Wilderness and Environmental Medicine, **20,** 1–5 (2009)

ORIGINAL RESEARCH

Psychiatric Consultation With Medical Evacuees of Hurricane Katrina

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Objective.—To study the scope of clinical activities and the postoperational attitudes of mental health professionals responding emergently to a mass urban evacuation.

Methods.—Eleven mental health care providers participating in a reception team for medical evacuees after Hurricane Katrina were asked to complete a survey seeking data regarding cases encountered, psychopharmacologic interventions, and mental health support for evacuated medical personnel. Participants rated their levels of agreement with statements characterizing various aspects of the clinical experience.

Results.—Nine of 11 providers returned surveys, for a response rate of 82%. Among 35 evacuees requiring immediate psychiatric consultation, acute stress disorder and dementia, equally represented among these cases, accounted for half the diagnoses. Medication interventions were relatively uncommon. Consultants provided mental health support to 14 evacuated medical professionals. Although somewhat uncertain about their role, psychiatric consultants strongly agreed that they would be willing to serve in future disaster operations of this type.

Conclusions.—In major disasters, psychiatric consultants are likely to play a critical role in providing emergency mental health services for both medical evacuees and evacuated medical professionals.

Key words: acute stress disorder; disaster, natural; hurricane; psychiatric emergency services

Introduction

Recent catastrophes, including September 11 and Hurricane Katrina, have focused attention on disaster medicine. Growing recognition of the mental health effects of mass trauma highlights the critical role of psychiatric services as an integral component of disaster medical response.[1,2]

Although disaster exercises are necessary tests of preparedness, only real, large-scale disasters provide the opportunity for studies of medical response systems and their components under actual conditions.[3] Few studies have attempted to profile, in quantitative terms, the clinical efforts of psychiatrists and mental health professionals as consultants to a medical reception team in a large-scale evacuation.[4] The results presented here represent an effort to characterize the clinical activity of mental health providers (primarily psychiatrists) as early responders to a mass urban evacuation of sick or injured disaster victims.

On August 31, 2005, after Hurricane Katrina forced breaches in the levees of New Orleans, LA, and flooded the city, the National Disaster Medical System was activated. This system is the primary contingency plan for mobilizing federal physicians and health care workers in a national disaster.[5] The Veterans Health Administration responded with the establishment of several Federal Coordinating Centers to receive and triage medical evacuees from the disaster zones of the Gulf Coast. This study provides data obtained from psychiatrists and mental health professionals that participated in one of the principal medical evacuation reception centers, located at Ellington Field, a former Air Force base near Houston, TX. The Patient Reception Team (PRT) at Ellington began

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The authors do not have any commercial or proprietary interest in any drug, device, or equipment mentioned in this article.

Offprints will not be available from the author.

This material is the result of work supported with resources and the use of facilities at Michael E. DeBakey VA Medical Center. There were no other sources of support for this project.

receiving evacuees, primarily via military airlift from New Orleans International Airport, on the evening of August 31, 2005, and continued in active operation through September 4, 2005. In all, approximately 800 medical evacuees were received and triaged by the PRT. The majority of those evacuees had been inpatients and residents of hospitals and nursing care facilities in the New Orleans area before the storm hit, but a significant number were previously healthy victims of injury or exposure. Many flights into Ellington included physicians and other medical caregivers who had spent the prior few days treating stranded patients in facilities with little or no power, water, and supplies. These health care providers were evacuated to provide care for medical evacuees en route, as well as for their own health and safety.

As members of the PRT medical staff, psychiatrists and other mental health caregivers provided mental health consultations as needed, as well as evaluated and triaged nonpsychiatric conditions when the primary care providers became overwhelmed with cases. All respondents were from the staff of the Michael E. DeBakey VA Medical Center in Houston. Typically, a single psychiatrist worked each shift with a team of 4 or 5 primary care physicians. A psychiatric social worker and physician assistant also provided mental health care. In addition, psychiatrists were frequently called upon to provide supportive interventions for the exhausted and stressed medical caregivers who had cared for evacuees during the disaster and subsequent travel to Ellington. Psychiatrists and the physician assistant could prescribe from the emergency field pharmacy, which stocked the following psychiatric medications: lorazepam (oral and injectable), injectable haloperidol, rapidly dissolving oral olanzapine, and oral diphenhydramine.

Methods

A validated survey instrument suitable for this unusual situation being unavailable, a new survey questionnaire was designed specifically for the occasion. Given the importance of obtaining freshly recalled information from the providers, time constraints did not allow for prior validation of the questionnaire. The questionnaire was distributed to each of the 11 mental health providers who participated in the PRT. The questionnaire included 2 sections. The first section sought data, based on clinician recollection, of the numbers of patient contacts and types of mental health problems encountered, psychotropic medications prescribed on site, and numbers of supportive interventions with evacuated medical personnel. Because psychiatric diagnoses in this setting necessarily are provisional and based on rapid evaluations and because respondents might not be expected to recall diagnoses with the full precision of the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM-IV), they were asked to report numbers of conditions encountered in each of 8 categories: substance-related disorders, dementia, schizophrenia and other psychotic disorders, mood disorders, acute stress disorder, anxiety disorders other than acute stress disorder, adjustment disorder, and other psychiatric disorders.

The second part of the questionnaire was an opinion poll. It asked the mental health providers to rate their levels of agreement with a series of statements characterizing their confidence in their ability to function in this particular care setting, adequacy and accessibility of primary care back up, adequacy of psychiatric drug formulary, understanding of professional role in the PRT, and willingness to participate in a future PRT.

Because the study did not involve either direct patient contact by investigators and because data were recorded in such a manner that patients could not be identified, the study was classified as exempt from review by the Baylor College of Medicine Institutional Review Board. Questionnaires were returned anonymously. Anonymity was preserved for all respondents except for the social worker and the physician assistant, who, in completing their questionnaires, included unintentionally identifying information. Investigators sent e-mail reminders at weekly intervals for 5 weeks to all subjects. All but 2 submitted completed questionnaires.

Results

Nine of 11 providers returned the questionnaire (response rate 82%). Six of 9 responses were returned within 5 days of cessation of active PRT clinical operations. All responses were received within 36 days. Seven providers reported patient encounters; of those who had patient encounters, none saw fewer than 4 patients. Two providers did not see any patients during their shifts. Among those providers who had patient encounters, the maximum time on duty was 20 hours and the minimum was 8 hours. The total number of hours on duty for all providers was 105. Total numbers of patient contacts by all mental health providers, including some simply screened for any medical condition, were estimated to be 170 to 180. (This number reflects the fact that one provider elected to screen all 80 evacuees who arrived during a single 8-hour shift.) Among the total of approximately 800 evacuees triaged through the PRT, 35 required psychiatric consultation on site, prior to further disposition. A total of 37 psychiatric diagnoses resulted from these consultations. The numbers of diagnoses in each category are as follows, with details of each clinician's diagnostic findings in Table 1: substance-related