Tai Ji Quan: Moving for Better Balance®

CDSME and Falls Prevention National Resource Centers Annual Meeting
May 24, 2016
Tai Ji Quan: Moving for Better Balance®
(Tai Chi: Moving for Better Balance)

• Research based fall prevention program (RCT)
  – Decrease falls and fear of falling
  – Improve balance and function

• Adapted from Yang style 24 form

• Integrates TJQ with
  – Movement therapy
  – Sensory motor challenge
  – Cognitive function

Fuzhong Li, Ph.D.
Program Components

• Core Routine
  – Modified 8 forms
  – 10 Practice variations
  – Focus therapeutic and functional movement

• Sub Routine: Mini Therapeutic Movements®
  – 11 exercise activities
  – Integrates TJQ and therapeutic balance training
TJQMBB Shown to Reduce

- Fear of falling by 55%
- Risk of multiple falls by 55% in older adults
- Risk of multiple falls by 67% in people with Parkinson’s disease
Target Participant Population

• Community dwelling older adults with
  – a history of falls
  – balance disorders
  – leg muscle weakness
  – abnormal gait or walking difficulty

• Mild level of mobility difficulty
  – May use cane, occasional walker
What Makes TJQMBB Functionally Different from Conventional Approaches?
Locus of Center of Gravity (CoG)

Conventional
constraining CoG
movements
within base of support (BoS)

TJQMBB
maximizing CoG
movement excursions
around the edge of BoS

- Optimize stability for combat purposes
- Achieve high performance standards

Vs.

- Maximize sensory inputs and motor output
- Optimize coordination between postural Stability and movement
Conventional using primarily anticipatory (proactive) postural adjustments to maintain balance

TJQMBB using a interplay between anticipatory and compensatory (self-induced reactive) postural adjustments

Vs.
Gaze Control

Conventional
Non-focused gaze during head movement

TJQMBB
A combination of non-focused and focused gaze for gaze stability
Open and Closed Chain Exercises

Conventional forms are executed primarily in moving (open chain movements) vs. TJQMBB forms are done in both open and closed chain modes.
Teaching Emphasis

• Elicit balance response
  • stability vs. instability
  • balance vs. imbalance

• Vary (a) movement speeds, ranges, directions, patterns, (b) size of base of support, and (c) cueing (i.e., verbal, visual, kinesthetic, or self cueing)
Program Fidelity

- Frequency: 2-3 sessions per week (2x/week in class)

- Duration of class: 24 weeks (48 sessions/6 months)

- Session Duration: 60 minutes
Program Fidelity (cont)

• Attendance: 75% or better (a min. 36 sessions)

• Class teaching follows the activities outlined in the *Class Teaching Plan*

• New participants can join within first three weeks
1. Performed warm-up and cool-down exercises according to the activities described in the Plan.
   - Yes □
   - Partially □
   - No □

   **Comments:**

2. Conducted core teaching activities as outlined in the Plan
   - Yes □
   - Partially □
   - No □

   **Comments:**

3. Provided verbal step-by-step instructions with visual demonstration while teaching and performing forms/movements.
   - Present □
   - Not Present □
   - Can Be Improved □
   - Clear □
   - Not Clear □
   - Can Be Improved □

   **Comments:**

4. Emphasized EACH of the teaching emphasis points shown in LIST 1.
   - Yes □
   - Partially □
   - No □

   Note: Complete your observation in LIST 1 and summarize your rating here. A “Yes” check above means that the instructor has emphasized ALL the point listed. A “No” rating above means the teaching practice is not acceptable and the rating needs to be brought to the instructor’s attention.

   **Comments:**

5. Overall integration of mini therapeutic movements, forms, and variation of forms.
   - Well integrated □
   - Partially integrated □
   - Not observed □

   Note: “Well Integrated” is required.

   **Comments:**

6. The class time spent on practicing core movements (8 forms, mini therapeutic movements) lasted (circle one)
   - ≤ 30 minutes □
   - 35 minutes □
   - 40 minutes □
   - ≥ 45 minutes □

   Note: Practice times of 40 or 45 minutes are considered acceptable.

   **Comments:**

7. Overall class teaching pace
   - Excellent (extremely efficient use of class time) □
   - Good (effective use of class time; some dead spots) □
   - Poor (multiple minor (or some prolonged) periods of inactivity) □

   Note: “Excellent” is defined as a session that maximizes class time activity. “Excellent” or “Good” is strongly recommended.

   **Comments:**

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Fidelity Check List
www.TJQMBB.org
(program section)

In class peer review recommended

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LIST 1 – teaching emphasis (may be used for rating purposes)

1. Ankle sway movements from the center of gravity (forward, diagonally, laterally, backward)  
   Yes ☐  No ☐

2. “Rooted” with toes of the feet  
   Yes ☐  No ☐

3. Movements that are trunk driven and initiated with “preload”  
   Yes ☐  No ☐

4. Rotational weight shift  
   Yes ☐  No ☐

5. Ankle movements: Heel-to-toe progression during forward stepping and heel push-off in the extended leg  
   Yes ☐  No ☐

6. Active head movement following the direction of the leading hand  
   Yes ☐  No ☐

7. Varying speeds, ranges of motion, directions, and change in base of support  
   Yes ☐  No ☐

8. Coordinated breathing in sync with the movement  
   Yes ☐  No ☐

9. Exercised with concurrent cognitive tasks  
   Yes ☐  No ☐

10. Exercised that elicited balance response (i.e., seen stable and unstable postural responses)  
    Yes ☐  No ☐
Post Workshop Training

• Three 8 hour refreshers highly recommended
  – First within 1 month
  – Second within 2 months
  – Third within 4 months

• Refinement/program updates
  – Instructor section tjqmbb.org
Instructor Resources

• Class Teaching Plan version 3.0 (July 2015)
  – Booklet with DVDs
  – On-line PDF (instructor access)

• On-line video updates: www.TJQMBB.org
  – Instructors trained by authorized trainer access

• Toolkit: www.tjqmbb.org/program.html
Thank You!

Questions?

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