

# **DISASTER RESPONSE: COMMUNITY MENTAL HEALTH SERVICE CAPACITY IN THE UNITED STATES**

**Susan M. Smith EdD, MSPH**

*The University of Tennessee, U.S.A*<sup>1</sup>

**Linda Peoples PhD, Med, RN**

*The University of Tennessee, U.S.A*<sup>2</sup>

## **Key Words**

Mental Health, Emergency Preparedness, Disaster Response, Hurricane, Community Services

## **Abstract**

Following a natural disaster such as a major hurricane or flood, the ability of community mental health facilities to respond during the recovery stage of the disaster with adequate resources and capacity to meet community needs is critical to the recovery process. This paper will provide a discussion of the critical community mental health client and infrastructure needs facing mental health services and community leaders in the southeastern United States. In addition to a discussion of findings from previous research studies conducted throughout the United States addressing the issue of mental health community response following a disaster, the authors will also provide a summary of the responses of community mental health administrators when asked one year after the Katrina and Rita disaster what resources their community mental health facilities would need to be prepared to effectively address future disasters affecting their communities. Based on these self-reported needs of community health facility administrators and an analysis of published literature addressing this issue, the authors have discussed the key elements that should be addressed by community mental health facilities in the United States. These elements will allow each facility to respond effectively to the needs of their community in the response and recovery phases of a future disaster.

## **Introduction**

Following a natural disaster such as a major hurricane or flood, the ability of community mental health facilities to respond with adequate resources and capacity to meet community needs is critical to the community recovery process. This paper will provide a discussion of the critical community mental health client and infrastructure needs facing community mental health facilities following a natural or technological disaster. When two disasters strike consecutively, as in the events of hurricanes Katrina and Rita, with little pre-planning and no time for regrouping, a crisis in mental health services is likely to occur. The reported

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<sup>1</sup> Susan M. Smith, Ed.D., M.S.P.H., Director of the University of Tennessee Safety Center and Associate Professor of Safety and Public Health at The University of Tennessee, The UT Safety Center, 1914 Andy Holt Avenue, Knoxville, TN., 37996-2710, [smsmith@utk.edu](mailto:smsmith@utk.edu)

<sup>2</sup> Linda Peoples PhD., Med., RN Recent PhD in Health and Human Sciences with a concentration in Community Health and a specialization in Safety/Emergency Management at The University of Tennessee, The UT Safety Center, 1914 Andy Holt Avenue, Knoxville, TN., 37996-2710

experiences of community mental health facility administrators as they attempted to meet client needs during the recovery period after hurricanes Katrina and Rita in the southern states of the United States can provide future emergency planners in their future efforts to improve post disaster response of community mental health services. The self-reported responses of community mental health administrators concerning facility needs in five southern coastal states in the United States one year following Hurricanes Katrina and Rita will be provided in this paper. Additionally, a description of the findings of published research focused on community mental health service capacity and the challenges facing community mental health systems in the United States in the future will also be addressed.

## **Importance**

The number of community health facilities in the United States has dropped from 761 in 1981 to 672 in 1991. (Hartley, Bird, Lambert & Coffin, 2002) This reduction represents an 11% decrease in community mental health facilities in this ten years. It is estimated that the number of operating community mental health facilities has continued to decrease from 1991 to the present. The many areas of the United States the community mental health system lacks the capacity to meet normal demands in many communities much less the increased demand that is placed on a community mental health system during and after a disaster. Experts have projected that at least 2000 community mental health facilities should exist in the United States to meet the mental health care needs of communities under normal circumstances. (Mosher & Burti, 1990). Although the number of facilities offering community level mental health care has drastically decreased in the United States over the past twenty years, the remaining community centers are still the primary source of out patient mental health treatment for the millions of low income and uninsured individuals and families living in the United States (Hartley, Bird, Lambert & Coffin, 2002).

### Why Explore Community Mental Health System Capacity After A Disaster?

Few studies in the United States have been conducted to evaluate the needs and demands placed on community mental health systems after a disaster. Experts in disaster mental health have consistently pointed out the need for more baseline evaluation. Following the Oklahoma City bombing of 1995, a study by Call and Pfefferbaum (1999) found that although new crisis/mental health programs were implemented in response to this major disaster, the long-term effectiveness of these new initiatives was never evaluated. In response to previous disasters in the United States including the Oklahoma bombing and September 11, 2001 many recommendations have been made in regard to the importance of being able to coordinate community, state and national resources (Arnold, 2006; Balinsky & Sturman, 2006; Compton et al., 2005; O'Neill, 2005; SAMHSA, 2006; Yano et al., 2002). In a study of the resilience of fire fighters pre and post bombing of Oklahoma City, it was found that the resilience of an emergency responder may be related to the amount of attention paid to the individual's mental health needs. This study also stated that resilience could be affected by the amount and type of education and debriefing, career selection, the preparedness and experience of the individual and the number of injuries an individual suffered. The post-disaster mental health interventions completed by an individual were also found to impact resilience (North et al., 2002). Therefore maintaining adequate capacity at the community level to provide debriefing services for emergency responders is important and should be planned in advance and well coordinated to protect the mental health of emergency responders.

A further study of the use of mental health services after hurricane Floyd in the state of North Carolina found significantly greater use of mental health services in the low income Medicaid communities in North Carolina following the hurricane than in communities with a higher level of income. The results of this study emphasized the importance of planning in communities for implementation of mental health services for all community members regardless of income. Research by Fried et al. recommended that additional studies be

undertaken to assess community behaviors after a disaster and to determine how these changes impact the use of the community mental health facilities (Fried, et al., 2005).

Hoffman's research reinforced the need for more studies focused on the psychosocial impact of a disaster on a community mental health facilities' capacity. Hoffman's work promoted an increase the study of the science and art of psychosocial preparedness (Hoffman et al., 2005). Prior research has demonstrated that exposure to disaster situations can negatively impact the mental health resilience of community members and emergency responders (Benson & Westphal, 2005; Boscarino, Adams, Stuber, & Galea 2005; Hoffman, et al., 2005; Markenson & Westphal, 2005). However, prior studies addressing how communities have met the increased demand for mental health services during and after a disaster are very limited. (Rosenbaum, 2006, Ursano, et al., 2006).

### Mental Health Needs of Disaster Victims Following the Katrina/Rita Disaster

A survey of Katrina evacuees in Houston immediately after Hurricane Katrina found that 38% of those who failed to evacuate were either physically unable to leave or were caring for a disabled person. The Washington Post, the Kaiser Family Foundation, and the Harvard School of Public Health conducted a unique survey of evacuees in shelters in the Houston area. In this survey one-third (34%) of evacuees reported that they were trapped in their homes and required help. Half (50%) of those said they waited three or more days to be rescued. More than one in ten (14%) Hurricane Katrina evacuees reported a family member or neighbor of friend was killed by the storm or flooding. More than half reported having their homes destroyed (55%). The survey also found that two in five (40%) spent at least one day living outside on a street or overpass and 13% reported that some members of their immediate family were still missing (Herman, 2006). The impact of Katrina on the mental health of affected individuals could last for years.

As of June 19, 2006, Federal Emergency Management Agency (FEMA) officials estimated that 2.5 million Gulf Coast residents may have been displaced from their homes (Weisler, Barbee, & Townsend, 2006). An online survey conducted by the University of Tulane of 1,542 employees in New Orleans found that 6 months after hurricane Katrina made landfall the prevalence of post traumatic stress syndrome symptoms was 19.2% and only 28.5% of those with symptoms had talked to a health professional (Desalvo, Ompad, Menke, Tyes & Muntner 2007). Post Traumatic Stress Syndrome (PTSD) was especially high among respondents living in temporary trailers (Desalvo et al., 2007). The recent study of community mental health facilities administered and conducted by the authors further indicated there is a need to build a stronger community mental health systems at the local level in the southeastern United States. While certain facilities reported the need for more councilors prior to Katrina, the number of facilities reporting one year after the community mental health facilities reported demand for additional councilors and other staff to be significantly greater than prior to the Katrina disaster.

### **Sources of Information**

This paper was prepared using a combination of published research studies focused on the ability of community mental health facilities to meet client demands in the recovery period following a disaster, and data gathered from a recent retrospective descriptive study of community mental health facility capacity following the Katrina and Rita disaster affecting the southern United States.

### **Findings and Discussion**

#### Meeting the Demand for Mental Health Services Following A Disaster

After Hurricanes Katrina and Rita, mental health professionals found it difficult to deal with the impact of the storms on their own lives, in addition to the stress of working with clients on

a daily basis (Turner, 2006). Anecdotal evidence suggests that many New Orleans police officers experiencing difficulty coping after the Katrina and Rita disaster did not seek mental health treatment (Carter, 2006). Present research literature continues to reflect the need for estimating capacity required to provide easily accessible community mental health services after a disaster (Singer, 2005). Recommendations were made in 2004 highlighting the need for research-based surveys to examine service usage of mental health after a disaster (Siegel, Laska & Meisner, 2004). The researchers used a self-reported needs assessment given to community mental health administrators in states affected by hurricanes Katrina and Rita to estimate capacity.

#### A Disaster's Impact on Community Mental Health Services

Prior to the completion of this retrospective survey report conducted by the authors, L. Peoples and S. Smith one year following hurricanes Katrina and Rita in the Southeastern United States, no literature was found that specifically reported the facility capacity and emergency preparedness status of the community mental health facilities in the southeastern United State following a disaster. An analysis of the self-reported data provides a representation of what the capacity was before and after the hurricane. It does not read that way. The events of the disasters Katrina and Rita provide an opportunity through the self-report of mental health care professionals at the community level, a representation of what existed before and what occurred after the disaster. This information can provide a better understanding of what is needed for the community mental health facilities to prepare for future disaster events.

The purpose of this retrospective study was to assess the status of emergency disaster preparedness and client service capacity at community mental health facilities prior to and following the Katrina/Rita disaster impacting the southern United States. The 27-item questionnaire was created, tested for reliability, piloted and once finalized, distributed to the 168 administrators of community mental health facilities in five selected southern states in the United States. Responses were received from 85 (51%) of the 168 facility administrators asked to participate in this study. The participating facilities were located in the states of Louisiana, Mississippi, Texas, Georgia and Florida. (Peoples L. et. al. 2007)

Three open ended questions were designed to request information of future needs directly from community mental health facilities. These open ended questions, incorporated with 24 additional forced choice questions, were designed to provide the researchers with further insight into the future needs of the community mental health facilities (Peoples, et. al. 2007).

#### Community Mental Health Service Needs Following A Disaster

The most common problems identified by the community mental health administrators were related to the inability of a facility to provide continuity of mental health care to those most critical patients. The difficulty in providing care to evacuees was complicated by the fact that councilors providing when councilors had little or no information regarding the previous treatment plan of an evacuee. The need for a much greater ability of local community out patient facilities to locate and provide suitable immediate in patient mental health care placement during times of disaster and during the long recovery period following a disaster was strongly stated by administrators with community mental health facilities located in the disaster areas.

A major shortage of qualified mental health providers was reported by many community mental health facilities. This reported shortage of personnel included a shortage of mental health professionals serving as physicians, counselors, and other staff critical to the ongoing operation of a community mental health facility. The ability of community mental health facilities to coordinate care for clients was reported to be limited by sufficient staff resources. Funding for the care of chronically mentally ill patients including those needing inpatient care

remains a major concern reported by administrators of community mental health facilities one year after the Katrina and Rita Disaster.

The increased demand for psychotropic medications, the availability of timely psychological evaluation, and the lack of electricity service in the area during the long recovery period were also reported a major problems for community mental health facilities. The frequent disruption of power to facilities and the lack of gas generators to provide backup power in areas prone to hurricanes were concerns specifically reported by administrators.

The lack of availability of housing for relocated clients from the disaster area to communities within the five southern states not directly damaged by the hurricanes Katrina and Rita was also identified as a need by the administrators that were surveyed. This need was further emphasized by community mental health facilities that had recently gone through a hurricane or tropical storm themselves prior to Katrina. The damage from previous storms that had already caused housing damage left limited acceptable and stable housing for residents and newly relocated evacuees. Administrators also noted difficulty in tracking patients and their families as a problem limiting the effectiveness of mental health services. These administrators indicated that this problem was due in large part to the lack of organization and coordination between the entities involved in the initial evacuation and those involved with the relocation of disaster victims. The lack of transportation for clients who did not have operating vehicles was reported as a major barrier keeping individuals in areas damaged by Katrina and Rita from reaching community mental health facilities on a regular basis to seek and or maintain treatment even one year after the disaster struck.

## **Summary**

### Implications for Future Emergency Planning

The lack of availability of emergency housing and access to inpatient mental health services were reported as barriers to effective mental health care by local administrators. Administrators also identified a specific need for more staff resources and assistance in the post disaster period. A new strategy should be developed to provide pharmaceutical medications during a disaster period to meet the needs of victims temporarily relocated and unable to access medications through traditional channels. A strategy to coordinate and provide inpatient care for high risk patients in need of community mental health services after a disaster must be developed by each community mental health system. Communities must also identify the specific issues that created barriers to effective mental health care during past disasters and work with local, state and federal governments to remove or reduce these barriers before the next disaster occurs. Removing these barriers can improve the future emergency response capacity of community mental health facilities.

One year after hurricanes Katrina and Rita hit coastal areas in the southeastern United States, the administration of community mental health facilities report their ability to provide adequate mental health services to their clients to still be greatly diminished. The number of mental health counselors available is still reported to be inadequate to meet the need. To improve future mental health service and increase access community mental health facility administrators recommend that local community mental health facilities should receive immediate funding to acquire a substantial number of mobile mental health crisis units. These mobile units would enable community mental health professionals to reach clients during or immediately after a disaster event. The need for improved coordination between community mental health facilities and other community resources during a disaster period was also reported by community mental health facility administrators as a major issue. Administrators working with evacuees relocated from another state noted a significant number of the relocated evacuees coming to their mental health facilities required treatment with methadone for drug addiction. The administrators reported that this service was not available in their

communities but had been available in the communities that had been evacuated. This medication issue demonstrates the need to incorporate the needs of patients with a substance abuse problem receiving treatment such as methadone in future community mental health disaster planning.

Administrators of community mental health facilities working with evacuees after Katrina and Rita also identified the problem of reimbursement for medical and mental health services and coverage for patient medications for evacuees coming from another state. It was reported that this reimbursement problem was further complicated by differences in Medicaid health service coverage in the different states affected by the disaster. The ability of facilities serving clients from neighboring states to be reimbursed for needed mental health services must be addressed by emergency planners and community mental health administrators prior to future disasters. Community mental health administrators report their existing emergency response plans were still deficient one year after the Katrina and Rita disasters. However, this recognition will only move into positive actions by local facilities to improve capacity and add resources if state and federal agencies with the capacity to create positive incentives and increase resources directed at improved post-disaster take emergency response take needed actions.

Prior research and the response of local administrators to questions related to the number of facilities conducting drills and exercises excluding fire drills both prior to and one year after the Katrina and Rita disaster report no significant increase in facilities conducting training and exercises to improve emergency response. (Peoples et.al.) Community mental health administrators reported that the lack of emergency generators even one year after Katrina and Rita was still a critical issue facing the mental health care community. This is an example of a problem that could easily be rectified if adequate funding for emergency preparedness drills and training was provided to each community mental health facility.

Future studies and successful models are needed in the United States in order to develop effective programs for the delivery of sufficient mental health care following a disaster. New strategies are needed to enhance the provision of these services for victims still located in the affected communities as well as for the evacuees who need mental health care in the communities where they have sheltered. Actions can immediately be taken at the community, state and national level to support community mental health facilities improve their own response capacity during and following a disaster. However, further research is needed at the community level to understand the most effective methods to provide community mental health services and emergency mental health inpatient care following a disaster.(Ursano, et al., 2006).

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## **Author Biography**

### **Dr. Susan M. Smith**

Dr. Smith is the Director of the UT Safety Center and the Coordinator of the Graduate Safety Program UT Safety at the University of Tennessee. Prior to accepting her current position, Dr. Smith completed a successful 20-year career working with rural communities on the complex issues of disaster mitigation, environmental protection, emergency management and environmental health. She teaches graduate courses in emergency management, accident prevention and environmental health. Dr. Smith's research areas include emergency evacuation and warning systems for special populations.

### **Dr. Linda Peoples**

Dr. Peoples is a recent PhD graduate of The University of Tennessee at Knoxville. Dr. Peoples received her PhD in Health and Human Sciences with a concentration in Community Health and a specialization in Safety/Emergency Management. She has many years of experience working in emergency room and cardiovascular intensive care as a nurse. At the present time in addition to continuing her nursing career in nursing, Dr. Peoples also serves as a part time Assistant Professor for Virginia College's campus located in Chattanooga Tennessee.