

involving ^{137}Cs , a radioactive cesium isotope. The authors compared subjects exposed to low levels of ionizing radiation, subjects who experienced anticipatory stress from fear of radiation exposure, and a non-irradiated control group.

Results indicated the presence of chronic stress, as measured by psychological, behavioral, and neuroendocrine indices, in subjects who were exposed as well as in subjects fearful of potential radiation exposure. Anticipatory stress

associated with potential exposure to ionizing radiation resulted in a level of stress similar to that from actual exposure to ionizing radiation. These findings have implications for past and future radiation accidents.

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COLLABORATION FOR SERVICE DELIVERY AND FOR RESEARCH

Collaboration with Local Mental Health Groups: Sending in Mental Health Teams

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Whenever external disaster mental health teams enter a community, it is important that they interface effectively with the community's pre-existing mental health agencies. This paper addresses strategies used in two different interventions. The first intervention to be described will be Project Recovery, South Dakota's [U.S.] Federal Emergency Management Agency (FEMA)-funded, flood crisis intervention. The second will be the American Red Cross's (ARC) intervention in the aftermath of the crash of Flight 427 in September.

Project Recovery was funded by two FEMA grants, an Immediate Services Grant, that continued for eight months after the presidential disaster declaration, and a Regular Services Grant, that is proceeding for an additional nine months. In developing this intervention program, community mental health centers in the affected region were consulted. Changes in funding structure, however, had reduced their flexibility and ability to respond fully to the flood emergency. It became necessary, therefore, to design an intervention program that could provide a long-term interface with the existing mental health system without threatening the existing system and without wasting available funds by duplicating services.

The disaster mental health response to the crash of Flight 427 which was addressed was an American Red Cross's (ARC) intervention. Aspects of it were typical of American Red Cross's (ARC) disaster response, while others were relatively unique. The intervention was relatively brief, and was designed to address the immediate needs of those affected by the disaster. The role of the ARC team was in support of the local mental health community. The division of labor and collaboration were outlined. Principles and challenges in ensuring a smooth working relationship with local resources were discussed. The paper also discussed how these principles can be employed in more typical ARC disaster responses.

Mental Health Training Programs and Clinical Services in Armenia after the 1988 Earthquake

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The earthquake in Armenia on 07 December 1988 offered mental health professionals in the United States the opportunity to provide direct psychotherapeutic treatment to individuals suffering from the trauma of the disas-

ter. It also offered training in American psychotherapeutic methods to mental health professionals in Armenia. The delivery of service in the earthquake zone became a model to teach methods of crisis intervention. The model eventually impacted on the delivery of mental health services in the entire country.

Countries worldwide responded to the devastating earthquake in Armenia by providing humanitarian aid such as food, clothing, reconstruction materials, medical supplies, and psychological

intervention. The French government in particular, arrived the day after the earthquake and eventually provided psychological help to children by establishing clinics with French speaking psychologists who conducted therapy via interpreters. The Psychiatric Outreach Program (POP), established by the Armenian Relief Society, an American-based Armenian organization offering humanitarian aid to needy Armenians worldwide, provided financial support for American mental health profession-

als (psychiatrists, psychologists, and social workers) to rotate for two to four weeks to the earthquake zone and provide crisis intervention to some of the victims.

During the first year after the earthquake, 45 volunteers rotated to Armenia for two to four weeks and offered clinical services. Subsequently, the United States Agency for International Development provided a training grant for one clinician to live in Armenia while consultants continued to rotate, and to establish a training program for Armenian mental-health professionals to carry on the psychotherapeutic work.

The program was discussed in detail and three areas were elaborated on that contributed to the success of the program.

1. Volunteers—All participants in the program were American Armenians and fluent in the language. The uniqueness of the Armenian people, their history, and the fact that Armenians are located throughout the world (approximately 1 million in the United States) fostered a sense of brother-

hood and reunion of family when the volunteers went to the "homeland" (most for the first time), to offer their professional expertise.

2. Political Events in Armenia—While the Psychiatric Outreach Program was establishing a training center, the Soviet Union ended and Armenia became a free and independent country. The American system of outpatient therapy with such fundamental principles as confidentiality and open expression of thought and feelings via individual, family, or group therapy were novel and welcomed. The old communist system with strong lines of demarcation between disciplines of medicine, psychology, and education (not unlike the U. S. a generation ago) were formidable barriers that required continued negotiation and mutual collaboration. The political difficulties inherent in effecting changes to an open market economy, the war with neighboring Azerbaijan, and the subsequent blockade causing lack of heating fuel, electricity, food, and water, all added to tremendous

burden, stress, and further trauma to the people.

3. Continuity—Other relief agencies have left Armenia after completing admirable projects such as constructing entire villages, schools, hospitals, and clinics. The Psychiatric Outreach Program continues to provide consultation at both clinics in the earthquake zone and currently is establishing a clinic in Karabagh, the war torn Armenian state that was part of Azerbaijan. Both centers in the earthquake zone are administered and staffed by trained local mental health professionals.

The health Ministry has requested establishment of a clinic in Yerevan, the capital, to provide clinical service and training at the medical institute. The lack of funding has been the principle limiting factor.

This presentation discussed the evolution of the training program, delivery of services, and examples of research projects.

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An International Perspective on Disaster Responses

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In the past two decades, interest in disaster relief has increased dramatically, no doubt in response to the relentless rise in natural and human-made mass population humanitarian emergencies worldwide. The televised and printed media literally have brought these catastrophes into the living rooms of the global population, further illustrating the difficulties in providing immediate and long-term assistance to affected populations.

On 02 October 1976, a small group of anesthesiologists founded the Club of Mainz in Germany, with the major objectives of improving the delivery of resuscitative care in daily life, and acute medical care after disasters. They aimed to do so by combining scientific, social, and related information and experiences, together with international communication and collaboration. Today, known as the World Association for Disaster and Emergency Medicine (WADEM), the society has grown in membership, representing more than 40 countries, publishing the only peer-reviewed, international journal dealing with this subject, and hosting world congresses on odd calendar years.

The recurring litany of disasters and multiple casualty incidents, reported by colleagues at international congresses led to the creation of the WADEM Task Force on International Disaster Responses. First convened at the 6th World Congress in Hong Kong in 1989, it was not surprising to find that the 11 member group which represented 11 different organizations, presented 11 different positions on how acute disaster medical care should be provided. Dr. Remi Russbach, Chief Medical Officer for the International Committee of the Red Cross, understated our dilemma nicely:

Owing to the large number of organizations willing to participate in relief activities, and owing to logistic,