

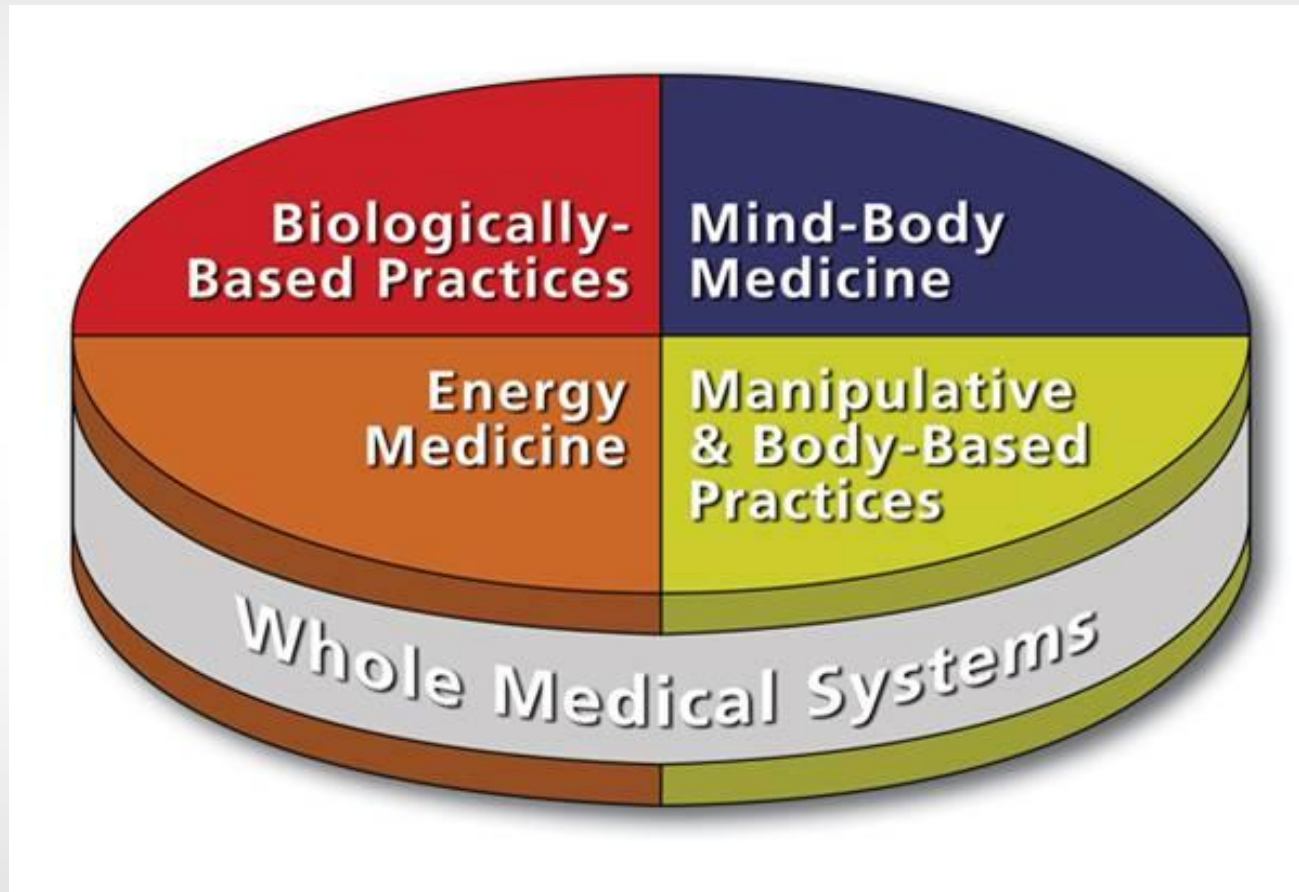
# Evidence-based Integrative Medicine

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# 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.

# 5 Categories of CAM (NCCAM)



# Whole Medical Systems

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

# 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

# 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)

# 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

# Alternative vs. Integrative

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



# 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

# 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

# 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

# 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

# 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

# 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

# **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

# 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



# 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.

# 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.

# Promise of Eastern Forms of Exercise

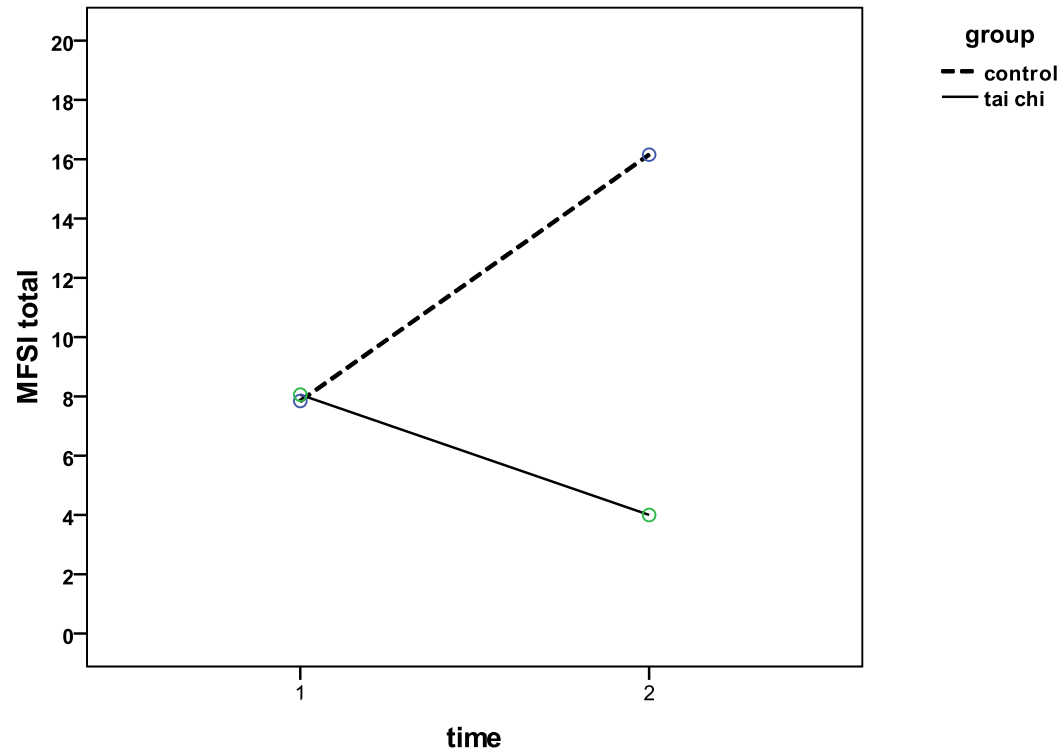
- Beginners Mind
- Movements naturally gentle
- Opposite to the basic training mindset
  - “no pain, no gain”
- Yet, similar physical benefits as conventional forms of aerobic exercise

# 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

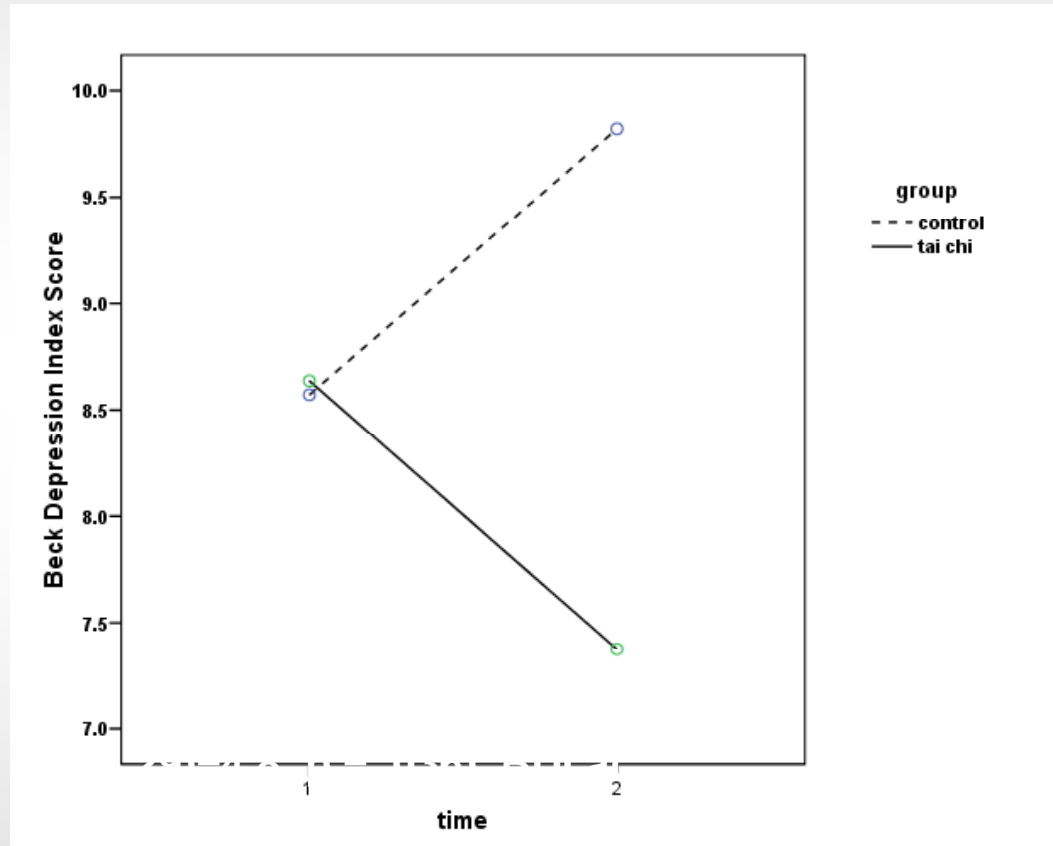
# Results: Fatigue

Total Fatigue Score (N = 14/group)



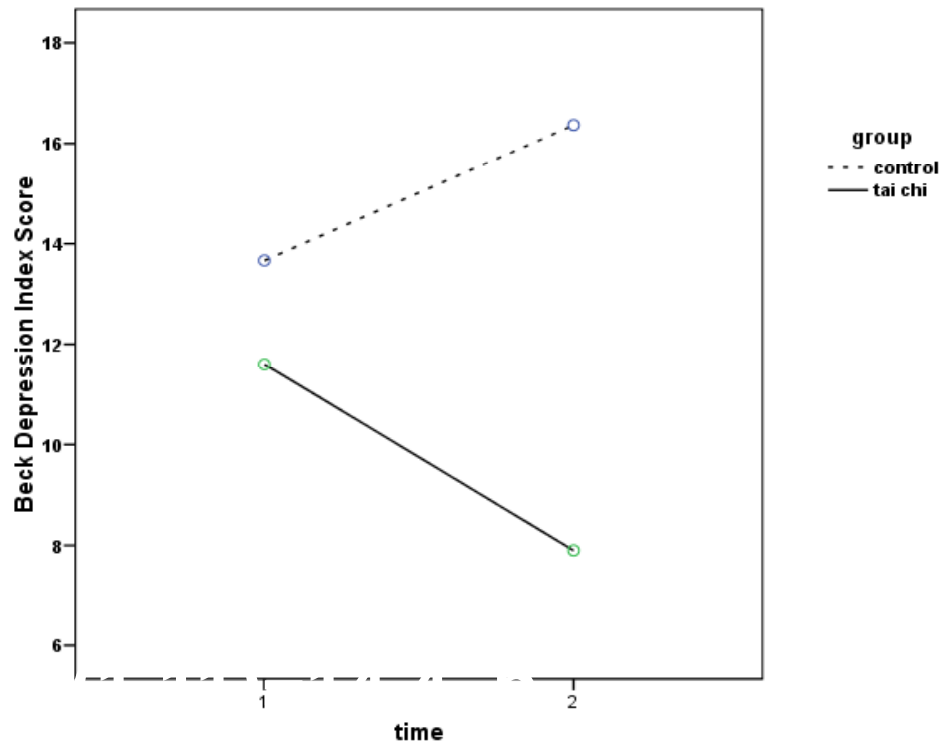
# Results: Depression

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



# Results: Depression cont.

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



= .001)

# 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



# Qigong - Efficacy

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

# 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.

# 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

# 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

# Thank you

- Questions...
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