

## More stress disorder for wounded Viet vets

Severe trauma can trigger a number of reactions, such as recurring nightmares, sudden flashbacks and emotional numbing. In 1980, such reactions were combined into an official psychiatric diagnosis, post-traumatic stress disorder. A rare survey of the disorder in the general population now indicates that it is uncommon, except among wounded Vietnam veterans.

Current or previous symptoms meeting the criteria for post-traumatic stress disorder were reported by just 1 percent of the random sample of 2,493 St. Louis residents, say psychiatrist John E. Helzer of Washington University School of Medicine in St. Louis and his colleagues. Among Vietnam veterans who were not wounded and civilians exposed to physical attack, including rape, about 3.5 percent suffered the disorder, compared with 20 percent of veterans wounded in Vietnam.

People subjected to sudden and severe stress are considered to have post-traumatic stress disorder if they reenact the experience through dreams, thoughts or flashbacks and if they display emotional numbing and detachment. They must also show at least two of the following symptoms: jumpiness, trouble sleeping, guilt about surviving, trouble concentrating, avoidance of situations that stir memories of the trauma and worsening of symptoms in situations that resemble it.

Although the full-blown diagnosis was unusual, 15 percent of the men and 16 percent of the women interviewed experienced some of the above symptoms — usually one or two — after a trauma, report the researchers in the Dec. 24 *NEW ENGLAND JOURNAL OF MEDICINE*. Traumas, which also included experiencing serious accidents, seeing someone hurt or die and surviving a threat or close call, resulted most often in nightmares, jumpiness and trouble sleeping.

For about half of those with post-traumatic stress disorder, symptoms lasted fewer than six months. However, in about one-third of the cases, symptoms persisted for more than three years. The traumas that produced the longest-lasting symptoms were Vietnam combat among men and physical attack among women.

Not surprisingly, a history of at least four behavioral problems before age 15, including stealing, vandalism, substance abuse and school expulsion, was more common among those with post-traumatic stress disorder. But the researchers also found that subjects with childhood behavior problems were more likely to have been beaten or mugged in the 18 months before the study and more likely to have been in combat if they went to Vietnam. The nature of a “personality predisposition” to experiencing traumas

is poorly understood, they say.

Although veterans of other wars were in the sample, add the researchers, it is unclear why combat-related symptoms were reported only by Vietnam veterans. Furthermore, the number of Vietnam veterans in the study was small, totaling 64, as was the number of persons who had experienced natural disasters. Thus, the investigators consider the survey to be a preliminary estimate of how common post-traumatic stress disorder is in the general population.

A related study in the December *ARCHIVES OF GENERAL PSYCHIATRY* provides evidence that post-traumatic stress disorder can occur among school-age children within weeks of a life-threatening event. One month after a sniper attack on an elementary school playground, during which one child and a passerby were killed, 13 children were injured and many others were pinned on the playground or

in classrooms under gunfire, researchers interviewed 159 youngsters, representing about 15 percent of the student body.

As exposure to the sniper attack increased, so did the number of post-traumatic stress symptoms described by the children. Severe or moderate post-traumatic stress disorder was experienced by three-quarters of those on the playground during the attack and two-thirds of those in the school building. Most of the children who had left school or were on vacation (the school is on a year-round schedule) had mild symptoms or none at all. Age, sex and race did not influence the type or severity of symptoms reported, say psychiatrist Robert S. Pynoos of the University of California at Los Angeles and his colleagues.

The children at the school are black and Hispanic and live in the inner city, where crime and violence are ever-present, note the researchers. It remains to be seen whether their severe stress symptoms persist.

— B. Bower

## Early HIV effects on nervous system found

In 1985, when scientists isolated the AIDS-causing human immunodeficiency virus (HIV) in brain tissue and spinal fluid, they realized that the virus directly affected the nervous system as well as the immune system.

But a new study is providing some of the first clues about when HIV begins to affect the nervous system, causing dementia and other impairments. The answer may mean earlier detection and treatment of HIV-infected individuals.

The study, which is the first to detect neurological impairment at various stages of HIV infection, appears in the December *ANNALS OF INTERNAL MEDICINE*. After giving neurological and psychological tests to a group of 55 homosexual men, Igor Grant and his colleagues at the University of California and Veterans Administration Hospital in San Diego evaluated the subjects' mental abilities and found that HIV appears to have an early impact on the nervous system. In the group with fully developed AIDS, the impairment rate was 87 percent; AIDS-related complex (ARC), 54 percent; HIV positive, 44 percent; and HIV negative (controls), 9 percent.

“HIV may affect brain function early on in infection, but it's premature to make any conclusions from this study,” Grant told *SCIENCE NEWS*.

Other scientists agree with Grant's caution and add that larger longitudinal studies with better controls need to be done.

“In the Grant study, we don't know how long they [the neurologically impaired but asymptomatic subjects] were infected with HIV and how far away they are from ARC,” says Richard Johnson, a neu-

ropsychiatric investigator for the Multi-center AIDS Cohort Study (MACS), which involves 5,000 homosexual men in Baltimore, Pittsburgh, Chicago and Los Angeles who were tested for HIV two years ago but who had not developed ARC or AIDS at that time.

At the centers, investigators are monitoring the neurological and psychological characteristics of those who have tested positive for HIV since entering the program. This will help determine when HIV first affects the nervous system and also the effect's prevalence at each stage of infection.

Anthony S. Fauci, director of the National Institute of Allergy and Infectious Diseases (NIAID) in Bethesda, Md., says Grant's study is valid, but better controls are needed. “Psychiatrists have said the anxiety of knowing you're positive for HIV may cause neurological abnormalities, so correct controls would be people who have stress, such as cancer patients.”

In a similar sense, some MACS participants who have elected not to know their HIV status are acting as controls, says Johnson, of the Johns Hopkins School of Medicine in Baltimore.

Grant says one implication of his study is that physicians should know that HIV may cause neurological problems in otherwise healthy patients. “The physician's index of suspicion must be moved up a notch,” Grant says.

In addition, knowing the stage of HIV's impact on the nervous system is important because scientists want to know when to begin therapy with drugs such as zidovudine, which is the only AIDS drug commercially available. But they first must know whether early intervention