and Quality.

Cloitre M, Morin NA, Linares O (2004). Children's Resilience in the Face of Trauma. *Child Study Center Letter, 8*(3): 1-6.

Committee on Pediatric Emergency Medicine and American Academy of Pediatrics (1997). The Pediatrician's role in Disaster Preparedness. *Pediatrics, 99*(1): 130-133.

DeWolfe DJ (2004). Mental Health Response to Mass Violence and Terrorism: A Training Manual. U.S. Department of Health and Human Services, Center for Mental health Services, Substance Abuse and Mental health Services Administration: 184.

Foa EB, Keane TM, Friedman MJ (2000). Guidelines for Treatment of PTSD. *Journal of Traumatic Stress, 13*(4): 539-587.

Hagan JF (2005). Psychosocial implications of disaster or terrorism in children: A guide for the pediatrician. *Pediatrics, 116*(3): 787-795.

Luthar SS and Cicchetti D (2000). The Construct of Resilience: Implications for Interventions and Social Policies. *Development and Psychopathology, 12*: 857-885.

Pine DS, Cohen JA (2002). Trauma in Children and Adolescents: Risk and Treatment of Psychiatric Sequelae. *Society of Biological Psychiatry, 51*: 519-531.

Pynoos RS, Schreiber M, Steinberg AM, Pfefferbaum B (2005). "Impact of Terrorism on Children." In *Kaplan & Sadock's Comprehensive Textbook of Psychiatry.* Sadock B and Sadock V (Eds). Philadelphia, PA, Lippincott Williams & Wilkins: 3551-3564.

Shaw JA (2000). Children, adolescents, and trauma. *Psychiatric Quarterly, 71*(3): 227-243.

Strand VC, Sarmiento TL, Pasquale L (2005). Assessment and screening tools for trauma in children and adolescents: a review. *Trauma Violence Abuse, 6*(1): 55-78.

Appendix A

DSM-IV Criteria

Learn more about:

- **PTSD……..58**
- **ASD……62**
- **Generalized Anxiety Disorder…….64**
- **Major Depression…….65**
- **Substance Abuse……...66**
- **Substance Dependence…….67**
- **Bereavement……..68**

Posttraumatic Stress Disorder

Diagnostic Features

The essential feature of Posttraumatic Stress Disorder is the development of characteristic symptoms following exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (Criterion A1). The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganize or agitated behavior) (Criterion A2). The characteristic symptoms resulting from the exposure to the extreme trauma include persistent reexperiencing of the traumatic event (Criterion B), persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (Criterion C), and persistent symptoms of increased arousal (Criterion D). The full symptom picture must be present for more than 1 month (Criterion E), and the disturbance must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (Criterion F).

Traumatic events that are experienced directly include, but are not limited to, military combat, violent personal assault (sexual assault, physical attack, robbery, mugging), being kidnapped, being taken hostage, terrorist attack, torture, incarceration as a prisoner of war or in a concentration camp, natural or manmade disasters, severe automobile accidents, or being diagnosed with a life-threatening illness. For children, sexually traumatic events may include developmentally inappropriate sexual experiences without threatened or actual violence or injure. Witnessed events include, but are not limited to, observing the serious injury or unnatural death of another person due to violent assault, accident, war, or disaster or unexpectedly witnessing a dead body or body parts. Events experienced by others that are learned about include, but are not limited to, violent personal assault, serious accident, or serious injury experienced by a family member or a close friend; or learning that one's child has a life-threatening disease. The disorder may be especially severe or long lasting when the stressor is of human design (e.g., torture, rape). The likelihood of developing this disorder may increase as the intensity of and physical proximity to the stressor increase.

The traumatic event can be reexperienced in various ways. Commonly the person has recurrent and intrusive recollections of the event (Criterion B1) or recurrent distressing dreams during which the event is replayed (Criterion B2). In rare instances, the person experiences dissociative states that last form a few seconds to several hours, or even days, during which components of the event are relived and the person behaves as though experiencing the event at that moment (Criterion B3). Intense psychological distress (Criterion B4) or physiological reactivity (Criterion B5) often occurs when the person is exposed to triggering events that resemble or symbolize an aspect of the traumatic event (e.g., anniversaries of the traumatic event; cold, snowy weather or uniformed guards for survivors of death camps in cold climates; hot, humid weather for combat veterans of the South Pacific; entering any elevator for a woman who was raped in an elevator).

Stimuli associated with the trauma are persistently avoided. The person commonly makes deliberate efforts to avoid thoughts, feelings, or conversations about the traumatic event (Criterion C1) and to avoid activities, situations, or people who arouse recollections of it (Criterion C2). This avoidance of reminders may include amnesia for an important aspect of the traumatic event (Criterion C3).

Diminished responsiveness to the external world, referred to as "psychic numbing" or "emotional anesthesia," usually begins soon after the traumatic event. The individual may complain of having markedly diminished interest or participation in previously enjoyed activities (Criterion C4), of feeling detached or estranged from other people (Criterion C5), or of having markedly reduced ability to feel emotions (especially those associated with intimacy, tenderness, and sexuality) (Criterion C6). The individual may have a sense of a foreshortened future (e.g., not expecting to have a career, marriage, children, or a normal life span) (Criterion C7).

The individual has persistent symptoms of anxiety or increased arousal that were not present before the trauma. These symptoms may include difficulty falling or staying asleep that may be due to recurrent nightmares during which the traumatic event is relived (Criterion D1), hypervigilance (Criterion D4), and exaggerated startle response (Criterion D5). Some individuals report irritability or outbursts of anger (Criterion D2) or difficulty concentrating or completing tasks (Criterion D3).

Specifiers

The following specifiers may be used to specify onset and duration of the symptoms of Posttraumatic Stress Disorder:

Acute. This specifier should be used when the duration of symptoms is less than 3 months.

Chronic. This specifier should be used when the symptoms last 3 months or longer.

With Delayed Onset. This specifier indicates that at least 6 months have passed between the traumatic event and the onset of the symptoms.

Associated Features and Disorders

Associated descriptive features and mental disorders. Individuals with Posttraumatic Stress Disorder may describe painful guilt feelings about surviving when others did not survive or about the things they had to do to survive. Phobic avoidance of situations or activities that resemble or symbolize the original trauma may interfere with interpersonal relationships and lead to marital conflict, divorce, or loss of job. The following associated constellation of symptoms may occur and are more commonly seen in association with an interpersonal stressor (e.g., childhood sexual or physical abuse, domestic battering, being taken hostage, incarceration as a prisoner of war or in a concentration camp, torture): impaired affect modulation; self-destructive and impulsive behavior; dissociative symptoms; somatic complaints; feelings of ineffectiveness, shame, despair, or hopelessness; feeling permanently damaged; a loss of previously sustained beliefs; hostility; social withdrawal; feeling constantly threatened; impaired relationships with others; or a change from the individual's previous personality characteristics.

There may be increased risk of Panic Disorder, Agoraphobia, Obsessive-Compulsive Disorder, Social Phobia, Specific Phobia, Major Depressive Disorder, Somatization Disorder, and Substance-Related Disorders. It is not known to what extent these disorders precede or follow the onset of Posttraumatic Stress Disorder.

Associated laboratory findings. Increased arousal may be measured through studies of autonomic functioning (e.g., heart rate, electromyography, sweat gland activity).

Associated physical examination findings and general medical conditions. General medical conditions may occur as a consequence of the trauma (e.g., head injury, burns).

Specific Culture and Age Features

Individuals who have recently emigrated from areas of considerable social unrest and civil conflict may have elevated rates of Posttraumatic Stress Disorder. Such individuals may be especially reluctant to divulge experiences of torture and trauma due to their vulnerable political immigrant status. Specific assessments of traumatic experiences and concomitant symptoms are needed for such individuals.

In younger children, distressing dreams of the event may, within several weeks, change into generalized nightmares of monsters, of rescuing others, or of threats to self or others. Young children usually do not have the sense that they are reliving the past; rather, the reliving of the trauma may occur through repetitive play (e.g., a child who was involved in a serious automobile accident repeatedly reenacts car crashes with toy cars). Because it may be difficult for children to report diminished interest in significant activities and constriction of affect, these symptoms should be carefully evaluated with reports from parents, teachers, and other observers. In children, the sense of a foreshortened future may be evidenced by the belief that life will be too short to include becoming an adult. There may also be "omen formation" – that is, belief in an ability to foresee future untoward events. Children may also exhibit various physical symptoms, such as stomachaches and headaches.

Prevalence

Community-based studies reveal a lifetime prevalence for Posttraumatic Stress Disorder ranging from 1% to 14%, with the variability related to methods of ascertainment and the population sampled. Studies of at-risk individuals (e.g., combat veterans, victims of volcanic eruptions or criminal violence) have yielded prevalence rates ranging from 3% to 58%.

Course

Posttraumatic Stress Disorder can occur at any age, including childhood. Symptoms usually begin within the first 3 months after the trauma, although there may be a delay of months, or even years, before symptoms appear. Frequently, the disturbance initially meets criteria for Acute Stress Disorder in the immediate aftermath of the trauma. The symptoms of the disorder and the relative predominance of reexperiencing, avoidance, and hyperarousal symptoms may vary over time. Duration of the symptoms varies, with complete recovery occurring with 3 months in approximately half of cases, with many others having persisting symptoms for longer than 12 months after the trauma.

The severity, duration, and proximity of an individual's exposure to the traumatic event are the most important factors affecting the likelihood of developing this disorder. There is some evidence that social supports, family history, childhood experiences, personality variables, and preexisting mental disorders may influence the development of Posttraumatic Stress Disorder. This disorder can develop in individuals without any predisposing conditions, particularly if the stressor is especially extreme.

Differential Diagnosis

In Posttraumatic Stress Disorder, the stressor must be of an extreme (i.e., life-threatening) nature. In contrast, in **Adjustment Disorder,** the stressor can be of any severity. The diagnosis of Adjustment Disorder is appropriate both for situation in which the response to an extreme stressor does not meet the criteria for Posttraumatic Stress Disorder (or another specific mental disorder) and for situations in which the symptom pattern of Posttraumatic Stress Disorder occurs in response to a stressor that is not extreme (e.g., spouse leaving, being fired).

Not all psychopathology that occurs in individuals exposed to an extreme stressor should necessarily be attributed to Posttraumatic Stress Disorder. **Symptoms of avoidance, numbing, and increased arousal that are present before exposure to the stressor** do not meet criteria for Posttraumatic Stress Disorder and require consideration of other diagnoses (e.g., a Mood Disorder or another Anxiety Disorder). Moreover, if the symptom response pattern to the extreme stressor meets criteria for **another mental disorder** (e.g., Brief Psychotic Disorder, Conversion Disorder, Major Depressive Disorder) , these diagnoses should be given instead of, or in addition to, Posttraumatic Stress Disorder.

Acute Stress Disorder is distinguished from Posttraumatic Stress Disorder because the symptom pattern in Acute Stress Disorder must occur within 4 weeks of the traumatic event and resolve within the 4-week period. If the symptoms persist for more than 1 month and meet criteria for Posttraumatic Stress Disorder, the diagnosis is changed from Acute Stress Disorder to Posttraumatic Stress Disorder.

In **Obsessive-Compulsive Disorder,** there are recurrent intrusive thoughts, but these are experienced as inappropriate and are not related to an experienced traumatic event. Flashbacks in Posttraumatic Stress Disorder must be distinguished from illusions, hallucinations, and other perceptual disturbances that may occur in **Schizophrenia, other Psychotic Disorders, Mood Disorder With Psychotic Feature,** a **delirium, Substance-Induced Disorders,** and **Psychotic Disorders Due to a General Medical Condition.**

Malingering should be ruled out in those situations in which financial remuneration, benefit eligibility, and forensic determinations play a role.

Acute Stress Disorder

Diagnostic Features

The essential feature of Acute Stress Disorder is the development of characteristic anxiety, dissociative, and other symptoms that occurs with 1 month after exposure to an extreme traumatic stressor (Criterion A). For a discussion of the types of stressors involved, see the description of Posttraumatic Stress Disorder. Either while experiencing the traumatic event or after the event, the individual has at least three of the following dissociative symptoms: a subjective sense f numbing, detachment, or absence of emotional responsiveness; a reduction in awareness of his or her surroundings; derealization; depersonalization; or dissociative amnesia (Criterion B). Following the trauma, the traumatic event is persistently reexperienced (Criterion C), and the individual displays marked avoidance of stimuli that may arouse recollections of the trauma (Criterion D) and has marked symptoms of anxiety or increased arousal (Criterion E). The symptoms must cause clinically significant distress, significantly interfere with normal functioning, or impair the individual's ability to pursue necessary tasks (Criterion F). the disturbance lasts for a least 2 days and does not persist beyond 4 weeks after the traumatic event (Criterion G). The symptoms are not due to the direct physiological effects of a substance (i.e., a drug of abuse, a medication) or a general medical condition, are not better accounted for by Brief Psychotic Disorder, and are not merely an exacerbation of a preexisting mental disorder (Criterion H).

As a response to the traumatic event, the individual develops dissociative symptoms. Individuals with Acute Stress Disorder have a decrease in emotional responsiveness, often finding it difficult or impossible to experience pleasure in previously enjoyable activities, and frequently feel guilty about pursuing usual life tasks. They may experience difficulty concentrating, feel detached from their bodies, experience the world as unreal or dreamlike, or have increasing difficulty recalling specific details of the traumatic event (dissociative amnesia). In addition, at least one symptom from each of the symptom clusters required for Posttraumatic Stress Disorder is present. First, the traumatic event is persistently reexperienced (e.g., recurrent recollections, images, thoughts, dreams, illusions, flashback episodes, a sense of reliving the event, or distress on exposure to reminders of the event). Second, reminders of the trauma (e.g., places, people, activities) are avoided. Finally, hyperarousal in response to stimuli reminiscent of the trauma is present (e.g., difficulty sleeping, irritability, poor concentration, hypervigilance, an exaggerated startle response, and motor restlessness).

Associated Features and Disorders

Associated descriptive features and mental disorders. Symptoms of despair and hopelessness may be experienced in Acute Stress Disorder and may be sufficiently severe and persistent to meet criteria for a Major Depressive Episode, in which case an additional diagnosis of Major Depressive Disorder may be warranted. If the trauma led to another's death or to serious injury, survivors may feel guilt about having remained intact or about not providing enough help to others. Individuals with this disorder often perceive themselves to have greater responsibility for the consequences of the trauma than is warranted. Problems may result from the individual's neglect of basic health and safety needs associated with the aftermath of the trauma. Individuals with this disorder are at increased risk for the development of Posttraumatic Stress Disorder. Impulsive and risk-taking behavior may occur after the trauma.

Associated physical examination findings and general medical conditions. General medical conditions may occur as a consequence of the trauma (e.g., head injury, burns).

Specific Culture Features

Although some events are likely to be universally experienced as traumatic, the severity and pattern of response may be modulated by cultural differences in the implications of loss. There may also be culturally prescribed coping behaviors that are characteristic of particular cultures. For example, dissociative symptoms may be a more prominent part of the acute stress response in cultures in which such behaviors are sanctioned.

Prevalence

The prevalence of Acute Stress Disorder in a population exposed to a serious traumatic stress depends on the severity and persistence of the trauma and the degree of exposure to it.

Course

Symptoms of Acute Stress Disorder are experienced during or immediately after the trauma, last for a least 2 days, and either resolve within 4 weeks after the conclusion of the traumatic event of the diagnosis is changed. When symptoms persist beyond 1 month, a diagnosis of Posttraumatic Stress Disorder may be appropriate if the full criteria for Posttraumatic Stress Disorder are met. The severity, duration, and proximity of an individual's exposure to the traumatic event are the most important factors in determining the likelihood of development of Acute Stress Disorder. There is some evidence that social supports, family history, childhood experiences, personality variables, and preexisting mental disorders may influence the development of Acute Stress Disorder. This disorder can develop in individuals without any predisposing conditions, particularly if the stressor is especially extreme.

Differential Diagnosis

Some symptomatology following exposure to an extreme stress is ubiquitous and often does not require any diagnosis.

Diagnostic Criteria for Generalized Anxiety Disorder (300.02)

A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for a period of at least 6 months, about a number of events or activities (such as work or school performance).

B. The person finds it difficult to control the worry.

C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months). **Note:** Only one item is required in children.

1. restlessness or feeling keyed up or on edge
2. being easily fatigued
3. difficulty concentrating or mind going blank
4. irritability
5. muscle tension
6. sleep disturbances (difficulty falling or staying asleep, or restless unsatisfying sleep)

D. The focus of the anxiety and worry is not confined to features of an Axis I disorder, e.g., the anxiety or worry is not about having a panic attack (as in panic disorder), being embarrassed in public (as in social phobia), being contaminated (as in obsessive compulsive disorder), gaining weight (as in Anorexia Nervosa), having multiple physical complaints (as in Somatization Disorder), or having a serious illness (as in Hypochondriasis), and the anxiety and worry do not occur exclusively during posttraumatic stress disorder.

E. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

F. The disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a Mood disorder, a Psychotic Disorder, or a Pervasive Developmental Disorder.

Diagnostic Criteria for Major Depressive Disorder, Single Episode (296.2x)

A. Presence of a single Major Depressive Episode.

B. The Major Depressive Episode is not better accounted for by Schizoaffective Disorder and is not imposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.

C. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode. **Note:** This exclusion does not apply if all of the manic-like, mixed-like, or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

Diagnostic Criteria for Major Depressive Disorder, Recurrent (296.3x)

A. Presence of two or more Major Depressive Episodes.

Note: To be considered separate episodes, there must be an interval of at least 2 consecutive months in which criteria are not met for a Major Depressive Episode.

B. The Major Depressive Episodes are not better accounted for by Schizoaffective Disorder and are not imposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic Disorder Not Otherwise Specified.

C. There has never been a Manic Episode, a Mixed Episode, or a Hypomanic Episode. **Note:** This exclusion does not apply if all of the manic-like, mixed-like, or hypomanic-like episodes are substance or treatment induced or are due to the direct physiological effects of a general medical condition.

Criteria for Substance Abuse

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

(1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
(2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
(3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
(4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

B. The symptoms have never met the criteria for substance dependence for this class of substance.

Criteria for Substance Dependence

A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

(1) tolerance, as defined by either of the following:
(a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect
(b) markedly diminished effect with continued use of the same amount of the substance

(2) Withdrawal, as manifested by either of the following:
(a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)
(b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

(3) the substance is often taken in larger amounts or over a longer period than was intended

(4) there is a persistent desire or unsuccessful efforts to cut down or control substance use

(5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects

(6) important social, occupational, or recreational activities are given up or reduced because of substance use

(7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

Specify if:

With Physiological Dependence: evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present)
Without Physiological Dependence: no evidence of tolerance or withdrawal (i.e., neither Item 1 nor 2 is present)

Criteria for Bereavement (V62.82)

This category can be used when the focus of clinical attention is a reaction to the death of a loved one. As part of their reaction to the loss, some grieving individuals present with symptoms characteristic of a Major Depressive Episode (e.g., feelings of sadness and associated symptoms such as insomnia, poor appetite, and weight loss). The bereaved individual typically regards the depressed mood as "normal," although the person may seek professional help for relief of associated symptoms such as insomnia or anorexia. The duration and expression of "normal" bereavement vary considerably among different cultural groups. The diagnosis of Major Depressive Disorder is generally not given unless the symptoms are still present 2 months after the loss. However, the presence of certain symptoms that are not characteristic of a "normal" grief reaction may be helpful in differentiating bereavement from a Major Depressive Episode. These include 1) guilt about things other than actions taken or not taken by the survivor at the time of the death; 2) thoughts of death other than the survivor feeling that he or she would be better off dead or should have died with the deceased person; 3) morbid preoccupation with worthlessness; 4) marked psychomotor retardation; 5) prolonged and marked functional impairment; and 6) hallucinatory experiences other than thinking that he or she hears the voice of, or transiently see the image of, the deceased person.

Appendix B

Screeners

- **All Hazard Screening Tool……..70**
- **KySS Assessment Questions for Parents of Older Infants and Toddlers…….72**
- **Screening Tool for Early Predictors of PTSD (STEPP)……...74**
- **ASC-Kids.……77**
- **Center for Epidemiological Studies Depression Scale for Children (CES-DC).....80**
- **Pediatric Symptom Checklist -17……....82**
- **Mental Health Survey Instrument……..83**

Resources

- **When Terrible things Happen: A Parent's Guide to Talking With Their Children……..90**

All-Hazard Preparedness PARENT FORM

Patient Identification #_____
DOB _____
Gender ____ # Children in family ___

		Circle the best response			
MY CHILD'S HEALTH	Illness or Health Problem between birth and age 2 yrs	**0** No	1 Yes, but not a problem now	2 Yes, and still is a problem	Comment
	Illness or health problem now	none	Mild or occasional	Severe or ongoing	
	Asthma or respiratory condition	no	Mild or occasional	Severe or ongoing	
	Other medical problem	no	Mild or occasional	Severe or ongoing	
MY CHILD'S EX-PERIENCES	Trauma	never	mild	severe	
	Separations from parent	Never long	Longer than I month	Out of home placement	
	Parent Stresses: (specify)	no	mild	serious	
	Parent with depression Mother __ Father ___	no	mild	significant	
	Parent with mental health concerns	no	mild	significant	
	Divorce	no	yes	currently	
	Someone harmed my child	never	A little bit	seriously	
MY CHILD'S DEVELOP-MENT	I have concerns about how my child is developing	no	possibly	yes	
	I am concerned whether my child is autistic	no	possibly	yes	
	I know where to get support for my child's development	no	possibly	yes	
MY CHILD'S FEELINGS AND BEHAVIOR	**Compared to other children, my child:**				
	Is anxious/ has fears	no	somewhat	yes	
	Is shy or withdrawn	no	somewhat	yes	
	Is overactive	no	somewhat	yes	
	Has trouble paying attention	no	somewhat	yes	
	Has aggressive behaviors	no	somewhat	yes	
	Has had traumatic experiences	no	somewhat	yes	
	Has trouble learning	no	somewhat	yes	
	Has risky behaviors	no	somewhat	yes	
MY FAMILY & NEIGHBORS	I have someone to rely on in an emergency	yes	maybe	no	

All-Hazard Preparedness
HEALTH CARE
PROVIDER FORM

Patient Identification #_____
DOB _____
Gender ____ # Children in family ___

		0	1	2	
CHILD'S HEALTH	Child's overall health status	OK	Significant problems in past	Ongoing problems	
	Child's use of health care services	Up to date	Episodic	Usual care is urgent care/ER	
	Medical vulnerability, e.g. Asthma	no	Mild or in-termittent	Severe or ongoing	
	Child with special health care needs	no	Yes- with medical home	Yes- but No medical home	Total: Health
CHILD'S LIFE EX-PERIENCES	Trauma	no	At risk	confirmed	
	Separations from parent	Never for long	Longer than I month	Out of home placement	
	Parent Stresses: (specify)	no	mild	serious	
	Parent with depression Mother __ Father ___	no	suspected	Significant/ confirmed	
	Parent with mental health concerns	no	suspected	Significant/ confirmed	
	Involvement of both parents in child's care	no	somewhat	yes	
	Abuse or neglect	no	suspected	confirmed	Total: experience
CHILD'S DEVELOP-MENT	Developmental status	On track	Some delays	Global delay	
	Assessment	no	checklist	Standardized measure	
	Autism or PDD	no	possible	yes	
	Developmental support or resources	Not needed	Receives services (EI, MH, ECE etc)	Needs but does not receive services	Total: Development
SOCIAL EMOTIONAL BEHAVIORAL		**0 =***Child has strengths or no problem*	**1=** *Child has symptoms requiring time for advice etc*	**2 =** *Active problem receiving treatment*	
	Anxiety	no	Appropriate to age or experience	Significant, with functional impairment	
	Shy or withdrawn	no	Occasional or in some situations	Limits age-appropriate experiences	
	Hyperactivity	no	somewhat	ADHD Dx	
	Inattention	no	somewhat	ADHD Dx	
	Aggression	no	somewhat	ODD, CD or DBD	
	Traumatic exposure	no	Yes, but no symptoms	Yes, with ongoing symptoms	
	Learning problem	no	Needs some extra support	Dx of LD	
	Risky behaviors	no	Upper bounds of nl.	Active problem	
	Referral for mental health services	Not needed	Referred and receiving Rx	Needs, but not receiving RX	Total: Social-Emotional-Behavioral
	Psychotropic medication	Not needed	Receives and is responding	Needs, but not receiving or not responding	
FAMILY RESOURCES AND SUPPORT	Adequate social support network	Yes	Maybe	No	

KySS Assessment Questions for Parents of Older Infants and Toddlers

Child's Name_____ DOB_____ Age_____

Parent's/Guardian's Name_____ Relationship to Child _____

Because your child's physical as well as mental/emotional health are very important, please complete each of the following questions. We will have the opportunity to talk about some of these issues during your visit. Please indicate which items are most important to talk about today by placing a check mark in front of those items.

1. What worries or concerns you most about your child's emotions and/or behaviors at this time? _____

_____

2. Have there been changes in your family in the past year, such as marital separation, remarriage, move, family illness or death)? If yes, what? No Yes

_____

3. Are you afraid of anyone in your home? If yes, who? _____ No Yes

4. Do you ever feel so frustrated that you may hit or hurt your child? No Yes

5. On a scale of 0 (Not at all) to 10 (a lot), how stressed is your child on a day-to-day basis? _____

6. Have you been worried about your child being angry, irritable, sad, fearful, or having a change in behavior in the last month? If yes, what is worrying you? No Yes

_____

7. Do you have any worries about your child being sad? No Yes

8. Are you concerned about your child's weight? If yes, what concerns you: No Yes

_____

9. Who usually watches your child when you are not with him or her?_____

10. What is the easiest part about being your child's parent? _____

11. What is the hardest part about being your child's parent? _____

12. What worries you most about your child?_____

13. On a scale of 0 (Not at all) to 10 (a lot), how stressed are you on a day-to-day basis? _____

14. On a scale of 0 (Not at all) to 10 (a lot), how depressed are you from day-to-day? _____

15. How do you discipline your child? _____

_____

16. Do you think that the way that you discipline your child is effective? No Yes

17. Do you think that your child has ever been abused? If Yes, when? _____ No Yes

_____

18. Has your child ever been through a traumatic or very frightening experience (for example, a motor vehicle accident, hospitalization, death of a loved one, watching arguments)? If Yes, when and what was the trauma? _____ No Yes

_____

19. Has your child ever been diagnosed with an emotional, behavioral, or mental health problem? If yes, what and when? _____ No Yes

20. Has your child ever been on medication for an emotional, behavioral, or mental health problem? If yes, what medication and when? _____ No Yes

21. Do you have guns in your home? No Yes

22. Are there stressful things that your family has been dealing with recently? If yes, what? _____ No Yes

23. On a scale of 0 (Not at all) to 10 (very), how emotionally connected do you feel with your child? _____

24. On a scale of 0 (very easy) to 10 (very difficult), how is your child's temperament? _____

25. Does your child have difficulty sleeping? If yes, what specifically (for example, difficulty falling asleep; waking up with nightmares)? _____ No Yes

26. Does anyone in your home smoke? If yes, who? _____ No Yes

27. Does anyone in your home use alcohol or drugs to the point that you wish they would stop? No Yes

28. On a scale of 0 (None) to 10 (a lot), how much arguing goes on in your home? _____

29. On a scale of 0 (Not at all) to 10 (a lot), do you overprotect your child? _____

30. On a scale of 0 (Not at all) to 10 (very much so), how satisfied are you with being a parent to your child? _____

31. On a scale of 0 (Not at all) to 10 (very much so), how consistent are you in setting limits with your child? _____

32. Have you or any other of your child's blood relatives ever been diagnosed with a mental health disorder? If yes, who and what? _____ No Yes

33. What 2 words would you use to best describe your child? _____ _____

This questionnaire may be photocopied (but not altered) and distributed to families. From Melnyk, B.M. & Moldenhauer, Z: The KySS℠ Guide to Child and Adolescent Mental Health Screening, Early Intervention and Health Promotion, © 2006, National Association of Pediatric Nurse Practitioners and the NAPNAP Foundation, Cherry Hill, NJ.

Child and Adolescent Reactions to Injury and Trauma (CARIT) Project

TraumaLink, The Interdisciplinary Pediatric Injury Research Group

The Children's Hospital of Philadelphia

August 2004

Dear colleague:

Thank you for your interest in the Screening Tool for Early Predictors of PTSD (STEPP). We are attaching a copy of the STEPP, with a few important caveats about using it for clinical purposes:

1) The evidence for the STEPP's predictive validity is preliminary, from one study completed to date. We hope to replicate our results in further field testing. We may find that we need to revise the STEPP based on further findings.

2) The sample of children and parents in which the STEPP was developed was drawn from an urban, inpatient, pediatric population injured in traffic crashes. We are hopeful that these results will generalize to other groups of injured children, but we do not yet have sufficient data available to tell us how it performs in other populations.

We are currently conducting further field testing to (1) assess the predictive validity of the STEPP to triage for PTSD risk among children with any unintentional injury (not limited to traffic crashes) in the emergency care setting, and (2) assess the feasibility of its use by nurses in a busy emergency care setting. One such study has just been completed here at Children's Hospital of Philadelphia, and another is underway at a pediatric hospital in Arkansas.

Preliminary analyses of data from the field-testing at Children's Hospital support the feasibility of using the STEPP in the emergency setting, as nurses generally found it quick and easy to use. For children admitted for inpatient care from the emergency department (ED), the field-testing showed promising results in prediction of PTSD risk. However, the results also suggested a need to further refine the STEPP to achieve optimal predictive utility for children treated in the ED and released home. We are now examining a revised and expanded STEPP in order to determine whether a modified item set would have better predictive utility for a broad range of injured children in the ED setting.

If you use the STEPP for clinical or research purposes, we would very much like to hear about your experiences with it, to assist us in our continued development of the instrument. If you would like to hear about further updates in our work on the STEPP, please let us know.

Sincerely,

Flaura Koplin Winston, MD, PhD (flaura@mail.med.upenn.edu)
&
Nancy Kassam-Adams, PhD (nlkaphd@mail.med.upenn.edu)

Screening Tool for Early Predictors of PTSD (STEPP)

Winston & Kassam-Adams, 2002

Ask parent:	YES	NO		
1 Did you <u>see</u> the incident (accident) in which your child got hurt?	1	0		▶
2 Were you with your child in an ambulance (helicopter) on the way to the hospital?	1	0		▶
3 When your child was hurt (or when you first heard it had happened), did you feel <u>really helpless</u>, like you wanted to make it stop happening, but you couldn't?	1	0		▶
4 Does your child have any behavior problems or problems paying attention?	1	0	▶	▶
Ask child:	YES	NO		
5 Was anyone else hurt or killed (when you got hurt)?	1	0	▶	
6 Was there a time when you didn't know where your parents were?	1	0	▶	
7 When you got hurt, or right afterwards, did you feel <u>really afraid</u>?	1	0	▶	
8 When you got hurt, or right afterwards, did you think you might die?	1	0	▶	
Record from medical record: (DO NOT ASK CHILD OR PARENT)	YES	NO		
9 Suspected extremity fracture?	1	0	▶	▶
10 Was pulse rate at ED triage: > 104 if child is under 12 ? . . . . . or > 97 if child is 12 or older ?	1	0	▶	
11 Is this child 12 or older?	1	0		▶
12 Is this a girl?	1	0	▶	
ADD TOTAL FOR EACH COLUMN:				
			CHILD **total = 4 or more?**	PARENT **total = 3 or more?**

Screening Tool for Early Predictors of PTSD (STEPP)

Winston & Kassam-Adams, 2002

SCORING INSTRUCTIONS:
Circle appropriate number and write score (0 or 1) in child and/or parent column to the right as indicated (e.g., #1 is scored in parent column, #5 in child column, #4 in both).
Sum each column to determine if child and / or parent is above cut-off score for a positive screening score.

Positive screening score:
Child: 4 or more (of 8) are YES
Parent: 3 or more (of 6) are YES

Prediction of persistent PTSD symptoms & impairment (in development sample) from the presence of a positive screen score:

	Child	Parent
Sensitivity	88%	96%
Specificity	48%	53%
PPV	25%	27%
NPV	95%	99%
O.R.	6.5	26.6

Reference:

Winston, F. K., Kassam-Adams, N., Garcia-España, J. F., Ittenbach, R., & Cnaan, A. (2003). Screening for risk of persistent posttraumatic stress in injured children and their parents. JAMA, 290 (5): 643-649.

ASC-Kids ©

We'd like to know about your thoughts, feelings, and reactions since _____.

There aren't any right or wrong answers, just how YOU are thinking and feeling.
Please put an X in the box that shows how true each of these sentences is for YOU.

For example, if you feel sort of sleepy in the morning or you feel sleepy in the morning some of the time, you would put an X in the middle box.

		Never / Not true	*Sometimes / Somewhat*	*Often / Very true*
Example	*I feel sleepy in the morning.*		*X*	

While it was happening:		Never / Not true	Sometimes/ Somewhat	Often / Very true
1	It was really shocking, awful, or horrible.			
2	I wanted to make it stop, but I couldn't.			
3	I felt really scared.			
4	I thought I might die.			
While it was happening (OR after):		**Never / Not true**	**Sometimes/ Somewhat**	**Often / Very true**
5	I didn't have any feelings - I couldn't feel upset, sad, or glad.			
6	Things seemed unreal to me - as if I was in a dream or watching a movie.			
7	I felt in a daze - like I didn't know what was going on.			
8	I felt different & far away from other people, even if people were with me.			
Now:		**Never / Not true**	**Sometimes/ Somewhat**	**Often / Very true**
9	I can't remember some important parts of what happened.			
10	Pictures or sounds from what happened keep popping into my mind.			
11	I can't stop thinking about it.			
12	At times, it seems like it is happening all over again.			
13	When something reminds me of what happened, I feel very upset.			
14	Since this happened, I've had more bad dreams.			

Now:		Never / Not true	Sometimes/ Somewhat	Often / Very true
15	I try not to think about what happened.			
16	I try not to talk about it.			
17	I want to stay away from things that remind me of what happened.			
18	I try to stop my feelings about it.			
19	It's hard for me to fall asleep or stay asleep.			
20	Since this happened, I get angry or bothered more easily.			
21	I have a harder time concentrating or paying attention.			
22	I feel scared that something bad might happen.			
23	A sudden noise really makes me jump.			
Finish each sentence. Choose the words that are true for you and mark with an X.				
24	My thoughts or feelings about what happened .... ☐ don't bother me at all ☐ bother me a little ☐ bother me a lot			
25	Since this happened, getting along with friends or family is ... ☐ easier for me ☐ the same as before ☐ harder for me			
Now:		Never / Not true	Sometimes/ Somewhat	Often / Very true
26	I'm having trouble getting back to doing normal things (activities, school, sports).			
27	My parents or other family members have been really upset (sad, scared, or angry) since this happened.			
28	I have people (my parents, family, or friends) who really understand how I feel.			
29	If I get sad or upset, I have a way to help myself feel better.			

© Children's Hospital of Philadelphia, 2002

For more information on the development of this measure, please see:
Kassam-Adams, N. (2006). The Acute Stress Checklist for Children (ASC-Kids): Development of a child self-report measure. Journal of Traumatic Stress, 19: 129-139.

Scoring the ASC-Kids
Scoring suggestions are based on findings to date concerning internal consistency, test-retest reliability and concurrent and predictive validity of different item combinations.

Item scoring
Score all items as 0 – 1-- 2, except items 28 & 29 which are scored 2 – 1 – 0.
An item rated as "2" (very or often true) is considered to be a positive item when assessing presence of diagnostic criteria.

Suggested scoring for severity (scoring rules under development)
ASD Symptom Scale = Sum of items 5 – 23.

Scoring for presence of ASD diagnosis

Use the following algorithm:

ASD diagnostic criteria		ASC-Kids item(s)
A1	Experience a traumatic event	*Index event assumed to meet criterion A1*
A2	Subjective experience of fear / helplessness / horror	At least one of items 1 - 3 positive
B	3 or more types of dissociation symptoms (from 5 types)[2]	At least three of items 5 – 9 positive
C	"Persistent" re-experiencing (at least 1 symptom)	At least one of items 10 – 14 positive
D	"Marked" avoidance (at least 1 symptom)	At least one of items 15 – 18 positive
E	"Marked" arousal (at least 1 symptom)	At least one of items 19 – 23 positive
F	Symptoms (B,C,D,E) cause clinically significant distress or impairment	At least one of items 24 – 26 positive.
G	Symptoms last for 2 days – 4 weeks (within 4 weeks of event)	*Assumed when child is assessed between 2 days and 4 weeks post-trauma.*

[2] It can be difficult to assess acute dissociation symptoms in children, and especially difficult to carefully distinguish each of the five types of dissociation defined in the DSM-IV. For purposes of screening via child self-report, an alternate scoring algorithm might require fewer dissociation symptoms, and/or might assess "sub-syndromal" or "partial" ASD by not requiring that dissociation symptoms be present.

Other items that may be useful clinically
Item 4: Whether the child thought s/he might die during the potentially traumatic event has been strongly linked to later PTSD outcome after a number of types of acute traumatic events.

Item 27: There is strong evidence that parent responses are central to child outcomes. The child's perception of these may be a useful starting point for further assessment and intervention.

Items 28 and 29: The ASC-Kids intentionally ends on a positive note – asking the child about interpersonal and internal coping resources available to him/her. Clinicians may want to note and reinforce these when children report having these resources, and to address gaps in resources for children who are having more difficulty.

Center for Epidemiological Studies Depression Scale for Children (CES-DC)

The Center for Epidemiological Studies Depression Scale for Children (CES-DC) is a 20-item self-report depression inventory with possible scores ranging from 0 to 60. Each response to an item is scored as follows:

0 = "Not At All"
1 = "A Little"
2 = "Some"
3 = "A Lot"

However, items 4, 8, 12, and 16 are phrased positively, and thus are scored in the opposite order:

3 = "Not At All"
2 = "A Little"
1 = "Some"
0 = "A Lot"

Higher CES-DC scores indicate increasing levels of depression. Weissman et al. (1980), the developers of the CES-DC, have used the cutoff score of 15 as being suggestive of depressive symptoms in children and adolescents. That is, scores over 15 can be indicative of significant levels of depressive symptoms.

Remember that screening for depression can be complex and is only an initial step. Further evaluation is required for children and adolescents identified through a screening process. Further evaluation is also warranted for children or adolescents who exhibit depressive symptoms but who do not screen positive.

See also

Tool for Families: Symptoms of Depression in Adolescents, p. 126.

Tool for Families: Common Signs of Depression in Children and Adolescents, p. 147.

REFERENCES

Weissman MM, Orvaschel H, Padian N. 1980. Children's symptom and social functioning self-report scales: Comparison of mothers' and children's reports. *Journal of Nervous Mental Disorders* 168(12):736–740.

Faulstich ME, Carey MP, Ruggiero L, et al. 1986. Assessment of depression in childhood and adolescence: An evaluation of the Center for Epidemiological Studies Depression Scale for Children (CES-DC). *American Journal of Psychiatry* 143(8):1024–1027.

Center for Epidemiological Studies Depression Scale for Children (CES-DC)

Number _____

Score _____

INSTRUCTIONS

Below is a list of the ways you might have felt or acted. Please check how *much* you have felt this way during the *past week*.

DURING THE PAST WEEK	Not At All	A Little	Some	A Lot
1. I was bothered by things that usually don't bother me.	____	____	____	____
2. I did not feel like eating, I wasn't very hungry.	____	____	____	____
3. I wasn't able to feel happy, even when my family or friends tried to help me feel better.	____	____	____	____
4. I felt like I was just as good as other kids.	____	____	____	____
5. I felt like I couldn't pay attention to what I was doing.	____	____	____	____

DURING THE PAST WEEK	Not At All	A Little	Some	A Lot
6. I felt down and unhappy.	____	____	____	____
7. I felt like I was too tired to do things.	____	____	____	____
8. I felt like something good was going to happen.	____	____	____	____
9. I felt like things I did before didn't work out right.	____	____	____	____
10. I felt scared.	____	____	____	____

DURING THE PAST WEEK	Not At All	A Little	Some	A Lot
11. I didn't sleep as well as I usually sleep.	____	____	____	____
12. I was happy.	____	____	____	____
13. I was more quiet than usual.	____	____	____	____
14. I felt lonely, like I didn't have any friends.	____	____	____	____
15. I felt like kids I know were not friendly or that they didn't want to be with me.	____	____	____	____

DURING THE PAST WEEK	Not At All	A Little	Some	A Lot
16. I had a good time.	____	____	____	____
17. I felt like crying.	____	____	____	____
18. I felt sad.	____	____	____	____
19. I felt people didn't like me.	____	____	____	____
20. It was hard to get started doing things.	____	____	____	____

www.brightfutures.org

Evaluation & Quality Improvement Laboratory

PEDIATRIC SYMPTOM CHECKLIST - 17

COLUMBUS Children's RESEARCH INSTITUTE

	Please mark under the heading that best fits your child			For Office Use		
	NEVER	SOMETIMES	OFTEN	*I*	*A*	*E*
1. Fidgety, unable to sit still						
2. Feels sad, unhappy						
3. Daydreams too much						
4. Refuses to share						
5. Does not understand other people's feelings						
6. Feels hopeless						
7. Has trouble concentrating						
8. Fights with other children						
9. Is down on him or herself						
10. Blames others for his or her troubles						
11. Seems to behaving less fun						
12. Does not listen to rules						
13. Acts as if driven by a motor						
14. Teases others						
15. Worries a lot						
16. Takes things that do not belong to him or her						
17. Distracted easily						
TOTAL						

To Score:

1. Fill in the unshaded box on the right: "Never" = 0, "Sometimes" = 1, "Often" = 2.
2. Sum the columns. **PSC17-Internalizing** score is the sum of column I.
   PSC17-Attention is the sum of column A.
   PSC17-Externalizing is the sum of column E.
3. **PSC-17 Total Score** is the sum of PSC17-I + PSC17-A + PSC17-E.

Positive Scores:

PSC17-I	≥	5
PSC17-A	≥	7
PSC17-E	≥	7
Total Score	≥	15

This instrument may be freely reproduced. For information about the PSC-17, please see visit cri.something.org. Tell us about your research using the PSC-17 (gardnerw@pediatrics.ohio-state.edu). The PSC-17 was first described in Gardner, W., et al.. (1999). The PSC-17: A brief Pediatric Symptom Checklist including psychosocial problem subscales. *Amb Child Health, 5*, 223-236. The PSC-17 is based on the Pediatric Symptom Checklist (psc.partners.org): Jellinek, M., et al. (1988). Pediatric symptom checklist: Screening school-age children for psychosocial dysfunction. *J Peds, 112*, 201-209.

Mental Health Survey Instrument

Demographics

I would just like to ask some general background information – first about you and then about your household.

What year were you born?	YEAR OF BIRTH	19__
	DON'T KNOW	8
	REFUSE	9
Have you had your birthday already this calendar year?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
DM1. What is the highest grade or year of school you have completed? [Read choices 1 – 7 if necessary.]	Eighth grade or less	1
	Some high school	2
	High school graduate or GED certificate	3
	Some post high school	4
	College graduate (Associate or Bachelor's)	5
	Post graduate education or degree	6
	Other (Specify)	7
	DON'T KNOW	98
	REFUSE	99
DM2. What is the highest grade or year of school that anyone else in your household has completed? [Read choices 1 – 7 if necessary.]	Eighth grade or less	1
	Some high school	2
	High school graduate or GED certificate	3
	Some post high school	4
	College graduate (Associate or Bachelor's)	5
	Post graduate education or degree	6
	Other (Specify)	7
	DON'T KNOW	98
	REFUSE	99
DM3. Are you currently: [Read answers 1-8.]	Employed or self-employed full-time	1
	Employed or self-employed part-time	2
	Homemaker or caregiver	3
	Out of work or unable to work	4
	Student	5
	Student and employed	6
	Retired	7

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLE™

	Something else (Specify)	8
	DON'T KNOW	98
	REFUSE	99
DM4. Are you currently: [Read answers 1-7.] [Prompt if necessary, "Pick the one that you feel best describes your current status."]	Married	1
	Partnered	2
	Divorced	3
	Widowed	4
	Separated	5
	Never married	6
	Other (Specify)	7
	DON'T KNOW	98
	REFUSE	99
DM5. Do you consider yourself of Hispanic or Latino origin, including Mexican, Latin American, Puerto Rican, or Cuban descent?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
DM6. What is your race? Please select one or more of the following. [Read answers 1 – 6 and code all that apply.]	Native American or Alaskan Native	1
	Asian	2
	African American or Black	3
	Native Hawaiian or Other Pacific Islander	4
	Caucasian or White	5
	Other (Specify)	6
	DON'T KNOW	98
	REFUSE	99
DM7. Would you tell me what category best represents the total gross income (income brought in before taxes) during the past 12 months by all members of your household? Please stop me when I read the right category. [Read answers 1-5.]	Less than $20,000	1
	$20,000 - <$35,000	2
	$35,000 - <$50,000	3
	N$50,000 - <$100,000	4
	$100,000 or more	5
	DON'T KNOW	8
	REFUSE	9

Exposure to Event
The following questions are about the [TRAUMATIC EVENT].

The next two questions [P1-P2] assess personal exposure to traumatic event.

P1. Which best describes your personal exposure to [TRAUMATIC EVENT]? Would you say (READ ANSWERS)**?**	You were in or around [TRAUMATIC EVENT] and you saw at least some of this happen	1
	You were in or around the [TRAUMATIC EVENT] but did not see any of it happen	2
	You were not in or around any of the [TRAUMATIC EVENT]	3

	DON'T KNOW	8
	REFUSE	9
P2. As a result of your exposure to the [TRAUMATIC EVENT] did you feel that you were at risk of being injured or killed?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
The next six questions [P3-P8] assess known others' exposure to traumatic event.		
P3. When you first heard about the [TRAUMATIC EVENT], did you fear that a family member or close friend who was in or around the site of the [TRAUMATIC EVENT] might be killed, injured, or missing?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P4. As a result of the [TRAUMATIC EVENT], did you actually have a family member or close friend who was killed, injured, or missing?	YES	1
	NO (skip to P6)	2
	DON'T KNOW (skip to P6)	8
	REFUSE (skip to P6)	9
P5. What was this person's relationship to you?	CURRENT OR FORMER SPOUSE	1
	CURRENT OR FORMER BOYFRIEND/GIRLFRIEND)	2
	PARENT OR STEP PARENT	3
	SIBLING OR STEP-SIBLING	4
	CHILD OR STEP CHILD	5
	GRANDPARENT	6
	GRANDCHILD	7
	OTHER FAMILY MEMBER (AUNT/UNCLE, COUSIN, NEPHEW/NIECE ETC.)	8
	CLOSE FRIEND	9
	OTHER (SPECIFY)	10
	MULTIPLE PEOPLE (SPECIFY)	95
	DON'T KNOW	98
	REFUSE	99
	N/A (SKIP)	97
P6. Was anyone else you personally know killed, injured, or missing, as a result of the [TRAUMATIC EVENT]?	YES	1
	NO (skip to P8)	2
	DON'T KNOW (skip to P8)	8
	REFUSE (skip to P8)	9
P7. What was this person's relationship to you?	FRIEND	1
	NEIGHBOR	2
	CO-WORKER	3
	OTHER (SPECIFY)	4

	MULTIPLE PEOPLE (SPECIFY)	95
	DON'T KNOW	98
	REFUSE	99
	N/A (SKIP)	97
P8. Do you know someone who had a family member or close friend who was killed, injured, or missing as a result of the [TRAUMATIC EVENT]?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9

Assessment of Symptoms

The next seven questions [P9-P15] assess PTSD symptoms.

The next questions are about the time after the [TRAUMATIC EVENT]. Please answer yes or no for each question. After the [TRAUMATIC EVENT]...

P9. Did you avoid being reminded of this experience by staying away from certain places, people, or activities?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P10. Did you lose interest in activities that were once important or enjoyable?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P11. Did you begin to feel more isolated or distant from other people? (PROMPT: Other people with whom you normally interact.)	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P12. Did you find it hard to have love or affection for other people?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P13. Did you begin to feel that there was no point in planning for the future? (PROMPT: I mean long-term future, such as planning for a career, children, or retirement.)	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P14. After this experience, were you having more trouble than usual falling asleep or staying asleep? (PROMPT: By this experience I mean the [TRAUMATIC EVENT].)	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9

Mental Health Survey Instrument
(continued from previous page)

P15. Did you become jumpy or get easily startled by ordinary noises or movements?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
The next six questions [P16-P21] assess anxiety symptoms.		
Since [TRAUMATIC EVENT] have you been distressed or bothered by...		
P16. Feelings of nervousness or shakiness inside?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P17. Suddenly scared for no good reason?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P18. Feeling fearful?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P19. Feeling tense or keyed up?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P20. Spells of terror or panic?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P21. Feeling so restless you couldn't sit still?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
The next six questions [P22-P27] assess anxiety symptoms.		
P22. Thoughts of taking your life?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P23. Feeling lonely?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9

Mental Health Survey Instrument
(continued from previous page)

P24. Feeling blue?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P25. Difficulty making decisions?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P26. Feeling hopeless about the future?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
P27. Feelings of worthlessness?	YES	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
The next question [P28] assesses frequency of symptoms.		
P.28 Are you currently having these reactions at least a few times a week?	YES (skip to P29)	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
	N/A (SKIP)	7
The next question [P29] assesses professional help-seeking.		
P29. Have you discussed these reactions with a doctor, nurse, psychologist, or other health professional?	YES (skip to P29)	1
	NO	2
	DON'T KNOW	8
	REFUSE	9
	N/A (SKIP)	7
The next two questions [P30-P31] assess heavy drinking.		
P30. How many drinks did you have on a typical day since the [TRAUMATIC EVENT]?	None	0
	1 to 2 drinks	0
	3 to 4 drinks	1
	7 to 9 drinks	2
	10 or more drinks	4
	DON'T KNOW	8
	REFUSE	9
	N/A (SKIP)	7
P31. How often did you have 6 or more drinks on one occasion since the [TRAUMATIC EVENT]?	Never	0
	Once	1

2 to 3 times	2
4 to 5 times	3
6 or more times	4
DON'T KNOW	8
REFUSE	9
N/A (SKIP)	7

For more information, visit www.bt.cdc.gov/masscasualties,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

When Terrible Things Happen: A Parent's Guide to Talking With Their Children

Lewis A. Leavitt, MD

Whenever a disaster strikes, natural or humanmade, pediatric nurse practitioners are on the forefront, helping children and their parents cope. PNPs' extensive knowledge of child development and children's responses to stress enable them to provide advice for parents regarding how to help their children at such difficult times. This handout provides guidelines that can be used by PNPs to help children and parents when they face such disaster situations. The Journal of Pediatric Health Care *hopes that this information will be beneficial to PNPs as they help children and families cope with major stressors in their world.*

—Bobbie Nelms, PhD, RN, CPNP
Editor, Journal of Pediatric Health Care

INTRODUCTION

Every year, millions of people are affected by disasters both natural, such as floods or hurricanes, and manmade, such as armed conflict between and within nations. During these times, children require particular attention because of their special needs.

Each child reacts to a disaster according to her developmental stage. Each stage brings to a child a new understanding of the world, the passing of time, and how events happen. To comfort children, it is best to speak to them using words and ideas they can understand.

This booklet focuses on children's psychological needs and on helping parents and caregivers talk with children. It provides practical guidelines that are easy for parents to use every day.

—Lewis A Leavitt, MD

WHEN DISASTER STRIKES....

When terrible things happen, parents are concerned about the impact these things will have on their children. They want to know how to keep their children safe and protect them from the psychological effects of going through a disaster.

After such an event, parents may feel insecure and worried themselves. They are often concerned about saying either too much or too little to their children.

Each terrible event is different, and each child and family has their own way of coping and relating. Although your family will have a unique response to a disaster, some guidelines may help you understand your child's reaction and answer his questions.

At different stages of development, children understand the world and how things happen in different ways. In general, these stages of development correspond to age ranges, but each child develops at his own pace. Use the advice that best fits the pattern of your own child's development. The information in this booklet will guide parents and caregivers in addressing the concerns of their children in a way that is best for each age and stage of development: Infant and Toddler, Preschool, School Age, and Adolescent/Teenager.

INFANTS AND TODDLERS (0-3 YEARS OF AGE)

Infants and toddlers are not able to understand how a disaster has changed their environment. Their world is focused on their daily needs for care and feeding. They are able to recognize changes in adult behavior and will respond to those changes.

What infants and toddlers need from parents after a disaster is their usual loving care. Your infant or toddler benefits from the familiar care she is used to receiving. As a parent you can take comfort in the close relationship you have with your child. Your style of interacting with your infant or toddler—the games you played and the stories you read before the disaster—are all still "right" after a disaster.

Resuming normal activities with your child after a disaster benefits both of you.

PRESCHOOL CHILDREN (3-5 YEARS OF AGE)

Children at this stage of development do not fully understand the concept of time or the permanence of death. They do not understand the reasons for physical, financial, or family changes following a disaster.

Preschool children are usually very focused on having parents and family to take care of them and keep them safe. Keeping their usual daily routines, toys and activities is important to them.

The best way to deal with the concerns of preschool children is for your child to experience his relationship with you as it has always been. Loving care and consistent parenting-child interactions reas-

This information has been provided as an educational service by Johnson & Johnson Pediatric Institute, L.L.C. It may be copied for use with clients without permission. For more information or to obtain copies of this booklet, please contact the Pediatric Institute at www.pediatricinstitute.com.

J Pediatr Health Care. (2002). *16*, 272-274.
25/8/128006
doi:10.1067/mph.2002.128006

Johnson & Johnson pediatric institute L.L.C.
Shaping the future of children's health

sure children that someone is there to protect them and keep them safe.

Preschool children may have specific fears after a terrible event. Talk to your preschool child while playing a game or drawing a picture. This is a good way to learn what a child is thinking or is concerned about. It gives her an opportunity to ask questions when she is ready to do so.

Television news about disasters can be upsetting to young children. They believe television images are real. They think a disaster is happening again and again if they see it repeated on television. Try to limit their viewing of television disaster news.

It is important to watch your child and talk with her about her activities and feelings. Some children may ask questions and others may not.

When preschool children have questions, they may be direct, such as, "Does a dead person wake up?" Sometimes these questions are difficult for parents to answer. Death, for example, is a difficult concept for adults as well as children to understand.

It is best to answer truthfully using simple words and to reassure children who may be worried. For example, if your child asks, "Do people wake up after they die?" You could answer, "People do not wake up after they die, but we remember how they were when they were alive and awake. It's nice to think about people we like even when they are not with us anymore."

At this age, children ask questions because they feel insecure just as often as they ask because they want information. Preschool children may not speak about feelings even if asked. It is useful to give reassurance even if they do not speak about their feelings. For example, after answering a question, you could add, "Mommy loves you and is here to take care of you."

SCHOOL-AGED CHILDREN (5-12 YEARS OF AGE)

School-aged children have begun to understand how the world works. They have learned about time. They understand some things about past and future and may know how to talk about their feelings. They have opinions about what is right and what is wrong. Although they still do not understand how many things work, they have become familiar with rules of behavior (even if they do not obey them). They have the vocabulary and interest to discuss how and why things happen.

Parents can help school-aged children cope with the results of a disaster by listening and talking with them about their feelings and answering questions they have. It is most important to show and tell children that you are there to love and protect them.

Television images of a disaster may frighten school-aged children. They can understand what happened and may become concerned about their safety. Try to limit their television viewing. Also try to watch television with them and talk about what happened. Talking about it helps you understand their worries and also gives you a chance to comfort them.

School-aged children are helped by resuming usual routines and activities.

Children may be confused by what they hear about a disaster, even though they may understand some of what they have been told. Children may ask questions directly, such as "Why did this happen?" or "Am I safe?" They may also be asking these same questions indirectly when they say, "Will there be school tomorrow?"

It is best to answer children's questions honestly, directly, and simply. For instance, if your child asks, "Mom, are you sad?" you might say, "Yes, I am sad about what happened."

Adding reassurance or a statement about how you are coping may give comfort to your child. You could say, "I am sad about what happened, but I am happy that we are together." Or you could say, "I am sad about what happened, but Dad and I are working hard to make things better for the family."

Children are helped by having their usual routines and activities, such as playing with friends, begin again. Encouraging children to engage in school or family activities that will help victims of a disaster can make the children feel stronger and less insecure.

ADOLESCENTS/TEENAGERS (12-17 YEARS OF AGE)

Teenagers are in the process of finding out who they are. They are developing their own personal styles of coping with the world. Although they are still in need of guidance, they are starting to have their own independent ways to solve problems. When disasters happen, the disruption of everyday life puts their developing values and independence to a sudden test.

Teenagers are able to understand the causes and effects of disasters as adults do. However, most have not developed experience or confidence about how they can or should respond. Their response may be very varied. Sometimes it may be anger and a desire to "get back" at the cause of the disaster. Sometimes it may be sadness, worry, and a desire to stay out of a difficult situation. Often teenagers show both sadness and anger.

Teenagers use friends, teachers, and television for information about the world. Sometimes when teenagers are reluctant to voice their own opinions, you can find out what is on their minds by discussing what they are hearing from their friends or what they are seeing on television.

Parents, friends, and teachers can help teenaged children by discussing causes and effects of disasters. This should include talking about their opinions and feelings as well as about things they can do to help themselves and others deal with the disasters. Teenagers may benefit from participating in efforts to help others who have suffered harm in a disaster. This may be done through their school, in a community organization, or with their family.

Teenagers may voice opinions that are different from yours. It is important to show teenagers that you are interested in their thoughts and feelings. When you show interest and listen, they are more likely to respect your opinions.

Your teenager may not show it, but she is interested in how you are responding to a disaster. It is helpful to share your own feelings in a truthful way. At the same time, try to emphasize how you are overcoming difficulties. It is also important for even teenaged children to know that you are still available to help and protect them.

BEHAVIOR THAT MAY LET YOU KNOW THAT YOUR CHILD NEEDS REASSURANCE

When children confront very stressful or frightening situations, there may be changes in their behavior that reflect their anxiety. Some of these changes may not happen right away. They may appear several weeks later.

- Preschool children may have an increase or return of behavior such as thumb sucking or bed-wetting. They may be more unwilling to be separated from their parents. They may complain of aches and pains such as stomachaches.
- School-aged children may have sleep disturbances or nightmares more often. Their play and drawings may show anger or sadness. Some may have poor concentration at school or complain of aches and pains.
- Teenagers may show anger or sadness. They may have sleeping and eating problems. They may take risks or be reckless. They may have new difficulties at school. They may complain of tiredness or show less interest in activities they used to enjoy. They may also have headaches or stomachaches.

If these behaviors go on for more than a month or are difficult for you to manage, or if you simply feel the need to talk about how to deal with these problems, call or visit your health care professional.

KEEPING IN TOUCH WITH YOUR CHILD

Remember that even after a terrible event, the rules of care and love for children still hold. It is always appropriate to spend special time with your child sharing activities, talking about the events of the day, and answering questions truthfully, reflecting what you believe.

After a disaster, you may be feeling worried or uneasy yourself. You need to take care of yourself so you can help your children. Friends, relatives, or your health care professional can help give you the support you need.

Communication between parent and child is an ongoing process. You will have many chances to answer your child's questions. You may find that with time your child's concerns will change. You may need to continue to pay attention to her to give her the reassurance she needs. During difficult times, it is helpful for children to be told that their parents love them and, along with others in the community, are there to protect them.

Dr. Leavitt is Medical Director of the Waisman Center on Human Development at the University of Wisconsin in Madison and Professor of Pediatrics at the University of Wisconsin School of Medicine. Dr. Leavitt has been involved in research and teaching on infant and child development for more than 25 years. His research and writing have investigated the development of communication between parents and children and the impact of violence on children. Dr. Leavitt is a member of the Board of Johnson & Johnson Pediatric Institute, L.L.C.

HELPING THE CHILDREN

Helping the Children is a collaborative effort of three organizations supporting the needs of children impacted by disasters.

The **American Academy of Pediatrics** is an organization of 55,000 members dedicated to the health, safety and well-being of infants, children, adolescents and young adults.

The **International Pediatric Association (IPA)** is dedicated to improving children's health throughout the world. The IPA is comprised of the national pediatric societies from some 150 countries around the world.

The **Johnson & Johnson Pediatric Institute, L.L.C.** is dedicated to improving maternal and children's health by partnering with health care professionals and organizations to help shape the future of children's health around the world.

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN

International Pediatric Association

Johnson & Johnson pediatric institute L.L.C.