

Post traumatic stress disorder (2019)

Overview

Key points

Post-traumatic stress disorder (PTSD) develops in response to traumatic events and can result in re-experiencing, avoidance, anger, sleep disturbance and substance misuse (NICE 2018)

The evidence for the benefits of acupuncture in the management of the symptoms of PTSD is growing. Currently the evidence suggests acupuncture:

- Improves PTSD and depressive symptoms (Grant 2018; Kim 2013; Feng 2019)
- Can improve sleep quality (Huang 2018; King 2015)
- Helps with pain and physical functioning (Engel 2014; Moiraghi 2019)
- Reduces the symptoms of PTSD to the same extent as cognitive behavioural therapy (Metcalf 2016).

Background

Post-traumatic stress disorder (PTSD) develops in response to traumatic events, such as warfare, abuse, traffic accidents, natural disasters or difficult childbirth. (NICE 2018; Asher 2017) It can lead to re-experiencing and intrusive thoughts, anger, pain, avoidance of reminders, emotional numbing and substance misuse. (NICE 2018; Moiraghi 2019)

Current first-line therapies for PTSD include cognitive-behavioural therapy, eye movement desensitisation reprocessing, and medication. (RCP 2018) There are issues with compliance with these treatment, however, as some cannot tolerate the emotional reactions to psychotherapy or the side-effects of medications. (Moiraghi 2019) The Royal College of Psychiatrists recognises that body-focused interventions, such as acupuncture 'may also help to control distress and hyperarousal, and the feeling of being 'on guard' all the time'. (RCP 2018)

Systematic reviews

The most recent systematic review looked at seven randomised controlled trials (n=709) of acupuncture for adults with PTSD, and identified a large effect in favour of acupuncture compared with any comparator at post-intervention ($P=0.05$) and a medium effect in favour of acupuncture at longer follow-up ($P=0.04$). Any adverse events reported were mild and transient. The quality of evidence was considered low, however, and further well-designed studies are required. (Grant 2018)

Another systematic review of interventions for the treatment of PTSD included studies with acupuncture. Moderate quality evidence from small- to moderate-sized randomised controlled trials showed that acupuncture was superior to a control and comparable with cognitive-behavioural therapy. (Metcalf 2016)

The earliest systematic review, published in 2013, found that the evidence for acupuncture's effectiveness is encouraging. This review included four randomised controlled trials, three of which studied people in China who had PTSD following an earthquake. (Kim 2013)

A review of current non-pharmacologic treatment options for PTSD concluded that, based on the recent evidence, "Clinicians should strongly consider acupuncture for those suffering from PTSD, particularly in conjunction with more traditional treatments such as psychotherapy and pharmacotherapy". (Wynn 2015)

Randomised trials

In a randomized controlled trial, patients with PTSD from non-military causes (n=240) received either sham transcutaneous electrical acupoint stimulation (TEAS) combined with sertraline (group A) or with CBT (group B), real TEAS combined with CBT (group C), or with CBT plus sertraline (group D) for 12 weeks. At the end of this period, it was shown that real TEAS improved both PTSD and depressive measures compared with the sham TEAS group. Groups C and D also showed significantly higher rates of clinical response ($P<0.001$) and remission ($P<0.001$). (Feng 2019)

The effects of acupuncture were also studied in American military veterans with mild traumatic brain injury, refractory sleep disturbance, and in the majority PTSD. A total of 60 patients were randomized to receive 10 sessions of real or sham acupuncture. Real acupuncture significantly improved sleep measures in patients with and without PTSD compared with sham acupuncture. (Huang 2018)

In another study, patients with military-related PTSD (n=55) received usual PTSD care, comprising psychotherapy and medication, or usual care in combination with acupuncture. Eight sessions of acupuncture were provided over 4 weeks, and at the end of the 12-week study period the addition of acupuncture was shown to significantly improve PTSD severity compared with usual care alone ($P<0.001$). Acupuncture was also associated with significantly greater improvements in depression, pain, and physical and mental health functioning. (Engel 2014)

Smaller studies

- Acupuncture was provided by the Lombard Association of Medical Acupuncturists/Acupuncture in the World in an earthquake-stricken area of Italy. Patients with psychological symptoms and musculoskeletal pain received acupuncture, and significant improvements in both types of symptoms were recorded. (Moiraghi 2019)
- In a feasibility study of auricular acupuncture in active duty American veterans with PTSD (n=17), those receiving acupuncture reported significant improvements in sleep quality and daytime disturbance compared with those in the control group. (King

2015b). A quantitative analysis of the data from this study revealed that auricular acupuncture also improved pain scores and the ability to relax. (King 2015a)

- Three cases of war veterans with PTSD symptoms who received a series of acupuncture treatments for tinnitus was published. All cases reported positive outcomes. (Ahrin 2016)

Animal studies

In rats expressing depression- and anxiety-like behaviours, acupuncture at one point significantly improved symptoms. These effects were equivalent to those observed with fluoxetine and were related to changes in protein synthesis in the hippocampus area of the brain. (Oh 2018)

In another study in rats, PTSD-like symptoms were reduced with electroacupuncture treatment and were associated with repair of synaptic plasticity in the amygdala and hippocampus. (Li 2019)

References

Arhin AQ, et al. A J Holist Nurs 2016; 34: 56-63.

Asher GN, et al. Med Clin North Am 2017; 101: 847-64.

Engel CC, et al. Med Care 2014; 52 (12 Suppl 5): S57-64.

Feng B, et al. Psychiatry Clin Neurosci 2019; 73: 179-86.

Grant S, et al. J Trauma Dissociation 2018; 19: 39-58.

Huang W, et al. J Clin Psychiatry 2018; 80 (1).

Kim YD, et al. Evid Based Complement Alternat Med 2013; 2013: 615857.

King HC, et al. Mil Med 2015; 180: 582-90.

King CH, et al. J Holist Nurs 2015; 34: 291-9.

Li M, et al. Technol Health Care 2019; 27: 425-43.

Metcalf O, et al. J Trauma Stress 2016; 29: 88-92.

Moiraghi C, et al. Med Acupunct 2019; 31: 116-22.

NICE. Post-traumatic stress disorder: Draft guideline, June 2018.

Oh J-Y, et al. Sci Rep 2018; 8: 11864.

Royal College of Psychiatrists. What are the treatments for PTSD? Helping yourself, 2018.

Wynn GH. Curr Psychiatry Rep 2015; 17: 600.