

Moving to a different beat with Tai Chi & Qi Gong

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OVERVIEW

- How are Tai Chi & Qi Gong relevant to dementia?
- What is Tai Chi?
- Benefits of Tai Chi
- What is Qi Gong?
- Benefits of Qi Gong
- Integrating these practices into your daily routine
- Caregivers, family members, and persons with neurological issues can all benefit – these practices are for all people!



Relevance of movement practices such as Tai Chi and Qi Gong to dementia

People with dementia experience processing difficulties that lead to agitation and anxiety

People with dementia may experience visuo-spatial difficulties; more vulnerable to falls

Moving with controlled, deliberate, synchronized steps, breath and postures can benefit caregivers and persons with dementia



WHAT IS TAI CHI? (History & origins)

- Tai Chi (Tai Ji) originated in China – exact history is a mystery, at least over 500 years old, (roots in martial arts)
- “Supreme ultimate boxing/fist” → Tai Ji Quan
- Grounded in cultural philosophy: from origin of universe, all things evolve from nature through dynamic & interactive polarities (**yin/yang**): 
- Interplay of movement & stillness, fullness & emptiness, soft & hard, offense & defense, male & female, dark & light
- 1956 - after Communist revolution, Chinese government sponsored 24-posture as a populist version for public health promotion – easy to learn, relaxed posture, smooth flow, simple – people of all ages & stages could learn
- *primarily for health benefits:*

Overall well-being

mindfulness

leisure

physical fitness

prevention or slowing of disease

relief from disease symptoms



Basic tenets

- 1) **Breath** is key – modulates flow, synchronized with movement
- 2) **Posture** – rooted feet; centered body mass; even, bilateral weight shifting & proportional weight loading; fluid exchange from weighted to unweighted stances; smooth, rhythmic movements
- 3) **Intention/mindfulness** – deep focus, internal & external; aim at intentionally synchronizing body movements, positions, & mechanics in meaningful way
- 4) Results in tranquil, therapeutic, strengthening practice for all – goal is health, happiness, longevity with both Tai Chi & Qi Gong
- 5) Can be tailored to help with functional recovery of persons with movement impairment or disorders, & fall prevention
- 6) Slow, methodical movement creates balance, muscle control, strength, somatic mapping

(TJQMBB- evidence-based practice)



What does the research tell us?

- Li, Harmer et al.¹ - 46 mild to moderate Parkinson's disease patients:
 - 24 weeks, 2X/week, TJQMBB designed as fall prevention program using 8-form Tai Ji Quan routine with variations & mini-therapeutic movements
 - 3 randomized groups: TJQMBB, resistance training, or low impact stretching
 - End of 24 weeks, TJQMBB group had better movement control, sensory integration (visual, somatosensory, vestibular), improved stride length & ability to reach forward – TJQMBB also had reduced falls compared to low impact group.
- Li, Harmer, Lu et al.² - improved cognitive function (MMSE) between TJQMBB group vs. control group, as well as improved physical performance & balance efficacy.
- Li, Harmer, Fitzgerald et al.³ - 3 groups, randomized: TJQMBB, multimodal (aerobic, strength, balance, flexibility activities) or stretching, N=670, all at risk for falls over 70 yrs. with at least 1 incidence in past year. TJQMBB & MME fewer falls than stretching.
- *Follow-up 6 mos. later*⁴ – even without formal exercises (people logged 2-3 times/ week of exercise: TJQMBB<MME<stretching in falls and emergency room visits.
- Li & Harmer⁵ - Cost analysis (TJQMBB avg. cost \$1238 pp vs Stretching \$1721pp vs Resistance \$1368pp)



What is Qi Gong?

- Craft of moving/working with life force energy
- “Life force energy cultivation” → Qi Gong → longevity
- Tai Chi is the fluid relaxed sequential movement of Qi Gong postures – more effort to learn & move with Tai Chi
- Qi Gong preceded Tai Chi (over 2000 years old) (see next)
- Western perspective: regulate breath, central & peripheral nervous systems, circadian rhythm, immune system, organs (cleanse, nourish, harmonize)
- Ties in with stress: integrate mindfulness, breath, intention, movement – spiritual, physical, mental, emotional – all work towards balance and harmony



Dao-yin Tu scroll found in the Mawangdui Tomb of King Ma from around 160 BCE



Benefits of Qi Gong

- System designed for health (Chinese medicine, exercise)
- Can modify/adjust exercises (Tai Chi is set sequence)
- No equipment needed (as with Tai Chi), can practice in comfortable clothes, shoes - outside in nature is ideal!
- Can do in group or individually
- Standing or sitting – do not have to get down on floor or do challenging poses or stretches – can adapt to needs/limits of each person
- Time tested over 2500 years, multiple variations



Benefits continued

- System is simple enough for people to follow the movements etc., yet not so simple that it is not profound or even exerting
- Gives people sense of a measure of control over their life & their body, especially in the face of uncertainties
- Has become more prevalent in Western cultures in past 70 years or so
- All of these complementary practices – yoga, qigong, tai chi can help people enhance their mental, emotional, physical and spiritual well-being – whole person transformation – benefits far outweigh any potential drawbacks (if any?)



What does the research tell us?

- Zhang et al⁵ - meta-analysis on efficacy of Tai Chi & Qi Gong (combined: traditional Chinese exercise - TCE) on MCI patients. Across 5 trials (N=803 patients), no significant differences between TCE & control groups on memory, executive functions, verbal fluency or depression.
- ❖ Significant difference on visuospatial function for patients with MCI, better with TCE than control group.
- Abbott & Lavretsky⁶ - literature review: Tai Chi & Qi Gong reduce anxiety, depression, blood pressure & promote immune function (increase endorphins & reduce immunoinflammatory markers like cortisol & ACH (adenocorticotrophic hormone). Promote attentiveness & relaxation, measured via EEG.
- ❖ RCTS - Tai Chi & Qi Gong may improve bone density, cardio health, arthritis, fibromyalgia, tension headaches, among other conditions. Enhanced QOL (quality of life), improved sleep; 4 RCTS found significant associations between Tai Chi & Qi Gong practices & reduced stress as measured by cortisol levels. Dementia and MCI patients - Tai Chi vs. Western cardio exercise yielded a stable dementia rating & improved visual span.



Logistics

- Should always check with your physician before engage in any exercise program
- Many physicians may not be familiar with Qi Gong or even Tai Chi – can now easily "Google it"
- Try to find an instructor you feel comfortable with who has certification and training, and ideally taught for several years.
- Ideally should do 2-3 times a week if possible
- One hour per practice/session
- Cost can vary -- average per person cost can be \$25-95 in groups typically, (may be more for private class), at some facilities.
- Given the health benefits, cost for a class far lower than trip to hospital... ideally these programs would be a standard part of health care services – people of all ages and walks of life can benefit!!



Testimonials

My husband who is a patient at Stanford, and I began Qigong classes with Nusha Askari in January and have had five classes to date. My husband has a diagnosis of Lewy-body dementia.

I loved the class from the first. I am under stress as a caregiver and was having back issues for several months. When we started Qigong I was in the midst of a series of Physical Therapy sessions which were not making a difference. During our first class with Nusha I began to relax, enjoy the moves and loved Nusha's approach, and my back was definitely less painful after that first time.

Shortly after that class I suspended the PT and my back continues to improve. My stress level comes way down during our class as well. It always feels like I'm doing something therapeutic and healing during that hour.

My husband also does well in the class. He is getting careful, clear guidance from Nusha and responds. We all agree that he's standing up straighter. He seems to gradually relax as the class goes on.

We are both grateful to Nusha for teaching us.

-anonymous-

Testimonials

Dr. Askari:

It has been three months since I began Qigong classes with you. I must report that I have seen marked improvement in my energy reserve, endurance and feeling of well being. As an example, when I started classes with you I was able to walk around the block (about 1/4 mile) at a slow pace and was very tired thereafter. Now I can do a brisk walk for 1 mile and still feel energized.

Although there is no cure for my Parkinson's, Qigong has helped to improve my symptoms. I not only feel better, I look better.

Thank you for your guidance and dedication.

-E

Testimonials

I write to commend Nusha and her Qi Gong classes at the Stanford Neuroscience Center.

I was referred to the classes by physical therapy. I am recovering from severe muscle weakness due to hypothyroidism.

I have attended the classes for the last six weeks.

The classes have been invaluable in helping me to regain my muscle strength, coordination, and balance.

I have also enjoyed the meditative exposure in her system of teaching the classes.

In her Qi Gong classes Nusha has a loyal following of at least 12 patients. She manages this "community" with great skill.

She pays personal attention to all the attendees, and is particularly empathetic and helpful to several severely disabled patients.

All the attendees appreciate Nusha's classes.

I urge you to continue and sponsor the classes.

--J



To summarize:

- Easy, effective techniques that yield powerful effects
- Can tailor to meet diverse needs – especially with aging adults
- Cost effective – no equipment, can do individually or in groups
- Just need comfortable clothes and setting – ideally in nature
- Safe, when done correctly, and can improve health, stability, whole-person well-being (mind, body, emotions, spirit)
- Lower health care costs due to improved balance, posture, breath
- Accessible, simple, & FUN!



For more information:

Patient supportive care programs at Stanford: (exercise & fitness)

www.stanfordhealthcare.org/nscp
TC Cowles, BSN, RN Manager, Health Education Programs

Qi Gong class sponsored by Stanford Alzheimer's Disease Research Center:

**Thursday 3:30-4:30pm, Stanford Neuroscience Health Center,
FREE and open to community**

Stanford University (213 Quarry Rd, Palo Alto)
Nusha Askari (askarin@Stanford.edu)

**Private or group classes also available, please contact me at: askarin@stanford.edu

For more information about the **Healthy Aging Brain study at Stanford ADRC:**

**adrc.Stanford.edu
(650) 721-2409**



References

1. Li F, Harmer P, Liu Y, Eckstrom E, Fitzgerald K, Stock R, Chou LS. 2014. *Mov Disord*, 29(4):539-45.
2. Li F, Harmer P, Liu Y, Chou LS. 2014. *Arch Gerontol Geriatr*, 58: 434-9.
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