Current PSYCHIATRY

Terror-related stress

How ready are you to deal with it?

Peter A. Kelly | Theresa Fiore Lavery

After the Sept. 11 attacks and the anthrax scare, psychiatrists are seeing exacerbated or recurrent PTSD in existing patients and trauma-related symptoms in new patients. In this special report from the editors, we offer clues to the differential diagnosis from comorbid disorders and suggestions that can help manage ongoing public fears.

Since September 11, America has carried on under a cloud of fear. Though the cloud is lifting, it will not disappear for months or years. The terrorist attacks on New York City and Washington, DC, the resultant military action in Afghanistan, and the anthrax scare—combined with pervasive, nagging doubts about homeland security and the specter of another possible future terrorist attack—all are straining the nation's collective emotional well-being.

Psychiatrists in America have reported new cases of terror-inspired acute stress disorder, anxiety, depression, and other illnesses, as well as recurrences of posttraumatic stress disorder (PTSD) in existing patients, in the weeks after the recent attacks and the anthrax scare. What will be the impact on psychiatric practice in the coming months and years?

"We are all at ground zero," says Kenneth S. Thompson, MD, of Pittsburgh, an experienced disaster psychiatrist. But he and other subspecialists have identified four critical areas in which psychiatrists should be prepared:

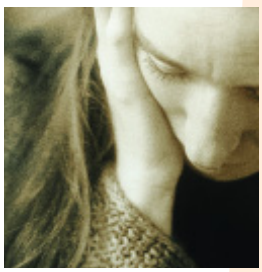
1. Identifying how terrorist attacks and scares can exacerbate symptoms in patients now in your practice;
2. Diagnosing PTSD among comorbid conditions present in existing or new patients;
3. Treating—and avoiding over-treatment—of patients with acute stress disorder and PTSD;
4. Managing fear in your communities—in response to the Sept. 11 attacks, to the anthrax scare, or in anticipation of an impending catastrophe.

To bring you this special report, the editors of *Current Psychiatry* have reviewed the literature and interviewed psychiatrists nationwide and in countries such as Israel and Colombia, where terrorism has been a fact of life for years (see "PTSD lessons from Israel, Colombia," page 33).

Terror and your patients

Which symptoms are you most likely to see in existing patients subsequent to recent events? In the weeks following the Sept. 11 attacks, psychiatrists reported the most commonly seen symptoms as increased anxiety and worsened depression. Sleep disturbances, agoraphobia, suicidality, and severe reactions among patients with personality disorders also were reported.

Patients with previous PTSD or exposure to trauma face a high risk of new or recurrent PTSD in the wake of Sept. 11 than do those not previously exposed to trauma.[1] War veterans with prior posttraumatic symptoms have been particularly prone to recurrent PTSD after the attacks. James Allen, MD, of the Department of Psychiatry and Behavioral Sciences at the University of Oklahoma Health Sciences



Center, calls this the "additive effect": patients traumatized by military service in Vietnam experience a recurrence after seeing a major disaster or atrocity. Dr. Allen, who was extensively involved with Oklahoma City's disaster psychiatry effort after the 1995 bombing there, recalls seeing patients who were traumatized in Vietnam suffer a recurrence after the Alfred P. Murrah Building attack, and then another relapse after Sept. 11.

"The Sept. 11 attacks were very similar to the war for them," says Juan Corvalan, MD, of the PTSD Unit of the St. Louis Veterans Administration Medical Center, referring to the numerous war veterans he treated after the atrocities. "Seeing it on TV triggered many memories." By early November, however, many who experienced recurrent PTSD had returned to their pre-Sept. 11 mental states.

Craig Katz, MD, director of emergency psychiatry services at New York's Mount Sinai Medical Center, says that a patient's psychiatric history is crucial to determining risk for PTSD or other terror-related sequelae:

"You can recognize that a given person is at high risk for PTSD post-trauma, based on any combination of these factors—having a psychiatric history, past trauma, high exposure to the event, psychosocial problems pre-disaster, or lack of supports post-disaster."

The clinical interview is a vital tool in assessing patients with suspected PTSD or posttraumatic sequelae, says Arieh Shalev, MD, of the department of psychiatry at Hadassah University Hospital in Jerusalem, Israel. "It provides the opportunity to discuss the traumatic event with the patient, and to listen to his or her perceptions of the event and its effects" in order to carefully appraise the patient's symptoms.[2]

The guidelines set forth in the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV) remain the gold standard for confirming a diagnosis of PTSD and discerning long-term posttraumatic sequelae from temporary acute stress disorder (*Box 1*). The guidelines have

Box 1

DSM-IV DIAGNOSTIC CRITERIA FOR PTSD

A. Exposure to a traumatic event with both of the following present:

1. The patient experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others.
2. The patient's response involved intense fear, helplessness, or horror. In children, this may by expressed by disorganized or agitated behavior.

B. The traumatic event is persistently reexperienced in one or more of the following ways:

1. Recurrent and intrusive recollections of the event (e.g., images, thoughts or perceptions). Children may express themes or aspects of the trauma in repetitive play.
2. Recurrent nightmares of the event. Children may have frightening dreams without recognizable content.
3. A sense of reliving the trauma: illusions, flashbacks or hallucinations in adults, or trauma-specific reenactment in children.
4. Intense psychological distress or extreme physiological reaction to internal or external cues that symbolize or resemble an aspect of the traumatic event.

C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three or more of the following:

1. Efforts to avoid thoughts, feelings, or conversations associated with the trauma;
2. Efforts to avoid activities, places or people that arouse recollections of the trauma;
3. Inability to recall an important aspect of the trauma;
4. Markedly diminished interest or participation in significant activities;
5. Feeling of detachment or estrangement from others;
6. Restricted range of affect (e.g., unable to have loving feelings);
7. Sense of a foreshortened future.

D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two or more of the following:

1. Difficulty falling or staying asleep;
2. Irritability or outbursts of anger;
3. Difficulty concentrating;
4. Hypervigilance;
5. Exaggerated startle response.

E. Duration of symptoms in criteria B, C or D exceeds 1 month.

F. Disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if; **Acute:** if duration of symptoms is less than 3 months.

Chronic: if symptoms persist 3 months or more.

With delayed onset: if onset of symptoms is at least 6 months after the stressor.

Acute stress disorder, whose symptom pattern is similar to that of PTSD, is distinguished from PTSD because the symptom pattern must occur and resolve within 4 weeks of the traumatic event. If the symptoms persist for more than 1 month and meet the criteria for PTSD, the diagnosis is changed from acute stress disorder to PTSD.

proved far from foolproof, however, and the existence of psychiatric comorbidities often clouds the picture.

Differential diagnosis of PTSD

Patients with PTSD are more likely to have substantial psychiatric comorbidity than are those without the disorder.[3] Possible reasons include suspected self-medication of PTSD symptoms, particularly among patients with substance abuse, and the possible overreporting of symptoms by patients. Psychiatrists should maintain a high level of suspicion for PTSD when managing a new or existing patient with psychopathology.

Citing data from the National Comorbidity Study of the Institute for Social Research at the University of Michigan, Kessler and others in 1995 noted that more than 80 percent of individuals with PTSD meet criteria for at least one other psychiatric diagnosis. Roughly half of PTSD sufferers met criteria for three or more comorbidities.[3]

Kathleen Brady, MD, professor of psychiatry at the Medical University of South Carolina in Charleston, noted in a 1997 study that affective disorders, other anxiety disorders, somatization, substance abuse, and dissociative disorders are common comorbidities of PTSD.[5] Dr. Shalev and colleagues in one study found that a history of major depressive disorder may increase the severity of posttraumatic morbidity.[6] Dr. Brady and others also have found that PTSD patients with a comorbid substance abuse disorder experience severe PTSD symptoms while in a withdrawal state.[7]

PTSD often is overlooked in the presence of other psychiatric diagnoses. Meuser et al in 1998 studied 275 patients with schizophrenia and bipolar disorder. As many as 98 percent of patients reported lifetime exposure to at least one traumatic event. The researchers found diagnosable PTSD in 119 (43 %) of the subjects, but only three (2%) had the diagnosis in their charts.[8]

In a later study, Dr. Brady and others cited substantial symptom overlap between PTSD and other psychiatric diagnoses, particularly major depressive disorder. This can contribute to underdiagnosis of PTSD, the researchers found.[7] (*Box 2*).

Box 2

PTSD and comorbidities: Overlapping symptoms

Disorder	Symptoms that overlap with PTSD
Adjustment disorder	Extreme response to stressor. Stressor is not necessarily extreme in nature (e.g., spouse leaving, being fired), and the response might not meet criteria for PTSD.[4]
Depression	Diminished interest, restricted range of affect, sleep difficulties, or poor concentration.[5]
Dissociative disorders	Inability to recall important information about past trauma, sense of detachment from oneself, derealization, nightmares, flashbacks, startle responses, or lack of affective response (e.g., onset of dissociative fugue may be tied to past trauma).[4]
Generalized anxiety	Irritability, hypervigilance, or increased startle reflex.[5]
Obsessive-compulsive disorder	Recurrent intrusive thoughts (not related to trauma in obsessive-compulsive disorder).[4]
Panic attacks	Heart palpitations or increased heart rate, sense of detachment, nausea or abdominal distress.[4]
Psychosis	Illusions, hallucinations, or other perceptual disturbances (may be confused with flashbacks in PTSD).[4]
Substance abuse disorder	Hallucinations, illusions, diminished interest in or avoidance of significant activities, or social estrangement.[4]

Patients with PTSD are more likely to have substantial psychiatric comorbidity than are those without the disorder

Box 3

WATCH FOR SIGNS OF PTSD IN CHILDREN

Children also have been experiencing stress disorders since Sept. 11, says Arshad Husain, MD, professor and chief of child and adolescent psychiatry and director of the International Center for Psychosocial Trauma at the University of Missouri-Columbia. Such disorders manifest as sleep disturbances, anxiety, hyperarousal/hyperactivity, and nightmares.

Young children regress and cling to their parents, and are frightened of the dark or noises, Dr, Husain notes. Those who are toilet-trained can suddenly wet the bed, become neurotic, and demand attention. School-age children are more fearful; they may not want to go to school, their schoolwork may decline, and they may have trouble paying attention. Dr. Husain suggests discussing the trauma and devising a plan of action with them in case the trauma recurs.

The media's role in reporting on the aftermath of the attacks—and triggering traumatic reactions as an unintended consequence—cannot be overlooked. Two recent studies performed after the Oklahoma City bombing suggest that television reports of that atrocity precipitated PTSD symptoms in middle-school children 7 weeks after the bombing,[23] and in geographically distant sixth-graders 2 years after the attack.[12] It was not clear whether any of these students had prior PTSD or other psychopathology.

Psychiatric education in the schools is especially crucial in light of the school violence that has occurred in America in recent years. Dr. Husain believes that the children who commit violence are victims of abuse. If teachers early on can identify children who show evidence of stress disorders, they can refer them to trained psychiatrists, catching those who need help before tragedies occur. "It is the psychiatric equivalent of CPR," Dr. Husain says.

Dr. Brady recommends that psychiatrists and primary care physicians routinely screen patients for exposure to traumatic events. Ask patients specifically about their reaction to such events and encourage them to talk about it. Patients often feel either guilty or embarrassed about the traumatic event, or do not believe it affects their presenting complaints, she notes. Other approaches may be needed to identify the risk of PTSD in children (*Box 3*).

Identifying a traumatic event of an extreme nature, for example, a life-threatening experience, is key to diagnosing PTSD in the presence of comorbidities, Dr. Corvalan says. "Some of the symptoms—such as avoidance, numbing, and increased arousal—are present in other disorders and may have occurred *before* exposure to the traumatic event." If they did, he says, PTSD is ruled out.

Gauging the extent of the patient's exposure to the traumatic event is critical to determining the likelihood of PTSD onset. Dr. Allen, of Oklahoma City, points to studies that show that the closer and longer the patient has been exposed to a catastrophic event, the more likely he or she will develop PTSD.[9, 10]

Julia Frank, MD, associate professor and director of student education and psychiatry at George Washington University in Washington, DC, suggests screening for symptoms that are unique to PTSD as stated in the DSM-IV, such as nightmares, difficulty remembering the traumatic event, and extreme reactions to reminders of the trauma. She also proposes analyzing the past event and the patient's reaction to it to confirm that it is a source of trauma.

Patients with PTSD symptoms are easily startled by loud or piercing noises. Dr. Shalev says this characteristic sets true PTSD cases apart from other psychopathology, particularly depression. In one study, Israeli combat veterans with PTSD exhibited a more pronounced heart rate and skin conductance when exposed to auditory stimuli than did combat veterans with no PTSD symptoms.[11]

Drs. Allen and Frank note that patients who have anthrax-related fears and no prior PTSD symptoms are not likely to develop PTSD. They may, however, manifest symptoms of chronic fatigue, fibromyalgia, and generalized anxiety disorder. Patients may be jumpy, intense, or lethargic, with autonomic instability and rapid heart rate. They may feel alienated and mistrustful of the government. A nonspecific stress disorder and mixed anxiety depression are other possible effects.

> What sets PTSD apart from other psychopathology? The patient is easily startled by loud or piercing noises

Who to treat—and how

Psychiatrists nationwide have reported increased patient

PTSD lessons from Israel, Colombia

While many clinicians in the United States recently received their first taste of post-terror psychiatry, those in more violent parts of the world are well-versed in helping their patients manage fear.

Israel has repeatedly been at war throughout its 53-year history. During "peacetime," terrorism and senseless violence have been a way of life.

"Sadly, Israel's citizens and its medical and paramedical communities have accrued extensive experience in dealing with the ongoing threat of war and terrorist attacks and their sequelae," says Zeev Kaplan, MD, director of the Beer-Sheva Mental Health Center and professor of psychiatry at the Ben Gurion University School of Medicine in Beer-Sheva.

Similarly, Colombia is a country long plagued by terrorist and gang violence. PTSD has been on the rise the past 5 years, according to Javier Leon-Silva, MD, chief of psychiatry at the Fundación Santafe de Bogotá. "There is not a single day without a terrorist attack in the news," Dr. Leon-Silva notes. In addition, two major natural disasters in the last 20 years—the Armero flood and the earthquake in the coffee region—have resulted in tens of thousands of casualties.

Exposure to terror in Israel is widespread—be it direct, as a victim or witness, or secondary, as a victim's close friend or relative. Recurrent PTSD, brought on by direct and indirect exposure, is common, Dr. Kaplan says. Holocaust survivors, almost as numerous within Israel's population as combat veterans, have been especially prone to recurrent PTSD.

Children are particularly susceptible to PTSD. In Israel, someone's parent, sibling or classmate often is among the casualties of a terrorist attack, Dr. Kaplan notes. In Colombia, "children grow up influenced by stories about family members or friends who have been victims of the consequences of war and terror, and by strict family security measures concerning behavior," Dr. Leon-Silva adds.

Because of the Middle East's volatile history, most of Israel's psychiatric professionals have hands-on experience in treating traumatized patients in both military and civilian settings. Joseph Zohar, MD, chairman of Israel's Consortium on PTSD, says that most psychiatrists have served at some point in the Israeli Defense Forces.

Further, as both Israel's medical community and the public have learned more about PTSD and post-terror anxiety, physicians can now identify affected people more rapidly, and can refer them for treatment, Dr. Kaplan says. Civilians and veterans have access to five regional trauma and post trauma centers. Educators are trained to detect behavioral changes in the young, and Israel's children are followed into adulthood to assess the long-term effects of terrorist events.

Colombia's psychiatrists are also well-qualified to treat terror-inspired psychiatric illness, Dr. Leon-Silva says. However, most people in the impoverished nation cannot afford needed medicines, and psychiatrists are hard-pressed to reach many disaster or terror victims.

Dr. Zohar urges psychiatrists here to attend seminars and workshops on PTSD and acute stress reaction. He says such seminars in Israel have taught clinicians the long-term effects of exposure to terror and its effect on families, as well as how to help patients manage acute stress reactions.

Dr. Kaplan feels his U.S. counterparts should incorporate a multidisciplinary approach that addresses biomedical, psychotherapeutic, familial, and social/occupational rehabilitation. He encourages national and local civic leaders to educate the public about terror-related stress.

Dr. Leon-Silva advises U.S. psychiatrists not to be ashamed to reveal their fears after a terrorist atrocity. "Sometimes expressing how the event impacts you will help the patient be more communicative and will more extensively show the patient's symptoms."

presentations after the Sept. 11 attacks and throughout the anthrax scare. Studies conducted after the Oklahoma City bombing also suggest that psychiatrists could be seeing more patients in the coming months.[12, 13] As caseloads increase, so do the questions about who to treat, how, and how to avoid the possibility of overtreatment.


Juan Corvalan, MD

"In order to provide effective care to our patients it is necessary to have clear ideas on how to follow criteria for diagnosis and as a consequence for treatment," Dr. Corvalan says. "The field at times is confusing; patients do not always follow the diagnostic criteria. The needs of the moment, limitations of recourses, intensity and variety of symptoms, urgency of the situation, etc., all conspire to make the job more difficult."

Patients with anthrax-related anxiety should be encouraged to "try to function as normally as possible and keep an open communication with peers and those who they look to for information," Dr. Frank notes. Dr. Allen adds that his patients with anthrax-inspired stress have responded well to breathing, meditation and other relaxation techniques.

Treatment of patients who are severely traumatized and exhibit true PTSD symptoms will vary based on severity of exposure, history of prior PTSD, and existence of comorbidities. A combination of pharmacological and psychosocial therapy is the common first-line treatment.

The selective serotonin reuptake inhibitor (SSRI) sertraline is specifically indicated for treating confirmed PTSD symptoms, and several studies have documented the agent's effectiveness for this use.[14,15] Dr. Frank recommends dosages between 50 and 200 mg/d depending on the patient's body weight or complaint of side effects (e.g., diarrhea, nausea, or sexual dysfunction). Other SSRIs, as well as tricyclics and MAO inhibitors, are alternatives. Fluoxetine, amitriptyline, phenelzine, and imipramine have all been found more effective than a placebo;[16-18] paroxetine also has been shown effective in specific populations.[19]

Benzodiazapenes also may be prescribed to manage PTSD symptoms. Patients should be counseled against taking these sedating agents in the daytime, however, as they can lead to fogginess, detachment, and trouble functioning.

Assessing the patient's available social support also is crucial to PTSD treatment. "Do patients talk to other people about the event?" Dr. Frank asks. "Are they trying to get back to a daily routine? Can they make sense of this experience? Are they incorporating the event into a world view?"

Dr. Thompson, the Pittsburgh disaster psychiatrist, agrees. Psychiatrists should encourage their patients to talk more about their trauma and how fear is affecting their lives. "We don't discuss with our trauma patients as much as we might what the experience has been like for them," he says.

Small-group therapy is the most conducive approach to

Box 4

THE FOUR STAGES OF COPING WITH DISASTER

Kenneth S. Thompson, MD, a Pittsburgh-based disaster psychiatrist who helped coordinate Oklahoma City's emergency psychiatry effort after the 1995 bombing, identified four stages that the public works through after a major disaster:

1. **Mobilization**. Rebuilding—or just surviving—is foremost on people's minds immediately after a traumatic event. Many people either throw themselves headfirst into the recovery and cleanup effort, or assist grieving families that have been hardest hit by the disaster. Others fear for their safety and leave town. Feelings of grief and loss are set aside to focus on the needs of the moment.
2. **Self-importance**. As the media reports on their efforts to put their city—and their lives—back together, people at this stage tend to feel they are part of something. Those who have lost family members and coworkers seem to be coping well at this point, and feel as though they can draw ample moral support from friends and neighbors.
3. **Abandonment**. Once the dust settles and the media coverage dies down, people who lost loved ones are left to confront their grief alone. Those who witnessed the tragedy, or who know someone who was killed or injured in the incident, must confront their demons one on one. It is at this point that PTSD and other psychiatric disorders can set in. Those who did not lose a friend or relative feel a more general sense of loss. Worse still, there may be "a disaster after the disaster," in which a political official or emergency services officer is charged with some type of wrongdoing or abuse of power. People then feel used and betrayed.
4. **Acceptance**. People begin to seek psychiatric or other help in dealing with the trauma, and begin to come to terms with their loss.

Social support is crucial. Encourage patients with PTSD to talk about their trauma and how fear is affecting them

psychotherapy for PTSD, according to Dr. Frank, although individual counseling can work in many cases. Several studies have found group therapy effective,[20,21] and 12-step group therapy has shown promise in PTSD patients with comorbid substance abuse disorder.[22]

Managing fear

Just as people grieve and confront death in stages, Dr. Thompson, who helped coordinate Oklahoma City's disaster psychiatry effort, has discovered that the public usually employs a similar subconscious process to cope with a traumatic event (*Box 4*).

But Americans have had no time to recover. As U.S. troops seek justice in Afghanistan, back home people grapple with the threat of anthrax contamination and the prospect of another terrorist attack. The ominously enhanced presence of security at airports, major bridges, sporting and entertainment events, and in other aspects of everyday life, has further fueled the sensation that all is not right.

"The September 11 tragedy brings trauma home," adds Arshad Husain, MD, professor and chief of child and adolescent psychiatry and director of the International Center for Psychosocial Trauma at the University of Missouri-Columbia. "The anthrax scare and the Nov. 12 plane crash of American Airlines Flight 587 only further remind people of their vulnerability and fears. If the anthrax scare were an accident, people would have been relieved. Since the plane crash was ruled an accident, it has offered people a chance to feel more in control. Accidents can be fixed with better maintenance. Terrorism cannot."

Dr. Katz of New York City and other disaster psychiatrists are urging their colleagues to help manage public fear by reaching out through community efforts.

Dr. Katz is president of the volunteer group Disaster Psychiatry Outreach, which helped coordinate the city's post-Sept. 11 trauma psychiatry effort. Visitors waiting at New York's Family Assistance Center, a referral and help center for people who lost family and friends in the World Trade Center attack, were approached by Dr. Katz and other colleagues to let them know that psychiatric services were available if needed. By doing this, he says, Disaster Psychiatry Outreach clinicians have identified, treated, and referred scores of patients with terror-related stress who otherwise would have gone untreated.

Joseph Dorzab, MD, of the Holt-Krock Clinic in Fort Smith, Ark., also has offered his services. Members of his clinic's psychiatry department have made several TV appearances, and have given and coordinated area lectures. Working with the local mental health association, the department also is starting a community forum called Mental Health Mondays, an open discussion group with coffee and cookies at a local coffee shop.

Related resources

- National Center for PTSD Web site
  "Disaster Mental Health: Dealing with the Aftereffects of Terrorism" features articles about the effects of post-terrorism trauma on people, plus brief information for the public. The site also offers access to more than 18,000 abstracts of worldwide literature on traumatic stress.
  http://www.ncptsd.org
- National Institute of Mental Health:
  Response to Terrorist Attacks against America.
  Web page offers information on PTSD and other disorders, plus a fact sheet on helping children and adolescents cope with violence and disasters. http://gopher.nimh.nih.gov/outline/responseterrorism.cfm
- Linenthal EJ. *The Unfinished Bombing: Oklahoma City in American Memory*. Oxford University Press, 2001.
- Norwood AE, Ursano RJ, Fullerton CS. Disaster psychiatry: principles of practice. *Psychiatr Q*. 2000; 71(3):207-226.
- American Psychiatric Association Web site:
  Coping with a National Tragedy
  Information about the grieving process, helping children cope after terrorism and tragedy, other issues related to disaster psychiatry.
  http://www.psych.org/disaster/copingnationaltragedy-main92501.cfm
- The Psychiatric Training Manual for Teachers and Mental Health Professionals
  Available through the International Center for Psychosocial Trauma at the University of Missouri-Columbia. The manual was devised through a program where psychiatric professionals train teachers in war-torn Bosnia to detect terror-related stress in children. Contact Arshad Husain, MD, at (573) 884-6136 or HusainS@health.Missouri.edu.

DRUG BRAND NAMES

Amitriptyline • Elavil
Bupropion • Wellbutrin
Fluoxetine • Prozac
Imipramine • Tofranil
Paroxetine • Paxil
Phenelzine • Nardil
Sertraline • Zoloft

In Pittsburgh, Dr. Thompson is encouraging psychiatrists to educate their communities about how traumatic events affect the public. He proposes:

- Staging community meetings to brief religious and other leaders on how to manage traumatized people;
- Informing local news editors about the nature of psychiatric disorders;
- Instructing school administrators about detecting signs of distress in children;
- Contacting local government officials to offer input in devising the town's emergency response plan.

Psychiatrists also can educate themselves about managing public trauma, thanks to scores of studies that have been done in recent years following major man-made and natural disasters, from Mount St. Helens and Hurricane Andrew, to Chernobyl and the Yom Kippur War. Dr. Thompson urges psychiatrists to seek out the papers of prominent leaders in trauma-related psychiatry, mentioning studies by Carol North, MD, Betty Pfefferbaum, MD, and Robert Ursano, MD, as examples. Other sources include the Web sites of the American Psychiatric Association and National Center for PTSD. (See Related Resources, page 38.)

In the end, psychiatrists have been well primed for dealing with public disaster—just by treating individual patients whose psychiatric disorders emanated from everyday life, Dr. Thompson says. "Psychiatrists know more about trauma than they recognize."

Bottom Line

Following the Sept. 11 terrorist attacks and the anthrax scare, psychiatrists are seeing more cases of acute stress disorder than they usually do, and they may encounter an increased prevalence of PTSD. Recognizing symptoms unique to PTSD can help differentiate the condition from psychiatric comorbidities. Psychiatrists also can help educate the public about terror-inspired mental disorders.

References

1. Breslau N, Chilcoat HD, Kessler RC, Davis GC. Previous exposure to trauma and PTSD effects of subsequent trauma: results from the Detroit Area Survey of Trauma. *Am J Psychiatry*. 1999;156(6):902-7.
2. Shalev AY. What is posttraumtic stress disorder? J Clin Psychiatry. 2001;62(Suppl 17):4-10.
3. Kessler RC, Sonnega A, et al. Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52(12):1048-60
4. *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. Washington, DC: American Psychiatric Association, 2000.
5. Brady KT. Posttraumatic stress disorder and comorbidity: recognizing the many faces of PTSD. *J Clin Psychiatry.* 1997;58 Suppl 9:12-5.
6. Shalev AY, Freedman S, Peri T, et al. Prospective study of posttraumatic stress disorder and depression following trauma. *Am J Psychiatry*. 1998;155:630-7.
7. Brady KT, Killeen TK, Brewerton T, Lucerini S. Comorbidity of psychiatric disorders and posttraumatic stress disorder. *J Clin Psychiatry* 2000;61 Suppl 7:22-32.
8. Mueser KT, Goodman LB, et al. Trauma and posttraumatic stress disorder in severe mental illness. *J Consult Clin Psychol*. 1998;66(3):493-9.
9. Cloitre M, Cohen LR, Edelman RE, Han H. Posttraumatic stress disorder and extent of trauma exposure as correlates of medical problems and perceived health among women with childhood abuse. *Women Health*. 2001;34(3):1-17.
10. Hodgins GA, Creamer M, Bell R. Risk factors for posttrauma reactions in police officers: a longitudinal study. *J Nerv Ment Dis*. 2001;189(8):541-7.
11. Orr SP, Solomon Z, Peri T, et al. Physiologic responses to loud tones in Israeli veterans of the 1973 Yom Kippur War. *Biol Psychiatry*. 1997;41:319-26.
12. Pfefferbaum B, Seale TW, et al. Posttraumatic stress two years after the Oklahoma City Bombing in youths geographically distant from the explosion. *Psychiatry* 2000; 63(4):358-370.
13. Smith DW, Christiansen EH, Vincent R, Hann N. Population effects of the bombing of Oklahoma City. *J Oklahoma State Med Association*. 1999; 92(4):193-198.
14. Londborg PD, Hegel MT, et al. Sertraline treatment of posttraumatic stress disorder: results of 24 weeks of open-label continuation treatment. *J Clin Psychiatry*. 2001;62(5):325-31.
15. Davidson JR. Pharmacotherapy of generalized anxiety disorder. *J Clin Psychiatry*. 2001;62 Suppl 11:46-50; discussion 51-2.
16. Connor KM, Sutherland SM, et al. Fluoxetine in post-traumatic stress disorder. Randomised, double-blind study. *Br J Psychiatry*. 1999;175:17-22.
17. Davidson J, Kudler H, et al. Treatment of posttraumatic stress disorder with amitriptyline and placebo. *Arch Gen Psychiatry*. 1990;47(3):259-66.
18. Kosten TR, Frank JB, et al. Pharmacotherapy for posttraumatic stress disorder using phenelzine or imipramine. *J Nerv Ment Dis.* 1991;179(6):366-70.
19. Smajkic A, Weine S, et al. Sertraline, paroxetine, and venlafaxine in refugee posttraumatic stress disorder with depression symptoms. *J Trauma Stress*. 2001;14(3):445-52.
20. Wolfsdorf BA, Zlotnick C. Affect management in group therapy for women with posttraumatic stress disorder and histories of childhood sexual abuse. *J Clin Psychol* 2001 Feb;57(2):169-81.
21. Jones L, Brazel D, et al. Group therapy program for African-American veterans with posttraumatic stress disorder. *Psychiatr Serv*. 2000;51(9):1177-9
22. Ouimette P, Humphreys K, et al. Self-help group participation among substance use disorder patients with posttraumatic stress disorder. *J Subst Abuse Treat*. 2001;20(1):25-32.
23. Pfefferbaum B, Nixon SJ, Tivis RD, et al. Television exposure in children after a terrorist incident. *Psychiatry*. 2001;64(3):202-11.