A Review of Mental Health Issues as a Result of Hurricane Katrina

Mordecai N. Potash, MD; and Daniel K. Winstead, MD
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CME EDUCATIONAL OBJECTIVES

1. Review issues in mental health care arising in New Orleans since Hurricane Katrina's landfall and how these issues can help mental health professionals plan for future regional or national emergencies.
2. Discuss psychological stressors affecting first-responders during the first weeks and months after Hurricane Katrina and review findings of researchers studying mental health consequences in affected residents in New Orleans.
3. Explain the consequences of the loss of mental health practitioners and facilities on the returning population of New Orleans and discuss responses of government officials to the loss of mental health services in New Orleans since Hurricane Katrina.

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Dr. Potash and Dr. Winstead have disclosed no relevant financial relationships.

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EDUCATIONAL OBJECTIVES OVERVIEW

The psychological effects of the stressors and trauma associated with Hurricans Katrina are far from resolved. In this issue of *Psychiatric Annals,* the reader will learn about the effects of the hurricane on evacuees, first responders, physicians, and other survivors.

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CME

A Review of Mental Health Issues as a Result of Hurricane Katrina

Hurricane Katrina was an unprecedented disaster in the United States, whose effects and consequences are ongoing. What is well known to those of us practicing psychiatry in this region is that Hurricane Katrina created diverse and serious mental health issues that have been among the greatest personal and professional challenges of our lives. This article is intended to review and explore these issues since Katrina's landfall on August 29, 2005. We hope that our experiences can inform mental health profes-

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sionals planning for or facing regional or national emergencies.

EARLY PROBLEMS

Even in the early days after Hurricane Katrina, mental health issues were becoming noticeable arising in evacuees. By early September 2005, several articles in the print media, broadcast media, and on the internet focused on the mental health issues of evacuees. On September 18, 2005, the Associated Press published a report highlighting this significant problem.[1] Many of the mentally ill, usually living in group homes in Orleans Parish, had to be evacuated from the Greater New Orleans area. Most of the chronically mentally ill wound up in Houston or neighboring centers around Harris County, Texas, where an overburdened mental health system was already serving 125,000 clients. At least 4,300 evacuees sought counseling in these early days after Hurricane Katrina, and at least 14 evacuees needed to be hospitalized for psychiatric reasons. Although many mental health professionals came in from around the country and beyond to help with assessment and treatment, placements in group homes and supervised settings for the mentally-ill evacuees became a great challenge.

Even in the early days after Hurricane Katrina, mental health issues were becoming noticeable arising in evacuees.

Another immediate mental health consequence of Hurricane Katrina was that scores of Gulf Coast residents addicted to illicit drugs went into withdrawal within days after Katrina's landfall. This situation may explain why so many area hospitals and pharmacies were burglarized in the immediate aftermath of Katrina.

As large as the addicted population in the Gulf South was at that time, it likely paled in comparison with the number of adult and child evacuees who were physiologically dependent on medications and went into withdrawal in the weeks after Katrina's landfall because these medications were not continued. One of us has recently published an article focusing on the problems encountered by patients maintained on chronic opiate therapy for the management of pain.[2] In the article, the authors document actions taken by government agencies, such as the Texas State Board of Pharmacy and the Substance Abuse and Mental Health Services Administration (SAMHSA), to mitigate opiate withdrawal by relaxing regulations on opiate medications and shunting chronic pain patients into available methadone maintenance programs. Although data are hard to come by, there is little doubt that patients maintained on benzodiazepines and psychostimulants faced similar challenges after Katrina's landfall.

FIRST RESPONDERS ALSO NEEDED HELP

Back in New Orleans, first responders were facing mental health issues of their own. At least two police officers committed suicide during the immediate aftermath of Hurricane Katrina, and local government took steps to reduce stress of the remaining police, fire, and emergency workers.[3] The mayors of Las Vegas and Atlanta offered free and first-class accommodations to these first responders in the weeks after Katrina. However, as well documented by Jeffrey C. Rouse, MD,[4] many first responders still faced enormous stressors in the weeks and months after Katrina.[5] Many of these first responders were housed in cramped quarters on cruise ships with their families because their own houses were destroyed. Dr. Rouse and his colleagues had to skillfully address the symptoms of depression and post-traumatic stress they encountered daily in these first responders and their dependents.

First responders were not alone in "enjoying" their new, cramped quarters. The *New Orleans Times-Picayune* documented that many New Orleans residents were sharing living quarters with extended family, in-laws, friends, and all their pets. As Chris Bynum, a staff writer for the *Times-Picayune* put it: "Remember before the storm? When you were a couple? Now, post-Katrina, you are a commune."[6] These new living arrangements created scores of coping problems and a loss of privacy and intimacy. Not surprisingly, New Orleans divorce attorneys reported an increase in business in the year after Hurricane Katrina. Although shifts in demographics after the storm make percentages hard to compute, the general perception was best summarized by divorce attorney Nancy Durant: "My business is booming, and so is every other divorce attorney I know."[7]

Also in the months following Katrina, displaced children began enrolling in new schools or returning to re-opened schools in the Gulf South. Educators and mental health workers assigned to schools found that many students were

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suffering from symptoms of anxiety, such as acute stress or post-traumatic stress, with symptoms varying according to the age and maturity of the children.[8] Mental health clinicians were invaluable in providing counseling to these students. The mental health clinicians were available and responded to the needs of children placed in new schools.[9]

'WHERE'D THE HO-HO GO?'

During the Christmas/winter holiday season of 2005, many of the large-scale mental health problems that we now know exist first rose to prominence. In common parlance, this was the period in which "normal" people began to "lose it" and needed acute psychiatric services. Several issues came to a head all at once. During this period many evacuees attempted to return to their homes. If their homes were not habitable, they could request that a Federal Emergency Management Agency (FEMA) trailer be placed on their property. As it is now known, many health professionals did not return to the area with them, including the overwhelming majority of psychiatrists.[10] Those returning were facing a holiday season like no other. Chris Bynum again captured this dour mood with his piece: "Where'd the ho-ho go?"[11] In response to this emerging situation, several governmental and community organizations focused on depression identification and suicide prevention.[12]

The following year, 2006, presented many issues involving mental healthcare in the New Orleans area. However, two main issues appear to have predominated: the continued emergence of mental health problems in previously well individuals impacted by Hurricane Katrina, and the drastic reduction of mental health practitioners, programs, and facilities to meet the area's needs.

Many examples of the emergence of mental health problems in previously well individuals became known to those mental health workers who remained in New Orleans. Some of these stories became more widely known when they were featured in the media. Perhaps the best known example is *Times-Picayune* columnist Chris Rose's struggles with depression after Hurricane Katrina. Chris Rose is a popular local columnist, whose award-winning book about Hurricane Katrina, *1 Dead in Attic,* had garnered critical praise. In March 2006, he began writing about his problems with depression in his columns,[13] culminating with a long piece in October 2006, about his severe depressive symptoms and their impact upon him and his friends and family.[14] His piece also featured his initial reluctance to receive psychiatric treatment, and his skepticism of psychiatry in general, followed by his prompt and robust response to psychiatric treatment with an anti-depressant. Mr. Rose's disclosure was greeted with supportive letters, including one from the Medical Director and CEO of the American Psychiatric Association, James H. Scully Jr., MD.[15]

Another immediate mental health consequence of Hurricane Katrina was that scores of Gulf Coast residents addicted to illicit drugs went into withdrawal within days after Katrina's landfall.

The loss of mental health practitioners and facilities was most fully felt in 2006 and resulted in far-reaching and unanticipated consequences. As documented in Weisler's article in the *Journal of the American Medical Association,*[16] the greater New Orleans area had approximately 22 psychiatrists remaining in the area in the immediate weeks after Hurricane Katrina, compared with a pre-storm estimated total of 196. An earlier published survey performed and published by the State of Louisiana Department of Health and Hospitals[17] found that only 42 of 208 psychiatrists were still practicing in the region encompassing New Orleans. Both surveys supported the general perception that more than three-quarters of the area's psychiatrists had left the area either temporarily or permanently.

A sizable number of psychiatrists in the region served as faculty at one of three academic departments of psychiatry in the region: Ochsner Health Network, Tulane University School of Medicine, and Louisiana State University (LSU) Health Sciences Center. With closures of all major teaching hospitals for both LSU and Tulane, these universities suffered immediate and major losses in federal funding and were forced to engage promptly in "involuntary separations."[18] The Tulane Department of Psychiatry and Neurology full-time faculty dropped from its pre-storm total of 85 to 50 by Christmas 2005.[19] Where indeed did "the ho-ho go?"

Furthermore, Weisler's article documented that the majority of approximately 1,200 volunteer licensed mental health professionals who came to the area in the immediate aftermath of Hurricane Katrina had left by early 2006, resulting in a reduction in available mental health providers for individuals in New Orleans. Remaining providers, ourselves included, were quickly overwhelmed by the vast and intense needs of the patients showing up at their offices. These problems were compounded by the loss of area pharmacies and primary care providers.

LACK OF CARE

The survey performed in July 2006, by the Department of Health and Hospitals also provided grim news about the availability of inpatient psychiatric beds in the greater New Orleans area. From a

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pre-Katrina total of 487 beds, the number of beds had declined to 190 beds, with 46 of these beds dedicated solely for geriatric patients. Only 144 beds were available for general adult psychiatric admission. Furthermore, many of these 144 beds were already filled by the chronic mentally ill, who had resided in state mental institutions for years and could not function independently outside an inpatient setting. Few beds remained for acute-care or emergent psychiatric needs; the estimate was a paltry total of 17 beds in the City of New Orleans proper.[20]

Due to the dearth of psychiatric beds, area emergency rooms were inundated with patients presenting in mental health crisis. These patients often remained in an ER for days and weeks on end. The psychiatric patients were too ill to be discharged but unable to be placed in a psychiatric inpatient facility anywhere in the state. Many of these patients were held under state commitment laws, precluding their transfer to neighboring states. The presence of these patients in area emergency rooms led to dramatically less availability of emergency services for medical issues. ERs frequently had to go on diversion status because nearly all their beds were occupied by psychiatric patients. ER administrators also complained that, even when put on diversion, (that is, the hospital was to be considered closed to ambulances that were then required to proceed to the next nearest hospital), police would continue to drop off mentally ill individuals at the ER and leave the patients unattended.[21]

Police departments also struggled with the lack of mental health services.[22] The New Orleans Police Department reported a sharp increase in calls for service involving the mentally ill, rising from 15 calls in January 2006 to 180 calls in July 2006. As further evidence of growing friction between emergency rooms and law enforcement, the New Orleans Police publicized a growing number of violent crimes committed by the severely mentally ill who had been recently discharged from area emergency rooms.[23] Surrounding parish sheriff's offices reported a growing number of mentally ill inmates in their jails, often arrested on minor charges. Transfer of these inmates to forensic psychiatric hospitals became nearly impossible as there was an already existing pre-hurricane waiting list, which rose steeply in 2006.[24] Dr. Rouse best summarized this situation in an interview with the *New York Times,* stating, "When you don't have a place to send that wandering schizophrenic directing traffic, guess what? Law enforcement is going to wind up taking care of that. When the Police Department is forced to do the job of the mental health system, it's a lose-lose situation for everyone."[25]

At least two police officers committed suicide during the immediate aftermath of Hurricane Katrina, and local government took steps to reduce stress of the remaining police, fire, and emergency workers.

AN INCREASE OF MENTAL HEALTH PROBLEMS

Baton Rouge had become the new home for many displaced New Orleans residents, with many of them commuting back and forth for work and home repair. Correspondingly, the Capitol Area Human Services District, serving the Baton Rouge area, reported an increase in mental health problems presenting to their clinics and area emergency rooms.[26] The district's director reported a 72% increase in patient volume at their three mental health clinics, 100 additional cases per month of patients in mental health crisis presenting to area emergency rooms, and an unspecified but large number of mentally ill patients being seen by the 60 to 80 mental health professionals quickly added as outreach workers or assigned to crisis units. The Baton Rouge Coroner's Office also reported major increases in commitment orders for mental health treatment.[27] For the 6 months before the storm, there were 389 commitment orders; in the 6 months after the storm, this number had increased to 615.

In New Orleans, the lack of mental health services was judged by many as a major factor in the emerging problem of homelessness in New Orleans. Although homelessness certainly existed prior to Hurricane Katrina, it swelled in both its raw numbers and as a percentage of the population.[28] Certainly, the loss of jobs and housing, especially rental units, has contributed to the problem of homelessness. As shown in other U.S. cities with a large homeless population, inaccessibility of psychiatric services is undoubtedly playing a major role.[29]

Early efforts to open new inpatient psychiatric beds had poor results. By early 2006, the Department of Health and Hospitals had designated a state hospital located in Mandeville (approximately

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50 miles from downtown New Orleans) to open new inpatient psychiatric beds rapidly to compensate for the shortage in New Orleans. By July 2006, it was discovered that this hospital had, on average, added just 11 inpatient beds to their pre-storm census despite their goal of increasing capacity by 24 inpatient beds. Further investigations showed low staff morale and questionable management policies that quickly resulted in changes in hospital leadership.[30] Other hospitals were able to be expanded more easily. A state hospital near Baton Rouge quickly added 24 inpatient beds, and a state hospital in New Orleans added 20 inpatient beds after several months of delays.[31]

GOVERNMENT SCRUTINY

These delays were closely scrutinized by government officials. In May 2007, after a confrontation with the CEO of LSU's hospital division about the lack of psychiatric beds, the New Orleans City Council commissioned a feasibility study of the reopening of mental health units at Charity Hospital.[32] Also frustrated with the volume of mental patients thrust upon the police and ERs, New Orleans Mayor Ray Nagin demanded the prompt opening of 40 mental health beds set aside specifically for short-term crisis intervention, 100 mental health beds for patients requiring more than crisis intervention care, and 20 beds for patients suffering from co-occurring mental illness and drug addiction.[33] Louisiana Gov. Kathleen Blanco responded to Mayor Nagin with a letter detailing plans to open 53 psychiatric beds at two state hospitals in the city of New Orleans and to open 10 beds for mental health emergencies/crisis intervention at the newly re-opened University Hospital (often called "Little Charity" before the storm). Gov. Blanco expressed hope that these beds could be opened by the end of the summer of 2007.[34]

The latter half of 2007 witnessed many of these long-awaited developments in the recovery of mental health services. The Greater New Orleans area has been declared a federally-mandated healthcare shortage area and has qualified for federal funding through the Department of Health and Human Services. Benefiting from this federal designation, the Louisiana Public Health Initiative created an innovative grant program, based on the National Health Service Corps, to retain existing psychiatrists and recruit more to the area.[35] Furthermore, as promised by Gov. Blanco, a major psychiatric hospital in the New Orleans area that closed after Hurricane Katrina has recently re-opened under new leadership and is expanding at a rapid pace.[36] Through state and local hospital partnerships, other inpatient psychiatric beds will be opening in the near future, possibly before the publication of this article.

Before we conclude this article, we would be remiss if we did not mention some of the observed mental health consequences of storm victims cited thus far by clinicians. Studies are ongoing and will add to a greater understanding of the true psychological measure of Katrina as their results are disseminated.[37] Thus far, Jeffrey Rouse has found that the suicide rate in New Orleans has tripled since the storm,[24] but results statewide do not show an increase in suicide.[38] A compilation of earlier reports from the Centers for Disease Control and Prevention (CDC) showed a minority, but still significant, number of evacuees presenting to evacuation centers with significant mental health complaints in the immediate aftermath of both Hurricanes Katrina and Rita.[39] Polling done in late October 2005 by the CDC showed significant emotional complaints in half of contacted residents returning home to hurricane-affected areas.[40,41] As an indicator of the ongoing consequences of Katrina, a more recent study by DeSalvo and colleagues found posttraumatic stress disorder (PTSD) symptoms in 19% of 1,500 surveyed employees of Tulane University Hospital and Clinic.[42] This high number was all the more surprising given the universal health coverage and employee assistance programs available for Tulane employees.

CONCLUSIONS

In conclusion, despite the mental health challenges faced by our region, we psychiatrists are happy to be here. Although we are a smaller group since the storm, we are also more closely knit. We share a common bound through our shared experiences and goals. Many of us feel that during our professional careers we have never been involved in anything as important as this rebuilding effort. We also recognize and welcome a greater understanding from our medical colleagues and the community as a whole of the critical roles psychiatry and mental health services play in providing for the health and welfare of our communities. Charles Dickens best sums up our experience:

"It was the best of times, it was the worst of times; it was the age of wisdom, it was the age of foolishness; it was the epoch of belief, it was the epoch of incredulity; it was the season of Light, it was the season of Darkness; it was the spring of hope, it was the winter of despair; we had everything before us, we had nothing before us; we were all going direct to Heaven, we were all going direct the other way."[43]

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Coroner for Orleans Parish and is in charge of mental health commitments for Orleans Parish. Dr. Rouse was the first psychiatrist to return to work in New Orleans after Hurricane Katrina, and his aid was invaluable to first responders such as police and fire control. His heroism in the immediate aftermath of Katrina was documented by CNN and other news outlets. For this work, Dr. Rouse has received several awards from national mental health organizations.

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