Chapter 13

Natural and Technological Disasters

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Disasters are very common. Worldwide, earthquakes, floods, cyclones, landslides, technological accidents, and urban fires occur daily. They tend to occur suddenly, without much warning, and cause massive destruction, sometimes killing or injuring large numbers of people within a short time. In 1999 alone, natural disasters killed over 60,000 people in Turkey, 10,000 people in India, and 25,000 people in Venezuela (United Nations General Assembly Economic and Social Council [UNGAESC], 2000). Disasters disproportionately strike the poor, socially deprived, and marginalized, and their consequences may be more serious and long-lasting in these groups. Similarly, disasters affect developing nations more adversely than developed nations. However, these groups and nations may have the fewest resources or facilities to cope with the aftermath of disasters.

It is now recognized that disaster survivors will need food, shelter, and other relief measures, as well as long-term rehabilitation facilities. It is also generally acknowledged that financial aid is needed for the survivors to recover. Year after year, international relief agencies and nongovernmental organizations (NGOs) find themselves stretched to the limit to meet these basic needs of disaster-stricken populations (UNGAESC, 2000). Yet food, shelter, and material goods constitute only the "tip of the iceberg" with regard to disaster victims' needs. Disaster-stricken communities often experience disruption of family and community life, work, normal networks, institutions, and structures. Loss of motivation, dependence on relief, hostility, and despair can sometimes develop in members of the community.
exposed to disasters. As much as we work to provide emergency relief and look after survivors' basic needs, their right of access to health care has to be recognized, including care for mental health as well as physical health. Mental health problems will cause difficulties in normal functioning, working capacity, relationships, and family life. As the report from UNGAESC (2000, p. 14–15) points out, "A major challenge for humanitarian agencies is to understand that the mental health consequences of emergencies can cause a level of distress that may hamper recovery as well as rehabilitation and to incorporate culturally appropriate psychosocial assistance programmes in relief efforts, in cases of both war and natural disasters. Member States may wish to encourage increased international attention to this issue." This is precisely the purpose of this chapter, as well as this volume as a whole.

Broadly, this chapter is divided into four parts. We begin with a general discussion of the epidemiology, definitions, and characteristics of disasters (Nature and Scope). Then we describe how disasters unfold in time and highlight the personal characteristics and social dynamics that appear to be most important in understanding the recovery process (Effects). In the third section, we review methods of providing assistance to disaster victims (Interventions), and then we conclude by describing actions that policymakers, communities, families, and individuals can take to foster post-disaster mental health (Recommendations).

**NATURE AND SCOPE OF DISASTERS**

**Epidemiology**

On average, natural and technological disasters kill 50,000 people each year. An additional 74,000 are seriously injured, 5 million are displaced from their homes, and over 80 million are affected in some way. We have adjusted the statistics presented in the *World Disaster Report* (International Federation of Red Cross and Red Crescent Societies, 1999) to include only the effects of earthquakes, floods, high winds, landslides, technological accidents, and urban fires. Thus these statistics do not include the effects of drought or famine or war. No area of the world is immune from these events. Averaging 197 disasters per year, Asia leads the rest of the world, followed by the Americas at 111 disasters, Europe at 77, Africa at 61, and Oceania at 18. Although some developed countries, such as the United States, are quite vulnerable to disasters, developing countries are disproportionately exposed. De Girolamo and McFarlane (1996) estimated that the ratio of disaster victims in developing countries to disaster victims in