

Chaoyi Fanhuan Qigong and Fibromyalgia: Methodological Issues and Two Case Reports

Jana Sawynok, PhD¹, Chok Hiew, PhD,² and Dana Marcon, BA, BComm³

Abstract

Background: *Qigong*, which has many forms, was recently described as “meditative movement,” and represents a self-care technique that can contribute to improved health. There are challenges involved in research into *qigong*, including defining the amount of instruction required for threshold effects, and whether there is a relationship between amount of practice and outcomes. Recent clinical trials examining *Chaoyi Fanhuan Qigong* (CFQ) for fibromyalgia have used a standardized regimen of practice over an 8-week period.

Case report: Between a pilot trial and a subsequent larger controlled trial, 2 individuals with fibromyalgia of over 20 years’ duration undertook levels 1–4 CFQ training involving movements and meditation at a community-based event and then practiced regularly over a 1-year period. They subsequently both undertook further training, and consolidated their health gains. Both observed major reductions in pain, improvements in sleep, mood, emotions, food and other allergies, and consider their condition essentially resolved. They have ceased taking several medications and have resumed their lives.

Results: The information provided by these individuals could not be derived from a clinical trial, as it is unlikely people would commit to this amount of practice.

Conclusions: The case study approach provides data with respect to extent of practice, perseverance and long-term outcomes, and provides valuable insight into the potential of this self-care practice.

Introduction

QIGONG, WHICH INVOLVES CULTIVATION of body movements and postures, attention to breathing, and mind instruction, is based on Chinese wellness practices, exists in many forms, and has a long history.¹ *Qigong* is now postulated to be “meditative movement” constituting a distinct category of exercise.¹ There are several reports indicating that *qigong* can provide benefit in fibromyalgia, a chronic pain condition in which other forms of dysfunction are common, and these include both pilot trials^{2–4} and a controlled trial.⁵ While outcome measures varied in each report, benefit compared to baseline was sustained for 3–6 months following the intervention.

There are several challenges involved in researching the potential for *qigong*, and similar complex interventions, to improve health status.^{6,7} These include the many different forms of practice, nature of instruction at different sites, the nature of a comparison group, and identifying the elements of the practice that may be critical to attain an effect. A further issue is that of “dosing”: how much is required to

produce benefit (threshold), and whether further engagement leads to more benefit (dose relationship). In designing trials, standardized regimens are based on experience, but it is not always clear how such regimens are determined, or how they relate to a complex condition where health impairments have persisted for years. In uncontrolled trials of *qigong* for fibromyalgia, *qigong* was part of a combined education/relaxation/*qigong* intervention (8 weekly 2.5-hour sessions with 1 hour *qigong*)² or was delivered externally as five to seven 40–45-minute sessions over 3 weeks.³ A controlled trial (compared to wait list) involved 11.5 hours of instruction in 9 sessions over 7 weeks, and subjects were encouraged to practice *qigong* daily at home (40 minutes); two external *qigong* sessions were included.⁵

Two (2) clinical trials of *Chaoyi Fanhuan Qigong* (CFQ)⁸ for fibromyalgia were recently conducted: an initial pilot trial⁴ and a controlled trial.⁹ CFQ training involves prescribed movements and postures (level 1, dynamic *qigong*) and meditative techniques (levels 2–5, quiescent *qigong*).⁸ These trials involved (1) two 4-hour training sessions in level 1 CFQ, weekly practice sessions of 90 minutes, and

¹Department of Pharmacology, Dalhousie University, Halifax, Nova Scotia, Canada.

²University of New Brunswick, Fredericton, New Brunswick, Canada.

³Personal Training Clinic, Halifax, Nova Scotia, Canada.

self-practice for 45 minutes daily for 4 weeks, with a further 4 weeks of self-practice,⁴ and (2) three 4-hour training sessions in level 1 CFQ, weekly practice sessions of 90 minutes, and self-practice for 45 minutes daily for 8 weeks.⁹ Between these trials, 2 individuals with fibromyalgia undertook a community-based CFQ workshop in levels 1–4, repeat instruction, and practiced regularly (in groups, and individually) over a 12-month interval. Both subsequently undertook further advanced level workshops and extended their individual practice. This amount of practice is unusual, and far exceeds what would be involved in any clinical trial. The outcomes reported in these 2 cases provide an indication of the potential for continued application of CFQ to provide benefit in chronic and complex health conditions. Informed consent to publish these cases has been provided.

Case 1

Background. Case 1 was a 45-year-old woman at the time of initial CFQ training in summer 2008. She had been diagnosed with fibromyalgia in 1998, at which time she left the workforce to better manage her symptoms. Her history of chronic pain began in her teens following an accident (fall from bicycle); she had foot, leg, back, neck, and hand pain, and sometimes struggled with fatigue; she also developed varicose veins. In her 20s, the pain in her neck, shoulders, and lower back continued, and fatigue, tension, anxiety, and the varicose veins worsened (the latter were corrected surgically). Sleep became elusive, and allergies and seasonal affective disorder appeared. In her 30s, there was bodywide malaise, neck and muscular pain (neck pain considered a main issue), increasing fatigue, sleep disturbances, allergies and frequent infections. In her 40s, additional jaw pain and dental issues appeared, as did elevated blood pressure and dermatological conditions (dry skin, rosacea, reactions to products). She had a pregnancy in her 20s (complicated by severe sciatic nerve pain due to herniated discs; she spent the last 2 trimesters on bedrest, and used a wheelchair during pregnancy and just after), and a divorce in her 40s (after 24 years of marriage). Treatments for managing symptoms included low-dose amitriptyline, cyclobenzaprine, light therapy, allergy injections, physiotherapy, chiropractic, and massage. She also reported using the following during the prior decade: acupuncture, saunas, Chinese Medicine and cupping, osteopathy, transcutaneous electrical nerve stimulation, Nambudripad allergy elimination technique, exercise, various supplements, dietary and lifestyle changes, Epsom salt baths daily, stretching programs, yoga, naturopathic medicine, Botox injections (into the neck), melatonin, over-the-counter creams and rubs, hormone creams, and homeopathic remedies.

Qigong training and practice. In summer 2008, she undertook levels 1–4 CFQ training over 8 days; she subsequently undertook group and individual healing sessions, repeats of level 1–2 instruction, participated in 2-hour weekly group practice sessions and weekend workshops, and practiced a minimum of 1 hour daily. In summer 2009, she attended an advanced level CFQ workshop for 7 days, undertook individual healing sessions, attended a personal retreat (1 week) and repeat instruction sessions, and continued individual practice (1.5 hours daily, but often 2–3 hours). In summer 2010, she attended a further advanced level

workshop (10 days) and trained to become a level 1 instructor; she increased individual practice to 2 hours daily (sometimes as much as 5–6 hours).

[Note: In both cases, the initial 2008 training, follow-up practice, repeat training sessions, and healing sessions were conducted by CFQ instructors with at least 5–10 years of experience. Advanced level instruction in 2008, 2009, and 2010 was provided by the instructor who developed CFQ in the mid-1990s and had over 15 years of experience.]

1-year+ follow-up (fall 2009). She reported less pain, muscle tension, and anxiety after the 2008 workshop. Over the course of the next several months, she ceased taking an antidepressant, stopped massage and chiropractic care, resumed eating foods she had been told she was allergic to (dairy, soy), and her blood pressure returned to normal. Over time, she ceased taking all medications and supplements, and returned to her dentist, which she had not done for 5 years due to neck pain and muscle tension. Following dental work, she no longer had tooth and jaw pain. Her old pain was regarded as nonexistent. She still struggled with intermittent fatigue, but found CFQ helped immediately. She began to sleep well after learning how to meditate; she indicated that after 20+ years of poor sleep, she could now sleep no matter what the circumstances. She considered pain, mood, sleep, and energy to be improved tremendously, to the point that she was ready to resume work/school soon.

Three-year follow-up (summer 2011). She reported no bodywide *pain* since about a year after starting CFQ. Pain cropped up at times, but usually only in one or two areas at a time (e.g., knees and hips, hands and feet, head/jaw, neck and shoulders). Tension headaches, which had been frequent, were gone. There was one episode of extreme neck pain returning in 2010; this she managed in consultation with her CFQ instructor and prescribed actions, and it resolved over 4–5 days. With respect to *mood/emotions*, these had varied a great deal over the past 3 years, but she now reported feeling calmer, steadier, and more peaceful than ever before in her adult life. Her *cognition* was more reliable, and brain fog appeared only sometimes. *Sleep* had greatly improved with meditation; she still awoke most nights but was able to resume sleep; she also noted she required less sleep (about 6 hours) and awoke early. With respect to *fatigue*, her energy levels were better and steadier. With respect to *other effects*, she could now eat and drink whatever she wanted with no adverse effects; her skin was hydrated and healthy, and she no longer reacted to various products. Her circulation was improved and previously cold hands and feet were much warmer. Premenstrual symptoms were gone. She now took no medications, except for occasional acetaminophen or ibuprofen. She had resumed employment, and was now certified as a level 1 instructor in CFQ.

Case 2

Background. Case 2 was a 57-year old woman at the time of initial training in summer 2008. She had been diagnosed with fibromyalgia in 1988. Chronic pain began after she hurt her back in the garden in 1987; initially it involved severe headaches and leg pain but continued to increase; neck/shoulder pain became shoulder, neck, lower back,

buttock, and leg pain, and muscle spasms became so severe that her upper back and neck seemed "locked." Analgesics and physiotherapy did not help, and chiropractic manipulation produced only transient relief. By summer 1989, she had experienced almost 2 years of sleepless nights due to pain and was exhausted. Amitriptyline helped with sleep but the pain persisted. Over the next 20 years, she consulted physiotherapists, sports medicine doctors, an osteopath and massage therapists; many did manipulations of the sacroiliac joint (SA), neck, and spine, and this led to even more pain. Her SA joint would go out of place easily and she was unable to move without help for months at a time. She was diagnosed with irritable bowel syndrome, and had food allergies and bowel and bladder problems. Neither mainstream nor manipulative medicine was able to help, and she could feel her health deteriorate. She turned to naturopathic medicine, and with multiple supplements and a strict diet (no potatoes, dairy, or grains), she began to feel better physically. However, over time, the extra costs and regimented diet added to the already stressful situation of being in pain practically 24/7 plus having other health issues. In 2006–2007, she began acupuncture 3 times/week and took other Chinese medicine remedies, but this was expensive and provided only transient relief. By the end of 2007, after spending many thousands of dollars seeking relief, she had "come to the end of the road."

Qigong training and 1-year+ follow-up. In summer 2008, she undertook level 1–4 CFQ training (8 days), and subsequently practiced 1 hour daily at home for 6 months. *One week* following training, she noticed an improvement in her energy level and bowel and bladder function. Pain was still present but it was now considered manageable. *At 6 months*, she reported a vast improvement in pain; she could now go several days without any pain, and flare-ups lasted 1–2 days rather than a week or so. Other bodily functions also were improved. She had not used other treatments since CFQ instruction. She was now involved in full-time work. In an update sent at *14 months*, she reported two significant events. At about 8 months following initial training, her eyes began to bother her to the point she thought she might be losing her sight; a visit to an eye specialist revealed her vision had improved significantly (from -4.00 to -3.25) and new glasses corrected the issue. Soon after that, her SA joint went out of place again. She practiced CFQ intensively (2 hours 3 times/day for 3 days) and was then able to walk unassisted inside her house; the episode resolved within 2–3 weeks. Prior to learning CFQ, it had taken 2 months before she could walk without help, and 3 months before getting close to normal.

Three-year+ follow-up. In summer 2009, she attended an advanced-level CFQ workshop in the United Kingdom and increased her daily practice to 2 hours for 3–4 months. With the travel, she had realized she was not going to be able to follow recommended dietary restrictions (no potatoes, dairy, or grains), and reintroduced these foods; there were no negative repercussions as a result. After returning to Canada, she gradually stopped taking dietary supplements and reduced the dose of amitriptyline from 50 mg to 20 mg daily. In *summer 2010*, she attended another advanced level CFQ workshop (10 days). She then reduced amitriptyline to 10 mg

daily and continued to notice an overall improvement in health. In *summer 2011*, she reports "getting on with life and living, plans to attend events and taking little trips with friends and family, dancing, no longer feeling restricted and afraid to make plans in case of flare-ups...that's a huge change." In early 2012, she reports discontinuing amitriptyline completely.

Discussion

Fibromyalgia is a difficult condition, both for those who experience it and for those who try to treat it. This report documents two cases of fibromyalgia of >20 years' duration in which the condition is essentially resolved following CFQ practice. Not only is the pain markedly improved, but also many other health conditions are resolved. Both individuals had, over prior decades, consulted with medical practitioners, practitioners of complementary and alternative medicine, and tried a variety of self-care techniques.

These 2 cases are instructive for several reasons. (1) *Both engaged in intensive practice of CFQ at levels unlikely to be encountered in controlled trials because of the degree of effort involved.* What motivated these individuals? Case 1 had hoped to be a subject in a CFQ pilot trial, but following a Botox injection into her neck, pain intensity was not scored high enough to be included. Once she undertook training and noticed an initial shift in symptoms, she was motivated to continue to explore the potential of this technique. Case 2 had seen a newspaper article on the pilot trial, and was desperate for something to help. Again, 1 week following the workshop, there was a perceived benefit, and she wished to continue to explore this. (2) *These cases provide an indication of the relationship between extent of practice and outcomes ("dose-response" or "practice-response" relationship).* The level of practice engaged by these 2 individuals far exceeds that involved in controlled trials. Six (6)-month to 1-year follow-ups are available for both cases, and while the extent of practice was different (case 1 > case 2), both reported considerable improvement within this interval: pain was essentially resolved, and benefits were noted in many areas. Further practice consolidated these health gains. (3) *Specific consequence of CFQ practice for acute pain episodes are reported.* Case 2 had previously experienced disabling pain for months following dislocation of her SA joint. When this event occurred a second time, she practiced CFQ intensively (~18 hours over 3 days), and this enabled her to become independently mobile within days, and for the episode to resolve in 2–3 weeks. This compares favorably to 2–3 months in the prior episode. By the time this incident occurred, her confidence in the technique was such that she applied it to an acute pain setting and reported marked benefit. Case 1 also reported an episode of extreme neck pain during her recovery; this was resolved over 4–5 days in collaboration with her CFQ instructor and prescribed movements. (This is known as a "healing crisis" within the practice.)

There are several limitations to these cases that merit comment. (1) *Reports are qualitative rather than quantitative.* While outcomes attributed to CFQ practice rely on the self-reporting of symptoms, it is clear that pain and multiple other symptoms that had been troublesome for decades were essentially resolved. Curiously, it is unlikely that some of the symptoms noted in the qualitative reports (relief of allergies,

improvements in vision and circulation) would be reflected in standard pain, impact, sleep, mood, and quality-of-life measures. (2) *Reports are retrospective rather than prospective.* Both cases elaborated between a pilot trial and a controlled trial of this form of *qigong*; because of this juxtaposition, documenting the outcomes of the 2 cases was important. Controlled trials and qualitative observations provide complementary information. (3) *There is no comparison group.* Case reports rely on before-and-after comparisons, as does clinical practice. There is a concern that changes may be “nonspecific” (reflect natural history, regression to mean) or “placebo effects” (reflect conditioning, expectancy, practitioner effects). While such factors may contribute, it is important to note that over the years, many different methods had been tried and one would expect such factors to be involved in each of those other methods. “Spontaneous remission” (condition resolves for unknown reasons) is also a possibility. However, both cases reveal a “practice-relationship” in that shifts noted after the initial week progressed to clear effects after 1 year of continued practice, and increased application led to resolution of multiple symptoms at 3 years. The relationship to extent of practice implies causality. (4) *The essential elements of the practice are not identified.* *Qigong* is “meditative movement” and involves body movements and mind instruction.¹ Level 1 CFQ involves dynamic movements (hexagram, ancillary movements) and subsequent levels involve quiescent meditative techniques.⁸ Exercise is recognized to provide some benefit in fibromyalgia.¹⁰ However, CFQ movements are gentle and emphasize softness and bringing attention into the body, and differ from exercise that emphasizes strength, flexibility, and aerobic training. Meditation constitutes an entire domain of mind-body practice, and can be studied independently. Mindfulness-based stress reduction provides variable benefit in fibromyalgia.¹¹ Future research will need to consider: (1) systematic examination of the amount of practice in relation to outcomes, (2) comparisons between exercise or meditation alone and CFQ; and (3) comparisons between different types of *qigong*.

Conclusions

In summary, these 2 cases indicate that intensive levels of CFQ practice can lead to marked benefits in pain and other symptoms of fibromyalgia. The data considered in relation to a pilot trial⁴ and a controlled trial of CFQ for this condition⁹ provide information that is not readily available by other means. Two-step trials, whereby there is an initial exposure to the technique and 6-month outcomes are determined, followed by advanced-level training for those who are interested and willing to undertake such training, are feasible. These would be akin to enriched enrollment trials, and would better elaborate the true potential of this technique.

Acknowledgments

Master Yap Soon Yeong developed CFQ in the 1990s, wrote several books on CFQ in collaboration with CH, and is centered in Penang, Malaysia. He conducted the advanced-

level training workshops that these two individuals attended in 2008, 2009, and 2010. We thank him for his contributions to these events.

Disclosure Statement

JS has nothing to disclose in relation to this report. CH has coauthored several books on CFQ, was a founding trainer, and has produced training videos. CH and DM were both regionally available instructors in CFQ. CH conducted the initial community-based training session and DM provided follow-up instruction.

References

1. Larkey L, Jahnke R, Etnier J, Gonzalez J. Meditative movement as a category of exercise: Implications for research. *J Phys Activity Health* 2009;6:230–238.
2. Creamer P, Singh BB, Hochberg MC, Berman BM. Sustained improvement produced by nonpharmacologic intervention in fibromyalgia: Results of a pilot study. *Arthritis Care* 2000;13:198–204.
3. Chen KW, Hassett AL, Hou F, et al. A pilot study of external *qigong* therapy for patients with fibromyalgia. *J Altern Complement Med* 2006;12:851–856.
4. Lynch ME, Sawynok J, Bouchard A. A pilot trial of CFQ for treatment of fibromyalgia. *J Altern Complement Med* 2009;15:1057–1058.
5. Haak T, Scott B. The effect of *qigong* on fibromyalgia (FMS): A controlled randomized study. *Disabil Rehabil* 2008;30:625–633.
6. Wayne PW, Kaptchuk TJ. Challenges inherent to *T'ai chi* research: Part I. *T'ai chi* as a complex multicomponent intervention. *J Altern Complement Med* 2008;14:95–102.
7. Wayne PW, Kaptchuk TJ. Challenges inherent to *T'ai chi* research: Part II. Defining the intervention and optimal study design. *J Altern Complement Med* 2008;14:191–197.
8. Yap YS, Hiew CC. *Chaoyi Fanhuan Qigong* Healing. New York: iUniverse, 2009.
9. Lynch M, Sawynok J, Hiew C, Marcon D. A randomized controlled trial of *qigong* for fibromyalgia. *Arthritis Res Ther* 2012;14:R178.
10. Hauser W, Klose P, Langhorst J, et al. Efficacy of different types of aerobic exercise in fibromyalgia syndrome: A systematic review and meta-analysis of randomized controlled trials. *Arthritis Res Ther* 2010;12:R79.
11. Schmidt S, Grossman P, Schwarzer B, et al. Treatment of fibromyalgia with mindfulness-based stress reduction: Results from a 3-armed randomized controlled trial. *Pain* 2011;152:361–369.

Address correspondence to:
 Jana Sawynok, PhD
 Department of Pharmacology
 Dalhousie University
 5850 College Street
 Halifax, Nova Scotia B3H 1X5
 Canada

E-mail: jana.sawynok@dal.ca