A Mental Health Program for Ground Zero Rescue and Recovery Workers: Cases and Observations

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Clinical vignettes from the World Trade Center Worker and Volunteer Mental Health Monitoring and Treatment Program at the Mount Sinai Medical Center in New York City are presented. The hospital-based program pairs

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mental health screenings with federally funded occupational medical screenings to identify persons with mental health problems related to their rescue and recovery roles. The program also provides on-site mental health treatment. The cases illustrate the diverse mental health needs of the rescue and recovery workers, some of whom initially sought treatment years after September 11, 2001. The cases show that in addition to symptoms of posttraumatic stress disorder, workers experienced survivor guilt, distressing memories of childhood trauma, shame associated with intense feelings, substance abuse relapse, psychosis, and problems with family relationships. (Psychiatric Services 57:1335-1338, 2006)

In the days and months following the terrorist attacks of September 11, 2001, between 18,000 and 35,000 people worked or volunteered in the rescue and recovery efforts at Ground Zero. Some worked for a few hours, and others toiled for months removing debris and body parts in the bucket brigade, cutting steel, or restoring essential infrastructure services. Volunteer and professional groups included technical and utility workers, law enforcement personnel, construction workers, administrators, as-

bestos cleaners, and volunteers with disaster relief agencies, among other groups.

In July 2002, after recovery efforts at the site officially ended, occupational physicians who operated the Irving J. Selikoff Center for Occupational and Environmental Health at the Mount Sinai Medical Center in New York City launched the World Trade Center Worker and Volunteer Medical Screening Program, funded by the National Institute of Occupational Safety and Health, to detect health problems related to participation in the rescue and recovery efforts at Ground Zero (1). Along with key representatives of organized labor, the leadership of the Selikoff Center recognized the need for a significant mental health component to the program and sought collaboration from the Mount Sinai School of Medicine's Department of Psychiatry to develop a mental health examination that would consist, at a minimum, of self-administered questionnaires.

Upon learning of this opportunity to screen rescue and recovery workers for mental health problems, Mount Sinai's Department of Psychiatry and its collaborator, Disaster Psychiatry Outreach, obtained additional funding to implement a one-year project to assist the medical program with the completion and evalu-

ation of 6,000 self-administered mental health questionnaires and provide more than 3,000 in-person evaluations. The evaluations were conducted by psychiatrists and social workers; Ground Zero workers and volunteers participating in the medical screening were assessed for mental health needs associated with their experiences (2).

Upon arrival at the hospital-based program for their medical screening appointment, patients completed a self-administered mental health questionnaire as part of the initial paperwork. Depending on their answers or the clinical opinion of occupational medicine physicians, patients underwent a same-day in-person evaluation with one of the program's psychiatrists or social workers to determine whether a referral for ongoing mental health services was needed.

Both the mental health and medical programs received additional funding so that they could provide on-site treatment services as well as continue screenings beyond the initial year. This growth also permitted the provision of periodic examinations to follow-up on the medical and mental health status of patients who underwent initial screenings. All persons who have a follow-up medical examination receive an in-person mental health evaluation. Both programs remain in operation as we approach the fifth anniversary of the attacks. More than 16,000 people have been screened in the medical program. Approximately 500 patients at any one time receive ongoing treatment in the mental health program. Treatment services are provided according to clinical need and include individual psychotherapy of various modalities, psychopharmacology, and family and group therapy.

The clinical vignettes below illustrate the stories of several patients who have received evaluation and treatment in the World Trade Center Worker and Volunteer Mental Health Monitoring and Treatment Program. Selected by the program's clinicians as representative of their work, these cases illustrate the lingering emotional toll over the five years since the attacks. As part of the Mount Sinai School of Medicine's

Institutional Review Board's approval of utilization of data from this clinical program, all persons who were screened were asked to provide informed consent to use their data for research purposes. Additional informed consent was obtained for inclusion of the clinical information presented in these case reports. Identifying details have been removed to preserve confidentiality.

Accessing mental health care

On September 11, 2001, Mr. R, a 54-year-old management consultant, evacuated himself from above the 90th floor of Tower 1 of the World Trade Center while carrying another survivor on his back down the lone remaining stairwell. He made an ap-

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pointment with the screening program in October 2003 and began treatment. Initially his treatment focused on managing intrusive memories, nightmares, and flashbacks that resulted from his experience. However, far more distressing for this patient was numbing of general responsiveness and difficulty having loving feelings, which were attributable to his posttraumatic stress disorder (PTSD). He described feeling withdrawn to the point that it felt like there was "cotton" between him and the world, which resulted in significant marital difficulties.

Mr. R has remained in the program since 2003, receiving psychotropic medications and individual psychotherapy with supportive, cognitive, and psychodynamic elements. At one point in his treatment, Mr. R remembered that as he approached the stairwell to evacuate, he saw a burning figure walking toward him and seeking help, but he turned away. This memory helped shift the therapeutic focus to how guilt had paralyzed his life.

Ms. D is a 55-year-old woman who was involved for more than three years after the attacks in identifying remains from Ground Zero and notifying families of the findings. She eventually developed PTSD. In addition to experiencing symptoms of irritability, poor sleep, and impaired concentration, she found herself increasingly preoccupied by distressing recollections of her abusive childhood. The symptoms and preoccupations left her feeling childlike and ashamed as she tried to get along without the hard shell that previously characterized her functioning and self-presentation.

Ms. D refused referral for mental health treatment in our program at her initial screening in 2003, despite strong recommendations from the mental health clinician who evaluated her, because she felt mistrustful of mental health professionals. Upon reevaluation in December 2004 during a follow-up screening, she agreed to accept treatment. Treatment has focused on her PTSD symptoms and on helping her expand her professional life and create more satisfying personal relationships.

Individuals such as Mr. R. and Ms. D did not seek out mental health services but received them as a component of the medical screening program. At the beginning of their medical visit, all patients were asked to complete self-administered mental health questionnaires even though most were not believed to have perceived themselves as needing mental health care and few were open to receiving such services. The questionnaire responses indicated that one in five patients had a diagnosis of PTSD; however, only 3 percent of the patients who completed the questionnaires had sought mental health treatment before arriving for the medical examination (2).

Long-term mental health needs

Mr. W is a 45-year-old married father of several young children and a member of the uniformed services who participated in the recovery of body parts at Ground Zero. He underwent mental health screening in 2003, and although he appeared to be clinically depressed, he denied having any problems. Six months later, he called the evaluating social worker and agreed to enter treatment for a range of depressive and anxiety symptoms, even though he felt a deep sense of shame about the intensity of his emotions. Mr. W continues to receive combined medical treatment and psychotherapy in the program to address ongoing life stresses related to his work at Ground Zero as well as an unanticipated flood of memories related to childhood trauma.

Mr. T is a 45-year-old man who worked in demolition at Ground Zero for a year after the disaster. He experienced a relapse of his drinking and drug problems after September 11 and also showed increased irritability and sleep and appetite disturbance. He entered treatment in the program in March 2005 after referral from the screening program. Initial sessions focused on providing information about the benefits of psychotropic medication as an alternative to self-medication, which led to a successful medication trial. As therapy continued, his experiences at Ground Zero came to be seen as having unmasked an unbearable sense of helplessness that was linked to significant childhood traumas, including time spent in a burn unit when he was six years old. The burns were a result of abandonment and neglect by his caretakers. Mr. T came to understand his drinking and drug use as a way to manage feelings associated with these recollections, which became more intense in the context of his experiences at Ground Zero.

The World Trade Center Worker and Volunteer Mental Health Monitoring and Treatment Program was originally envisioned as a one-year program. However, both Mr. W and

Mr. T entered and underwent treatment in the years since September 11, 2001. The layers of their problems became apparent only over many psychotherapy sessions. Like these men, many rescue and recovery workers have continued to use the program's services several years after the disasters. It remains a matter of future study and even ethical consideration how long disaster mental health programs should plan to remain in operation. How long do disaster-related mental health needs in a highly exposed population necessitate care in specialized settings and programs, and how long is society prepared to commit resources to these efforts?

A multiplicity of needs

Ms. B is a 40-year-old monolingual Spanish-speaking mother of six children. She worked day and night shifts as an asbestos handler at Ground Zero until scaffolding collapsed over her in November 2001. She was unconscious for one month and remained hospitalized. After she was released, she developed olfactory hallucinations of "burnt meat" that reminded her of the disturbing odors from her experience at Ground Zero. She also had fears that she would be unable to control impulses to harm a family member with whom she was in conflict. Even though Ms. B received treatment and evaluation from physicians in a worker's compensation program, she did not receive psychiatric care until she underwent screening in our program with a Spanish-speaking mental health professional. In the program Ms. B has received outpatient care for both PTSD and psychotic depression, including combination psychotropic medication and individual and group psychotherapy with a bilingual social worker.

Mr. R is a 42-year-old man who worked in a nearby restaurant and was inside the lobby of Tower 1 when the plane struck the building. Amid falling debris and bodies and despite stumbling heavily to the pavement at least once, he carried an obese elderly woman on his back to the safety of a nearby church several blocks away. He subsequently developed severe insomnia, unrelenting guilt about not helping the woman locate her broth-

er, who was also at the World Trade Center, and persistent suicidality. Mr. R also experienced speech and vision difficulties and left-sided weakness. An initial evaluation of the latter symptoms at a physical rehabilitation facility did not reveal a pattern consistent with a neurological disorder, and conversion disorder was suspected. Mr. R entered treatment in our program in September 2004 for his psychiatric symptoms His therapist urged him to pursue further neurological evaluation, which uncovered radiological findings consistent with multiple sclerosis.

The program has served many monolingual Latino workers, such as Ms. B, as well as monolingual Polish workers, who have required culturally attuned mental health screening and treatment in their native languages. In addition, the cases of Ms. B and Mr. R show that psychiatric symptoms related to a disaster are not confined to symptoms of posttraumatic stress disorder. Ms. B's clinical picture included the head injury, which preceded the onset of psychotic symptoms. Disabling physical symptoms were among Mr. R's problems and required methodical, multidisciplinary diagnostic evaluation. Their cases illustrate the challenge of prioritizing use of resources. Administrators of disaster programs, especially large-scale programs for a highly exposed population, must decide what mental health problems their programs are prepared to address and then must ensure that they have appropriate resources to do so.

Naming distress

Mr. G is a 60-year-old married male whose reasons for volunteering in the rescue and recovery efforts at Ground Zero included a long-standing desire for patriotic heroism. He volunteered for several weeks before suffering a disabling back injury while he was working on "the pile." Mr. G had a history of chronic, moderate clinical depression. Responding to the disaster gave him a temporary sense of heightened purpose, but the work, his injury, and the inability to heroically save anyone left him feeling unfulfilled and empty. Mr. G soon found himself grappling with exacerbation of his depression and a profound sense of worthlessness, while his family, especially his teenage daughter, experienced his behavior as emotionally abusive. During individual psychotherapy supported by psychotropic medication, he explored his profound sense of emptiness and sadness. Family therapy addressed how these painful emotions resulted in disrupted family relationships.

Mr. G experienced despair related to his sense of failure and his physical injury while working at Ground Zero, which was compounded by loss of a sense of great purpose. Behind his symptoms lay personal stories and family issues that predated the disaster and that were swept up into the dynamics of its aftermath (3). Beyond what could be captured by any psychiatric diagnosis, his story illustrates how distress can arise out of the deeply personal meaning of bearing witness to disaster and how this distress can affect other people.

Helpers of the helpers

Ms. T is a 29-year-old social worker who was hired as a therapist in the program in 2004. One of her patients was an asbestos worker at Ground Zero, whom she was treating for anxiety and PTSD-like symptoms. During a session the patient told Ms. T what she had never been able to tell anyone—she had discovered a severed limb during the clean-up effort and had felt shocked and had run away. As the session continued the patient developed a severe headache that dissipated at the session's conclusion. Afterward Ms. T realized that she had herself had a headache. In clinical supervision, she was initially reluctant to share the details of this disturbing case, because she was afraid of traumatizing her supervisor. Upon further exploration, she realized that she was trying to avoid fully experiencing the horror of the patient's story.

Like Ms. T, mental health clinicians

who work with disaster survivors assume their place in one of the outer rings of what has previously been described as the "disaster community" that revolves around a disaster (4). Some clinicians in our program have conducted hundreds of evaluations of Ground Zero workers and volunteers. They have been intimately exposed to Ground Zero even though they were never physically present at the recovery site. Supervision, process groups, case conferences, staff outings, and retreats are ways to minister to clinicians who, in their role as disaster responders, must absorb and digest a daily bombardment of traumatic material. The psychiatric literature has consistently acknowledged the potentially adverse impact of trauma work on mental health care providers (5); however, less is known about how best to help reduce this impact.

Conclusions

Both Project Heartland, which was launched in the wake of the 1995 Oklahoma City bombing (6), and Project Liberty (7), which arose in the immediate aftermath of the World Trade Center attacks, were conducted through the Crisis Counseling Assistance and Training Program (CCP), the federal government's primary avenue for funding programs that address the psychological aftermath of disaster. Both projects focused on crisis counseling to address the most common types of postdisaster distress, although Project Liberty later received additional funding for enhanced services (8). The World Trade Center Mental Health Monitoring and Treatment Program receives funding from sources other than the CCP and provides comprehensive psychiatric treatment over the long term. As policy makers, emergency planners, and health care professionals grapple with more recent events, such as Hurricane Katrina, and look to the future, they can learn valuable lessons from all of these efforts.

Acknowledgments

This program has been made possible by funding from the Robin Hood Relief Fund and the American Red Cross Liberty Disaster Relief Fund as well as additional funding from the Substance Abuse and Mental Health Services Administration (grant 5-H79-SM54741-03) and Project Liberty (Provider NY141). Funding from the National Institute for Occupational Safety and Health of the Centers for Disease Control and Prevention (contract 200-2002-00384 and grant 1-U10-OH-008225) has supported the medical monitoring program for the responders.

References

- Levin SM, Herbert R, Moline JM, et al: Physical health status of World Trade Center rescue and recovery workers and volunteers, New York City, July 2002–August 2004. Morbidity and Mortality Weekly Report 53:807–812, 2004
- Smith RP, Katz CL, Holmes A, et al: Mental health status of World Trade Center rescue and recovery workers and volunteers, New York City, July 2002–August 2004. Morbidity and Mortality Weekly Report 53:812–815, 2004
- 3. Katz CL, Nathaniel R: Disasters, psychiatry, and psychodynamics. Journal of the American Academy of Psychoanalysis 30:519–530, 2002
- Wright KM, Ursano RJ, Bartone PT, et al: The shared experience of catastrophe: an expanded classification of the disaster community. American Journal of Orthopsychiatry 60:35–42, 1990
- McCann IL, Pearlman LA: Vicarious traumatization: a framework for understanding the psychological effects of working with victims. Journal of Traumatic Stress 3:131–149, 1990
- Call JA, Pfefferbaum B: Lessons from the first two years of Project Heartland, Oklahoma's mental health response to the 1995 bombing. Psychiatric Services 50:953–955, 1999
- Donahue SA, Lanzara CB, Felton CJ, et al: Project Liberty: New York's crisis counseling program created in the aftermath of September 11, 2001. Psychiatric Services 57:1253–1258, 2006
- Donahue SA, Jackson CT, Shear KM, et al: Outcomes of enhanced counseling services provided to adults through Project Liberty. Psychiatric Services 57:1298–1303, 2006.