

## Resilience in Katrina's Children

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Children and adolescents are considered special populations at higher risk for the effects of disaster trauma. Norris and colleagues<sup>[1]</sup> reported in their review of studies that 69% of school-age youth were likely to suffer severe impairments after disaster trauma. Children's reactions to disasters differ from those of adults because of their developmental differences. Children do not have the same conceptual understanding of disasters and often blame themselves as a result of their limited understanding, and younger children typically reenact through play the events witnessed.

Children's greatest fears after a disaster include being separated from family, being left alone, having the disaster recur, and seeing loved ones injured or killed. Ironically, these fears are the reality that has been documented during past decades in a variety of postdisaster and war-related studies of populations. The impact of the 9/11 terror attack on the mental health of youth in New York City was extensively studied through surveys<sup>[2]</sup> of parents and youth in school. The results showed that 26.5% met criteria for 1 DSM-IV disorder and had trouble with day-to-day functioning. Children in grades 4 and 5 were at greater risk than were those who experienced physical exposure to the attack, watched more than 3 disaster images on TV, or saw parents cry. In addition, being female, Hispanic, and having a parent with posttraumatic stress also increased the risk for a mental health disorder.

Recommendations from these studies highlighted the need for family-focused services to reduce parental stress and to avoid watching disaster images on TV. In Sri Lanka, both war and the Asian tsunami disaster have had a devastating impact on its youth.<sup>[3]</sup> Those living in the "war milieu" of the northern area have developed mental symptoms of sleep disturbance (77%), irritability (73%), decline in school performance (60%), hyperalertness (50%), aggressiveness (46%), separation anxiety (40%), cruelty (30%), and withdrawal (25%). A survey taken 3 weeks after the Asian tsunami showed 41% of children met PTSD criteria, except for criterion E -- duration of the symptoms of more than 1 month. The following is a further review of the recent catastrophe of Katrina and current recovery efforts.

In a workshop entitled, "Children and Adolescents Displaced by Katrina," Drs. Joy and Howard Osofsky presented evidence of resilience in children and adolescents despite the trauma they suffered as a result of their displacement, losses, and separations from family in the wake of Hurricane Katrina.<sup>[4]</sup> Their presentation echoed many of their recently published comments about the aftermath of this disaster.<sup>[5]</sup> Unlike other areas in the United States where disasters have struck and communities have transitioned to recovery, New Orleans remains in a chronic state of crisis without much of the health or educational infrastructure that existed before the storm. Ten months after Katrina's impact, a survey by Mississippi State University Early Childhood Institute (ECI) to assess the current child care capacity and need for child care in Orleans Parish, Louisiana, showed less than one fifth of the child care centers were open. Of 61 discrete neighborhoods in Orleans Parish, 33 (54%), lost all licensed centers. Nine neighborhoods lost no licensed centers. The US Department of Education estimates that 372,000 Mississippi and Louisiana children were displaced from the more than 700 schools that were forced to close following Katrina.

Support from family, school, and community mitigates the effects of extensive trauma. Resilience -- the ability to cope successfully with adversity -- is then apparent. Resilient children will express the wish to return to a normal life, ie, be back in school and see friends again. However, resilience does not obviate the strong need for active mental health services.

Many agencies involved in the disaster are involved in efforts to document this impact on the mental health of children, adolescents, and their families. In February 2006, the Mailman School of Public Health at Columbia University, in partnership with the Louisiana Department of Health and Hospitals, conducted a representative survey sample of 665 of households at trailer communities and hotels throughout the state. Titled "On the Edge," this report highlights the dramatic increase in mental health problems in these communities, with nearly half of the parents reporting that their children had developed new emotional or

behavioral problems since Katrina.<sup>[6]</sup> In addition, families were forced to relocate an average of 3.5 times, with some as many as 9 times. These dislocations have prevented the reestablishment of new health, education, and employment relationships and have significantly undermined the families' ability to maintain a regular routine.

## **Children on the Edge**

At this conference, Drs. Joy and Howard Osofsky presented information from 2 completed surveys of 2200 children in heavily affected areas in Metropolitan New Orleans; 4th-12th graders were assessed using the National Center for Child Traumatic Stress Screening, and 787 children ages 3-8 years whose symptoms were reported by their parents were also assessed.<sup>[4]</sup> This broad sampling included representation from minority, African-American poor (Orleans Parish), and working-class whites (St. Bernard Parish).

Overall, problems seen in children included an increase in depression, anxiety, and stress symptoms. Young children showed clingy behaviors and difficulties with separations. Older children experienced problems with concentrating, completing schoolwork, and fighting. Adolescents exhibited risk-taking behaviors and suffered from a sense of isolation. The survey determined that more than half of the children needed mental health referrals for evaluation: 13% requested counseling; 37% reported experiencing loss or trauma; and almost 40% endorsed feeling depressed, angry, or sad.

Traumatic experiences reported by children showed that 34% were separated from their primary caregiver while displaced; many attended multiple schools (average of 2 and up to 9 schools), 21% saw family members or friends injured; 14% saw family members or friends killed; and almost all saw hurricane damage to their homes. Similar findings were noted by parents of younger children, with separation being a significant issue: 14% had been separated from primary caregivers, and 20% had been separated from their pets. Also, 63% lost their personal belongings, 10% witnessed family members injured, and 4% witnessed death.

Posttraumatic symptoms were present in both older and younger children, with recurrent upsetting thoughts, attempts not to think about the event, worries about the future, and trouble with concentration. Concurrent feelings of sadness, depression, and irritability were also reported.

## **Supporting Resilience**

To support the resilience in these children many activities are being used -- a camp carnival, Saturday activities, and Halloween, Thanksgiving, and Christmas parties. These efforts are meant to provide fun activities with respite for parents to counter stress and provide traditional activities for families, to make life seem more normal in an abnormal environment. Additional efforts to encourage and support adolescent leadership are under way to help promote growth after disasters.

Lessons learned included the finding that children of all ages may be traumatized by a natural disaster even though their emotional and behavioral reactions to such trauma may be "normal," or develop a new "normal," with such widespread disaster and continuing anxiety. Nevertheless, there are mental health needs that require culturally sensitive interventions and services for all ages and families.

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