Findings of VA/DoD CPG on CAM Therapies for PTSD

2011 Military Health System Conference

The Quadruple Aim: Working Together, Achieving Success

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Defense Centers of Excellence
for Psychological Health and Traumatic Brain Injury
**Report Documentation Page**

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*Standard Form 298 (Rev. 8-98)*
Prescribed by ANSI Std Z39-18
Objective: Review of CAM as Evidenced-Based Treatment for PTSD

- Background
- CPG recommended treatments of PTSD
- Findings of PTSD VA/DoD CPG Working Group on CAM
- Discussion / Q&A
Significant Findings

- **PTSD Prevalence**
  - Clinically diagnosed cases in OEF/OIF = 2.4%
  - Self-reported surveys of PTSD symptoms
    - Range from 1.4% (not exposed to combat) to 15% (populations exposed to sustained ground combat)
  - US general population = 7% to 8%, lifetime prevalence
    - Peak prevalence ages 45-59 (9.2%)
  - Higher rates of PTSD are seen in treatment seeking samples after discharge (e.g., veterans going to MH)
    - Injured during deployment (e.g., mTBI, wounded)
    - “High risk occupations” (e.g., EOD units), greater degree of combat

- **Post-deployment problems wider-reaching than formal diagnoses**
  - Suicide, adjustment problems, relationship & family problems, divorce, risky behaviors, etc.
2008 CDC report: Increased CAM usage in the US general population

- Almost 4 out of 10 adults had used CAM therapy in the past 12 months
- Between 2002 and 2007 increased use was seen among adults for acupuncture, deep breathing exercises, massage therapy, meditation, naturopathy, and yoga
Complementary and Alternative Medicine

  - Need for “comprehensive, understandable summary of current clinical evidence in CAM for health care practitioners…”
  - Need for “accurate and easily accessible information on CAM practices and products”
  - Federally funded health care delivery programs, such as the VA, and DoD should evaluate the applicability of CAM wellness and prevention activities to their services.
VA/DoD CPG for the Management of Posttraumatic Stress

- CPG is an update of the 2004 version
- Systematically developed statements to assist practitioner and patient in choosing appropriate health care for specific clinical conditions
  - Actionable recommendations
  - Attempt to incorporate all issues relevant to a clinical question
  - Value judgments—weighting different outcomes, burdens, and costs
  - Guidance where evidence is lacking
  - In VA & DoD, driven by clinical algorithms

- [www.healthquality.va.gov](http://www.healthquality.va.gov)
- [www.qmo.amedd.army.mil](http://www.qmo.amedd.army.mil)
Guidelines are developed by multidisciplinary groups

They are based on a systematic review of the scientific evidence

Recommendations are explicitly linked to the supporting evidence and graded according to the strength of that evidence
One of the key questions

- What interventions are effective in treatment of PTSD?
  - Resolution of symptoms and functional outcomes
- Are any Complementary and Alternative Medicine (CAM) approaches more effective than no intervention?
  - Body-mind
  - Meditation (e.g., zen)
  - Herbal, food supplements
  - Energy (e.g., Reiki)
  - Tai Chi
  - Acupuncture
Strength of Recommendation

A Strongly Recommend to offer or provide…
   – There is good evidence that the intervention improves important health outcomes – benefits substantially outweigh harm.

B Recommend to offer or provide…
   – There is fair evidence that the intervention improves health outcomes – that benefits outweigh harm.

C Consider offering or providing…
   – There is poor evidence that the intervention can improve health outcomes – balance of benefit and harm is too close to justify a general recommendation.

I Insufficient Evidence is to recommend for or against providing…
   – Evidence that the intervention is effective is lacking or of poor quality, or conflicting – balance of benefit and harm cannot be determined.
Psychotherapy for PTSD

- Revised CPG: “Strongly recommend... evidence-based trauma-focused psychotherapeutic interventions that include components of exposure and/or cognitive restructuring; or stress inoculation training [A]”

- Best evidence exists for:
  - Prolonged Exposure (possibly also brief exposure)
  - Cognitive Processing Therapy
  - Stress Inoculation Training
  - EMDR
Strongly recommend selective serotonin reuptake inhibitors (SSRIs), for which fluoxetine, paroxetine or sertraline have the strongest support, or serotonin norepinephrine reuptake inhibitors (SNRIs), for which venlafaxine has the strongest support, for the treatment of PTSD. [A]

Best evidence exists for:

– SSRIs (Fluoxetine, Paroxetine, or Sertraline) and SNRIs (Venlafaxine)
Complementary and Alternative Medicine

- Modalities reviewed in the PTSD CPG include:
  - Body-Mind Approaches (e.g., Yoga, & Tai Chi)
    - RCTs show benefits in other areas (e.g. sleep, stress, anxiety, etc.), BUT no RCTs or comparison trials in PTSD
  - Meditation Training (e.g., zen)
    - Improves sleep, anxiety, and pain, BUT no RCTs in PTSD
  - Exercise (mostly aerobic exercise)
    - Rarely conducted in isolation from other interventions
  - Energy Medicine (e.g., Qi Gung, Reiki, Johrei)
    - Improvement in comorbid conditions, BUT not RCTs in PTSD
  - Acupuncture
VA/DoD PTSD CPG Recommendations on CAM:

- There is insufficient evidence to recommend as first line treatments for PTSD [I]
- CAM approaches that facilitate a relaxation response (e.g. mindfulness, yoga, massage) may be considered for adjunctive treatment of hyperarousal symptoms, although there is no evidence that these are more effective than standard stress inoculation techniques [I]
- May be considered as adjunctive approaches to address some co-morbid conditions (e.g. acupuncture for pain) [C]
VA/DoD PTSD CPG Findings on CAM:
- May facilitate engagement in care
- May be considered for some patients who refuse evidence-based treatments
- Providers should discuss the evidence for effectiveness and risk-benefits of different options, and ensure that the patient is appropriately informed
Acupuncture for PTSD and Related Conditions

- **PTSD:**
  - Hollifield et al. (2007).
  - Engel et al. (manuscript in prep).

- **Anxiety, Depression, & Insomnia:**
  - Zhang et al. (2010).
  - Blitzer et al. (2004).
  - Spence et al. (2004).
  - Eich et al. (2000).

- **Pain:**
  - Weidenhammer et al. (2007).
  - Manheimer et al. (2005).
  - Birch et al. (2004).
Acupuncture for PTSD: A Randomized Trial in a Military Population
Engel CC, Harper Cordova E, Benedek D, Jonas W, Ursano R.

- Two group, parallel arm, RCT in Active Duty service members at WRAMC
  - Group 1: Acupuncture treatment (ACU)
  - Group 2: Usual Care (UC)
- Two 90-min sessions per week for four weeks
- Acupuncturists blinded to study condition
- Follow-up for both groups at baseline, 4-wks, 8-wks, & 12-wks post-randomization
- Primary Outcome Measure: Posttraumatic Stress Disorder Checklist (PCL)
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Acupuncture: Conclusions

Compared to usual PTSD care, a four week course of twice weekly TCM acupuncture resulted in significantly greater improvements in…

- PTSD symptoms
  pre-post ES 1.4-1.6 versus usual care ES 0.12-0.74
- Depression and pain symptoms
- Mental but not physical health functioning

VA/DoD PTSD CPG Recommendations:
  - Acupuncture may be considered as treatment for patients with PTSD. [B]
Overall Conclusions and Take-Home Message

- Promoting evidence-based treatment ultimately enhances and optimizes treatment outcomes, including knowledge of state of the evidence for CAM modalities for PTSD
- Tools for providers and patients are needed—accurate and unbiased information on CAM is needed
- Use the current gaps in knowledge as a map for future research/improvements
Thank you!
Back-up slides
PTSD Diagnosis

- Exposure to a severely traumatic event involving actual or threatened death, serious injury, or threat to physical integrity of self or others
- Accompanied by fear, helplessness, or horror
- Must have:
  - Reexperiencing symptoms
  - Avoidance symptoms
  - Hyperarousal symptoms
PTSD Diagnosis

- Symptoms must persist for at least one month and cause significant distress or impairment
### Guideline Development Process: Evidence Tables and Evidence Rating

Developed by *SUD Working Group* using USPSTF 2001 ratings process

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<th>Overall Quality</th>
<th>Final recommendation grade</th>
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<td>High QE → good health outcome</td>
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<tr>
<td>Fair</td>
<td>High QE → intermediate outcome or Moderate QE → good health outcome</td>
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<tr>
<td>Poor</td>
<td>Low QE or No linkage to health outcome</td>
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#### Quality of Evidence

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<td>Control Trial</td>
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<td>Case-Control Study</td>
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<td>Moderate</td>
<td>Uncontrolled Experiment</td>
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<td>Low</td>
<td>Opinion, Case Reports</td>
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#### Overall Quality

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<td>Moderate</td>
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<td>Small</td>
<td>Negligible impact</td>
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2011 MHS Conference
# Guideline Development Process: Strength of Recommendation

Developed by **SUD Working Group** using USPSTF 2001 ratings process

## Key

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### The net benefit of the intervention

**Key**

- **A** *Strong Recommendation* that clinicians provide intervention
- **B** *Recommendation* that clinicians provide intervention
- **C** *No Recommendation* for or against intervention
- **D** *Recommendation Against* providing intervention
- **I** *Insufficient Evidence* for recommendation
## PTSD Treatment Psychotherapy
### Balance of Benefit and Harm

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<tr>
<th>SR</th>
<th>Significant Benefit</th>
<th>Some Benefit</th>
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<td>A</td>
<td>Trauma-focused psychotherapy that includes components of exposure and/or cognitive restructuring; or stress inoculation training</td>
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<tr>
<td>B</td>
<td>• Imagery Rehearsal Therapy</td>
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| C  | • Patient Education  
• Psychodynamic Therapy  
• Hypnosis  
• Relaxation Techniques  
• Group Therapy |            |         |            |
| I  | • Family Therapy |            |         | • Web-based CBT  
• Dialectical Behavioral |
# PTSD Treatment: Pharmacotherapy

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<td>Atypical AP (as adjunct) TCAs MAOIs (phenelzine) Mirtazapine Nefazodone [Caution] Prazosin (sleep/nightmares)</td>
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<td>C</td>
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<td>Prazosin (for CORE PTSD)</td>
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<td>Benztropine [Harm] Guanfacine Valproate Tiagabine Topiramate</td>
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Resilience

Building a Culture of Resilience

Early Intervention

Optimal:
- peak
- performance
- positive
- outlook
- sense of
- purpose
- embraces
- challenge

Reacting:
- irritable
- feeling
- overwhelmed
- difficulty sleeping
- inability to relax
- problems
- concentrating

Injured:
- feelings of guilt
- decreased
- energy
- anxiety
- loss of interest
- social isolation

Ill:
- depression and
- anxiety
- anger and
- aggression
- danger to self or
- others

Mission Ready
Stress Response
Persistent Distress
Mission Ineffective

Leaders, Warriors & Families
Medical

Education & Training
Risk Mitigation
Combat Stress Intervention
Treatment & Reintegration

Recovery
Reintegration
Resilience