Effectiveness Research

Taiji/Qigong

Dominik Irnich
Multidisciplinary Pain Centre
Department of Anesthesiology
University of Munich, Germany
TAIJI AND QIGONG – BROTHER AND SISTER

practised for centuries
aiming to promote health and self development and to prevent diseases
singular or partner exercise or in a group setting

especially developed for the treatment of disease and health prevention.

influenced by Daoism, Buddhism and TCM
different static and dynamic exercises, breathing and mediation

developed as martial art
includes a series of dance-like movements that combine to postures or forms

influenced by Daoism, Buddhism and TCM
different static and dynamic exercises, breathing and mediation
TAIJI AND QIGONG

- betters physical condition coordination, balance, stretching, flexibility
- adjusts the vegetative state
- calms down the spirit
- Exercises for self-application
- Group therapy helps to foster contact and social support
Patients with fibromyalgia syndrome
gqigong vs. control intervention
major outcome measure: pain and QoL

7 trials, 395 participants

low quality evidence for short term improvement of pain, QoL
and sleep quality compared to usual care

No evidence for superiority of qigong compared to active treatment
No serious adverse events

Conclusion: Qigong may be a useful approach for FMS patients
Acc. to quality of evidence only a weak recommendation can be
made
A SYSTEMATIC REVIEW AND META-ANALYSIS OF TAI CHI FOR OSTEOARTHRITIS OF THE KNEE


- Five RCTs with a total of 252 patients
- Four studies had a low risk of bias
- Moderate overall evidence for short-term effectiveness for pain, physical function, and stiffness
- Strong evidence was found for short-term improvement of the physical component of quality of life

Given that Taiji appears to be at least effective and safe in the short-term, it might be preliminarily recommended as an adjuvant treatment for patients with osteoarthritis of the knee.
Fifteen studies were identified moderate-quality evidence was found that tai chi was more effective than no treatment or usual care at short term on pain (SMD=$-0.66$ [95% CI=$-0.85$, $-0.48$]) and disability (SMD=$-0.66$ [95% CI=$-0.85$, $-0.46$]).

The evidence for other outcomes was of low or very low quality and there was little information regarding long-term effects.

Thus, although the number of publications in this area has increased, the rigor has not, hindering physical therapists' ability to provide reliable recommendations for clinical practice.
Effectiveness of Tai Chi for Chronic Musculoskeletal Pain Conditions: Updated Systematic Review and Meta-Analysis

Hall A, Copsey B, Richmond H, Thompson J, Ferreira M, Latimer J, Maher CG.
Physical Therapy, Volume 97, Issue 2, 1 February 2017

Effect of tai chi versus no treatment on pain
QIGONG – MORE STUDIES IN CNP UND LBP

Qigong seems to be superior to waiting list in patients with chronic neck pain and equal to exercises

Qi-ling Yuan et al. PLOS ONE, 2015

In chronic low back pain Taiji and Qigong can improve restricted mobility, coordination and self perception, at least equal to exercises therapy (12 sessions with $1 \times 90\text{ min/week over 3 months}$)

Blodt et al. Europ. journal of pain 2015

Qigong and Yoga not superior to no treatment in older adults with chronic low back pain

Teut et al, J of Pain, 2016
Tai Chi for Risk of Falls. A Meta-analysis

Rafael Lomas-Vega, PhD,* Esteban Obrero-Gaitán, MSc,* Francisco J. Molina-Ortega, PhD,* and Rafael Del-Pino-Casado, PhD†

Older adults population and at-risk population RCTs analyzing the effect of taiji vs. other treatments

Incidence of falls, short term (< 12 months)
- 5 studies, 1432 participants
- High quality of medium protective effect for fall incidence

Incidence of falls, longterm (< 12 months)
- 6 studies, 1546 participants
- High quality of a small protective effect for fall incidence

Time to first fall
- 5 studies, 1320 participants
- No effect on time to first fall with moderate quality of evidence
Taiji practice may reduce the rate of falls and injury related falls over the short term by approx. by 43% and 50% respectively.
MUNICH OUTPATIENT PROGRAM IN COMPLEMENTARY AND ALTERNATIVE MEDICINE FOR CHRONIC PAIN

- Psychosomatics
- Salutogenesis
**MUNICH OUTPATIENT PROGRAM IN COMPLEMENTARY AND ALTERNATIVE MEDICINE FOR CHRONIC PAIN**

### Therapy
- Hydrotherapy
- Acupuncture
- Reflexology
- TENS
- Physiotherapy
- Occupational therapy
- CNM
- Self treatment

### Information and Education
- Bio-psycho-social model
- Anatomy, Physiology
- Pharmac. and non-pharmac. treatment
- Theory of TCM and CNM
- Stress reduction
- Work and life balance
- Diet as a general approach to wellbeing and health

### Body Awareness, Self Treatment, Stress Reduction
- Meditation and Imagination
- Breathing Therapy
- Qigong
- Art Therapy
- Rhythmics
- Psychotonic

**KLINIKUM DER UNIVERSITÄT MÜNCHEN®**
MULTIDISCIPLINARY PAIN CENTRE, DEPARTMENT OF ANAESTHESIOLOGY
MUNICH OUTPATIENT PROGRAM IN COMPLEMENTARY AND ALTERNATIVE MEDICINE FOR CHRONIC PAIN

**Part 1**
Interdisciplinary outpatient group program

**Part 2**
Continuous training on a weekly basis

**Part 3**
Long term support: meetings, seminars, lectures, media

KLINIKUM DER UNIVERSITÄT MÜNCHEN®
MULTIDISCIPLINARY PAIN CENTRE, DEPARTMENT OF ANAESTHESIOLOGY
### Munich Outpatient Program in Complementary and Alternative Medicine for Chronic Pain

488 patients (77 groups)  
20.11.2001 – 17.04.2015

<table>
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<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>Age (Mean, SD)</td>
<td>53.1 (13.1)</td>
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<tr>
<td>Female, n (%)</td>
<td>396 (81.1%)</td>
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<tr>
<td>Patients highly chronified n (%)</td>
<td>317 (65.0%)</td>
</tr>
<tr>
<td>Duration of pain, Median (IQR)</td>
<td>53.5 (18.0 – 140.5)</td>
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<tr>
<td>Duration of pain, Mean (SD)</td>
<td>102.1 (118.6)</td>
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<tr>
<td>Pain at 2 sites and more</td>
<td>240 (49.2%)</td>
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<tr>
<td>Continuous pain n (%)</td>
<td>313 (64.1%)</td>
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</tbody>
</table>
RESULTS – PAIN INTENSITY

p < 0.001 (ANOVA repeated measures)

Pain Intensity mean (+/- SE)

time

avege
max
min
current
RESULTS – PAIN DISABILITY INDEX (PDI)

Max PDI=70

P < 0.001 (ANOVA repeated measures)

Pain Disability Index

mean (+/- SE)

<table>
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<th>Time (time)</th>
<th>Pain Disability Index</th>
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<tr>
<td>0</td>
<td>Max PDI=70</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
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<tr>
<td>5</td>
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### RESULTS – CLINICAL RELEVANCE

<table>
<thead>
<tr>
<th>Effect size (Cohen`s)</th>
<th>t1</th>
<th>t2</th>
<th>t3</th>
<th>t4</th>
<th>t5</th>
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</thead>
<tbody>
<tr>
<td><strong>Pain Intensity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>[NRS 0-10]</td>
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<tr>
<td>mean</td>
<td>0.80</td>
<td>0.76</td>
<td>0.75</td>
<td>0.73</td>
<td>0.84</td>
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<td>maximum</td>
<td>0.81</td>
<td>0.95</td>
<td>0.90</td>
<td>0.90</td>
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<tr>
<td>minimum</td>
<td>0.50</td>
<td>0.51</td>
<td>0.52</td>
<td>0.43</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Disability (PDI)</strong></td>
<td>0.50</td>
<td>0.79</td>
<td>0.76</td>
<td>0.77</td>
<td>0.81</td>
</tr>
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</table>
SUMMARY

- There is moderate to strong evidence for short term effects of Qigong and Taiji in osteoarthritis and FMS compared to no treatment control.

- Qigong and Taiji seems to be equal to exercises in CNP and LBP.

- More research is required, but adequate for CAM.

- Qigong can easily be integrated into multimodal treatment approaches.