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GUEST EDITORIAL

Mental health impact of September 11

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The terrorist attacks on the United States on 9/11 were of extraordinary severity and fell upon a population that was remarkably unprepared for such an event. In terms of civilian deaths, property destruction, and economic cost there is no precedent in our history. The immediate response was in many ways heroic, and the gratitude of the nation towards police and firemen is not measurable. Many more lives would have been lost but for their bravery.

Immediately after the event, there was concern about air pollution from asbestos, dust, and other particulate matter. These were rational and reasonable fears leading to frequent sampling of air quality. There was, however, inadequate attention paid to the psychological consequences of the events. Everyone understood the meaning and impact of the loss of parents, spouses, and friends on the survivors of such losses. The understanding, however, has to go beyond the human to the medical. There is a difference between mourning a lost one and becoming ill. This distinction must not be lost.

It is recognized that violence of human design has a greater impact on mental health than comparable natural or technological disasters.[1] Of perhaps equal importance is that the consequences of the violence on 9/11 were sustained and not transient. It is not like a power outage where after a period of time power is restored. The buildings, the jobs, the people were all gone forever. As would be expected, the most common psychiatric sequelae were post-traumatic stress disorder (PTSD) and depressive states. Schlenger *et al*[2] found a prevalence rate of 11.4% of PTSD 1 month following 9/11. This is approximately three times the national base line rate. Galea *et al*[3] doing a telephone survey, relying on a structured diagnostic interview, found a rate of PTSD of 7.5% and a rate of depression of 9.7% at approximately the same point in time.

What is of perhaps greater interest is that a number of people who were not exposed directly to the event experienced significant distress. A number of studies concluded that psychological sequelae to the attacks were not restricted to those exposed to the event, but spread to those who were aware of the event through the media.[4,5] In my own clinical practice, a well-stabilized patient repeatedly watching the collapse of the Twin Towers on television decompensated and had to be rehospitalized. While this can be considered an anecdotal report, nevertheless it is an example of how spending hours watching the event on TV had a significant negative effect on a vulnerable individual.

Most individuals with the passage of time improved and returned to their baseline state. Silver conducted a nationwide study of the prevalence of PTSD symptoms rather than the syndrome and found that the initial rate of 17% fell to 5.8% by 6 months. This was mirrored in New York City, where Galea *et al*[3] found that by approximately 6 months the prevalence of PTSD had dropped to 2.9%. Clearly, 2.9% is a nontrivial finding, and in particular because it is related to a single event.

Experience shows that there is, what can be termed, a natural recovery from PTSD and other trauma-related symptoms, particularly in the first 6 months after the event. There is continuing symptomatic decline in most people until approximately 12 months at which point further spontaneous resolution appears unlikely. Kessler *et al*[6] find very few spontaneous recoveries after the 12-month mark. It has been estimated that over 25 000 people continued to suffer some symptoms of PTSD related to the WTC attack beyond the 1-year mark. This estimate suggests an important public health need.

The effects on children is deserving of particular attention. There are over 3000 children who lost a parent. The New York City Board of Education performed a study[7] in which they surveyed 8000 school children in fourth to twelfth grades. The survey was conducted 6 months after 9/11. The children showed markedly elevated symptoms of PTSD, agoraphobia, conduct disorder, major depression, generalized anxiety disorder, and separation anxiety disorder. The mental health community has not made an adequate response to develop appropriate interventions for this large cohort. Certain questions logically arise. Is PTSD sufficiently homogeneous as to respond to a relatively specifiable treatment protocol? Even if it were to be relatively homogeneous, the strategies for prevention and intervention would have to be layered. One question would be how to increase the resiliency of the population through various means such as education. The second would be how to strengthen the coping strategies for the event when it does occur. And finally, how to intervene after an event occurs to reduce the damage. Having articulated the layers there is a paucity of information available. At the very least, there is a profound need for more research into the appropriate methods of intervening following such an event so as to reduce and/or prevent handicap and disability. There is not a single randomized controlled study on treatment for the effects of mass violence. There is a compelling need to undertake such studies.

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