rate of PTSD is reportedly rare comparing those in Europe and in USA.

Are there any differences of psychological problems among disaster victims in Kobe or in Asia compared to those among the victims in other cultures? Also, is there any difference and culture-specific way in Asia to provide psychological care to the victims?

The author would like to make a summary review of disasters in the Western Pacific Region, and would like to comment on the need to promote a culture-friendly care system in Asia.

Keywords: disasters; earthquake; Great Hanshin-Awaji Earthquake; mental health; problems, psychological; workers, mental health; volunteers

PN3-2

Cultural Diversity in Mental Health Disaster Assistance in the United States: Consideration of Services to Asian-Americans

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Over the past several decades, we have witnessed significant development in mental health disaster assistance activities and the publication of exhaustive on the subject in the United States. However, little information is available about how to address the culturally diverse groups among the affected population, despite the presence of many ethnically and culturally diverse groups. This presentation will focus on the disaster assistance lessons learned in reaching out to Asian-American communities in California.

In working with disaster victims in the USA, we emphasize the need to set aside the traditional psychotherapeutic approaches, to be prepared to offer practical help, to do outreach, and to design flexible interventions appropriate for different phases of disaster. With Asian-Americans, we need to be even more flexible, much less formal about psychotherapeutic interventions, and to avoid the stigma of psychiatric labeling. It is because many Asian cultures traditionally have stigmatized mental illness, which often will result in ostracism for all members of the family. For this reason, very few will consider approaching mental-health professionals unless the level of disturbance becomes severe and dangerous.

An effective approach, we have learned, is to capitalize the Asian-American's receptivity toward education, and to organize an aggressive prevention, education campaign about the impact of disasters on mental health. Through the use of community forums, television, newspapers, and radio programs, we try to increase the community's awareness about the normal nature of the traumatic stress reactions and the benefit for early interventions.

Another approach is to recognize the tendency for Asians to express psychological stresses through psychosomatic complaints, and to work closely with or through primary care physicians, who provide care for a large number of these patients When using psychotropic medications, we try to take into consideration what is known about drug metabolism and drug action for Asians, e.g., effective dosage for tricyclic antidepressants or benzodiazepines tend to be less for Asians than is needed for Caucasians.

Keywords: awareness; culture; diversity; education; media; mental health; reactions; recognition; stigma; stress; treatment

PN3-3 Mental Health in Disaster: The Philippine

Experience
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Disasters are adverse life experiences that cause human casualties, damage to property, and severe economic losses. Disasters disrupt the physical, psychosocial, spiritual and ecological aspects of an individual and a society. Thus, they are referred to as a catastrophic event that impacts on the human community.

The Philippines have been ravaged by many disasters, especially during the past decade. The more devastating among these are: the earthquake of 1990, the volcanic eruption of Mt. Pinatubo in 1991 and its subsequent lahar flows through 1996, the flash flood in Ormoc City and other towns, the sinking of passenger ships, the Ozone Disco fire, the Pagoda River tragedy, the explosion of Flight 387, etc.

The occurrence of disasters has been more frequent in developing countries like the Philippines. This results in greater numbers of victims who already are socially disadvantaged with poor health, and other poor socio-economic conditions. The reactions to such an event may be immediate (arising immediately upon the impact of the event) or shortly afterwards. While recovery may be expected for most following the impact of the disaster, delayed psychosocial and even psychiatric symptoms of the post-traumatic stress disorder or depression may be manifested within a few years after the event. The extent of these psychological problems, identified through the use of the Self-Reporting Questionnaire, that was found among victims of the Mt. Pinatubo disaster was 92% one month after the eruption, and 76% nine months later. The prevalence of psychiatric syndromes, using the 40-item, Present State Examination administered 2-3 years after the disaster among the victims of the Mt. Pinatubo lahar and floods, was 31% for anxiety and 31% for depression. A similar frequency of symptoms also was identified among survivors of the earthquake.

Psychosocial interventions for disaster victims were undertaken since the earthquake. of 1990. The methods involved the group process called Psychosocial Processing (PSP) and Critical Incident Stress Debriefing (CISD). These were undertaken with disaster victims of the Mt Pinatubo disaster and other disasters that have occurred in the Philippines. Psychosocial interventions also involved training other health professionals, social workers, psy-

chologists, teachers, and other caregivers in facilitating the CISD. 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 (CIDS); 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

Nozomu Asuki, MD Department of Social Psychiatry, Tokyo Institute of Psychiatry, Tokyo, Japan 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