Evaluating Mental Health After the 2010 Haitian Earthquake

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ABSTRACT

Mental health is an important aspect of public health after a disaster. This article describes what is known and what remains to be learned regarding the mental health impact of the January 12, 2010, earthquake in Haiti. Public health surveillance efforts in Haiti and the United States in the first 2 months after the earthquake are described. Challenges in clinical assessment and public health surveillance are explored. Potential implications for survivors and public health officials are considered.

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Key Words: disaster, public health, mental health

Attention to mental health is an important but often missed aspect of clinical and public health efforts, particularly in populations facing health disparity.[1,2] This is true after disasters and especially after mass-casualty disasters.[3,4] Although the public health literature contains recommendations that mental health be included in postdisaster surveillance and offers guidance regarding selection of questions,[5-9] these recommendations were not written specifically for Haiti, nor for Haitian earthquake survivors living in the United States or other countries.

This article explores what is known and not known about the mental health impact on survivors in Haiti and the United States of the January 12, 2010, Haitian earthquake, efforts to learn more through public health surveillance, special considerations related to clinical evaluation, and potential implications for survivors and public health officials.

POSTEARTHQUAKE SURVEILLANCE

The earthquake that struck Haiti on January 12, 2010, caused more than 200 000 deaths,[10] a larger number of nonfatal injuries,[10] and the breakdown of food and water supplies, basic sanitation, health services, and other basic infrastructure[11] in what was already the poorest country in the Western Hemisphere. Numerous nations and organizations raced to assist Haiti in the aftermath of this disaster, as media coverage beamed images of widespread pain, suffering, and destruction. In addition to millions of earthquake survivors remaining in Haiti, tens of thousands left Haiti for other countries, including more than 30 000 people believed to have traveled to the United States in the weeks after the earthquake.

There were no functioning public health surveillance systems in the affected area in the initial days postearthquake. For this reason, a cluster of professionals from various organizations, under the leadership of the Pan American Health Organization of the World Health Organization, worked to establish a basic public health surveillance system in collaboration with the Haitian Ministère de la Santé Publique et de la Population. This group of professionals and organizations followed the Inter-Agency Standing Committee cluster approach.[12] The National Sentinel Site Surveillance system (NSSS) that was formed after the earthquake included 1 mental health variable, which was among the variables suggested by the Centers for Disease Control and Prevention (CDC): number of patients seen for mental or psychological health conditions. CDC computed daily numbers of cases reported for various categories of health conditions, including the mental health category, from forms submitted by participating clinical facilities beginning January 25, 2010. Each participating facility was asked to report 1 diagnosis per patient and each facility was responsible for its own clinical reporting. Thus, NSSS was intended to capture only primary diagnoses for which patients were seen as determined by the participating facilities.

The percentage of cases in which people were reported as seen primarily for mental or psychological health conditions at NSSS-reporting hospitals ranged between 0% and 8.8% from January 25 through March 11, usually in the low end of that range (median - <1%). There was 1 day, however, when a higher percentage was attributed to an unusually large number of patients reportedly seen for mental or psychological health conditions at 1 particular site. Upon making a visit to that site, CDC field staff were informed that the figure had been an estimate based on the premise that all of the patients would have some mental heath problems after what they had experienced (Eric Mintz, MD, MPH, personal communication, 2010). Excluding the aforementioned anomalous figure, a total of between one and two percent of the roughly 30 000 persons seen at partici-

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pating hospitals in Haiti between January 25 and March 11 were reported as primarily seeking care for mental or psychological health conditions.

The surveillance efforts did not track patients seen in Haiti's mental health facilities, which were already overburdened before the earthquake struck and extremely limited in resources.[13] Accounts of the conditions at these facilities were shared with the public by journalists and mental health professionals.[14]

CDC and the American Red Cross sought to initiate monitoring the health and medical needs of earthquake survivors arriving in the United States. Their ability to do so was limited by the need for rapid processing of many people, uncertainty about which ports of entry would be receiving flights from Haiti, and the absence of an agreement with individual states receiving Haitian earthquake survivors on a standard procedure for surveillance. CDC ultimately shared a potential survey with individual states receiving Haitian earthquake survivors that could be used at ports of entry. One question related to mental health was included in the final survey, that of whether the earthquake survivor would like to talk to a counselor at the port of entry. This survey was ultimately administered in modified form at 1 port of entry. At that port, mental health counseling services were offered to survivors who stated that they wanted them. It is not known how many took advantage of that offer in response to the survey.

The major postearthquake surveillance systems in Haiti and the United States did not include additional mental health questions largely because of uncertainty about how useful the resulting data would be. Other concerns centered around limited surveillance resources, risk of stigmatizing or emotionally harming survivors, uncertainty about whether standard mental health screening questions were applicable after a disaster in a culture that is different from those in which available screening questions had been validated, and lack of specificity of many potential symptoms in the initial weeks after the earthquake. Concerns also arose about how ethical it would be to ask survivors about mental health needs, symptoms, or risk factors in a country in which adequate mental health follow-up treatment may not be available if needs were identified.

Special Clinical Considerations

Haitian culture includes a mixture of religions, mainly Catholic, Protestant, and traditional voodoo, and multiple layers of extended family and community.[15] Voodoo includes attention to the living and the spirits of those no longer living. The impact of this earthquake, with so many dead and missing and so many entombed in mass burials, can thus be viewed in many dimensions.

Efforts are being made to teach health professionals providing care to the 30 000 US-resettled earthquake survivors about Haitian cultural differences and special clinical considerations.[16-18] Mental health assessments after a disaster are challenging, even more so in a country like Haiti that had few modern mental health services available before the disaster.[15] Posttraumatic stress disorder (PTSD) and major depression, common examples of potential postdisaster sequelae, require time to differentiate from normative stress reactions and mourning. Other common disorders may also be diagnosed when sufficient criteria are met in terms of time course and symptoms. The time of conclusion of the catastrophic event that began in Haiti on January 12, 2010, may be difficult to establish because aftershocks continued after the major earthquake, leaving many people to experience new trauma and to be afraid to return to their homes.

Many disaster survivors obtain the emotional support of surviving family, friends, and other loved ones and harness their own natural resilience in working to recover from the disaster; others require support and assistance from their physicians, nurses, teachers, and spiritual leaders. Some require the assistance of a mental health professional. The stigma that exists with respect to mental illness and the shortage of available Haitian mental health care makes it less likely that earthquake survivors will seek help. For those who travel to other countries such as the United States, stigma and the scarcity of French- and Creole-speaking mental health professionals may also limit access. American relatives of earthquake survivors who know that some US insurance companies and employers discriminate against people with mental illness may be less likely to encourage mental health visits among newly arriving earthquake survivors.

To do no harm is another challenge for mental health professionals after a disaster. Although potentially effective treatments are available, it is important not to retraumatize or damage survivors through outdated or inappropriate treatment methods or by inappropriately treating survivors who are not in need of treatment. Many physical, cognitive, and emotional reactions occur in response to the stress of a major disaster that do not necessarily indicate a physical or mental illness. However, some of the symptoms that may be normal manifestations of stress can also be symptoms of serious disease or injury sustained during the earthquake. CDC has recommended that clinicians treating earthquake survivors with what may appear to be symptoms of stress also consider the possibility that such symptoms may be manifestations of general medical problems (eg, head injury, infection, adverse effects of medications, cardiovascular disease).[16] Suicide risk and alcohol and substance abuse–associated risks are also important to assess.[16]

Sexual assault and other forms of trauma have been reported in camps to which survivors were relocated after the earthquake.[19] Survivors of such trauma may develop PTSD or other psychiatric illnesses but may be reluctant to seek help.

In addition to those with newly developed psychiatric symptoms and/or disease, people with preexisting mental illness may also face challenges after any disaster. Not only are these individuals challenged by the disaster itself but their normal support system, treatment networks, and medicine supply also may be disrupted, as was the case after Hurricane Katrina for people

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with various medical needs.[20,21] People with severe mental illness may be less able to advocate for their own general medical and mental health needs after a natural disaster.

COMMENT

As in most disasters, attention to mental health after the earthquake was overridden initially by basic survival needs such as food, water, shelter, acute medical care for traumatic injuries, and concern for dead and missing people. Shortly after a disaster, a range of psychological symptoms are common. Resilience is common for many people, yet for some, symptom severity, persistence, and associated impairment progress to mental illness (eg, PTSD, depression, other anxiety disorders).

Given their cultural diversity, survivors of the Haitian earthquake may experience varying manifestations of mental illness. Even people without mental illness may have real and serious mental health service needs after a disaster. Because mental health interventions are not without risk and because mental health resources are limited, the challenge for public health is to create an environment in which earthquake survivors can access professional help when needed, through general medical clinicians and, if necessary, mental health professionals.

The Haitian government is working through schools and public service announcements to promote added psychosocial support for children. Families and religious leaders continue to play a major role in the nation's recovery.

Professionals from private and public organizations working in Haiti after the earthquake formed a mental health workgroup that provided an important link between them and a source of support and discussion after the earthquake. Some members of that group advocated for more comprehensive mental health surveillance. Based on their experience providing mental health services in Haiti, at least 2 of the members shared observations and ideas with CDC that helped CDC prepare to serve the mental health needs of Haitian earthquake victims in the United States, helped prepare US personnel preparing to travel to Haiti, and helped inform CDC collaboration on site in Haiti.

Judging from the public health surveillance efforts in the 2 months after the earthquake, it appears that relatively few people received care primarily for mental health conditions from the reporting facilities (based on the limited information on mental health that was captured). The data collected have been limited in that they measure neither the number of people who have current mental health needs nor the number at risk for future psychiatric illness.[22] Many individuals with mental health needs may not have queued for care at emergency medical stations with the many other people who had traumatic injuries or febrile conditions.

Although it was nonspecific, the rationale for the sole variable that was included in the NSSS was that it gave a sense of the extent to which mental health conditions were identified as prompting visits to participating facilities. Because only 1 mental health variable was included, no specificity as to which mental health conditions patients presented with could be determined. Likewise, because hospitals had been asked to report a sole diagnosis per patient, this variable does not tell how many patients may have required time, support, or referrals from doctors and nurses for mental health issues related to non–mental health medical diagnoses. The broadness of the variable may have led some participating sites to be more liberal in its use than others, and some less so.

The purpose of surveillance is to define a problem and to prompt action by public health. If the public health community excludes or minimizes mental health variables in surveillance systems, then this can affect the health of the population, public health planning, and readiness for future crises. Surveillance for mental health and related encounters can aid in understanding trends, risk factors, and resource use and can assist in delivery efforts and preparedness for subsequent events. It is important, as with any other type of disease surveillance, to test and improve surveillance items continuously through evaluation and research and to choose surveillance items that are applicable to the culture. Research studies are needed to gain more detailed information not provided by surveillance and to inform future surveillance efforts.

For the United States, disaster mental health recommendations made in 2008 included "standard mental and behavioral health triage of at-risk individuals and populations" and called for existing national, state, and local public health surveillance systems to be used during emergencies to "rapidly assess and track mental and behavioral health needs and recovery processes in affected populations."[23] Such efforts, aimed at understanding the "needs of affected populations over time," were viewed as essential to "rational decisions about deployment and adjustment of resources . . . and . . . intervention." Although these surveillance recommendations were specific to the United States, appropriate mental health surveillance data could aid in identifying mental health needs and inform plans to address them in a variety of international settings.

Based on the severe losses, traumatic exposures, and ongoing stressors experienced in the Haitian earthquake disaster, mental health consequences would be expected in the months and years to come.[8] No system is in place to monitor for such consequences. A long-term ongoing surveillance system may detect consequences that could otherwise be missed. Likewise, long-term surveillance may help to discern the long-term psychological effects of interventions and coping strategies that are assumed to be helpful but never fully tested longitudinally. Despite the potential benefits of mental health surveillance, it has been historically difficult to establish parity of mental health surveillance with surveillance of other aspects of postdisaster health.

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CONCLUSIONS

Population-level mental health assessment of survivors of the 2010 Haitian earthquake remains a challenge in the light of stigma, logistics, different agencies involved, migration, resources, and scarcity of culturally tested assessment tools. Haiti does not have a tradition of public health surveillance for mental health, nor is there consensus among public health officials involved in the earthquake response about whether mental health surveillance would be of public health benefit. More discussion and research are needed to develop a system for understanding and responding to the mental health needs of survivors of the 2010 earthquake over time.

In the United States, it may be helpful for CDC to work with states and other agencies to develop a public health plan that could be implemented quickly to assess the public health needs of people arriving from another country or from another state in the aftermath of a disaster and to provide medical referrals in the event of emergency needs. These health assessments may include mental health more effectively if a bank of pretested potential questions were agreed upon in advance.

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