COMMUNITY-BASED WELLNESS:
Evidence for Mind-Body Exercise

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OBJECTIVES

- Review the current evidence supporting the use of mind-body exercise to improve health.
- Identify patient populations that might benefit from mind-body exercise.
- Discuss implementation strategies for incorporating mind-body exercise into clinical practice.
WHAT IS MIND-BODY EXERCISE?

A mind-body exercise is a physical exercise that is performed with an intense focus.

http://naturalhealthperspective.com/resilience/mind-body-exercise.html

WELLNESS

- ECONOMICAL
- OCCUPATIONAL
- EMOTIONAL
- SPIRITUAL
- PHYSICAL
- INDIVIDUAL
- COGNITIVE
- SOCIAL
- ENVIRONMENTAL
- MEDICAL
EMOTIONAL MIND-BODY EXERCISE

SPIRITUAL

INDIVIDUAL

PHYSICAL

COMMUNITY-BASED EXERCISE RESOURCES

- Tai Chi
- Yoga
- Pilates
TAI CHI

- Originated in China as a martial art
- Involves slow, gentle body movements while incorporating deep breathing and meditation (“moving meditation”)
- Included in Complimentary and Alternative Medicine (CAM) category
- Is adaptable for individuals of all ages with a wide range of abilities and conditions

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TAI CHI

- Pub med – 308 articles for tai chi chuan
- 59 RCTs
- 5 meta-analyses
  - Dementia – (2008)
  - Aerobic capacity – updated (2008); 2004
  - Balance in older adults (2007)
  - Chronic pain in older adults (2007)
TAI CHI EVIDENCE

- Tai chi for chronic conditions, Verhagen et al. 2004
  - Effective in reducing falls and blood pressure in older adults

- Systematic review for treatment of osteoarthritis, Lee et al., 2004
  - Encouraging evidence for pain reduction but evidence is not conclusive for pain reduction or improved function

- Chronic conditions in older adults, Wang et al. 2004
  - Safe and effective in promoting balance, flexibility and cardiovascular fitness in older patients with chronic conditions

TAI CHI – Current Clinical Trials

- 30 clinical trials
  - Bone health
  - Rheumatoid arthritis
  - Osteoarthritis of the knees and hips
  - Chronic heart failure
  - Sleep in older adults
  - Fibromyalgia
  - Balance – Parkinson’s pts, vestibular disorders, peripheral neuropathy
  - Effects on immune system
  - Chronic low back pain

http://www.clinicaltrials.gov
YOGA

- Sanskrit word meaning “to yoke” – union between mind and body with the energy of the universe.
- Foundation in India, over 5,000 yrs ago.
- To US in 1800’s; popular in 1960’s.
- Estimated 15-18 million adults practicing yoga in the US.

NOT ALL YOGA IS CREATED EQUAL
YOGA

- Hatha yoga most popular – combines physical postures (asanas), breathing techniques, and relaxation/meditation
- Many different schools/styles
  - Ashtanga
  - Power yoga
    - Physically demanding
  - Bikram
    - Hot yoga
    - Practiced in room temperature ranging from 80-100º
    - Requires certain amount of stamina and fitness
  - Iyengar
    - Utilized various props to develop greater symmetry and alignment in the postures
  - Vinyasa
    - Modifies each pose to the individual
      - Slower pace; more attention to breath and emphasis on biomechanics

YOGA EVIDENCE

- Pub med - 1171 articles for yoga
- 107 RCTs
- 13 meta-analyses
  - Attention deficit and hyperactivity disorder
  - Dementia
  - Pain and function in older adults in community settings
  - Balance in older people
  - Chronic LBP
  - Chronic pain in older adults
  - Unloaded facilitated movement for non-specific LBP
  - Anxiety and depression in children & young people
  - Hypertension
  - Anxiety
  - Asthma
  - Carpal tunnel syndrome
YOGA EVIDENCE

- May improve muscular flexibility, strength and balance
- Some efficacy as adjunct therapy for LBP, knee OA and carpal tunnel syndrome
- May add benefit to management of CV disease but also included lifestyle changes
- May have some positive effects on
  - Obsessive-compulsive disorder
  - Anxiety and depression
  - Other conditions exacerbated by stress such as ADHD, menopausal vasomoter symptoms, irritable bowel syndrome

*Lipton – evidence based review. JAAPA. Feb., 2008*

YOGA

- Purported to be safe and effective
- Injuries under –reported
- Several case studies
  - Vertebral artery dissection
  - Basilar artery occlusion
  - Spontaneous pneumothorax
  - Conjunctival thrombosis
  - Peripheral Neuropathy
  - Sciatic nerve compression
CURRENT CLINICAL TRIALS

56 Clinical trials
- Diabetes
- Insomnia
- HIV
- Immune function
- COPD
- Breast Ca
- Fatigue
- Metabolic syndrome
- PTSD
- Stress management

http://www.clinicaltrials.gov

INFORMATION

- Yogaalliance.org
  - General information
  - Registry for instructors who have met 200-500 hour instruction

- YogaFit – provides instructor training and referrals world-wide

- Yoga Research and Education Center
  www.yrec.org
PILATES

- **History of Pilates**
  - Joseph Pilates – German-born; sickly as child
  - Sought health and fitness through Zen meditation, yoga, boxing, gymnastics, martial arts
  - Worked in British internment camp during WW I
  - Devised exercises using various equipment
  - Came to NY in 1920s
  - Contrology and “the powerhouse”
  - Mind-body system designed to enhance flexibility, strength and coordination
  - Strong emphasis on awareness and control, stability
  - Different schools, methods

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PILATES MAT EXERCISE

- [Image of Pilates mat exercises]

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PILATES EVIDENCE

- Very limited quality research (Bernardo L – appraisal of research literature, 2007).
  - Total of 277 articles or abstracts found from 1990-2005
  - No meta-analysis or systematic reviews
    - Only 10 were published in refereed, professional journals
      - Of these, 5 were conducted in gymnasts and dancers
      - 2 were in special populations (urinary incontinence in women and in acutely ill hospitalized older adults)
      - 3 were in healthy adults
  - Conclusions – lack of defined method, small sample sizes and lack of randomization

PILATES EVIDENCE

- Pub med (2008) – 24 articles
  - 4 RCTs
    - 2 included LBP patients
    - 1 on body composition in young girls
    - 1 using acutely ill hospital patients – PROM vs. resistance exercises

- Cochrane (2008) – 9 articles
  - No meta-analysis or systematic review
  - 5 of the 9 include LBP patients
  - Remaining – incontinence, body composition and hospitalized pts already mentioned
PILATES EVIDENCE

SUMMARY

- Inconclusive due to small sample sizes, limited quality research and lack of defined method of Pilates
- Is showing some promise in chronic LBP but no indication that it is more effective than other forms of exercise

CURRENT CLINICAL TRIALS

- Comparison of Massage and Exercise (Pilates) in Fibromyalgia
- Comparing Traditional Pelvic Floor Rehabilitation to Pilates for Increasing Pelvic Muscle Strength

http://www.clinicaltrials.gov
INFORMATION

Pilates Method Alliance (PMA)

http://pilatesmethodalliance.org/w.

SUMMARY

TAI CHI
Evidence for:
- Balance & fall prevention
- Reduce blood pressure
- Improve cardiovascular health
- Older patients
- Chronic illness
- Gentle, slow moving
- Probably the safest of the 3
- Possible benefit for OA
- Overweight individuals due to low impact and safety
- Stress reduction

YOGA
Evidence for:
- Increase flexibility, strength, balance
- As adjunct for knee OA
- As adjunct for chronic LBP
- As adjunct for CV disease
- Carpal tunnel syndrome?
- Disorders exacerbated by stress
Can be modified for special populations (ex. osteoporosis)
Stress reduction
Recommend small group or private instruction

PILATES
Evidence:
- Limited quality research
- May be beneficial as adjunct in the management of chronic LBP
- Recommend small group or private instruction
WHERE DO I FIND MIND-BODY EXERCISE?

- Privately owned business
- Local gyms
- Churches
- Corporate wellness programs
- Hospital-based wellness programs
- Local health stores
- Private instruction
- DVD/video

HOW CAN WE IMPLEMENT MIND-BODY EXERCISE?
WELLNESS

“\"A HEALTHY STATE OF WELL-BEING FREE FROM DISEASE\"

PHYSICIANS SHOULD BE HELD RESPONSIBLE FOR THE HEALTH OF THEIR PATIENTS”

The Visual Thesaurus

“THE QUALITY OR STATE OF BEING IN GOOD HEALTH, ESPECIALLY AS AN ACTIVELY SOUGHT GOAL”

Merriam Webster’s Online Dictionary

IMPLEMENTATION

ASSESS

Readiness for Change?
- Pre-Contemplation – I can’t or won’t
- Contemplation – I may start thinking about it, but not today
- Preparation – I will or have made an attempt to change
- Action – I am doing it, but for less than 6 mo
- Maintenance – I am successful (> 6 mo)

EDUCATE

- Health information
- Stages of change
- Expectations
- Goal setting
- Management of barriers

DIRECT TO RESOURCES

- Other healthcare providers
- Community resources
- Reputable websites
- Written/audio/visual resources
- Private resources

FOLLOW-UP

MONITOR
RECOMMENDATIONS FOR REFERRAL

- Appropriate patient assessment
- Find qualified instructor – no standard training program
  - Inquire about training and experience
  - Get to know who is in your area
- Discuss goals and expectations with patient
- Consider cost effectiveness

SUMMARY

- Tai chi
  - Balance and falls
  - Elderly
  - Safety
- Yoga
  - Flexibility, strength, balance
- Pilates
  - Chronic LBP?
- Proper Instruction
- Keys to being successful
  - Appropriate Assessment
  - Educate & Engage
  - Follow-up
PARTING WORDS:

DON’T FORGET YOUR OWN HEALTH!

“Ow, who did you say this keeps away?”

References


References


References