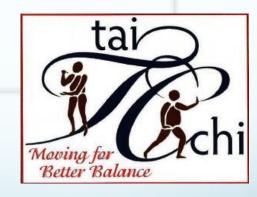
Tai Chi: Moving for Better Balance

Community Health Workers Conference April 12, 2018. Lynnwood, WA

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Objectives

What is TCMBB?

Application in Communities



Experience Moving for Better Balance

Fuzhong Li, PhD

- Quintessential researcher
 - Tai Chi since 1999
 - over 15 years grant funding from NIH and CDC
 - List of publications www.tcqmbb.com
- Oregon Research Institute
 - Systematic, ongoing research
- Collaboration with PTs for specific BALANCE focus.
 - Jan Voit, Moving for Better Balance trainer

Overview

- Balance training program
- Enhancement of traditional Tai Chi
 - movements are transformed and reconfigured
 - therapeutic activities for improved balance



Program Basics

- Eight Form core routine
 - Adapted from contemporary 24 form Tai Ji Quan routine
 - Built in Exercise variations
 - Mini Therapeutic movements subroutine

 Together create a simple, functional, set of Tai Chi based moves

Evidence Based

- Tai Chi and fall reductions in older adults
 - 2005 landmark study, randomized controlled trial
- "Tai Chi and postural stability in patient's with Parkinson's Disease"
- "Implementing evidence based fall prevention program in outpatient clinical setting"
- "Tai Ji Quan and global cognitive function in older adults with cognitive impairment"
- "The effects of Tai Ji Quan training on limits of stability in older adults"
- "Preventing falls after cancer: tai chi versus strength training"

Endorsement

- American and British Geriatric Societies
- Administration on Aging/ National Council on Aging
- Centers for Disease Control and Prevention
 - Funding through 2019 from Centers Disease Control
- All Tai Chi programs are not equal
 - specifically designed program
 - reproducible
 - evidence based

Fall Prevention

- In US one third of people over age 65 fall each year
 - 2-3 times more likely to fall again
 - 10-20% of falls cause serious injuries
 - falls are leading cause of hospitalizations
- In WA 1 in 5 over age 65 report a fall in past 3 mos
- Fall frequency increases with age
- Cycle: fall fear of falling decreased activity increased risk of falling - fall

Physical Activity-Fall Prevention

- Research demonstrates Physical Activity is the single most effective strategy for fall prevention.
- Most effective Physical Activity
 - at least 50 hours to have effect on reducing falls
 - must be challenging balance exercises

Cost Effective

- CDC cost-benefit analysis: best return on investment.
 Reduce falls. Save money
- No equipment required
- Portable and scalable
 - acute care, inpatient rehab, clinic, community



Outcome Measures

- Functional reach
- Berg Balance Scale
- Romberg
- Timed Up and Go
- Falls Efficacy Scale self report fear of falling
- Gait speed
- Limits of Stability Force plate



Multisystem Training

- musculoskeletal
- cognition
- sensory
- integrated experience
 - improved functional tasks
 - reduced falls

Training Goals

- Improve
 - strength
 - balance
 - gait
 - functional mobility
 - multitasking
 - cognition
- Reduce
 - fear of falling
 - risk of falling



Training Goals

- Postural stability
 - static and dynamic
- Mindful control of positioning in space
- Functional walking activities
- Movement symmetry and coordination
- Ankle range of motion
- Lower extremity strength

Training Emphasis

- Trunk driven movements
- Ankle sway
- Weight shifts
- Ankle joint movements; heel strike, heel pivot, push off
- Eye-head-hand coordination
- Anticipatory and compensatory postural control
- Various cueing strategies, cognitive challenge

Flexible Program

- Seated
- Sit to stand
- Chair-supported
- Unsupported
- Variety of challenges at each step
- Fun and easy to progress
- Home exercise program



Eight Form Routine

- Form One: Move a Ball
- Form Two: Part Wild Horse's Mane
- Form Three: Single Whip
- Form Four: Wave Hands Like Clouds



Eight Form Routine

- Form Five: Repulse Monkey
- Form Six: Brush Knees
- Form Seven: Fair Lady Works at Shuttles
- Form Eight: Grasp Peacock's Tail



Mini Therapeutic Movements

- Body sway around ankle joints
- Eye-head movements
- Sit to and from stand
- Step and turn
- Chair up and walk
- Multidimensional head movements

Mini Therapeutic Movements

- Single leg stance with Brush Knee
- Stepping exercises
- Pushing hands
- Sensory integration exercises
- Stepping maneuver around a chair

Current and Future Projects

- Ongoing research including "Translating an effective falls prevention program into community based practice"
 - program dissemination through community based senior service providers. funded through 2019
- Ongoing trainings
 - Partnership with Dept of Health: continue to train new instructors
 - Courses for community instructors and healthcare workers

Summary

- Evidence based Balance Training Program
- Fuzhong Li, Oregon Research Institute, ongoing research
- Application in acute care, inpatient rehab, outpatient, home health, community classes
- Fun and effective for mind and body

In Your Community

- Refer Older Adults to current classes
- Take a course and become an instructor
- Educate peers on the value of Tai Chi for fall prevention



Resources

- Washington site: www.betterbalance.net
- Contact: jan@betterbalance.net, info@betterbalance.net
- National site: www.tjqmbb.org



Questions?

Thank you!