



Editors' Comment

On September 11, 2001, the unthinkable occurred. When the World Trade Center in New York and the Pentagon in Washington, D.C. were attacked the world as we knew it changed forever. A year later we are trying, and most of us are succeeding in moving ahead with our lives. A vital part of this adjustment is the realization that our children are now growing up in a world different from the one we knew. How children handle the new sense of vulnerability and how we as adults help them find their way, will have a tremendous influence on our country's future. In order to learn from this tragedy, current research, expanding on the knowledge gained after previous disasters, will enable us to develop effective prevention and intervention plans. In this issue of the *NYU Child Study Letter*, we describe which children are at risk for developing emotional problems, what can be done to help children affected by trauma and death, the factors affecting their recovery, and the challenges confronting the response of the community.

AG/HSK

Introduction

1992: Hurricane Andrew, the worst natural disaster in United States history:

"what none of the media 'snapshots' could ever satisfactorily convey is the ...shock and grief of the many thousands of people who are newly homeless, and who will have no place to go when the temporary tent cities close....or the

THE AFTERMATH OF DISASTER: HELPING CHILDREN AFFECTED BY TRAUMA AND DEATH

anxiety of the many thousands of families who are living in homes with partial roofs....or the newly unemployed who are disheartened and embarrassed to be waiting interminably on lines for food stamps and welfare. When will their lives return to normal?"

(La Greca, 1992)

1995: The bombing attack on the Oklahoma City federal office building:

"the building had, in one long, horrible moment, exploded with the force of a volcano, spewing forth the contents of its human carnage onto the streets belowthe entire façade of the nine-story superstructure had been ripped away, exposing its innards ... into the choking, blackened sky. Now it stood smoking and eerily silent, except for the muffled cries of its few remaining inhabitants and the wailing of sirens off in the distance."

(Hoffman, 1998)

2001: The attack on the World Trade Center, New York City:

"Everything, the towers themselves, all 110 stories of them, the entire 1,368 feet of the north tower, the 1,362 feet of the south tower with their 400,000 tons of steel and their 10 million square feet of offices, trading spaces, bathrooms, and conference rooms disintegrated in an avalanche of concrete, steel, glass, airplane parts, and thousands more bodies, all compressed into seven stories of rubble below" (Bernstein, 2002)

The images are all too familiar – planes crashing, buildings collapsing, people running – scenes that were viewed repeatedly on television and in newspapers and magazines. The effects of the 9/11 tragedy were not confined to New York, however, they resonated throughout the country. The attacks resulted in a public mental health crisis; the entire country was frightened, economic and social structures were altered, and ongoing threats caused further worries. The psychological effects of this and other disasters on children are of particular concern.

Defining a disaster

The report of the American Psychological Association Task Force on Children's Psychological Responses to Disaster defined disasters as "events that are relatively sudden, highly disruptive, time-limited (although the effects may be longer lasting) and public (affecting children from more than one family).

A disaster may be due to:

- 1) Natural causes, such as a hurricane or an earthquake,
- 2) A failure of technology, such as an airplane crash or the collapse of a bridge,
- 3) An act of human violence, such as the destruction of the World Trade Center, or an act of war. Children can be direct victims of violence, witnesses to violence or heirs to several generations of violence.



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How can children affected by a disaster be helped?

When the World Trade Center attack occurred, the type of trauma, the number of people affected, and the geographic and demographic distribution of those affected, presented the mental health service delivery systems of the New York City metropolitan area with new challenges. The World Trade Center disaster was both similar to and different from other disasters. For example, it was similar to Oklahoma City because the attack was a hostile act, but different in the number of people affected; it was similar to the hurricane in Florida where massive numbers of people were dislocated, but different because the trauma was caused by humans not nature.

Research conducted after previous disasters provided the basis for intervention plans put in place after September 11, 2001. Research currently being conducted will yield information that will expand on the existing body of knowledge and will enable us to learn from the tragedy.

Applying the principles of disaster research – the scope of the problem

Of the 1.2 million schoolchildren in New York City, 7,500 were evacuated from their schools on September 11th when the World Trade Center was attacked. A considerable number of children witnessed the events directly, and countless others watched the continual replaying of the footage in news broadcasts, some for more than four hours a day during the week following the disaster. While most of these children returned to their previous level of functioning, some did not. Existing data from other disasters would estimate that up to 10% would be severely affected. Yet the unique nature of the 9/11 attack in the United States called into question these estimates. Initial data suggested that larger numbers of children were affected.

Six months after 9/11 a survey released by the New York City Board of Education found that some children showed "normal" stress reactions, but many showed evidence of diagnosable disorders. According to the survey, 8 – 15% of over 8,000 students showed elevated rates of posttraumatic stress disorder (PTSD), major depression, separation anxiety, panic, and conduct disorders. For example, when children were asked specific PTSD symptom-related questions their replies indicated that: they often think about the event; try not to think about it; find it hard to keep their mind on things; have trouble sleeping; stopped going places/doing things that remind them of 9/11; have nightmares.

Nine months after 9/11/01 a survey conducted by the Citizens' Committee for Children of New York found that children's worries about adult safety, anxieties about leaving home, and sleeping difficulties had improved considerably during the course of the year, but were still of concern. The survey found that after the passage of almost one year, 4 in 10 children in the city continued to worry about their parents' safety, and 2 in 10 children remained anxious about going out; 1 in 6 continued to have nightmares, insomnia and other sleep disturbances.

Which children are at risk?

Picture the attack as a stone dropped into a pool, sending out ripples. The children most likely to suffer are those nearest to the dropped stone, either because of

- physical proximity, such as witnessing the attack or being physically hurt (40% of New York City children saw the attacks as they were occurring; 10% witnessed the attacks in person, while 30% saw it live on TV) or
- emotional proximity, if someone close or known to them died in the collapse and conflagration. (53% of NYC families reported knowing someone who died in the attacks). Some children who lived farther away but are exposed through the media were also at risk. (50% of NYC children saw the attacks later on television).

Problems are especially likely for children who had emotional disturbances or had suffered traumatic experiences before the attacks. It is estimated that 50,000 children are at extreme risk because of pre-existing emotional problems that compounded the effects of the trauma. The risks are also high for children with limited social support, whose parents have difficulty coping, or who face additional problems because of other circumstances, such as parental job loss. (One-third of families in the World Trade Center area had to move out of their homes).

Children's responses

Children's responses to a disaster can range from "normal" stress reactions to diagnosable mental disorders and are influenced by: a) their exposure, b) the reactions of significant others, c) the degree of continuing community disruption, d) the available support, as well as e) the children's own understanding of the events and their coping strategies.

The most likely problems to emerge after a disaster are PTSD and other forms of anxiety, grief and depression, aggressive and defiant behavior, physical symptoms, lowered self-esteem, and social and academic difficulties. These reactions vary with a child's age, intellectual capacity, personality and social challenges. Traumatic events experienced before age 11 are 3 times more likely to result in serious emotional and behavioral problems than those experienced later in life.

The most commonly researched reaction to trauma is PTSD, which is found among survivors of war, airplane crashes, hurricanes, earthquakes, nuclear waste disasters and fires. The psychological impact of such events tends to persist or to become worse with time. Rates of severe PTSD within one year of these traumas range from 10% to 90%. Even if they do not meet full criteria for PTSD, the majority of children exposed to trauma report some disabling symptoms such as a re-experiencing of the trauma, avoidance of situations related to the

trauma, and a state of hypervigilance. Severe depressive reactions are also common responses to disasters and often co-occur with PTSD. In addition to internalizing symptoms such as depression and anxiety, externalizing symptoms such as behavior problems and social skills deficits can also result from trauma. Even years after the trauma, children may continue to exhibit high rates of PTSD (26%-95%) and depressive disorder (28%-76%).

Traumatic grief is a complicated phenomenon defined by symptoms of both trauma and grief following a traumatic death. Both the timing (sudden) and type (violent) of death put children at risk for adjustment problems. As a result of the 9/11 disaster, thousands of children experienced the death of one or both parents and many more experienced the death of a family member or family friend. PTSD associated with the traumatic nature of the death places children at additional risk for serious psychiatric problems, such as severe grief reactions, depression, substance abuse and borderline personality disorder. The risk is highest during the first year after the loss but for those experiencing trauma and/or grief, there is a risk of later onset of problems.

When compared to trauma survivors who did not also experience a death, the bereaved trauma survivors report higher levels of PTSD symptoms, arousal and worry, depression, changes in home environment, and physical health complaints immediately and for years following the traumatic loss. The relationship between the child and the person who died is associated with the severity of the symptoms. The death of a parent may cause children to be particularly vulnerable to mental health problems.

One example: children who lost a friend in the Oklahoma City bombing experienced significantly more PTSD symptoms than those who lost an acquaintance, and children who lost an immediate family member experienced significantly more PTSD symptoms than anyone else.

Factors affecting adjustment and coping

The functioning of adults who care for bereaved and traumatized children has a tremendous effect on the children's ability to recover. Parental attitudes, abilities and well-being are important factors in whether children obtain health care. Effective parent coping skills can ameliorate the severity of the symptoms, which emphasizes the importance of enhancing caregivers' coping skills. On the other hand, difficulties within the family, such as maternal mental health problems may increase the severity of symptoms in children. Parents often underestimate the intensity and duration of their children's reaction to stress, which emphasizes the need to educate the caregivers regarding appropriate expectations and responses and recognition of warning signs. Recovery is also affected by the response of the community and the resources available.

Addressing the public mental health crisis

Based on existing research and current experiences in the New York City area in the aftermath of the 9/11 disaster, the following components of a recovery program for traumatized and bereaved children, have been utilized in the New York City area and may prove to be applicable to similar events.

Outreach and education

Providing information is essential to help identify and treat those at risk. In the numbing first days and weeks after the attack, people are desperate to know how to cope and how to help. Since the psychological impact of stress tends to persist or worsen over time, timely intervention is essential.

The overall goal is to inform the public, parents and professionals about expected reactions, including mental health consequences of trauma and bereavement, and ways to prevent problems from developing. By making it known that treatment is available and that there

is no shame in needing or seeking help, people's sense of control is strengthened. Collaboration among school personnel, fire, police and emergency workers – systems affected by the trauma – and outreach mental health systems is important to inform caregivers and providers about available services. Collaboration is also necessary for coordination of services.

Identification and evaluation

Effective intervention depends on accurate knowledge and diagnosis. Screening to identify the children most in need of help should take place as quickly as possible. This should be followed by a thorough evaluation to identify the nature, extent and development of the child's symptoms, their relationship to the traumatic event, and any coexisting mental health problems. For both screening and evaluation, cooperation and input from parents and teachers are needed.

Over time, new needs emerge and new issues must be confronted. Individual differences must be taken into consideration. For instance, a kindergarten child evacuated from a new school doesn't have the same concerns as a high school freshman who has lost a parent. The impact of critical times, such as the first Fathers' Day, the first Fourth of July, etc. must be considered.

Treatment and referral

Systems must be in place to respond to problems and individuals that have been identified as at risk. Professionals should be familiar with the results of recent disaster research; they should learn to distinguish appropriate from maladaptive reactions and identify and treat those most severely affected. Experts in child anxiety, trauma, bereavement and school-based mental health services should conduct seminars and training workshops to identify trauma-related reactions in children, develop plans for affected students and manage classroom problems related to the trauma.

Once problems are identified, appropriate, timely, targeted and specialized interventions are essential. Trauma and grief-related treatment should be managed and treated in coordination with other systems of care that address children's problems that pre-date the trauma (e.g., attention-deficit hyperactivity disorder) or are unrelated (e.g., divorce). Neglecting to provide care or providing unspecialized care for trauma and traumatic grief can be detrimental. In the short-term symptoms may remain or worsen, children may blame themselves for the trauma or death, they may develop secondary problems, families and systems may be frustrated and feel hopeless. Long-term consequences include school failure, suicide, substance abuse, criminal behavior, social isolation and breakdowns in system functioning. In view of the importance of the relationship between child and parent functioning, parents should be included in aspects of the treatments.

Treatment should be based on principles specifically applicable to trauma and grief. Cognitive behavior therapy is often effective for children with PTSD, anxiety disorders and related problems. Treatment should include education about common reactions to trauma, tailoring the information to the specific event. A coordinated approach that implements and evaluates outreach, education, training and intervention offers the best hope for current and future, professional, community, family, and individual mental health recovery. Long term evaluation and follow-up are also necessary to identify and treat new problems and monitor adjustment.

Informed adults, supportive environments, and targeted care can ameliorate children's distress, reduce their current symptoms, and dramatically improve their short and long-term functioning.

About the Authors

Robin F. Goodman, Ph.D. ATR-BC, Associate Professor at the NYU Child Study Center, is Director of Bereavement Services and Outreach, Child and Family Recovery Program, www.aboutourkids.org, and co-author of *The Day Our World Changed: Children's Art of 9/11*.

Elissa J. Brown, Ph.D., Assistant Professor at the NYU Child Study Center, is Director of Trauma Services and Research, Child and Family Recovery Program.

Mary Courtney, Ph.D., Assistant Professor at the NYU Child Study Center, is Director of School-Based Intervention, Child and Family Recovery Program.

Anita Gurian, Ph.D., Assistant Professor at the NYU Child Study Center, is Editor of the *NYU Child Study Center Letter* and Executive Editor of www.aboutourkids.org.

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Resources

Parents, educators, and mental health and medical professionals will find the following resources to help children cope with the September 11th attack on our web page "AboutOurKids - Resources for Helping Children Cope with Trauma and Loss" at http://www.aboutourkids.org/articles/crisis_index.html

Questionnaire:

PTSD questionnaire - Find out if your child exhibits symptoms of posttraumatic stress disorder (PTSD)

Articles:

About Posttraumatic Stress Disorder

After 9/11: Helping Bereaved Children at Special Celebrations and Holidays

Attack on the U.S.: Guidelines for Parents

Attack on the U.S.: Guidelines for Parents (Español)

Attack on the U.S.: Guidelines for Teachers

Attending Funerals or Memorial Services

Building Resilience in Children in the Face of Fear and Tragedy

Children and Grief: What They Know, How They Feel, How to Help

Choosing a Mental Health Professional for Your Child: Who, What, When, Where, Why, How

Guidelines for Coping With the Anniversary of a Trauma or Death

Helping Children and Teens Cope with Traumatic Events and Death: The Role of School Health Professionals

Helping Children with Developmental Disabilities Cope with Traumatic Events

Kids and Terrorism: Supporting Our Children in Times of Crisis

Ladder 35, Engine 40 (an e-book for children about September 11)

Power of an Idea

Summer of 9/11: Suggestions for Parents and Caregivers

Talking With Kids About Terrorism and Acts of War

Talking With Kids About Terrorism and Acts of War (Español)

When Hurt Leads to Hate: Preventing Your Child's Feelings of Anger from Leading to Actions of Bias and Hate

Crisis Manuals:

These Crisis Manuals were developed by the NYU Child Study Center.

Caring for Kids after Trauma and Death - A Guide for Parents and Professionals, September 11, 2002 95 pages

Planning for the Anniversary of Traumatic Events - A Practical Guide for Educators 33 pages

Website Resource

Helping Children Handle Disaster-Related Anxiety - 1-800-LIFENET at:

<http://www.800lifenet.com/>

[helpingchildren.html](http://www.800lifenet.com/helpingchildren.html)

Free, confidential crisis intervention, referral and information service.



Letter

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