

chologists, teachers, and other caregivers in facilitating the CISM. Since then, most of the disaster management programs have included psychosocial interventions for the victims. The interventions aim at facilitating a victim's ability to gain a sense of empowerment so s/he can be transformed from being a victim to being a survivor. Without psychosocial intervention, the victims would remain in their passive, dependent state, not able to utilize resources effectively to reconstruct their lives and their communities. Thus, psychosocial interventions should be an integral component of disaster management.

**Keywords:** critical incident stress debriefing (CISD); depression; developing countries; disasters; earthquakes; floods; impact; lehar; management; mental health; Philippines; post-traumatic stress disorder (PTSD); prevalence; psychiatric syndromes; symptoms; victims; volcanic eruptions

#### PN3-4

##### **Prevalence and Predictors of Post-Earthquake PTSD: Findings from a Randomly Selected Community Sample in North China**

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**Objective:** To investigate the prevalence and predictors of post-traumatic stress disorder (PTSD) in a Chinese rural area affected by an earthquake.

**Method:** One hundred eighty-one subjects, sampled randomly from two villages at different distances from the epicenter of the earthquake, were assessed for the presence of the acute stress disorder (ASD) and PTSD using the DSM-IV criteria. The WHOQOL-BREF and three subscales of Symptoms Checklist-90 also were administered.

**Result:** The incidences of ASD and PTSD were 6.1% and 18.8%, respectively, with a current PTSD prevalence of 7.2% at three months after the earthquake. The subjects with the PTSD diagnosis reported poorer quality of life and more psychological symptoms. Logistic regression analysis indicated that the PTSD diagnosis is predicted by gender, satisfaction with material support, and dissociative symptoms.

**Conclusion:** The prevalence of post-disaster PTSD in China is similar to the prevalence reported elsewhere, which is relevant to a group of factors including pre-existing and post-earthquake variables in addition to the degree of initial exposure.

**Keywords:** acute stress reactions; dissociative symptoms; earthquake; gender; post-traumatic stress syndrome (PTSD); predictors; prevalence; quality of life; support; symptoms

#### PN3-5

##### **Mental Health Effects following Man-made Toxic Disasters: The Sarin Attack and the Arsenic Poisoning Case**

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Man-made disasters as well as natural disasters, command a great deal of media attention to the psychological effects of the disaster on survivors. The findings regarding traumatic stress responses in the wake of two man-made toxic disasters: 1) the sarin attack in the Tokyo subway system in March 1995; and 2) the arsenic poisoning case in a local community of West Japan in July 1998 will be discussed. Due to the sarin attack, 12 people died, 5,500 people visited medical facilities and 1,046 people were admitted to 98 hospitals. They included subway passengers, subway workers, firefighters, and police officers. According to reports, approximately 20 to 25% of the at least moderately poisoned victims suffered from post-traumatic stress disorder (PTSD) or partial PTSD symptoms after the event. In the arsenic poisoning case, of the 67 poisoned persons, four died and 44 were hospitalized. Thirty-six percent of the survivors were diagnosed as full or partial PTSD after the event.

The two cases differed in several points. The sarin victims, in a large-scale traffic disaster in an urban area, were accidental sojourners whose psychological connection with one another was diminished when they set out on their separate ways after acute treatment was terminated. Therefore, it was not feasible to set up a long-term, community-based care program. On the other hand, the arsenic poisoning victims were inhabitants in a small local community, and an intensive relief program is being carried on by community mental health professionals.

We are learning from these opportunities that it is vital to provide victims and those psychologically close to them with accurate health information and a sound physical checkup system as well as supportive counseling, if we professionals are to help relieve the traumatic stress caused by toxic contamination.

*A part of the results in this presentation is attributed to the Follow-up Study Project for Tokyo Subway Sarin Poisoning (Chief Scientist: Prof. Kazuhiko Maekawa, MD, University of Tokyo) and the Research Project for Traumatic Stress Responses (Chief Scientist: Dr. Yoshiharu Kim, MD, National Institute of Mental Health, Japan)*

**Keywords:** arsenic; community; counseling; disasters; incidence; long-term treatment; mental health; poisoning; post-traumatic stress syndrome; prevalence; sarin; toxic contamination

#### PN3-6

##### **Mental Health Program for the Victims of the Great Hanshin Earthquake in Japan: The Strategies and the Activities**

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In any disaster, loss and trauma will affect many people. However, most survivors do not seek any psychological or psychiatric assistance. Some strategies to offer mental health assistance to survivors are needed. They include: 1) to use an active outreach approach; 2) to avoid the mental health labels; 3) to link with other services; and 4) to provide continuous activities. These strategies are