TREATMENT OF PTSD: AN ASSESSMENT OF THE EVIDENCE

At the request of the Department of Veterans Affairs, the Institute of Medicine’s Committee on Treatment of Posttraumatic Stress Disorder (PTSD) undertook a systematic review of the PTSD literature. After nearly 2,800 abstracts were identified, the application of inclusion criteria narrowed the list down to 90 randomized clinical trials, 37 pharmacotherapy studies, and 53 psychotherapy studies.

The principal finding of the committee is that the scientific evidence on treatment modalities for PTSD does not reach the level of certainty that would be desired for such a common and serious condition among veterans. Most studies included in the committee’s review were characterized by methodologic limitations, some serious enough to affect confidence in the studies’ results. The committee reached a strong consensus that additional high quality research is essential for every treatment modality.

PHARMACOTHERAPIES

The committee concludes that the evidence is inadequate to determine efficacy in the treatment of PTSD of:
- alpha-adrenergic blocker prazosin,
- anticonvulsants,
- novel antipsychotics olanzapine and risperidone,
- benzodiazepines,
- MAOIs phenelzine and brofaromine,
- SSRIs,
- other antidepressants, and
- other drugs (naltrexone, cycloserine, or inositol).

One committee member does not concur with the committee’s consensus on two conclusions—on SSRIs and novel antipsychotic medications—and offers alternate conclusions (i.e., that the evidence is suggestive of efficacy) (see Appendix H in the report).

PSYCHOTHERAPIES

The committee finds that the evidence is sufficient to conclude the efficacy of exposure therapies in the treatment of PTSD.

The committee concludes that the evidence is inadequate to determine the efficacy of the following psychotherapy modalities in the treatment of PTSD:
- EMDR,
- cognitive restructuring,
- coping skills training, and
- group format psychotherapy.
The committee’s findings, conclusions, and recommendations about the evidence for the treatment modalities reviewed in this report are not clinical practice guidelines. The committee does not intend to imply that, for example, exposure therapy is the only treatment that should be used in treating individuals with PTSD. The committee recognizes that the transparent presentation and assessment of evidence is just one part of the larger picture of PTSD treatment that includes many other factors. The next step in the process toward clinical decision making is making recommendations for clinical practice—a step the committee was not asked to, and did not, take.

RECOMMENDATIONS FOR PTSD TREATMENT RESEARCH

The report includes eight recommendations, some developed in response to specific questions in the charge from VA, and others pertaining to treatment and research issues identified by the committee.

The committee became aware of the formidable challenges that researchers face in conducting high-quality studies of efficacy and comparative effectiveness. Nonetheless, the committee was able to identify studies that met the highest internationally accepted standards for randomized controlled trials (in assembling populations, administering treatment, measuring outcomes, and following up enrolled subjects), showing that such studies are possible even for such a difficult clinical condition as PTSD. Setting a high standard for research on PTSD and delivering on it will require close collaboration between VA and other government agencies, researchers, clinicians, and patient groups. The committee’s recommendations are its suggestions for setting a framework for the future that can more successfully address the critical needs of veterans who return to civilian life with the diagnosis of PTSD.

Treatment of PTSD has not received the level of research activity needed to support conclusions about the potential benefits of treatment modalities.

Recommendation 1. The committee recommends that VA and other funders of PTSD research take steps to identify and require investigators to use methods that will improve the internal validity of the research, with particular attention to standardization of treatment and outcome measures, follow-up of individuals dropping out of clinical trials, and handling of missing data.

The majority of drug studies were funded by pharmaceutical manufacturers and many of the psychotherapy studies were conducted by individuals who developed the techniques or their close collaborators. It is important to know whether these treatments would show the same effect if implemented in other settings, requiring the confirmation and replication of these research results by other investigators.

Recommendation 2. The committee recommends that VA and other funders of PTSD treatment research seek ways to give opportunities to a broad and diverse group of investigators to ensure that studies are conducted by individuals and in settings without potential financial or intellectual conflicts of interest.

Available research leaves significant gaps in assessing the efficacy of interventions in important subpopulations of veterans with PTSD, especially those with traumatic brain injury, major depression, other anxiety disorders, or substance abuse, as well as ethnic and cultural minorities, women, and older individuals.

Recommendation 3. The committee recommends that VA assist clinicians and researchers in identifying the most important subpopulations of veterans with
PTSD and designing specific research studies of interventions tailored to these subpopulations.

The research on treatment of PTSD in U.S. veterans is inadequate to answer questions about interventions, settings, and lengths of treatment that are applicable in this specific population.

Recommendation 4. The committee recommends that Congress require and ensure that resources are available for VA and other relevant federal agencies to fund quality research on the treatment of PTSD in veteran populations and that all stakeholders are included in research plans.

Studies of PTSD interventions have not systematically and comprehensively addressed the needs of veterans with respect to efficacy of treatment and the comparative effectiveness of treatments in clinical use.

Recommendation 5. The committee recommends that VA take an active leadership role in identifying research priorities for addressing the most important gaps in evidence in clinical efficacy and comparative effectiveness. Potential areas for future research include:

- Comparisons of psychotherapy (e.g., CBT) and medication,
- Evaluation of the comparative effectiveness of individual and group formats for psychotherapy modalities, and
- Evaluations of the efficacy of combined psychotherapy and medication, compared with either alone, and compared with control conditions. Combined treatment could be tested within study designs like those that have been applied in large studies for other psychiatric conditions.

There is no generally accepted and used definition for recovery in PTSD; selecting appropriate outcome measures would be helpful in research on recovery.

Recommendation 6. The committee recommends that clinicians and researchers work toward common outcome measures in three general domains that relate to recovery: loss of PTSD (Diagnostic and Statistical Manual of Mental Disorders) diagnosis, PTSD symptom improvement, and end state functioning. The committee further recommends the following three principles be considered in the selection of outcome measures:

- Validity in research,
- Convergence on a core of common outcomes for the purpose of comparability, and
- Usefulness to clinicians to assess patients over time as symptoms and function change.

The committee recommends that VA assume a leadership and convening role and work with other relevant federal agencies in developing these common approaches.

The committee was unable to reach a conclusion on the value of intervention early in the course of PTSD based on the treatment literature it reviewed.

Recommendation 7. The committee recommends that VA and other government agencies promote and support specific research on early intervention (i.e., reducing chronicity) in PTSD. The committee further recommends that future research specify both time since trauma exposure and duration of PTSD diagnosis, and that interventions be tested for efficacy at specific clinically meaningful intervals, as interventions might be expected to vary in effectiveness related to time since exposure and duration of diagnosis.
The committee was unable to draw conclusions regarding optimal length of treatment with psychopharmacology or psychotherapy.

Recommendation 8. The committee recommends that VA and other funders call for research on the optimal duration of various treatments. Trials of comparative effectiveness of different treatment lengths for those treatments found efficacious should follow. Finally, studies with adequate long-term (i.e., greater than one year) follow-up should be conducted on treatments of any length found to be efficacious.