Effective Management Strategies for Posttraumatic Stress Disorder

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Although the diagnostic features of posttraumatic stress disorder (PTSD) are well defined, the condition is not always easy to recognize; in studies in primary care settings, recognition rates as low as 2% have been reported. Somatization and comorbid disorders are more likely to serve as presenting features, including substance abuse, depression, and suicide attempts. Education, support, and stress reduction techniques are all important elements in the management of PTSD. Exposure and cognitive restructuring have proven efficacy and are associated with low relapse rates. Although eye movement desensitization and reprocessing is widely used, it is inferior to conventional types of prolonged exposure or cognitive therapy. Treatment with antidepressants produces a broad array of benefits and is associated with relapse prevention when medication is maintained for at least 1 year; ending medication early is associated with a fivefold increase in the risk of relapse. Full remission can occur with use of an SSRI and exposure-based treatments. Less is known about the efficacy of other drug groups, such as anticonvulsants and antipsychotics, but they are widely considered to be important second-line treatments. Benzodiazepines are of limited use and may even be detrimental when given alone. Current controversies include the question of treating acute PTSD, or acute stress disorder, as well as whether onset of symptoms can be prevented through treatment immediately after trauma.

PRESIDENTATION AND RECOGNITION OF PTSD

The diagnosis of posttraumatic stress disorder (PTSD) has clear-cut criteria, of which the intrusive/reexperiencing symptoms are unique to the disorder; many of the remaining symptoms may also be found in other conditions. Four symptom clusters are associated with PTSD. The first comprises the intrusive symptoms, namely, recurrent, intrusive, distressing recollections (thoughts, images, and memories), nightmares, dissociative reliving episodes, and intensification of symptoms on exposure to reminders of the trauma. At least one of these symptoms must be present for 4 weeks.

The second cluster comprises the avoidant symptoms. These symptoms, essentially phobic in

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nature, represent the individual’s attempt to distance him- or herself from the pain associated with the event. At least one phobic avoidant symptom must be present for 4 weeks. The symptom of psychogenic amnesia, although not technically a phobic symptom, may be regarded as the expression of an avoidance mechanism.

The third cluster comprises numbing symptoms, which overlap with depressive disorder. They include emotional deadness, distancing or detachment from people, anhedonia, and a sense of a foreshortened future. At least one numbing cluster symptom must be present, and together there must be a total of at least three symptoms from the avoidance and numbing group. Although DSM-III-R and DSM-IV have grouped the avoidance and numbing symptoms into a single cluster, evidence generally favors viewing them as separate. A point of detail that is not always clear in the DSM is that avoidance and numbing symptoms must be present, yet some hold that any three symptoms in criterion C suffice for the diagnosis.

The fourth symptom cluster is hyperarousal, which may include insomnia, irritability or anger, poor concentration or memory, hypervigilance, and increased startle reactions. At least two of these symptoms are necessary for 4 weeks. The nature of the hyperarousal symptoms call to mind the symptoms often seen in patients with generalized anxiety.

PTSD is often comorbid with obsessive-compulsive disorder, phobic disorder, panic disorder, generalized anxiety disorder, and depression. Other comorbid disorders found in association with PTSD include bipolar disorder, somatization disorder, substance abuse or dependence, and eating disorders. PTSD is also associated with a high rate of attempted suicide.

The diagnosis of PTSD is based on an assessment of at least 17 criterion symptoms. A shorter, four-item screening scale correctly detects the presence or absence of PTSD in about 80% of subjects. The scale, called the SPAN, derives its name from the four items it assesses: startle reaction, physiological arousal at exposure to trauma cues, anger, and numbing (1). Each item is rated from 0 to 4, with higher ratings indicating greater severity; thus the scale ranges from 0 to 16. A total score of 5 or more raises the suspicion that PTSD is present, whereas a score below 5 suggests that PTSD may well be ruled out. However, as with all screening instruments, a more detailed clinical examination should follow.

Although the features of PTSD are clear, its recognition rate is very low, in academic and community mental health settings as well as in primary care (2). For example, in a large cohort of Israeli patients in a primary care setting, only 2% of actual PTSD cases were recognized by the treating physician, even though the clinicians were able to recognize psychological distress in one-half of the sample (3). The actual prevalence of PTSD in this group of patients was 9%. The situation in psychiatric settings also leaves a lot to be desired, with reported recognition rates of 4% and 14% for samples in a community mental health setting and an academic medical center, respectively. Given that over 70% of individuals with PTSD symptoms in the general population have used medical services within the previous 6 months (4), opportunities for recognizing PTSD are apparently being missed.

It may be helpful to consider some of the masks through which PTSD expresses itself in the clinical setting. An unusually high rate of somatization disorder suggests that patients with PTSD may be marked somatizers (5). Women attending a gastrointestinal disorders clinic were found to have a high rate of early sexual and physical abuse, and irritable bowel complaints may betray an underlying PTSD syndrome. Somatizing survivors of abuse make three to eight times more health care visits annually than do women without such a history. Some people with PTSD are heavy smokers or have low cutaneous pain thresholds. Other somatic complaints include insomnia, headache, chest pain, and fatigue. Visits to the emergency department after an accident or domestic violence or for acute panic or dissociation may well be occasions to explore whether PTSD is present. Other occasions include treatment of patients with suicidality or with a drug or alcohol problem. Clinical suspicion of PTSD should be substantiated by sensitively asking the individual about a history of trauma.

Treatment

Treatment of PTSD involves one or more of three approaches: educational and supportive intervention, psychosocial treatment, and pharmacotherapy. Education includes explaining the expected effects of severe trauma in terms of their emotional, cognitive, interpersonal, and physical manifestations. Providing support is essential, including recognizing and acknowledging patients’ survival, paying tribute to their strengths, and encouraging them to build and maintain a network of social supports and outside interests. Stress response techniques are also widely believed to be useful, including relaxation techniques, breathing exercises, mindfulness, exercise, and attention to diet. Moderation in consumption of alcohol, caffeine, and other psychoactive drugs is desirable.
Stress inoculation therapy, which uses some of these techniques, has proved effective in the treatment of PTSD (6).

**PSYCHOSOCIAL TREATMENTS**

Data strongly support the efficacy of psychosocial treatments that use principles of prolonged exposure or cognitive restructuring. Prolonged exposure is associated with remission rates approaching 60% after nine sessions, whereas cognitive restructuring and exposure together may produce lower remission rates and somewhat lower rates of overall improvement (6). Although eye movement desensitization and reprocessing can be effective, the technique appears to be less beneficial than prolonged exposure with stress inoculation training (6). A notable aspect of psychosocial treatments is the reported low relapse rates during a follow-up period after treatment (6).

For successful processing of traumatic events, three processes must be accomplished: the subject must engage emotionally with the memory of the trauma, the trauma story must be organized and articulated in a sequenced and coherent fashion, and the dysfunctional thoughts that commonly occur after trauma must be addressed and corrected (6). Two common misconceptions held by trauma survivors with PTSD are that the world is extremely dangerous and that they themselves are extremely incompetent. In reconstructing the experience of trauma, the patient is encouraged to talk in the present tense. Sessions are recorded and the patient replays the audiotape between sessions as part of homework assignments. Psychosocial treatment is therefore a highly participatory activity, and generally patients can expect to experience more distress before they feel better. It is important that patients understand this ahead of time, so that noncompliance with treatment is minimized and so that any necessary supports and medications can be made available and used during this period.

Psychosocial treatments are not always acceptable to patients, and in some communities skilled practitioners are not readily available. One particular concern is that in subjects whose trauma was related to participation in atrocities, issues of guilt may supervene and therefore need to be addressed cognitively before embarking on prolonged exposure for those aspects of PTSD that are related more to fear. Thus, the question of sequencing treatments should be considered in patients with PTSD, including not just the sequencing of different psychotherapy techniques but also of medications. These issues have barely been explored, but preliminary findings from one trial of sequenced sertraline and prolonged exposure (unpublished study of J. R. T. Davidson, E. B. Foa, and B. O. Rothbaum, 2002) suggests that such an approach can provide greater benefit than medication alone. What has not yet been studied is the reverse, namely, whether the addition of medication to prolonged exposure improves outcome.

One serious deficiency in the field at present is the absence of any head-to-head comparison of medication therapy and psychotherapy for PTSD. A study comparing these approaches would help answer a question that often comes up in the practicing clinician’s mind, namely, whether to uncover or seal over as a management approach. Some patients prefer not to explore their memories but simply want relief from symptoms and hence to be able to generate their own momentum to cope with life. Others prefer, or may find it necessary, to engage in direct confrontation through exposure and retelling of the story in order to “put to rest” the terrible things that happened.

**PHARMACOTHERAPY**

Early studies with selected combat veteran populations presented a picture of modest gains at best with amitriptyline, imipramine, and phenelzine. Later studies with the same population using newer antidepressants were disappointing as well. However, these outcomes are probably more a reflection of the use of study subjects with more treatment-resistant forms of the disorder than of the difficulties in treating chronic PTSD or of treatment resistance itself in combat-related PTSD. Indeed, more recent studies allow us to paint a more sanguine picture of the effects of pharmacotherapy in PTSD.

Recent studies with fluoxetine and paroxetine have shown that these medications are both superior to placebo among combat veterans outside of the Veterans Affairs medical system. Many studies with civilians and some studies with combat veterans have provided clear evidence that selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants, and monoamine oxidase inhibitors are useful in treating chronic PTSD. In fact, rates of clinical remission for patients given fluoxetine and paroxetine are around 40% after 3 months, compared with 4% to 18% for those given placebo (7).

Longer-term treatment, that is, beyond 3 months, is associated with an excellent response in terms of PTSD symptoms, depression, and quality of life (8). The notable benefits that accrue from pharmacotherapy are most likely to be seen after 3 months and after 9 months. Patients who have not shown a great improvement after 3 months still
have a 50% chance of becoming good responders. Only in the case of complete nonresponse after 4 to 6 weeks of therapy would one want to switch to a different drug. Fluoxetine, sertraline, paroxetine, mirtazapine, nefazodone, imipramine, amitriptyline, and phenelzine have all been shown to have efficacy in placebo-controlled studies. Open-label trials have suggested efficacy for fluvoxamine, venlafaxine, and citalopram. There is little evidence to support the use of bupropion or desipramine.

SSRIs have a broad effect on all symptom clusters as well as on all the individual symptoms of PTSD. SSRIs appear to start to work rapidly in patients with chronic PTSD, with improvements in irritability and anger evident as early as during the first week. In this domain, SSRI therapy has a marked, early, and sustained effect (9). In addition, comorbid axis I disorders may respond to SSRIs, along with quality of life and functioning. An interesting recent finding is that resilience can also be strengthened as a result of therapy with an SSRI (7).

Second-line and adjunctive treatments for PTSD include mood stabilizers—lamotrigine, tiagabine, and divalproex sodium all have demonstrated efficacy in open-label trials—and atypical antipsychotics, such as risperidone and olanzapine, and perhaps quetiapine.

Although benzodiazepines may be intuitively appealing for the treatment of PTSD, their use is associated with a number of problems, including withdrawal difficulties and poor overall efficacy (10,11).

Because PTSD is often chronic, on average lasting 20 years, pharmacotherapy should be recommended for a least a year. The one relapse prevention study published thus far suggests that the likelihood of relapse for individuals who remain on sertraline for 9 to 15 months is about one-fifth that of individuals who are given placebo (12).

**Controversies**

Areas of active and important debate on treatment of PTSD include the management of acute posttraumatic reactions and the prevention itself of PTSD after experience of traumatic events. For managing acute stress disorder, the literature supports the use of brief treatments that employ principles of cognitive restructuring and exposure to details of the event. This may include the prolonged exposure/cognitive restructuring described by others (13), or newer treatments such as a memory structuring intervention (14). Both of these treatments are administered in the course of two to four sessions in the immediate posttrauma period, and they appear to lower the risk of subsequent PTSD.

The literature contains little on the use of pharmacotherapy to treat acute stress disorder. In children, imipramine has been found to produce a remarkable rate of improvement after 1 week, as compared with chloral hydrate, which was ineffective (15). Benzodiazepines for bereaved individuals did not show any greater benefit than placebo.

For prevention of PTSD, one recent study compared propranolol and placebo in women who were seen in the emergency department within 6 hours of an automobile accident (16). Study subjects received either propranolol at a dosage of 160 mg or placebo for less than 2 weeks and returned to the clinic after 3 months for an assessment. Although the overall rate of PTSD did not differ between the two groups, those who had been treated with propranolol showed no physiological hyperarousal at follow-up, whereas among the placebo group the rate was 43%. These results suggest that short-term use of propranolol immediately after trauma has some longer-term therapeutic effects.

A widely promoted intervention for preventing PTSD is psychological debriefing or critical incident stress debriefing. This technique, originally developed for use with rescue personnel, has been widely adopted but with insufficient critical examination. Recent assessments have demonstrated a lack of benefit for single-session debriefing as a means of preventing PTSD. Of greater concern, however, is the possibility that such interventions actually worsen the prognosis (17).

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**References**