

# QUALITATIVE ANALYSIS OF A CONTROLLED TRIAL OF QIGONG FOR FIBROMYALGIA



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## INTRODUCTION

Qigong is an emerging health practice that exhibits potential to be of benefit in several chronic health conditions, including fibromyalgia. There are several reports of sustained benefits (4-6 months) of regular qigong practice (6-12 weeks) in fibromyalgia using different forms of qigong [1,2,3,4]. Qigong has now been characterized as “meditative movement” and this is helpful as it provides more recognizable terminology in relation to the practice, and core domains for considering components [5].

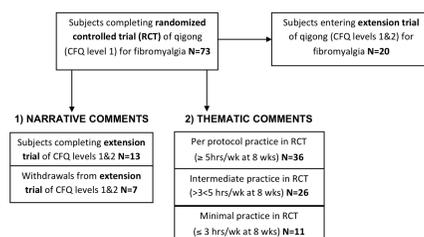
In Halifax, we completed a randomized controlled trial (RCT, N=100) [3] and an extension trial (N=20) [6] of qigong for fibromyalgia and reported that a subset of individuals from the extension trial had marked benefits in core FM domains (pain, sleep, impact, function) as well as other health benefits (e.g. allergies, asthma, migraines).

**In this analysis, we retrospectively analysed qualitative comments from the original RCT with respect to: (a) motivation, (b) amount of practice. The hypothesis being considered was that health benefits were related to amount of practice.**

[1] Haak, Scott (2008) *Disabil Rehab* 30:625-33; [2] Liu, Zahner, Cornell, et al (2012) *Int J Neurosci* 122:657-64; [3] Lynch, Sawynok, Hiew, Marcon (2012) *Arth Res & Ther* 14:R178; [4] Maddali Bong, Di Felice, et al (2012) *Clin Exp Rheumatol* 30(Supp 74):S51-8; [5] Larkey, Jahnke, Etner, et al (2009) *J Phys Act Health* 6:230-8; [6] Sawynok, Lynch, Marcon (2013) *Evid Based CAM Article* ID726021:1-12

## METHODS

**RCT participants** had training in **level 1 Chaoyi Fanhuan Qigong (CFQ)** (movement) (series of patterns performed slowly and rhythmically, 10X M1-5 and 5X M6-7), practiced 45 min daily for 8 weeks, and were encouraged to continue practice for 6 months. **Extension trial participants** had training in **level 2 CFQ (meditation)**, practiced 60 min daily for 8 weeks, and were encouraged to continue practice for 6 months.



**TABLE 1**

Qigong practice times self-reported by subgroups for which qualitative comments are considered in Tables 2 and 3.

A. NARRATIVE COMMENTS	8 weeks (hrs/wk) mean±SD	4 months (hrs/wk) mean±SD	6 months (hrs/wk) mean±SD
Subjects completing EXT trial (N=13)	5.63±1.65	3.65±1.32	3.06±1.52
Withdrawals from EXT trial (N=7)	4.40±1.62	2.71±2.68	2.61±2.56
B. THEMATIC COMMENTS	8 weeks (hrs/wk) mean±SD	4 months (hrs/wk) mean±SD	6 months (hrs/wk) mean±SD
RCT per protocol practice (N=36)	6.04±1.26	4.42±1.59	3.92±1.81
RCT minimal practice (N=11)	2.24±0.88 *	0.71±0.86 **	0.78±0.94 **

**TABLE 2**

**Narrative comments** in the original RCT by:

(A) those who completed the extension trial [N=13]

(B) those who did not complete the extension [N=7].

**NOTE:** Quantitative measures indicated improvements in pain, sleep, impact, physical and mental function [6].

**A. RCT comments (8 weeks) for EXTENSION TRIAL COMPLETERS**

**006:** allergies improved, sleep better, more relaxed, less stressed, tolerate scents without getting sick; **007:** allergies better, sleep better, more relaxed; **019:** by 2<sup>nd</sup> week difference in pain level and mood, more relaxed and happy, increased energy, by 3<sup>rd</sup> week past lumbar disc problem back with a vengeance [and] continued into week 4, one night in week 6 felt something shift and move up each vertebrae and the pain was gone, had regular debilitating headaches but now only minor ones, sleep improved, discontinued codeine contin (took for 7-8 years); **029:** not as cranky, more energy, might have found a way to deal with fibromyalgia; **036:** always feel a little better after CFQ, increased pain due to unexpected short notice move; **042:** more mobility, doing more social/public things; **043:** more relaxed and in control, sleeping easier, better overall; still have pain but have hope with qigong; **044:** am so grateful for training, care more about myself and [will] wait to consider disability insurance, more peaceful and in shape; **048:** very beneficial, [have muscular dystrophy] can raise my arms to some degree [which] has not been possible for 15 years; **075:** blood pressure down, sleeping well, not as stressed, pain now localized – was everywhere before, more positive attitude; **087:** mood improved, pain decreased; **091:** less pain, more energy, better sleep time; **098:** less stress, anxiety, depression, sinus problems due to food and environmental sensitivities are now rare and more easily controlled, much happier, feel physically and emotionally stronger

**B. RCT comments (8 weeks) for EXTENSION TRIAL WITHDRAWALS**

**004:** less body pain, more energy, less tired; **005:** change in feet at night, usually have charley-horse before going to sleep, that has disappeared, less tired and less aches and pains; **025:** breathing easier, at first lots of pain in back, legs and feet, but around week 5-6 that calmed down, happy and upbeat more often; **060:** sleeping through night more often, less constipation, when practice interrupted [travel] noticed big change – waking at night, not getting back to sleep, bowel habit changed, increased pain, fatigue and decreased activity; **063:** had difficulty maintaining practice because diagnosis of diabetes, taking less Tylenol; **082:** better some days, sleep better and do a little more work than before; **089:** less anxious, more calm

**NOTE: Overall, comments by withdrawal group are briefer and have a more moderate tone compared to those who completed the extension trial.**

**TABLE 3**

**Thematic comments by RCT participants** for those who practiced per protocol (≥5hrs/wk at 8 weeks) and those who practiced minimally (≤3 hrs at 8 weeks).

**NOTE:** Groups had significantly different improvements in pain, sleep, impact and function in quantitative scores [3].

**A. PAIN: 31/36 or 86% in per protocol group offer comments**

**EXAMPLES:** **007:** while pain from FM is less severe, experience FM symptoms more often; less pain in shoulders; **008:** less pain medication, more positive outlook; **012:** less pain in feet; **016:** before qigong was full of pain and felt hopeless, now have hope and am somewhat free of the daily pain, still have issues with lower back and neck, with exception of last month have had increased energy and pain relief; **017:** significant decrease in pain meds, frozen shoulder completely healed, daily pain levels from 7 to 1-2; **019:** small difference in pain level wk2, wk 3 back and sciatic nerve pain returned with vengeance, wk 4 qigong movements caused body to bend and twist and straighten, one night wk 6 something shifted and moved up each vertebrae and the pain was gone; have always had bad headaches due to TMJ since childhood, debilitating and lasted 2-3 days, since wk 4, have not had bad headache, only minor one or two; feel well without codeine contin; **025:** at first lots of pain in back, legs and feet, around wk 5-6 it calmed down; **028:** less pain; **029:** less pain; **032:** when in pain, feel much better after qigong, calmer; **040:** pain has increased as decreased meds; **043:** pain definitely better since practicing, still have pain but have hope, have not had bad pain episodes since starting qigong, pain is more manageable

**vs 7/11 or 64% in minimal practice group**

**005:** usually have charley-horse in feet in bed before going to sleep but that has disappeared, less prone to aches and pains, when practice qigong, less tired and definitely less painful; for past 2 mos have regressed and last week was my worst in a long time; **018:** have less physical pain and able to accomplish more; **030:** not sure due to methotrexate, also increased walking [absence of car], pain increases severely when I play piano, drive the car; **052:** stressful month so had more pain and fatigue, pain still there but doesn't overwhelm me every day (4mo), still have pain but slightly less, physical endurance still low; **090:** pain reduced, mental battles and anxiety seem to have gotten worse; **096:** only thing noticed is pain in neck has gone away

**NOTE: There is a more moderate and uncertain tone to comments in the latter group**

**B. SLEEP: 24/36 or 67% in per protocol group offer comments**

**006:** sleeping much better; **007:** sleeping better; **008:** have tried sleeping without medication – not there yet but trying; **010:** able to get comfortable and sleep easier; **016:** better sleep, discontinued sleep medication; **017:** have slept so much better since qigong, have not needed bite plate at night almost all the time; **019:** sleep has improved, am falling asleep quickly and sleep longer, more energy; **025:** sleeping much longer periods; **028:** better sleep, deeper sleep, less tired; **032:** sleep quality has improved significantly, sleeping pattern changed, go into deeper sleep; **042:** overall improvement in sleep; **043:** sleeping easier and better overall; **045:** feel rested when I sleep, which I hadn't for years; **067:** fatigue and sleep have improved slowly and steadily since starting qigong; **071:** sleep has improved a lot, my husband tells me he is sleeping better as well; **075:** sleeping well, calmer; **077:** sleep better at night; **080:** able to fall asleep easily, more energy; **084:** sleeping much better, feeling more rested, waking cheerful; **087:** sleep quality a lot better; **088:** don't take as many naps as usual, stay up longer in the evenings; **093:** length and quality of sleep improved resulting in increased energy; **095:** better sleep; **098:** increased quality and duration of sleep, so feeling more rested

**vs 3/11 or 27% in minimal practice group**

**005:** less tired; **018:** better sleep habits; **100:** around wk 4/5, sleep was broken at times and could not get back to sleep

**NOTE: Few comment on sleep in the latter group**

**C. QUALITY OF LIFE: 34/36 or 94% in per protocol group offer comments**

**EXAMPLES:** **006:** allergies improved enough to discontinue meds; **007:** allergies better; more relaxed, do not get stressed as easily; **008:** have good days [embrace life, exercise] then slide back, starting to lose weight, increase in positive outlook, have also begun walking; **012:** more relaxed; **016:** mostly positive changes in health, have hope, bowels are regular, more calm, increased energy; **017:** much more positive, more motivated, have not required bite plate at night almost all the time, feel much better, have had a very positive outcome, have a totally different life now; **019:** am amazed at the differences qigong has made to mental and physical health, so different from 5-10 years ago when life was pain and misery, never expected would feel like this again; **021:** improvement in circulation in legs and feet; **025:** breathing somewhat easier; happy and upbeat more often; **028:** overall sense of well-being, calmer, more relaxed, improved health; **029:** less cranky, more energy, accomplish more, weight loss, feel stronger physically and mentally, increased activity level, happier, positive attitude; **032:** mood better, not depressed as at the beginning, happier; **040:** stronger, calmer, less anxiety, memory has definitely improved, attention span better; **042:** more mobility, most social I have been in a decade (8w), setbacks at 4mos, overall noticeable improvement in health, seemed to uncover health issues (6mo); **043:** more relaxed and in control, stress level down considerably;

**vs 7/11 or 65% in minimal practice group**

**018:** emotionally sound; **030:** feel more stabilized physically and stronger due to more flexibility, makes me feel rejuvenated, benefits are apparent immediately after completing movements, need guidance [for movements] as memory is faulty; **035:** no change, too many other things happening; **038:** much calmer and more peaceful after doing qigong, not familiar enough with moves; **079:** calmer, have not practiced enough to see a difference, depression interfering with life, some of pain results from lack of activity due to depression; **096:** had to stop, didn't have enough energy after being in hospital; **099:** not a lot of change

**NOTE: Some positive comments, but uncertain tone in the latter group**

## SUMMARY & CONCLUSIONS

1. Participants who completed the extension trial of qigong were more likely to have had a positive experience with symptoms during the first 8 weeks of the RCT than those who entered, but did not complete, the extension (Table 2).
2. Participants who practice qigong diligently (45 min/day, 8 weeks) in the initial RCT were more likely to experience health benefits than those who practiced minimally (Table 3).
3. Initial good experiences with qigong predispose to regular continued practice over extended intervals and consolidated health gains.

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