

PTSD Can Present Months After a Shooting

BY PATRICE WENDLING

Chicago Bureau

CHICAGO — Schoolwide mental health screening should be routinely conducted after a school shooting to identify at-risk students and help guide the selection of appropriate treatment strategies.

This conclusion is based on a study that showed roughly one-fourth of the 247 students directly exposed to the shootings at Santana High School in Santee, Calif., suffered from post-traumatic stress disorder or partial PTSD 8-9 months after the March 5, 2001, event in which 2 students died and 13 were injured.

Among all 1,160 students screened, 4.9% met criteria for PTSD and 12.5% met partial criteria for PTSD. Depression was present in 15.4% of all students and 18.7% of those with direct exposure.

This level of distress was present even after the immediate postevent development of a three-tier mental health program of psychological first aid, specialized school-based interventions, and specialized com-

munity-based services. "We expect students to come to us when they are in distress, but frankly, it wasn't until we did our screening that we really truly found out which students were at risk," principal investigator Melissa J. Brymer, Ph.D., Psy.D., said at the annual meeting of the International Society for Traumatic Stress Studies.

This is the first study aimed at evaluating the impact of a school shooting in a high school population. Psychological screening was not conducted after the widely publicized Columbine (Colo.) High School massacre—the fourth deadliest school shooting in United States history and the deadliest for an American high school.

"Many people are concerned that if we screen, we're doing to retraumatize; that did not happen," Dr. Brymer said at the meeting, which was cosponsored by Boston University. "We had three students after filling out the survey who needed additional support. It was because they couldn't believe we developed this survey that they finally felt that someone got it. It wasn't because they were dis-

tressed, it was almost a relief."

Trauma screening had been planned for September 2001, but was delayed until November and December 2001 because of the Sept. 11 terrorism attacks. In all, 247 students had witnessed a fellow student being shot or receiving medical treatment, 590 students had heard or seen a shot fired from a distance, and 323 students experienced no exposure—meaning they either just witnessed people running or were not on campus during the shootings.

The findings did show a dose-of-exposure pattern for PTSD but not for depression. PTSD rates were highest in students with direct exposure (9.7%) and lowest (3.4%) in those with no exposure.

In contrast, depression peaked in students with direct exposure (18.7%), but was also high in those with no exposure (15.6%). (See accompanying graphic.)

The high rates of depression observed in those without direct exposure to the shootings is typically not seen in disasters caused by natural events. "We need to keep that in mind when

we're doing this work," said Dr. Brymer, director of terrorism and disaster programs, National Center for Child Traumatic Stress, University of California, Los Angeles.

Subjective features of exposure, such as whether the students felt frozen or torn between wanting to help themselves or help others, played a larger role in the development of PTSD than of depression.

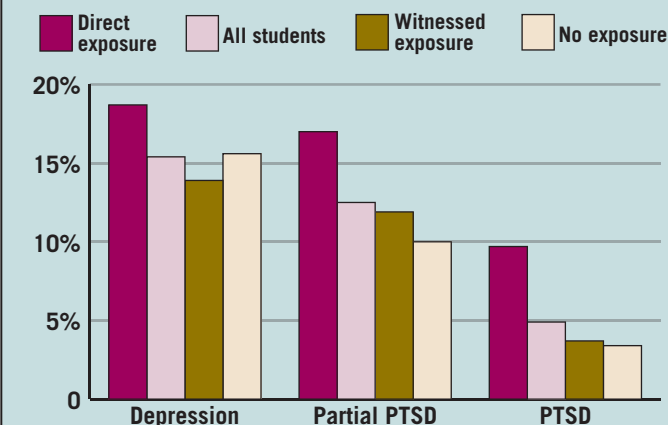
The study also identified a

significant gender-exposure interaction, with girls in the direct-exposure group scoring significantly higher than their male counterparts for both PTSD and depression.

The findings demonstrate that systematic schoolwide screening after a school shooting is feasible and is an important strategy for identifying at-risk students, Dr. Brymer and associates concluded.

Dr. Brymer disclosed no relevant conflicts of interest. ■

Percentage of Students Meeting Diagnostic Criteria



Note: 1,160 students were screened 8-9 months after the shootings.
Source: Dr. Brymer

Childhood Trauma Is Tied to Several DSM Diagnoses

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CHICAGO — Childhood trauma and family dysfunction were associated with multiple DSM diagnoses on a structured interview in a nationally representative adult sample.

A history of childhood sexual abuse alone significantly increased the likelihood for 18 of 26 DSM-IV lifetime diagnoses in males (mean odds ratio, 3.3) and for 23 of 26 diagnoses in females (mean OR, 3.0), Dr. Frank Putnam reported at the annual meeting of the International Society for Traumatic Stress Studies.

The National Comorbidity Survey–Replication involving 5,692 households inquired about adverse childhood antecedents occurring before age 18 years, including sexual abuse, physical abuse, parental depression, parental substance abuse, being a crime victim, loss of a parent, and exposure to domestic violence. For each participant, a cumulative risk score was calculated by adding the number of adverse childhood antecedents that happened "most of the time" or "all of the time."

As cumulative risk scores increased from 0 to 4 or more, the mean number of DSM Axis I diagnoses per individual increased in a stepwise fashion, said Dr. Putnam, director of the Mayerson Center for Safe and Healthy Children, Cincinnati Children's Hospital Medical

Center. Individuals with a risk score of 4 or more averaged more than six lifetime DSM diagnoses, compared with less than two diagnoses for those with a risk score of 1. (See box.)

"We set public policy in this country on whether to use hormone replacement therapy in postmenopausal women based on an odds ratio of 1.23, and look at these ratios," he said. "These are enormous effects."

The effects were not only large but crossed multiple DSM categories, indicating increased clinical complexity in participants exposed to a high level of childhood trauma or family dysfunction.

More than half of the 252 high-risk respondents had diagnoses that crossed three or more DSM categories.

The pattern of diagnoses also differed for males and females, with posttraumatic stress disorder (PTSD) being diagnosed in 20% or more of females starting at a risk score of 2. In males, PTSD was not a common diagnosis, even with a risk score of 4 or more, Dr. Putnam reported at the meeting, cosponsored by Boston University.

For male survivors of childhood sexual abuse, the most common diagnoses were dysthymia (OR, 5.4); PTSD (OR, 4.3); attention-deficit/hyperactivity disorder (OR, 3.8); agoraphobia (OR, 3.6); and panic disorder (OR, 3.6). In female survivors, the most common diagnoses

were bipolar disorder type I (OR, 6.6); drug abuse (OR, 5.2); PTSD (OR, 4.8); alcohol dependence (OR, 4.7); and oppositional-defiant disorder (OR, 4.1).

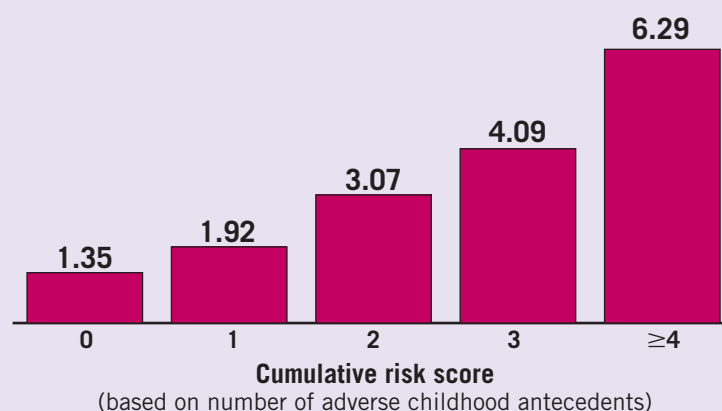
The survey included face-to-face structured diagnostic interviews conducted in 2001-2003 with a representative sample of the U.S. population, based on census indicators of age, gender, race, education, marital status, and region.

The findings highlight the need for a new developmental trauma disorder diagnosis to help focus care and for early identification of children who have suf-

fered abuse or neglect, Dr. Putnam said in an interview. Dr. Putnam noted that the findings also replicate the results of the seminal Adverse Childhood Events (ACE) study, which identified a strong graded relationship between the breadth of childhood abuse and family dysfunction and multiple health risk factors later in life (*Am. J. Prev. Med.* 1998;14:245-58).

The current study was sponsored by the Ohio Can Do 4 Kids project. Dr. Putnam disclosed that he has no commercial relationships. ■

Mean Number of DSM Axis I Diagnoses in Adults Rises With Risk Score



Note: Data are from a nationally representative survey of 5,692 households.
Source: Dr. Putnam