MIND-BODY PRACTICES TO MODULATE AUTONOMIC TONE FOR CHRONIC DISEASE

MSA COALITION PATIENT & FAMILY CONFERENCE

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VUMC
OBJECTIVES

• Describe mind-body medicine and major practices
• Understand the primary mechanisms of mind-body practices
• Identify treatment models and settings that offer mind-body practices
MIND-BODY MEDICINE

Background
MIND-BODY PRACTICES FOR HEALTH

• General effects:
  • Mind → Body e.g. stress
  • Body → Mind e.g. exercise

• Mind-body medicine consists of specific techniques that utilize the interaction of the mind and body for health benefits
THE MIND-BODY MODEL

Breath

Body ↔ Mind
Mind-body practices focus on the interactions among the brain, mind, body, and behavior, with the intent to use these interactions to affect physical functioning and promote health.

Mind-body practices are categorized as a complementary and alternative medicine (CAM)

- NIH definition of CAM:
  
  “A group of diverse medical and health care systems, practices and products that are not presently considered an integral part of conventional medicine.”
MIND-BODY PRACTICES FOR HEALTH

• Now associated with:
  • Healthy lifestyle
  • Stress reduction
  • Increasing physical fitness
  • Treatment for multiple medical conditions
EXAMPLES OF MIND-BODY TECHNIQUES

- Mindfulness Practice
- Breathing Exercises
- Yoga, Tai Chi, Qi Gong
- Sleep Hygiene
- Counseling
- Acupuncture
- Exercise (what works for you)
- Prayer

- Nutrition/Weight Management
- Chiropractic
- Massage Therapy
- Physical Therapy (myofascial release)
- Small Group Sharing/Mindfulness
MIND-BODY MEDICINE

Practices
Mind Full, or Mindful?
WHAT IS MINDFULNESS?

- Paying attention in a particular way
- On purpose
- In the present moment
- Non-judgmentally

Jon Kabat-Zinn
TYPES OF MINDFULNESS ACTIVITIES

• Body scan
• Sitting meditation
• Walking meditation
• Mindful movement
• Mindful Eating
ACUPUNCTURE
WHAT IS ACUPUNCTURE?

A family of procedures involving the stimulation of points on the body by a variety of techniques, including the insertion of thin, solid metallic needles through the skin. It is intended to remove blockages in the flow of qi and restore and maintain health. Practiced in China and other Asian countries for thousands of years, acupuncture is one of the key components of traditional Chinese medicine.

WHO: recognizes acupuncture's common use in treating over 100 conditions.
ACUPUNCTURE: CONDITIONS COMMONLY TREATED IN US

Most Common Conditions
• Health maintenance and promotion
• Prevention
• Complement to western medicine
• Therapeutic
  -- Chronic illness (pain, GI, cardiovascular, respiratory, immunologic/endocrine conditions)
  -- Emotional/mental conditions (stress, anxiety, depression, insomnia)
MIND-BODY MOVEMENT
EXAMPLES OF MIND-BODY MOVEMENT

- Yoga
- Qigong
  - T’ai Chi
- Martial arts
- Mindfulness-based practices
  - Mindfulness-based stress reduction
YOGA

• Classical Definition: A state of mind focused on a chosen object without distraction.
  • Preparatory exercises are used to control of the body, senses, and mind to achieve this state.
• Classically, one of the 6 traditional philosophies of India
THERAPEUTIC YOGA

• Definition: Yoga therapy is the process of empowering an individuals to progress towards improved health and well-being through the application of the philosophy and practice of yoga
  • IAYT Definition 2007

• Yoga can improve self-regulation via postures, breath and meditation.

• Recent research demonstrates that yoga can improve sleep in the elderly, post menopausal women, breast cancer survivors.

QIGONG

- Originated in China at least 2000 years ago
- Utilizes movement, breathing, focused attention
- Standardization occurred in 1940’s and 1950’s in China
**T’AI CHI**

- Martial application of qigong
- Means in Mandarin “Supreme Ultimate”
  - Reference to bipolar concept of yin and yang
- T’ai chi is considered an “internal” martial art
  - Cultivates a sense of flow and balance in the practitioner
MIND-BODY MEDICINE

Mechanisms
EXPANDING THE MIND-BODY MODEL

- Cognition
- Body
- Emotion
- Breath
- Behavior
POTENTIAL MECHANISMS OF MIND-BODY PRACTICES

- Psycho
  - Stress Reduction
  - Cognitive
  - Mood

- Bio
  - Exercise
  - Breathing

- Social
  - Group effect
  - Health Behavior
  - Therapeutic Relationship

- Potential mechanisms include Mind-body practices such as Psycho, Bio, and Social components, with specific outcomes like stress reduction, cognitive improvements, and mood enhancement.
AUTONOMIC TONE

- Part of the peripheral nervous system
- Controls various bodily functions
  - Dilation of the pupils
  - Heart rate
  - Blood pressure
  - Breathing
  - Digestion
  - Sweating
HISTORY OF AUTONOMIC TONE

- Walter B. Cannon (1871-1945): fight or flight
  - Quantifying life stress
  - Associating stress with disease: acute and chronic
  - Biopsychosocial model of health
HISTORY OF MBP AND AUTONOMIC TONE

• Herbert Benson (1935-):
  • Relaxation response: A set of integrated physiological changes that are elicited when a subject assumes a relaxed position in a quiet environment, closes his or her eyes, engages in a repetitive mental action, and passively ignores distracting thoughts
DIFFERENT PARADIGM THAN MBP=RELAXATION

• Selye: “Stress, in addition to being itself, was also the cause of itself, and the result of itself.”
  • Bandura: Reciprocal determinism
  • Treating the “disease of the disease”
  • Modify or mitigate autonomic symptoms not autonomic dysfunction, thereby reducing autonomic dysfunction.
IMPLEMENTATION OF MIND-BODY PRACTICES FOR HEALTH

Integrative Medicine
Integrative Medicine
Integrative Medicine

“…the practice of medicine that:

• Reaffirms the importance of relationship between practitioner and patient
• Focuses on the whole person
• Is informed by evidence
• Makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.”

The Consortium of Academic Health Centers for Integrative Medicine
## Integrative Medicine: A Transformative Model

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Integrative Health/Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease oriented</td>
<td>Health oriented</td>
</tr>
<tr>
<td>Identify and intervene</td>
<td>Identify risk, minimize it</td>
</tr>
<tr>
<td>Biomedical interventions</td>
<td>Whole person approaches</td>
</tr>
<tr>
<td>Reactive</td>
<td>Proactive</td>
</tr>
<tr>
<td>Sporadic</td>
<td>Lifelong planning</td>
</tr>
<tr>
<td>Individual left to enact</td>
<td>Support in implementation</td>
</tr>
<tr>
<td>Physician-directed</td>
<td>Partnership-based</td>
</tr>
</tbody>
</table>
WHEEL OF HEALTH
INTEGRATIVE MEDICINE INTERPROFESSIONAL TEAM

- Physicians
- Nurse practitioners
- Yoga instructors
- T’ai chi instructors
- Qigong instructors
- Psychologists
- Acupuncturists
- Massage Therapists
- Nutritionists
- Physical Therapists
• Integrative Medicine Centers
  • Osher Collaborative
  • BraveNet Collaborative
  • Local independent clinics and hospitals
Mindfulness
- Programs
- MBSR
- MBCT

Apps
- Insight Timer
- Headspace

Suggested Text:
- Full Catastrophe Living
  - Jon Kabat-Zinn
• Mind-Body Movement
  • Yoga
    • Suggested text: *The Heart of Yoga*
      • T.K.V. Desikachar
  • Tai Chi and Qigong
    • Suggested text:
      • *The Harvard Medical School Guide to Tai Chi*
        • Peter Wayne

• Often conducted as a private session
• Reliance on regular home practice
• Classes with a gentle or restorative focus are often safe for patients
• Acupuncture
• Not typically covered by insurance
• Costs between 15$ and 120$ per visit
• Licensed acupuncturists have been to 3-4 years of schooling post undergrad
• Often incorporate Chinese herbs
OBJECTIVES AND SUMMARY

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Questions?