Stress Inoculation Training for Posttraumatic Stress Disorder

Psychological Health Center of Excellence Psych Health Evidence Briefs

What is stress inoculation training?

A. Stress inoculation training (SIT) is a non-trauma-focused anxiety management program that involves teaching coping skills to manage stress and anxiety (Meichenbaum, 1974). SIT consists of three phases. The first phase, conceptualization, includes education about stress, development of a collaborative relationship between the provider and the patient, and assessment and conceptualization of the stressors the patient is facing. The second phase, skill acquisition and rehearsal, includes teaching the patient coping skills that are tailored to the needs of the patient. These can include relaxation training, cognitive restructuring, problem-solving training, and positive self-statements. The final phase, application and follow-through, includes practicing coping skills and applying them to real life stressful situations through guided imagery, as well as relapse prevention (Meichenbaum & Deffenbacher, 1988). In the treatment of posttraumatic stress disorder (PTSD), the patient learns coping strategies to manage trauma-related anxiety.

O What is the theoretical model underlying SIT?

A. Non-trauma-focused cognitive behavioral therapy (CBT) for PTSD typically focuses on teaching techniques to reduce anxiety (Bisson et al., 2013) with SIT focusing specifically on teaching coping skills to manage anxiety. SIT is based on the precept that trauma-exposed individuals who go on to develop PTSD, as opposed to those who do not, differ in the autobiographical memories that they generate, and the coping strategies that accompany those memories. The cognitive model of PTSD suggests that the sense of current threat in individuals with PTSD is due to excessively negative appraisals of the trauma and a disturbance of memory of the trauma (Ehlers & Clark, 2000). Meichenbaum contends that SIT helps patients to "reauthor" their personal account of the trauma and focus on using coping skills to achieve their treatment goals (Meichenbaum, 2019).

Is SIT recommended as a treatment for PTSD in the Military Health System (MHS)?

Yes. The 2017 VA/DoD Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder gives a "Weak For" strength of recommendation to SIT for the treatment of PTSD. The clinical practice guideline (CPG) suggests using individual, manualized non-trauma-focused psychotherapy, including SIT, when individual trauma-focused psychotherapies are not readily available or patients do not elect to engage in such treatment.

The MHS relies on the Department of Veterans Affairs (VA)/Department of Defense (DoD) CPGs to inform best clinical practices. The CPGs are developed under the purview of clinical experts and are derived through a transparent and systematic approach that includes, but is not limited to, systematic reviews of the literature on a given topic and development of recommendations using a graded system that takes into account the overall quality of the evidence and the magnitude of the net benefit of the recommendation. A further description of this process and CPGs on specific topics can be found on the VA clinical practice guidelines website.

Do other authoritative reviews recommend SIT as a treatment for PTSD?

No. Other reviews have not substantiated the use of SIT for PTSD.

Several other recognized organizations conduct systematic reviews and evidence syntheses on psychological health topics using similar grading systems as the VA/DoD CPGs. These include the Agency for Healthcare Research and Quality (AHRQ) and Cochrane.

- AHRQ: A 2018 systematic review update of psychological and pharmacological treatments for adults with PTSD found that there is insufficient evidence to determine the efficacy of SIT (Forman-Hoffman et al., 2018).
- Cochrane: A 2013 systematic review of psychological treatments for PTSD included SIT in the category of non-trauma-focused CBT. Non-trauma-focused CBT was found to be more effective than controls, but SIT was not examined on its own (Bisson et al., 2013).

Is there any recent research on SIT as a treatment for PTSD?

A literature search conducted in March 2019 identified no randomized controlled trials on the efficacy of SIT for the treatment of PTSD published in the time period since the search conducted for the 2017 VA/DoD CPG for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder.

What conclusions can be drawn about the use of SIT for PTSD in the MHS?

A. The 2017 VA/DoD CPG for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder suggests SIT as a treatment for PTSD with a "Weak For" strength of recommendation. No additional research has been done since the publication of the CPG that would affect this recommendation. Clinicians should consider several factors when choosing an evidence-based treatment for any given patient. Treatment decisions should incorporate clinical judgment and expertise, patient characteristics and treatment history, and patient preferences that might influence treatment engagement and retention.

References

Bisson, J., Roberts, N. P., Andrew, M., Cooper, R., & Lewis, C. (2013). Psychological therapies for chronic post-traumatic stress disorder (PTSD) in adults. *Cochrane Database of Systematic Reviews*, *12*.

Department of Veterans Affairs/Department of Defense. (2017). VA/DoD clinical practice guideline for the management of posttraumatic stress disorder and acute stress disorder. Version 3.0. Washington, DC: Department of Veterans Affairs/Department of Defense.

Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. Behaviour Research and Therapy, 38, 319–345.

Forman-Hoffman, V., Cook Middleton, J., Feltner, C., Gaynes, B. N., Palmieri Weber, R., Bann, C., ... Green, J. (2018). *Psychological and pharmacological treatments for adults with posttraumatic stress disorder: A systematic review update* (AHRQ Publication No. 18-EHC011-EF). Rockville, MD: Agency for Healthcare Research and Quality.

Meichenbaum, D. (1974). Cognitive-behavior modification. Morristown, NJ: General Learning Press.

Meichenbaum, D. (2019). Stress inoculation training: A resilience-engendering intervention. In B. A. Moore & W. E. Penk (Eds.), *Treating PTSD in military personnel: A clinical handbook* (pp. 136–150). New York, NY: Guilford Press.

Meichenbaum, D. H., & Deffenbacher, J. L. (1988). Stress inoculation training. The Counseling Psychologist, 16(1), 69-90.

