Welcome to the Summer 2015 issue of the New York DMH Responder, our quarterly newsletter for the Disaster Mental Health community. It’s hurricane season and while some New Yorkers are still coping with the aftermath of our regional storms of recent years, this August was also the 10th anniversary of Hurricane Katrina in the Gulf Coast and the subsequent levee failure in New Orleans. The property damage and human toll of this event mean it’s generally considered the worst natural disaster in US history – and it’s equally notable for problems in the response that led to a rethinking about disaster preparedness at all levels. In this issue we’ll focus on the lessons learned on the mental health side including summarizing longitudinal research on reactions and recovery patterns among different populations, including DMH responders. We also include a guest article by a New Orleans-based clinician who was deeply involved in the post-disaster response and a roundup of books that have been written about Katrina’s impact. We describe the Winter 2016 Institute for Disaster Mental Health webcast for DOH and OMH personnel.

As always, your feedback and suggestions for topics to cover in future issues are welcome; please email any comments to Judith LeComb at DOH or Steve Moskowitz at OMH.

Never give up, for that is just the place and time that the tide will turn.

– Harriet Beecher Stowe, American author
Ten Years After the Storm: Long-Term Mental Health Effects of Hurricane Katrina

People who have not personally experienced or responded to a major disaster often have the impression that the effects on survivors and communities are short-lived, lasting about as long as the media attention does before the spotlight turns to the next catastrophe. Newsletter readers who are still addressing the effects of Irene, Lee, and Sandy among New Yorkers years after these events surely don’t share that misperception! As disaster mental health responders learn to adapt our practices to the kind of massive events that seem to be increasing in frequency, it’s worth revisiting the response to the biggest natural disaster in US history, Hurricane Katrina, to see what lessons we can learn about the long-term mental health effects of disaster as the nation marks the event’s 10th anniversary on August 29, 2015.

A number of longitudinal studies have tracked reactions over time among different groups of survivors. We’ll summarize several of them here; see the Research Brief later in this issue for a report on the long-term impact on disaster mental health responders.

Children

One population there were immediate concerns about was the large number of young children who were displaced from their communities. Not only did they experience the direct loss of home, school, toys, pets, and in some cases family members, but many suffered indirect losses like their sense of stability and security at an age when trusting that the world is a safe place is paramount to healthy psychosocial development. Earlier studies had found very high rates of PTSD and other negative consequences among young survivors of Katrina. For example, Scheeringa and Zeanah (2008) found that a shocking 62.5% of preschoolers who remained in New Orleans during the storm met diagnostic criteria for PTSD, as did 43.5% of those who evacuated. Rates of PTSD, anxiety, depression, and oppositionality were especially high among children whose caregivers displayed symptoms of PTSD, demonstrating the recognized tendency of children to mirror caregiver distress.

To determine how these negative reactions changed over time, Osofsky and colleagues (2015) collected data annually for four years from families of 914 children who were aged 3 to 5 at the time of Hurricane Katrina. Most of the children were Caucasian (46%) or African American (44%). The researchers were particularly interested in the
impact of children’s attachment to their caregivers as a potentially protective factor to buffer the child from the traumatic experience of the storm, but also as an additional risk factor if that attachment were disrupted by separation from the caregiver, or because the caregiver’s own distress made him or her less emotionally available to the child. Caregivers completed the National Child Traumatic Stress Network Hurricane Assessment and Referral Tool for Children and Adolescents which asks about age-specific posttraumatic symptoms such as clinginess, separation anxiety, withdrawal, and behavior problems. They also assessed caregiving disruption such as separation from or death of the primary caregiver, as well as other non-human losses of pets, toys, home, or school. Finally, they collected information about each child’s level of direct traumatic experiences during the storm as well as trauma prior to and since the storm. Their main findings:

Children’s posttraumatic symptoms generally decreased over time, with higher rates of improvement occurring among those who initially demonstrated higher levels of distress. This is consistent with the typical pattern of recovery among survivors of all ages after traumatic experiences.

Children who had more direct exposure to the disaster, more disrupted relationships with the primary caregiver, and more non-human losses typically had worse long-term outcomes than those with fewer stressors, which is consistent with the idea of a dose-response relationship between exposure and negative reactions.

Distress was higher among children whose caregivers reported experiencing trauma before or after the hurricane, again showing how sensitive young children are to their caregivers’ mental states.

While none of these findings are terribly surprising, they do underscore the need to address child suffering rather than assuming that kids are resilient and will bounce back automatically. It also provides evidence for the advice we often give to caregivers as part of post-disaster psychoeducation: They truly do need to attend to their own stressors in order to buffer their children from further negative symptomology.

Turning to slightly older children, Hansel et al. (2013) focused on the impact of relocation due to Hurricane Katrina. In a school-based study performed in Fall 2008, 795 students then in grades 5 through 12 in Baton Rouge were assessed. Within the sample, 270 students had moved from New Orleans to Baton Rouge (about 80 miles away) after the storm, 351 had been temporarily relocated but had subsequently returned to their original zip code, and 174 had moved to a new zip code within the parish (county) of New Orleans, suggesting they were not in their pre-storm home but had not moved very far. Ninety-four percent of these students were African American. The same screening and referral tool described above was used, as well as a self-reported Disaster Interview that inquired about previous trauma and recovery experiences, demographics, and mental health symptoms. Students also reported whether they had guests staying in their home (used as a proxy for a disrupted living environment), whether a parent was unemployed due to the storm, and whether they were separated from a caregiver. Their results:

- Relocated students reported more trauma symptoms overall, and they were more likely to report additional post-storm trauma experiences than returned students. Relocation appeared to be particularly difficult for the older students, perhaps reflecting the important of connections with peers in adolescence.
- Girls reported more symptoms than boys.
- Higher rates of trauma symptoms were reported by students with guests in their homes, those with an unemployed parent, and those who were separated from a caregiver.
- Those with prior traumatic experiences before the storm had more current symptoms, as did those who had experienced additional post-storm trauma.

Clearly families who are forced to relocate should be viewed as vulnerable to serious traumatic reactions, particularly if the new setting is unstable in terms of living arrangements or parental support.
Adults

A major limitation of most studies of disaster survivors is that they only assess people after the event. With no baseline data to compare post-disaster functioning to, it’s difficult to draw clear conclusions about the effect of the event itself. One study of Hurricane Katrina survivors avoided that limitation as participants had been surveyed one year before the storm, as well as one and four years later. Calvo and colleagues (2015) initially surveyed about a thousand low-income parents ages 18 to 34 who were full-time students at two New Orleans community colleges. They were interviewed between Fall 2003 and Winter 2005 about their level of happiness. After Hurricane Katrina, 711 members of the original group (69.8%) were re-interviewed between March 2006 and March 2007 about their happiness, and about their experiences during the storm including hurricane-related stressors (for example, not having enough food or water, lacking needed medical care for self or family member, or lacking knowledge of safety of child or other family member); bereavement if the participant had lost a family member or close friend in the event; and property damage to home (negligible, moderate, or severe). Another follow-up interview was performed between March 2009 and June 2010.

To ensure consistency, Calvo et al.’s (2015) final analysis included only those who had participated in all three waves of data collection, and they eliminated the small number of male respondents to avoid any gender-related skewing of results. The final sample included 491 mothers who had been directly impacted by the hurricane. Examining overall happiness levels, the general pattern was a slight decrease in reported happiness between the baseline measurement and the assessment shortly after the storm, followed by a return very close to baseline by four to five years post-disaster. The exception was a slight increase in women who reported being not at all happy, which went from 0.8% of the sample pre-storm to 2.9% just post-storm, to 2.7% several years later. At the group level this was offset by nearly complete recovery among those who described themselves as somewhat or very happy (91.3% pre-storm, 88.6% post-storm, and 90% years later). In other words, pre-disaster happiness was the best predictor of long-term recovery, despite an expectable dip in happiness for most participants shortly after the event.

However, the researchers identified 38 women who shifted from “somewhat” or “very happy” pre-storm to “not very happy” or “not at all happy” five years later. In trying to determine reasons for this decline, analyses didn’t reveal any differences in race/ethnicity, age, household composition or income, religiosity, or relationship status, nor did these participants describe higher levels of disaster exposure. The key difference the researchers did find? These
women were less likely to be married or living with a partner at the time of the final survey, and they reported significantly lower levels of perceived social support at all three interviews. This reinforces the recognized importance of social connectedness in recovery, and again emphasizes the need for DMH responders to encourage people to rebuild relationships that have been disrupted by disaster.

Finally, Rhodes and Tran (2012) expanded beyond support from friends and family to examine the impact of perceived quality of the governmental response to the disaster on posttraumatic stress and posttraumatic growth among survivors. Very briefly, they found that among their 980 participants, more positive views of the governmental response were associated with greater posttraumatic growth while more negative views of the response correlated with greater posttraumatic stress symptomology. The authors suggest that “this finding appears to support Tyler and Roger’s (2005) assertion that the belief that help is available and that survivors are being cared for appropriately appears to be an important component of a ‘healing community’ that supports positive adaptation in the face of a disaster” (p. 152) – a worthy goal to strive for as we plan for the next response.

Overall, there are few surprises in these results, but they do provide empirical support for what common sense tells us about disaster’s impact: When assessed shortly after a disaster, most people will demonstrate some degree of negative posttraumatic stress reactions and decreased quality of life. More exposure is worse; repeated stressors are detrimental; those with preexisting vulnerabilities or trauma histories are at risk for worse reactions; and losing one’s community really does provide a kind of secondary disaster, especially for children and adolescents. The belief that authorities are looking out for us relieves stress and increases the possibility of growth. All told, the serious impact of disasters and the need to provide mental health support are evident.

These studies also demonstrate that most people are able to adjust to their losses and that posttraumatic stress symptoms tend to decline over time, with the exception of some survivors who continue to suffer even years later. These long-term lessons from Hurricane Katrina, in combination with what we in New York State have learned firsthand from our own massive storms, clearly reinforce the need for continued dedication to disaster mental health planning, preparedness, and response in order to foster community recovery and minimize the number of individuals with lasting distress.

Sources


Anthony Speier, Ph.D.

Editor’s note: Dr. Anthony Speier played a major role in the response to Hurricane Katrina as Statewide Director of Disaster Mental Health Services, Louisiana Department of Health and Hospitals, Office of Mental Health, a position he held from 2005 to 2008. He retired from the department in November 2013 as the Assistant Secretary for Behavioral Health and is now an Associate Professor of Clinical Psychiatry at Louisiana State University Health Sciences Center, Department of Psychiatry. These are his reflections about the challenges DMH responders faced at the time and the lessons learned in the decade since the disaster.

Come with me back to that place and time when a rather conventional hurricane changed its course and the world of disaster response for the foreseeable future.

Friday, August 26, 2005 (72 hours before landfall). Hurricane Katrina evolved into a fast moving storm within the Gulf of Mexico after making landfall over the tip of the Florida peninsula, moving into the Gulf of Mexico Friday evening and strengthening to major hurricane status on Saturday afternoon. By Sunday morning it was a Category Five storm with a trajectory toward New Orleans. Katrina made landfall with winds of 140 MPH in lower Plaquemines parish below New Orleans on Monday, August 29, 2005.

An excerpt from a National Weather Service advisory Sunday, August 28th at 10:11 AM clearly depicts what the city of New Orleans and surrounding communities were facing:

```
000 WWUS74 KLIX 281550 NPWLIX URGENT - WEATHER MESSAGE NATIONAL WEATHER SERVICE NEW ORLEANS LA 1011 AM CDT SUN AUG 28 2005 ...DEVASTATING DAMAGE EXPECTED.... HURRICANE KATRINA...A MOST POWERFUL HURRICANE WITH UNPRECEDENTED STRENGTH... RIVALING THE INTENSITY OF HURRICANE CAMILLE OF 1969. MOST OF THE AREA WILL BE UNINHABITABLE FOR WEEKS.... AT LEAST ONE HALF OF WELL CONSTRUCTED HOMES WILL HAVE ROOF AND WALL FAILURE. ALL GABLED ROOFS WILL FAIL... ALL WOOD FRAMED LOW RISING APARTMENT BUILDINGS WILL BE DESTROYED... PERSONS...PETS... AND LIVESTOCK EXPOSED TO THE WINDS WILL FACE CERTAIN DEATH IF STRUCK. POWER OUTAGES WILL LAST FOR WEEKS...
```

(http://www.nws.noaa.gov/storms/katrina/)

...and come with me to that place and time when the world of disaster response was forever changed by the hurricane that changed its course.
In the three days preceding landfall, several hundred thousand people successfully evacuated the city, leaving an estimated 100,000 thousand people without the means for evacuation. The magnitude of the storm and its impact is difficult to comprehend. As reported by The Greater New Orleans Community Data Center:

- Over 80% of New Orleans was flooded
- At least 986 people died due to levee failures; half were over age 74
- The storm displaced more than a million people in the Gulf Coast region
- Up to 600,000 households were still displaced a month later
- Hurricane evacuee shelters housed 273,000 people and, later, FEMA trailers housed at least 114,000
- The total damages from Hurricanes Katrina and Rita (one month after Katrina) were $150 billion

The Hurricane Response Facts (August 30, 2005)

- FEMA Director Michael Brown reports to the White House and DHS that the emergency response is in chaos (NY Times 09/15/05).
- Louisiana governor Kathleen Blanco ordered the complete evacuation of the Louisiana Superdome; evacuees are transported to the Astrodome in Houston, Texas.
- Looting and violence spreads through the city of New Orleans including car jacking, with reports of gangs armed with guns controlling large parts of the city. Rescue Helicopters were also fired on by snipers.
- Coast Guard rescues 1,200 people from rooftops in New Orleans.
- U.S. military begins to move ships and helicopters to the region.
- FEMA begins search and rescue operation and starts setting up temporary hospitals for the sick and injured.
- The American Red Cross launches disaster mobilization plan. By the end of the day 75,000 people were housed in temporary shelters.
- The fast moving events associated with the landfall of Hurricane Katrina and subsequent flooding and failure of the levy system provided the horrific
environmental conditions in which the disaster mental health response was implemented.

**Behavioral Health: The Challenges**

I. Initial Response Phase (six weeks)
- The majority of uniformed responders have lost their homes and families have been evacuated. Three cruise ships anchored in New Orleans are designated as emergency housing for the uniformed services. Behavioral Health (BH) presence 24/7 is determined to be critical on cruise ships and temporary operations centers.
- Standing up additional sheltering and medical triage units supporting ongoing evacuations of persons still stranded in New Orleans.
- Evacuating 90 mental health patients from New Orleans’s Charity Hospital by boat.
- Staffing all shelter sites with Behavioral Health (BH) staff 24/7.
- Providing support to ongoing EMS evacuation fleets and EOC operations.

II. Post Storm Phase (six months)
- Initiate outreach services to thousands of people housed in shelters, motel rooms, and ultimately FEMA trailers located in villages of 100-500 trailers.
- Establish and support the “Find Family Call Center” for persons looking for deceased or missing family members.
- Provide ongoing support to first responders.
- Establish support to people returning to New Orleans and other devastated communities.
- Build a process for soliciting community input to recovery programs.
- Maintain existing pre-storm mental health services.
- Support psychiatric patients relocated from three psychiatric hospitals to other state hospitals.

III. Recovery Phase (three years)
- Establish long-term community response networks and community intervention strategies.
- Tailor BH interventions to be consistent with the cultural, racial identities and personal values of survivors.
- Outreach and services to at-risk populations such as first responders and their families; persons who have lost family members; elderly survivors; and children and adolescents.
- Identify the preferences of survivors assimilating into new living environments and communities.
- Acceptance of a New Normal for all affected (survivors and providers).

The Lessons: Sustainable Strategies for Today

A culture of change or a changed culture?
Katrina has taught us all a bitter lesson: Hurricanes can and will hurt you. Over the last decade, the conversation and our cultural attitudes about the impact of hurricanes have changed from denial about one’s personal risk of harm, to an active personal responsibility for getting one’s self and family out of harm’s way.

Never stop planning; never stop having preparedness and response conversations
It’s difficult to believe, but the children of Katrina are producing the next generation of children, for whom Katrina is a history lesson, not a life experience. Conversations in communities across generations are necessary to manage expectations and concerns and to build confidence among all residents that personal emergency preparedness is part of our daily lifestyle.

Build the power of collective self-efficacy and community resilience
Disaster preparation and response begins with the capabilities of individuals, evolving into strong and competent communities. Strong communities are the key to successful recovery from horrific incidents. Significant time and resources must be dedicated to the building and reinforcing of local stakeholder support. Failing to engage all segments of a community in the recovery
Katrina and the Deepwater Horizon: The Threat of Cumulative Trauma

Beyond the devastation caused directly by Hurricane Katrina and the resulting failure of the levees in New Orleans, another factor that greatly complicated recovery for many Gulf Coast community members was the second disaster that occurred almost five years later when an April 20, 2010 explosion on the Deepwater Horizon oil drilling rig killed 11 workers and triggered an underwater spill that released an estimated 4.9 billion barrels of oil. Unlike previous spills like the Exxon Valdez which released a finite (though highly destructive) amount of oil, the fact that this spill came from an unsealed well meant that there was essentially no limit to the amount that could potentially be released, so the uncertainty and distress about the eventual extent of the damage lasted until the well was finally capped in September 2010. That means this second disaster had an acute duration of five months, not even considering the long-term environmental consequences and health-related fears.

For many people, the cumulative trauma resulting from this second technological failure that occurred just as they were finally recovering from the hurricane and levee failure was at least temporarily overwhelming. As a result of the spill, many residents experienced financial losses as jobs in the fishing and drilling industries disappeared, and cleanup workers surveyed two years later reported diverse health problems. In addition to these direct effects, many area residents reported mental health problems including depression, anxiety, family difficulties, and increased use of alcohol and drugs. As a result of this combination of disasters, researchers and clinicians Howard and Joy Osofsky of the Louisiana State University Health Sciences Center report that “common adverse reactions included irritability and anger, distrust of authorities, uncertainty about the future, loss of enjoyment in life, all of which contributed to reactions that interfered with and disrupted families. Many people found themselves having difficulty making decisions, sleep problems, fatigue, fearfulness, concerns about ability to overcome problems, and physical health issues” (2013, p. 375-376). While all of these responses are recognized as typical or understandable reactions to traumatic events, it’s worth noting that they were seen among people who had no direct exposure to the actual oil spill, but who were reacting with fear or anxiety about its meaning for their future way of life.

This clearly suggests a red flag that New York State responders should be aware of in coming years: We must prepare not only to respond to future events, but to be sensitive to survivors’ previous experiences in Irene, Lee, Sandy, and other past disasters that could be retriggered by a subsequent event. We also need to be conscious of the mental health impact of concerns about the broader effects of climate change that our new superstorms may arouse even for those outside of impacted areas. Traditionally disaster mental health services are centered where the physical damage is worst, but as we all learn to adapt to an altered environment, perhaps more sensitivity to stress and anxiety among those outside the epicenter of any given event should be considered.

Source
In the past 10 years, a plethora of reading material, from memoirs to children's books, has emerged from the floodwaters of Hurricane Katrina to tell heartbreaking tales of tragedy and perseverance. Accounts of healthcare providers struggling to protect their patients in nearly unimaginable circumstances will be of particular interest to newsletter readers. Below is a selection of books to pick up on your next trip to the library or bookstore, or while browsing on an eReader.

**Spotlight**

**Five Days at Memorial**
Sheri Fink

Five Days at Memorial is the result of Pulitzer Prize-winner Sheri Fink's thorough investigation into accusations of patient euthanasia during Hurricane Katrina at Memorial Medical Center in New Orleans. Fink offers an impartial, narrated account of the five days patients, staff, and family members spent awaiting rescue as flood waters rose, power failed and patients began dying. Five Days offers captivating insight into classic disaster psychology – ineffectual leadership, breakdown of communication, rumors, and fear – while impartially asking readers to consider broader constructs of disaster management, emergency preparedness, corporate responsibility and end-of-life care.
Katrina-Based Reading  
continued from page 10

Katrina in Healthcare Settings

**Code Blue:**  
* A Katrina Physician’s Memoir  
* Richard E. Deichmann, M.D.

Code Blue is a physician’s perspective of the tragedies at Memorial Medical Center, also chronicled in Sheri Fink’s *Five Days at Memorial*. Since author Deichmann stays away from the topic of the deceased patients and ensuing controversy, readers should consider reading this before *Five Days* for a richer, satisfying experience.

**Flood of Lies:**  
* The St. Rita’s Nursing Home Tragedy  
* James A. Cobb, Jr.

Flood of Lies is written by the trial lawyer who represented the Manganos, the elderly owners charged with murder after 25 residents of their business, St. Rita’s Nursing Home, were drowned. Reading like a legal thriller, Cobb even references fictional character Darby Shaw of John Grisham’s *Pelican Brief* while trying to get his legal students to take action in defense of a couple already being tried by the media.

**Nursing in the Storm:**  
* Voices from Hurricane Katrina  
* Denise Danna & Sandra E. Cordray

Nursing in the Storm is a collection of stories and experiences from nurses throughout hospitals impacted by Hurricane Katrina: Charity, Lindy Boggs, Memorial, Pendleton, and Chalmette medical centers and hospitals. It also includes a chapter on lessons learned that would be valuable for any medical professional.
Zeitoun
Dave Eggers
Zeitoun is an easy-to-read novel based on the true story of Abdulrahman Zeitoun, a Syrian-American who stays behind in New Orleans with his home and business while his wife and children evacuate. While sleeping on his roof as waters rise, he finds a canoe to aid him on his mission to rescue neighbors and pets. The most shocking part of this story comes as Zeitoun is arrested and held in a makeshift prison camp for weeks as a suspected terrorist.

Women of Katrina:
How Gender, Race, and Class Matter in an American Disaster
Emmanuel David & Elaine Enarson
Women of Katrina is an assemblage of stories, recollections, research, and case studies outlining the social inequalities that impacted the experience Hurricane Katrina had on different populations. This collection includes topics such as vulnerable populations, the impact of high-risk pregnancy and finances on evacuation decisions, disabilities, and research from battered women’s shelters.

Beyond Katrina:
A Meditation on the Mississippi Gulf Coast
Natasha Trethewey
Interspersing poetry with reflections, history, photos, and letters, Beyond Katrina: A Meditation on the Mississippi Gulf Coast artfully describes the impact Hurricane Katrina had on both the family of the author (the US Poet Laureate from 2012 to 2014) and the already disenfranchised communities along the Gulf Coast.
For Young Readers

1 Dead in Attic: After Katrina
Chris Rose

New Orleans Times Picayune journalist Chris Rose tackles issues related to evacuation, relocation and mental health seeking in this collection of his newspaper columns from right before the storm hit to a year later.

When Hurricane Katrina Hit Home
Gail Langer Karwoski

When Hurricane Katrina Hit Home is a historical fiction narrative that allows young readers to hear about Katrina told from the points of view of two youth; an upper-middle class Jewish teenager and a younger African American girl from the Ninth Ward.

Two Bobbies: A True Story of Hurricane Katrina, Friendship, and Survival
Kirby Larson & Mary Nethery

Two Bobbies is the true story of a dog and cat who were left behind as their owners were rescued in the aftermath of Katrina. Beautiful, striking illustrations follow this pair’s journey through survival, rescue, and national attention.
As any readers who have participated in a disaster response operation well know, trying to meet survivor needs while maintaining one's own personal and professional life can be stressful and exhausting – but also deeply satisfying. The demands on DMH responders after Hurricane Katrina and Hurricane Rita a month later certainly demonstrated that point at a massive scale. Lambert and Lawson (2013) sum up the main issues mental health helpers faced:

Counselors from the impacted regions may have been forced to relocate; if they were in the area they were usually juggling their own losses with the needs of clients, including uncertainty about whether their agencies would survive the disruption.

Unprecedented evacuations meant that existing counseling clients were often scattered across great geographical distances, and even locating them was difficult, let alone trying to resume treatment.

Records were often destroyed or inaccessible, and insurance companies were unreachable.

Mental health professionals who came to the region to volunteer their services were stretched thin addressing both survivors’ needs and vicarious trauma among other volunteers and responders.

Helpers in cities that received large populations of evacuees had to balance the new population’s acute post-disaster issues with ongoing needs among the original community, compounded in some cases by resistance to the newcomers.

While many mental health helpers did all they could to rise to these challenges, it certainly exposed them to the occupational hazards of burnout and compassion fatigue, as well as to the potential for compassion satisfaction and posttraumatic growth. To explore these outcomes after about four years had passed, Lambert and Lawson surveyed 125 professional counselors who had volunteered through the American Red Cross to assist clients affected by Hurricanes Katrina and Rita. Participants completed the Professional Quality of Life Scale which assesses compassion satisfaction, compassion fatigue, and burnout; the Posttraumatic Growth Inventory which assesses positive changes in realms including New Possibilities, Relating to Others, Personal Strength, Spiritual Change, and Appreciation of Life; and the K6+ scale which screens for psychological distress and mood disorders.

Survey participants were 72.8% female, with a mean age of 49 years and average professional counseling experience of 14 years. They were primarily White (86.8%), followed by Black (9.1%) and Hispanic (3.3%). About one-third were in private practice, followed by those working in a community agency (23.6%), college or university (22.7%), K-12 school setting (11.8%), hospital or residential setting (10%), or other. Within the group surveyed, 39 (31.2%) reported that they lived in the affected area and had been personally impacted to some degree. This group of “survivor volunteers” was compared with the other “responder volunteers” who did not experience personal harm from the storms, and all were compared a normative national sample of counselors.

The researchers found no differences between groups in terms of indications of mental illness, with only one participant indicating signs of a serious mood disorder, while 10.4% met the cutoff for a moderate mood disorder, which was lower than rates among the general population of storm survivors. Looking at professional resilience, 9.9% of participants’ scores indicated that they were at risk of burnout and a similar percentage (9.2%) scored low on compassion satisfaction. These rates were slightly but not significantly worse than results among a national sample of American Counseling Association members (Lawson & Myers, 2011). More troubling, 22% of those who responded to Katrina or Rita showed signs of compassion fatigue compared with 10.3% among the non-responder sample.
There were no differences between survivor volunteers and responder volunteers on any of the measures of professional resilience, but there were in some subscales of the Posttraumatic Growth Inventory. Interestingly, survivor volunteers reported significantly more growth in the realms of Relating to Others and Personal Strength (both p<.01) and in New Possibilities and Appreciation of Life (both p<.05). Only Spiritual Change showed no difference between groups, and it had the least growth overall.

Finally, Lambert and Lawson asked participants about their self-care practices during the response and in the past 30 days. They found a modest but significant correlation between higher levels of self-care during deployment and better current compassion satisfaction, as well as lower current burnout. More recent self-care activity also correlated with lower rates of current mental illness symptoms.

The study has many limitations, including the small, homogenous sample and the sole use of self-report measures, but the finding that survivor responders did not have significantly higher rates of negative long-term outcomes than volunteer responders is somewhat surprising and gratifying. The different rates of posttraumatic growth between groups is particularly noteworthy because it suggests a kind of silver lining to the dual experience of surviving and responding to an event: Those who elected to go help others also experienced high levels of personal growth, but those who suffered losses themselves and really had no choice in whether to participate ultimately experienced even more long-term growth in several areas. That finding may be of little comfort while one is in the throes of a response in their own disaster-stricken community, but at least it presents some promise of a positive outcome over time.

**Summary**

Catastrophic events are unique, requiring a different response mentality than disaster incidents. The major differences include the number of people affected within and outside the impact zone; the disruption/destruction of infrastructure and communications; the ongoing nature of the event; and the complexity associated with quickly mobilizing resources necessary to prevent additional loss of life and property.

Catastrophic events move at an incredible rate of speed, requiring that the behavioral health response is dynamic, and capable of shifting rapidly to emerging and changing needs. No amount of planning can fully prepare you for responding to a catastrophic incident. Thus, existing operational experience and operations protocols will most likely not be optimally effective in an entirely novel response environment.

The essential and enduring strategy that paid lifesaving dividends over and over during the Hurricane Katrina response was the long-standing relationships between first responders of many different agencies. The trust between individuals and agencies lies at the core of all emergency response. When equipment fails and procedures breakdown, the strength of the human connection and a firm handshake are priceless.

**Source**