

The Effect of Acupuncture on PTSD and Sleep Disturbance Symptoms in U.S. Veterans

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BACKGROUND

- U.S. veterans of the Persian Gulf War, Operations Enduring Freedom and Iraqi Freedom exhibit rates of PTSD up to 15%, and a lifetime incidence of up to 29%.
- Up to 5% of Vietnam, Korean, and WWII veterans continue to have symptoms
- Civilians 6% incidence



DSM-5 Symptom criteria for diagnosis:

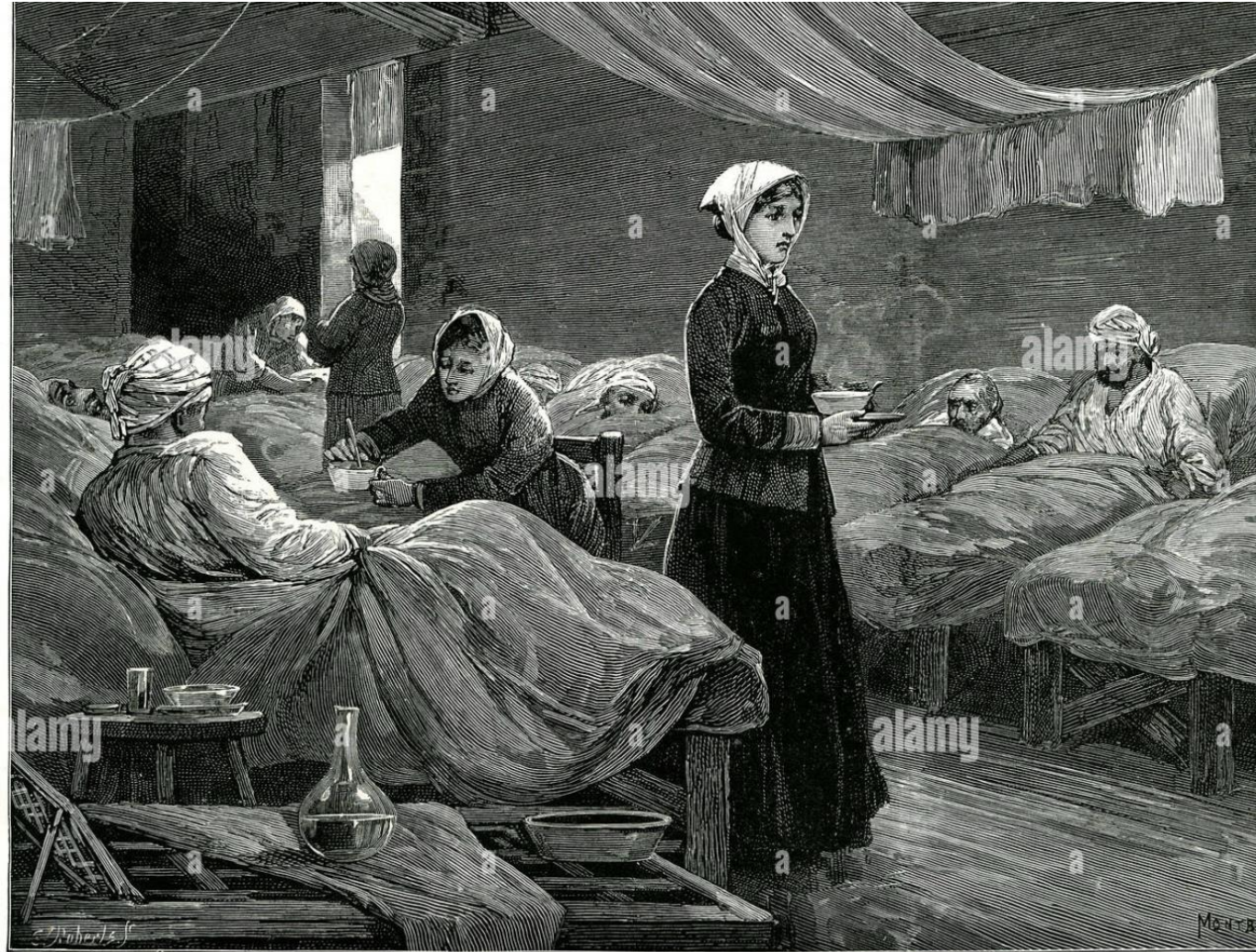


- 1) direct exposure to a traumatic event or information about a traumatic event to someone close.
- 2) reliving the traumatic event.
- 3) avoidance of the traumatic event reminders.
- 4) negative thoughts and feelings, vague recall of a traumatic event, feelings of isolation, or detachment from others.
- 5) onset or increased trauma arousal such as sleep difficulties, anger, risk taking

NURSES AND THE MILITARY

The researchers of this study on acupuncture in U.S. Veterans with symptoms of PTSD did not list the Veterans' occupation in the military.

Nurses have historically served in combat roles, caring for the wounded, as documented since The Crimean War.



Forward Surgical Teams and Nurses

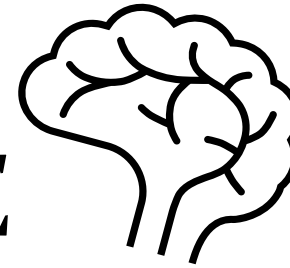
Forward Surgical teams are highly mobile, 20-person medical units designed to operate far forward in combat zones, often close to the point of injury, to provide lifesaving care.

Forward Surgical teams are comprised of Certified Registered Nurse Anesthetists, Intensive Care Nurses, Operating Room Nurses, Emergency Room Nurses, and Licensed Practical Nurses.



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SIGNIFICANCE



Nearly 50% of healthcare providers in the military have reported sleep disturbances.

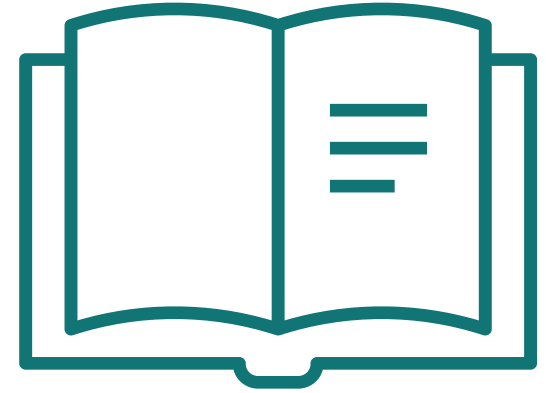


Sleep disturbances have been associated with PTSD; acupuncture is a promising portable, integrative, complementary care modality for those who desire to participate in their care.



Effects of
Integrative Care
on PTSD
Symptoms in
U.S. Veterans
and Service
Members

ACUPUNCTURE RESEARCH



Systematic reviews:

Narrative synthesis with 3 qualitative and 7 quantitative

Meta-analysis review of the literature, 6 studies: 5 of the 6 on symptoms of PTSD and 6 total associated symptoms of sleep disturbance

Traditional Chinese Acupuncture

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Traditional Chinese acupuncture is a form of integrative care that individuals use in pursuit of optimal physical and mental health. The development of current PTSD-acupuncture treatment has been a joint effort between modern psychiatry and traditional Chinese medicine practitioners.

Auricular acupuncture, which also has its origins in traditional Chinese medicine, stimulates the parasympathetic nervous system, through the vagus nerve, located in the concha and external auditory canal.

Mixed comprised auricular and Traditional Chinese acupuncture set point specific sites.

I WILL USE THE SETTLER MODEL FOR META-ANALYSES IN THIS RESEARCH



Phase I, Preparation: Purpose, Context, & Sources of Research Evidence



Phase II, Validation: Credibility of Findings & Potential for/Detailed Qualifiers of Application



Phase III, Comparative Evaluation/ Decision Making: Synthesis & Decisions/Recommendations per Criteria of Applicability

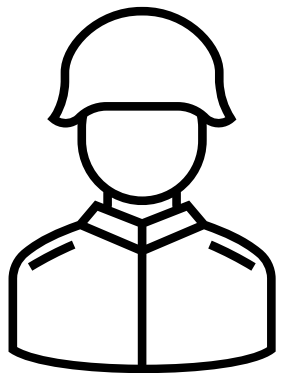


Phase IV, Translation/Application: Operational Definition of Use/Actions for Change



Phase V, Evaluation: Alternative Types of Evaluation

U.S. veterans and Service members. The demographics of the research participants did not specify their military occupation specialty.



DATA ANALYSIS



NARRATIVE SYNTHESIS

Quantitative findings showed large effect sizes ($d=1.40$ to 1.60) for full-body acupuncture. Auricular acupuncture resulted in medium to large effects on PTSD symptoms ($d=.584$ to 1.84).



THEMES INCLUDED

first full night of sleep, fewer nightmares, increased calmness, improved moods, stress, and anger; increased energy, improved relationship with wife/teenage son, loss of irrational fears.

Meta-analysis of PTSD Symptoms

We conducted moderator analyses by comparing the effect sizes across the different types of acupuncture. We found the effects of auricular acupuncture on PTSD symptoms (0.26), traditional Chinese acupuncture (0.52), and mixed acupuncture (0.23) to be similar ($Q=1.215$, $df=2$, $p=0.545$). Traditional Chinese acupuncture showed a large, significant effect while the other two showed small, nonsignificant effects.

Moderator	<i>k</i>	Hedge's <i>g</i>	SE	Variance	95%CI	Z	<i>p</i> (Z)	<i>Q</i> _{het}	<i>p</i> (<i>Q</i> _{het})
Acupuncture Type								1.215	.545
– Auricular	2	.261	.343	.117	-.411, .932	.761	.447		
– Traditional Chinese	3	.517	.159	.025	.205, .829	3.247	.001		
– Mixed	1	.230	.238	.056	-.236, .695	.966	.334		



DATA ANALYSIS

Meta-analysis Sleep Disorders



Relationships

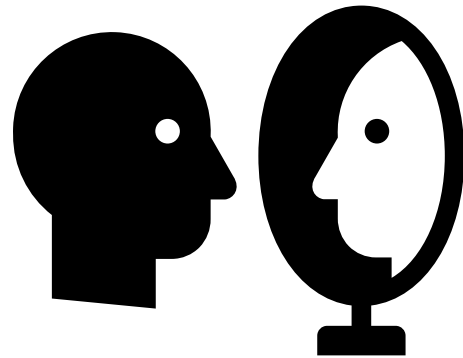
Narrative synthesis: The Effect of Acupuncture on PTSD Symptoms in U.S. Veterans and Service Members



Findings mixed: Overall, four of the seven quantitative research teams showed decreases in PTSD symptoms with auricular acupuncture or traditional Chinese medicine (Abanes et al., 2022; Cronin & Conboy, 2013; Engel et al., 2014; Hollifield et al., 2024). Qualitative themes supported results

RELATIONSHIPS

Meta-analysis: The Effect of Acupuncture on Symptoms of PTSD
in U.S. Veterans and Service Members



TCA demonstrated a medium significant effect (.52), and AA and mixed acupuncture showed small effects (.26 and .23, respectively).



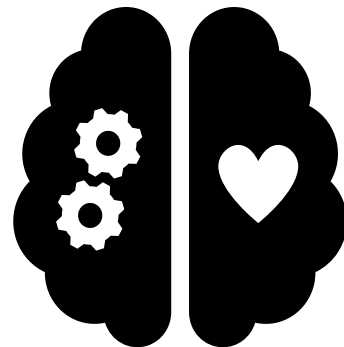
Relationships Still Calculating



Meta-analysis: Acupuncture Effects on Sleep Disorders in U.S. Veterans

CONCLUSION

Our results support that the integration of acupuncture with usual PTSD and Sleep Disturbance care is an important component that might just provide that edge for improved symptoms. Thus, advanced practice nurses might provide a resource for practitioners of traditional Chinese medicine or might, at a minimum, be trained to administer AA.



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