

“All the DRT”

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“All the DRT” on Public Health

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All the DRT is the newsletter of the Child and Family Disaster Research Training (DRT) & Education Initiative, one of three disaster research training grants funded by the NIMH, NINR, and SAMHSA. The goal of the project is to enhance the nation’s capacity for conducting rapid, post-event, disaster mental health studies.

The goal of *All the DRT* is to provide you with current information about the DRT project, and inform you about research being done in the area of disaster mental health. We hope you enjoy reading our newsletter and continue to support this important area of research.

RESEARCH on Disaster & Public Health

An Interview with *James Shultz, MS, PhD*

James M. Shultz, MS, PhD, is Director of the Center for Disaster and Extreme Event Preparedness (DEEP Center) and Co-Director of the Miami Center for Public Health Preparedness at the University of Miami Miller School of Medicine. Dr. Shultz trains public health, mental health, and hospital-based professionals, and their community preparedness and response partners, in disaster behavioral health and emergency preparedness. In the past three years, he has personally presented more than 225 training sessions to more than 10,000 persons throughout the United States, Canada, and Latin America. Dr. Shultz has first-authored several texts including: *DEEP PREP: All-Hazards Disaster Behavioral Health Training* (2007); *SURGE, SORT, SUPPORT: Disaster Behavioral Health for Health Care Professionals* (2006); and *All-Hazards Disaster Behavioral Health Training* (2006). *All the DRT* spoke with Dr. Shultz in January 2008.

ATD: Tell us a bit about your work in the field of disaster behavioral health.

JS: *I serve as director for the Center for Disaster and Extreme Event Preparedness (DEEP Center). We have trained in the area of disaster behavioral health for 4 years. We began by seeking the counsel of experts in the field, starting with Dr. Raquel Cohen who has been our guide and mentor. She led us to Dr. Brian Flynn, who devoted 30 years to federal service as the lead federal official for disaster behavioral health. Dr. Flynn has been co-trainer of our courses from the earliest sequence.*

Our initial courses were in disaster behavioral health, beginning with awareness courses and progressing to skills-building, experiential types of disaster behavioral health training with an all-hazards focus. We have taken a lead in developing disaster behavioral health training for hospital-based health care professionals. Our course, "Surge Sort Support: Disaster Behavioral Health for Healthcare Professionals" has been adopted by the federal government of Canada and is being offered nationwide in web-based format. We are currently training public health and healthcare professional audiences in Psychological First Aid.

ATD: Public health is a huge field. How would you define it?

JS: *The field of public health explores patterns of health and health-related behaviors at the population level. Relating the public health vantage to disasters, we define disaster as "an encounter between forces of harm and a human population in harm's way, influenced by the ecological context, in which the demands of the situation exceed the coping capacity of the disaster-affected population." Disasters are population-level phenomena affecting entire communities. Currently we are seeing a movement to integrate public health and mental health functions in disaster response.*

ATD: How did public health expand to include mental health?

JS: *In disaster response, we have to operate on a population-wide basis. Yet, we are ultimately concerned about the impact of disasters at the individual level. So, it is natural for public health strategies to be applied to the care and support of populations affected by disasters, while simultaneously*

bringing to bear mental health and medical strategies applied on an individual basis.

ATD: In your chapter, *Disaster Ecology: Implications for Disaster Recovery*, from the book, *Textbook in Disaster Psychiatry*, you present a conceptualization of the impact of disasters and a model that traces the start of the disaster to the level of intervention.

JS: *That is absolutely the case. We present a [disaster ecology model](#). In disaster, the collision between forces of harm and the human population in harm's way is influenced by factors that operate at the individual, family, community, and societal levels. At each level we find risk factors that may exacerbate the impact of the forces of harm, as well as resiliency factors that buffer this impact. When you examine the degree of exposure of a population to the forces of disaster, the greater the intensity of exposure, the greater will be the likelihood of either physical or psychological harm.*

The public health approach allows us to draw back and look at that disaster from a “shuttle-eye view,” examining the varying gradations of impact or exposure. In the case of a hurricane, we can literally take a shuttle-eye view and see in an instant that populations in some geographic areas are subjected to the ferocious winds surrounding the hurricane's eye, while other areas have impacts that are much less severe. We anticipate that persons who encounter the strongest winds of the hurricane's “eyewall” will have a more intense exposure than someone 30 or 50 miles away from the eye. The same concept was applied in examining the psychological impact of 9/11 in relation to how close individuals were to Ground Zero at the time of the event.

By taking a public health/population approach you can see patterns that would not be apparent by interviewing a series of individual survivors of disasters. One area that is intensely interesting for research is to devise better metrics for defining the degree of exposure in relation to both physical harm and psychological impact.

ATD: Having this mapping—and looking at factors such as distance—will help to define what resources might be needed and what preparation for post disaster response needs to occur?

JS: *That certainly is one very important offshoot. Let me give you one example where we are trying to look at exposure. Following the 2004 hurricane season, when the state of Florida was impacted sequentially by hurricanes Charlie, Frances, Ivan, and Jean, a group of renowned behavioral health researchers conducted an intranet survey of Florida Department of Health employees. In the state of Florida there is a unified health department, which means that persons at county and state health department levels are part of the same work force. In 2004, depending upon their community of residence, health department employees were directly impacted by 0 to 3 hurricanes and responded to 0 to 4 hurricanes.*

It was intriguing to examine “exposure” in terms of both hurricane strikes and hurricanes worked. In fact, we examined these two features in combination: How many storms hit you? How many storms did you work?

We found a direct relationship between the sum of storm strikes plus storm deployments and self-reports of work stress and self-report of symptoms of depression or PTSD. So there is a basis for exploring exposure to disasters in relation to psychosocial outcomes.

ATD: Clearly, Florida has been working on a state level in terms of shoring up its public health preparation and response. Can you talk about Florida as a state and about how the systems are working?

JS: *Public health and behavioral health response in the state of Florida has been well organized in several ways. First, there is a unified health department throughout the entire state. Second, no other state in the US has championed disaster behavioral health training to the extent of Florida. Third, Florida has had extensive experience responding to disasters, including the psychosocial impact.*

ATD: Florida is so impressive. Is this at all representative? Is it ahead of most states? Florida, with its hurricanes, tornadoes, and wildfires—

JS: *Florida is very well equipped to deal with disasters. We have placed a premium on disaster preparedness and have a very savvy health department with very qualified people.*

One of the key points I need to suggest in this discussion is that proficient disaster management does a great deal to leverage the rapid restoration of behavioral health in a community that is impacted by a disaster. It is truly a combination of well-developed disaster management, well-developed public health response, and—increasingly—well-developed behavioral health support coming together, working in concert, guided by a common incident command system that collectively acts to address psychosocial needs. Tremendous progress has been made over the last 50 years, representing the lifespan of disaster management as a profession, now supplemented with public health response and most recently with the infusion of mental health response. I think we are becoming wiser as we appreciate how these sequential waves of support actually synergize together to make for an optimal response.

Remember that disasters, by their very nature, tend to overwhelm resources. There will never be a disaster that looks neat and well regimented and manicured in terms of the response. That is just not going to happen. Disasters are devastating, but I think we are getting better at our response overall. There are some exceptional disaster events when we don't respond well. There are rare, monumental disasters that warrant the name "catastrophe." Disasters, by definition, exceed local response capabilities. Catastrophes, by contrast, both exceed and obliterate response capabilities. Katrina, the Southeast Asia tsunami, and 9/11 are such events.

Most events do not overwhelm us to that extent. Fran Norris, in her landmark article, 60,000 Disaster Victims Speak, made the point that much research is conducted on the psychosocial impact of these colossal catastrophic disasters. She indicated that disaster events that produce the most pervasive and profound psychosocial consequences are those that

possess two or more of the following four characteristics: many deaths, massive damage, community disruption, and intentionality. Most disasters do not meet these criteria. Many events are big enough to overwhelm local resources, requiring a call for help from outside the affected community and warranting a formal disaster declaration. But most of these events do not produce mass mortality, irrecoverable damage, or calamitous disruption—and most are not intentional. By the numbers, most disasters do not provoke extraordinary physical harm or mental health consequences.

Catastrophic disasters populate the research literature, while thousands of lesser events produce not a word of print. Dominant, riveting disasters fascinate us and their stories are continuously retold; consider the tales of Vesuvius, Krakatoa, or the San Francisco Earthquake. But disaster preparedness is actually going to be focusing on the tens of thousands of intervening events for which we are increasingly well prepared. We will not see extraordinary mental health or physical health consequences for the great majority of disasters for which we are able to prepare and respond effectively.

ATD: Do you think that by researchers coming to the fore when we have catastrophic events, there may be important data or research that is missing that is very important as it pertains to smaller events?

JS: *Absolutely. I think it would be very important to do a time series of similar, repeating events, such as hurricanes striking Florida or the Gulf Coast over time or tornados striking the Midwest. Of considerable importance is the study of human protective and risk behaviors. What determines whether persons heed warnings, seek shelter, evacuate, or take other preventive actions that diminish the threat of physical harm and psychological trauma? Some of the best opportunities for behavioral health research are those events that occur with considerable frequency and with substantial warning periods. Top on the list would be studies of tropical cyclones, hurricanes, and typhoons that occur seasonally with considerable trackability and long warning periods.*

ATD: What other areas that would you like to see the subject of research?

JS: *First, we have not succeeded in convincingly demonstrating the efficacy of early psychosocial interventions for diminishing distress and improving function. We have sharply critiqued previous approaches to early intervention such as debriefing. Yet current popular approaches, notably Psychological First Aid, remain unproven even several years following their public release. Strong advocacy and popularity is not a substitute for scientific substantiation.*

Second, behavioral research on self-reliance may be fruitful. How do we get people in this era to begin to become self-sufficient, to begin to bond together in communities, to begin to take care of themselves and each other?

The advances we have made in professionalizing disaster response are partially offset by the widespread abdication of personal responsibility

for preparedness. This will lead to especially grievous consequences situations where professional response cannot meet widespread needs. The most compelling example is the prospect of severe pandemic flu. We need to match top-down disaster response with bottom-up personal self-reliance and community preparedness. We need to be more interdependent at the community level and more capably prepared at the individual level.

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PROJECT UPDATE: *Child & Family Disaster Mental Health Research Training & Education*

The Child and Family Disaster Research Training and Education Project (DRT) enters another year. The goal of the project is to enhance the nation's capacity for conducting rapid post-event disaster mental health studies, drawing on the extensive experience of the nation's leaders in child trauma. To meet this goal, Research Teams (RTs) have been established and taught the necessary skills to design and conduct studies in the aftermath of a disaster or terrorist incident. This project update focuses on training, curriculum, advancements, and progress.

Research Team (RT) Training and Updates: The Massachusetts Coalition for Family and Child Disaster Education RT and the Oklahoma State Agency RT completed their trainings this past fall (2007). University of Virginia School of Medicine RT began training in November 2007. They will continue training throughout the spring and summer of 2008. In the upcoming months, the Melissa Institute for Violence Prevention and Treatment RT in Miami, Florida will be electronically distributing a disaster preparedness needs assessment to many schools within the Miami Dade County Public School District. The needs assessment will help identify what school staff personnel know about disaster preparedness plans, what school staff perceive to be key preparedness issues, and what issues remain to be addressed.

Curriculum Update: New modules will soon be added to the core DRT curriculum: disasters and schools, child disaster research ethics, integrating mental health research into disaster drills, qualitative research methods, media and disasters, and community resilience.

Curriculum Advancements: Northshore-Long Island Jewish (LIJ) Health System RT, led by Sandra Kaplan, MD, and Victor Labruna, PhD, conducted a two-day PFA training and implementation evaluation meeting on January 30 and 31, 2008 in New York. The training discussed the overview of the health system disaster drills, PFA core action vignette development, PFA use in the field, PFA training, and PFA evaluation in health