


Office of Public Health &
Environmental Hazards



Evidence-based Integrative Medicine

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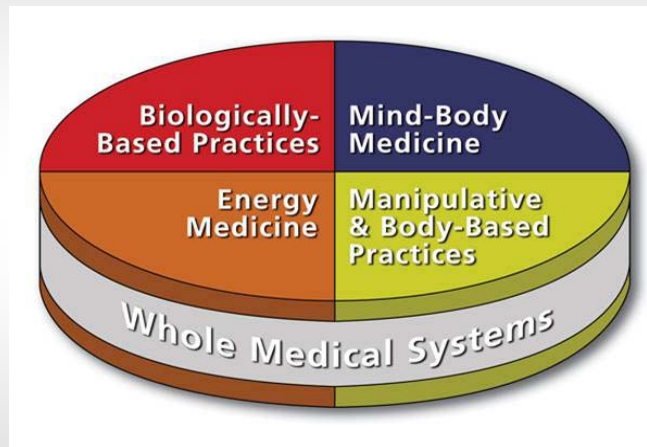
Presented by the **VA NJ War Related Illness and Injury Study Center (WRIISC)**

National Institute of Health:

- Complementary & Alternative Medicine (CAM)
 - A group of medical and health care systems, practices and products not presently considered to be part of conventional medicine.
- Complementary medicine
 - Used in conjunction with conventional medicine.
- Alternative medicine
 - Used in place of conventional medicine.
- Integrative medicine
 - Combination of mainstream conventional medicine and CAM therapies for which there is some high quality scientific evidence.

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5 Categories of CAM (NCCAM)



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Whole Medical Systems

- Traditional Chinese medicine (TCM)
- Ayurvedic medicine
- Homeopathy
- Naturopathy

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Traditional Chinese Medicine

- Acupuncture
 - WHO Lists acupuncture as safe and effective for 28 conditions
 - Highlights
 - Headache, Hypertension, Depression, Pain
 - Results seen but more research required
 - Craniocerebral injury
 - Diabetes mellitus, non-insulin-dependent
 - Ménière's disease

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Traditional Chinese Medicine

- Acupuncture
 - Currently funded Veteran Clinical trials
 - East Orange WRIISC (PIs: Rusiewicz/Findley)
 - Veterans with TBI and PTSD
 - 24 individual sessions acupuncture
 - Outcome = Well-being (SF-36)
 - DC WRIISC (PI: Prisco)
 - Veterans with PTSD
 - Group delivery – Auricular acupuncture
 - Outcome = Sleep (Insomnia Severity Index; actigraphy)

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Traditional Chinese Medicine

- Acupuncture – Energy Medicine
- Herbal Medicine - Biologically Based
- Qigong – Mind-Body Medicine
- Tui Na – Manipulative & Body-Based Practices
- Eastern Dietary therapy - Biologically Based

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Alternative vs. Integrative

- | | |
|--|-------------------------------------|
| ▪ “Alternative” in lieu “conventional” | ▪ Embrace evidence-based treatments |
| ▪ Outside of normal | ▪ Synergy |
| ▪ Add-on Treatment | ▪ 1+1=3 |

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VA Standard for Evidence-Based

- CAM modalities permitted within VA must be safe and effective.
 - Evidence = USPTF equivalent rating of B or better
 - At least fair evidence practices improves important health outcomes and benefits outweigh harms. There is a sufficient, strong and consistent evidence of positive effect.
 - Practices without clear evidence of effectiveness may be considered if:
 - There is some evidence of effectiveness
 - They are known to be safe
 - Treatment options are limited
 - Provider believes it may offer benefit to veteran

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Quality of Evidence

- Who is doing the intervention?
 - Practitioner training
- Study Designs
 - Randomized controlled clinical trials- few
 - Uncontrolled trials- the majority
 - Appropriate controls?
- Sample Size
- Rigor

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Quality of Evidence cont.

- Who is the patient population?
 - Civilians
 - Majority of research on CAM modalities is conducted in civilians
 - Active Duty Military
 - Mounting research on acupuncture, supplements and others
 - Veterans
 - Yoga for back pain, acupuncture for PTSD

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Quality of Evidence cont.

- What are the outcomes?
 - Quality of life
 - Increasing comfort
 - Emphasis on overall **wellness**
 - Symptoms
 - Minimizing burden, impact
 - Emphasis on **treatment**
 - Compliance

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Compliance

- A critical issue in conventional medicine
 - Chronic conditions requiring complex treatment regimens
- Thus, CAM modalities with highest promise for success will involve simple practices that require fewer hospital visits
- Self-care practices vs. practitioner dependent

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Challenge for Research

- High rates of CAM use in veterans and civilians alike
- Plus, high rates of lack of reporting of CAM use to conventional practitioners
- Therefore, CAM research will be best served recognizing that actual use is already integrative

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CAM Intervention Improves Compliance to Diabetes Lifestyle

- 20 children with diabetes
- Randomly assigned to either:
 - Treatment Group: Massage therapy
 - Control Group: Relaxation therapy
- Outcomes:
 - Well-being: Parent and Child Mood
 - Biomarkers: Blood glucose
 - Behaviors: Insulin and food intake

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Findings: Massage for Diabetes

- **Compliance** to diabetes lifestyle improved
 - Better compliance with insulin
 - Better compliance with food intake
- Blood glucose decreased to normal range
- Reduced parent anxiety & depressed mood
- Reduced child anxiety, fidgetiness, & depressed mood

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Chronic Multisymptom Illness

- Nearly 40% of veterans that served in the Persian Gulf War suffer from an array of mood and cognitive symptoms, persistent fatigue and musculoskeletal pain.

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CMI: Standard Care

- Of tested treatments, aerobic exercise has been shown to reduce CMI symptom severity.
- Unfortunately, long-term compliance is very poor:
 - 76% of Gulf veterans completing a structured exercise program fail to meet exercise recommendations long-term.

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Promise of Eastern Forms of Exercise

- Beginners Mind
- Movements naturally gentle
- Opposite to the basic training mindset
 - “no pain, no gain”
- Yet, similar physical benefits as conventional forms of aerobic exercise

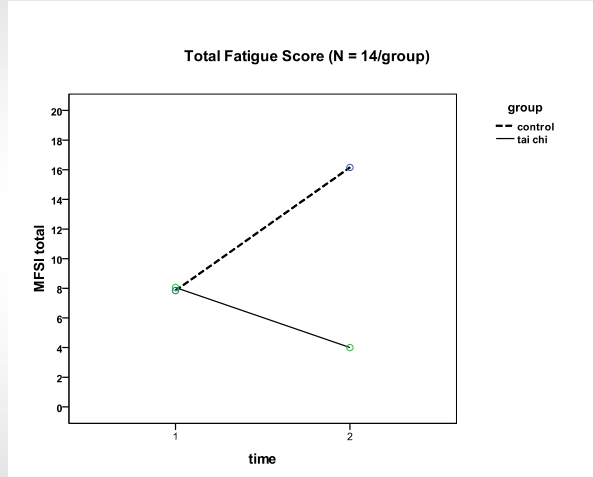
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Tai Chi for Heart Failure: Veterans Study

- 40 HF patient completers (37-81 years; mean age=68.8, SD=4.2)
 - tai chi (n = 15), standard exercise sub-group (n = 10), usual care (n = 15)
- Tai Chi classes for 12 weeks (twice week)
- Fatigue
 - Multidimensional Fatigue Symptom Inventory
- Depression
 - Beck Depression Inventory

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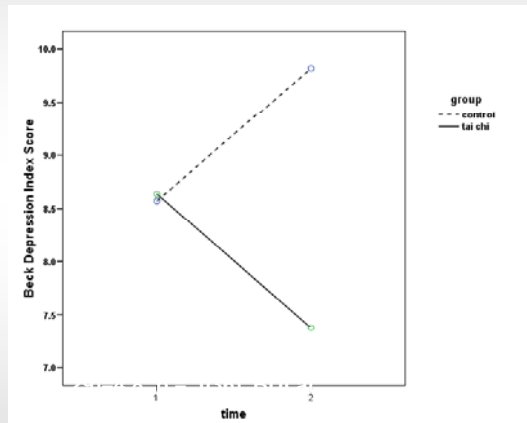
Results: Fatigue



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Results: Depression

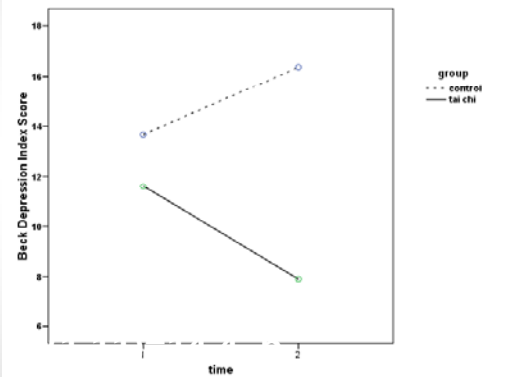
BDI Scores pre- to post- Intervention (N = 15/group)



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Results: Depression cont.

Subjects with BDI scores > 10 (N = 6/group)



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Qigong

- Simple movements can be used as physical therapy for all ages and physical abilities.
- Health benefits similar to moderate aerobic exercise.
- Improvements observed in:
 - Stress regulation
 - Heart function- blood pressure
 - Lung function- oxygen uptake

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Qigong - Efficacy

- Strongest evidence for
 - Fibromyalgia
 - Balance
 - Hypertension
- Preliminary evidence for
 - Chronic Fatigue Syndrome

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Impact of Fatigue on Veterans

- Of 532 veterans seen at the NJ WRIISC
 - 48.5% report fatigue for more than 6 months with 50% reductions in activity across two or more of four domains: work, school, home, and social functioning.
 - poorer physical functioning compared with their non-fatigued veteran counterparts.

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New WRIISC study

- Qigong for Gulf War Veterans with Fatigue
 - 12 sessions Qigong or Standard Exercise
 - Outcomes:
 - Compliance: in class and home practice
 - Physical Function: SF-36, 6 min walk
 - Symptoms: fatigue, pain, mood & cognitive
 - Physical Activity: actigraphy
 - Overall well-being

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Final Thoughts

- Challenges to meeting clinical needs of the Veteran population
 - Complex Comorbidities (PTSD/mTBI)
 - Medically unexplained & difficult to treat symptoms (pain, headache, balance)
- Wide use of CAM, limited evidence, even more limited in veterans
- Need for integrative models = opportunity for VA

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Thank you

- Questions...
- Contact information
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 - www.warrelatedillness.va.gov

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