## Posttraumatic Stress Disorder

**Refugees** from page 1

Islands and were confined to a refugee camp there before being transferred to the Guantanamo camp. Of 138 patients aged 5-17 years, 88% reported intrusive recollections of the voyage, 75% reported fear of recalling the traumatic events and active avoidance of those memories, and 67% reported difficulty with concentration.

Mood changes, conduct problems, somatic symptoms, appetite and elimination disturbances, and sleep disturbances also were common, Dr. Rothe said at the meeting, which was cosponsored by the



Cuban refugees stand between the barbed wire and the tents at Guantanamo Naval Base refugee camps in January 1995.

University of Texas at Dallas.

And in a study of 87 children and adolescents released to the United States from the Guantanamo camp, 32% showed evidence of moderate PTSD, 25% showed evidence of severe PTSD, and a significant positive correlation was noted between the number of stressors to which the child was exposed and the reaction index score.

Avoidance, regressive behaviors, reexperiencing traumatic events, somatic symptoms, and hyperarousal were among the symptoms noted in this population at up to 6 months after leaving the camps. Yet teachers of these immigrants did not report observing any clinically significant internalizing or externalizing behaviors among them, Dr. Rothe noted during his talk. He also described these three studies in a chapter within the book, "Trends in Posttraumatic Stress Disorder Research," edited by Thomas A. Corales (Hauppauge, N.Y.: Nova Science Publishers Inc., 2005, p. 101-27).

In another study of 74 adolescents from the Guantanamo camp who were seen for psychiatric services, all scored in the severe or very severe range on the PTSD Reaction Index, with 94% of boys and 96% of girls scoring in the very severe category of traumatic stress symptoms (Adolescent Psychiatry 2002;26:97-124).

Some of these data reflect an unusually high incidence of PTSD. These high rates are partly attributable to the tendency of refugees seeking to get out of the camps to exaggerate their symptoms, and partly because of cultural factors: Hispanics tend to be outspoken about their distress. Clinic populations also reflect a subgroup of people that may be

more affected than the larger population inside the camps. However, immigrants in general experience stressors and traumatic events that can affect mental health, although not all share the traumatic experiences of the Cuban boat people.

Immigrants, including children and adolescents,

make up the fastest growing segment of the American population. Mental health issues among immigrants warrant attention and study, Dr. Rothe said.

In addition to traumatic journeys and camp confinement, Dr. Rothe outlined several common preimmigration and immigration stressors. These might include previous traumatic exposure in one's homeland (such as war, torture, or natural disasters), separation from extended and even nuclear family members, and victimization (which has been shown to be increased among immigrants).

Children can be particularly vulnerable, because their parents often are overwhelmed and unable to attend to the child's emotional needs, he and his colleagues wrote in a paper on the topic of immigrant mental health (Community Ment. Health J. 2005;41:581-97).

Low levels of education and job skills can contribute to postmigration stress, and living in crime-infested neighborhoods, overcrowding, discrimination, and prejudice often contribute to the problems immigrants face, he noted.

Studies suggest that the acculturation

process plays an important role in the mental health of immigrants. Dr. Rothe described three types of acculturation processes: assimilation, in which the immigrant renounces the culture of origin and identifies with the culture of the new country; margination, in which the immigrant embraces the culture of origin to the exclusion of the host culture; and biculturalism, which allows for validation and reaffirmation of the immigrant's identity in both cultures.

Biculturalism is the healthiest form of acculturation. But achieving biculturalism can be challenging for children and adolescents, who often are caught in a tugof-war between the traditional culture their parents might espouse and the new culture the child might wish to embrace.

Studies also suggest that parental emotional well-being and peer relationships play a role in the impact of common disorders among immigrants, such as depression, anxiety, and PTSD, Dr. Rothe added.

Of interest are findings that adolescent immigrants tend to be less symptomatic and better in terms of social functioning than are adult immigrants—which may suggest a relative resilience during this developmental stage.

Also, there is a higher risk of behavioral conditions such as substance abuse, conduct disturbance, and eating disorders in later-generation immigrant youth (after the second generation). This may be a result of the chronic stresses of poverty, marginalization, and discrimination, as well as the loss of the secure identity and traditional values the first- and second-generation immigrants often maintained, Dr. Rothe suggested.

The mental health of immigrants can adversely affect successful adaptation and functioning and should be considered when working with immigrants. Cultural competence of mental health workers is key to the development and delivery of services, Dr. Rothe said.

Differences in symptom expression from a cultural standpoint are important to take into account when treating immigrants. Cultural consultants can be useful in this process, and treatment approaches that address the need for validation, mutual support, and processing of common experiences have been shown to be effective, he noted.

Of critical importance is educating and assisting immigrants in understanding the cultural norms and practices of their new environment, and also educating mental health providers about tradition-

al cultural practices among immigrants.

In the event of a refugee crisis involving mass arrival of immigrants, teams of culturally competent mental health professionals—much like the teams that Dr. Rothe traveled with to the Guantanamo camps to provide mental health services—can be beneficial.

These teams should provide services similar to those provided by natural disaster response teams. Among these services are triage to allow for immediate treatment interventions, debriefing to validate the traumatic and disorganized quality of the experience, educating the refugees about their new environment, and providing structure and activities that establish routines.

Support of indigenous religious practices and culturally prescribed altruistic practices during this phase has been shown to promote resilience and recovery, Dr. Rothe noted.

Another phase of treatment involves emergency social services, such as helping refugee families maintain contact with agencies that can guide them through the process of adaptation and acculturation.

## **Cuban Refugee's** Tale of Trauma

Dr. Rothe said that this account by a 17-year-old Cuban girl confined to a refugee camp in the mid-1990s touches on the trauma experienced by many child and adolescent Cuban refugees and other immigrants to the United States:

"We rode for 4 days, and we encountered huge waves. I was terrified that our raft would capsize and we would all be dead. On the 4th day, we were spotted by an American military helicopter, and then we were rescued by the U.S. Coast Guard. We were transferred to a large gray ship, where we lived on top of the deck for more than 5 days. Then we were taken to the refugee camps. Since I arrived in the camps, I can't stop crying, I wet my bed every night, and I've even soiled myself without realizing it. I can't sleep, I stay awake in the dark, and I see the face of my dead grandmother appear before me, and this really scares me."

## Amino Acids Tested in Children at Risk for Behavioral Disorders

LA JOLLA, CALIF. — Targeted amino acid therapy shows promise as an intervention for children with behavioral disorders, a group of researchers led by Karyn Purvis, Ph.D., reported in a poster session at a meeting on natural supplements in evidence-based practice sponsored by the Scripps Clinic.

"Based upon an evaluation of the child's current neurotransmitter levels, targeted amino acid therapy (TAAT) can be used to provide nutritional support for the production of neurotransmitters that are deficient in the child's central nervous system," the researchers wrote in their poster. "We hypothesized that by enhancing the production of deficient neurotransmitters, TAAT can lead to changes both in children's neurotransmitter levels and their behavior."

Dr. Purvis of Texas Christian University, Fort Worth, and her associates studied 78 children with an average age of 10 years. The children were recruited through local support groups for adoptive parents and were considered at risk for serious behavior disorders.

Forty-four children were randomly assigned to the treatment group, and 34 served as controls. Treatment consisted of amino acid supplements (made and provided by NeuroScience Inc.) that are designed to provide nutritional support for serotonin and  $\gamma$ -

aminobutyric acid (GABA) production. At baseline and 2 months, parents completed Achenbach's Child Behavior Checklist (CBCL), and urine samples from the children were assayed for epinephrine, norepinephrine, dopamine, serotonin, GABA, glutamate, pulseless electrical activity (PEA), and histamine.

At the 2-month assessment, children in the treatment group showed significant improvement, compared with controls, in half the assays studied (epinephrine, serotonin, GABA, and PEA) and on 6 of 11 CBCL subscales: anxiety/depression, thought problems, attention problems, aggressive behavior, other problems, and externalizing behaviors.

More research is needed, but this initial study suggests that TAAT is a promising avenue, the researchers concluded at the meeting, cosponsored by the University of California, San Diego.

—Doug Brunk