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A Pilot Study of External *Qigong* Therapy for Patients with Fibromyalgia

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ABSTRACT

Objectives: Although *qigong* is an important part of Traditional Chinese medicine (TCM) based on a philosophy similar to acupuncture, few studies of *qigong* exist in the Western medicine literature. To evaluate *qigong* therapy as a modality in treating chronic pain conditions such as fibromyalgia syndrome (FMS), we report a pilot trial of 10 women with severe FMS who experienced significant improvement after external *qigong* therapy (EQT).

Design: Ten patients with FMS completed five to seven sessions of EQT over 3 weeks with pre- and post-treatment assessment and a 3-month follow-up. Each treatment lasted approximately 40 minutes.

Outcome measures: Tender point count (TPC) and Fibromyalgia Impact Questionnaire (FIQ) were the primary measures. McGill Pain Questionnaire (MPQ), Beck Depression Inventory (BDI), anxiety, and self-efficacy were the secondary outcomes.

Results: Subjects demonstrated improvement in functioning, pain, and other symptoms. The mean TPC was reduced from 136.6 to 59.5 after EQT treatment; mean MPQ decreased from 27.0 to 7.2; mean FIQ from 70.1 to 37.3; and mean BDI from 24.3 to 8.3 (all $p < 0.01$). Many subjects reported reductions in other FMS symptoms, and two reported they were completely symptom-free. Results from the 3-month follow-up indicated some slight rebound from the post-treatment measures, but still much better than those observed at baseline.

Conclusions: Treatment with EQT resulting in complete recovery for some FMS patients suggests that TCM may be very effective for treating pain and the multiplicity of symptoms associated with FMS. Larger controlled trials of this promising intervention are urgently needed.

INTRODUCTION

Fibromyalgia syndrome (FMS) is the third most common rheumatic disorder seen in rheumatology practices, affecting about 2% of the population in the United States, primarily women.^{1,2} The limited effectiveness of pharmaco-

logic agents and the association of FMS with psychologic distress² have led to the wide exploration of alternative treatments. However, studies of alternative therapies reported only modest improvement in some FMS patients, with many yielding only short-term benefits.³ Thus, for this common rheumatic syndrome, no proven means has been found to

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consistently bring adequate symptom relief and restore patient well-being. A safe and effective therapy that decreases pain and improves functionality would represent an invaluable addition to existing treatment modalities. *Qigong* therapy from Traditional Chinese Medicine (TCM) could be a promising adjunctive treatment.

TCM does not have a definitive concept that encompasses FMS as diagnosed in Western medicine. Nonetheless, some symptoms of FMS are closely related to the TCM concept of *Bi Zheng*, which refers to different types of pain or numbness caused by windy, cold and damp *qi*, or *qi* imbalance. According to TCM, good health is the result of free-flowing and balanced *qi* (energy), whereas sickness or pain like that seen in FMS is the result of blocked or unbalanced *qi*. All TCM therapies for pain and arthritis—herbs, acupuncture, cupping, or *Qigong*—are based on the same principle: eliminating cold and damp *qi*, breaking *qi* blockage, and supplying the affected areas with healthy and balanced *qi*. The *qigong* therapy used in this study has precisely this goal. Although the physical nature of *qi* is unknown, a growing body of scientific evidence suggests the physical existence of *qi*,⁴ as well as the healing power of *qigong* therapy.⁵

Qigong is a general term or concept for a variety of traditional Chinese energy exercises and therapies that facilitate the flow of *qi* (vital energy). In general, *qigong* refers to the self-training method or technique that integrates the adjustments of body posture, breathing, and mind status into one to achieve optimal status of both mind and body.⁶ Chinese practitioners have practiced various forms of *qigong* for thousands of years to treat diseases and strengthen health. However, the term *qigong* used by health care professionals to summarize all energy exercises was only a recent event since the 1950s. Many well-known energy exercises in Western society, such as Reiki, Yoga, meditation, and breathing exercises, could be labeled as *qigong* in China currently. Therefore, it is important to keep in mind that *qigong* is just a term or a handle for a variety of energy exercises or therapies. Traditionally, *qigong* was passed from generation to generation in a secret manner. Only recently has *qigong* become a public health practice in China. Currently, it is reported that more than 100 million people practice *qigong* in China and more practice around the world to treat diseases ranging from hypertension and arthritis to cancer and human immunodeficiency virus.⁴⁻⁹ In the tradition of medical *qigong*, there have been two major types of therapies: internal *qigong* training (self-practice) and external *qigong* therapy (EQT). Self-practice of *qigong* forms is the key or major part of *qigong* therapy, whereas EQT refers to the process by which *qigong* practitioners direct or emit their own *qi* energy to help break the *qi* blockage and remove the sick *qi* from the bodies of others so as to balance the *qi* system, which in turn is thought to relieve pain and eliminate disease. As part of TCM practice, EQT is widely practiced in many hospitals in China.

Most studies of *qigong* therapy for FMS have involved patients' self-practice of *qigong* rather than EQT. For example, Singh et al. combined movement *qigong* with cog-

nitive behavioral therapy to treat 28 patients with FMS, and reported significant reduction in pain, fatigue, and sleeplessness; and improved function, mood state, and general health following an 8-week intervention.¹⁰ However, two randomized controlled trials^{11,12} reported no difference in improvement between intervention (*qigong* plus other therapy) and the control group (education program). These studies had a major design flaw—*qigong* practice (internal *qigong* therapy) is supposed to be implemented on a daily basis with high intensity to generate enough *qi* flow, and it is unlikely to show an appreciable effect if implemented only once a week as an exercise. Similar to the acupuncture in TCM, when acupuncture uses needles to stimulate the *qi* flow, it is said that EQT uses the healer's *qi* energy to break the *qi* blockage, or balance the *qi* of the patients (while self-practice of *qigong* uses physical movement and meditation to generate the similar *qi* flow and effect). Chen and Liu⁹ reviewed 20 studies of *qigong* therapy for arthritis in the Chinese literature, including both self-practice of *qigong* and external *qi* healing, and reported mostly positive findings in the *qigong*-treated group compared to controls.

Qigong has gained popularity in the United States and around the world^{5,13,14} in treating various diseases. Despite the fact that chronic pain patients are increasingly seeking alternatives to the Western biomedical model, there is little documentation in the English literature assessing *qigong* therapy in general. The purpose of this open trial of EQT was to determine whether Western patients with FMS would benefit from EQT.

METHODS

Subjects

All subjects were drawn from the clinical records of two physicians associated with our medical school. Patients were selected by American College of Rheumatology (ACR) diagnosis criteria for FMS¹ and required to be available on one specific day to start the trial so as to fit the schedule of both the physician and the healer. About 30 patients were approached; 16 patients with FMS history accepted the invitation for initial screening (15 females, 1 male). Three were not qualified for the study because they did not meet the ACR criteria for FMS,¹ mostly due to lack of pain in tender points or absence of widespread pain (one of these was the only male patient). The remaining 13 patients met the ACR criteria for FMS (pain on 11 or more of 18 tender points), and reported a score on Fibromyalgia Impact Questionnaire (FIQ) greater than 50 (mean FIQ is around 50).

All 13 subjects were white women aged 23 to 66 (mean = 49.8). Three dropped out of the study after one to three treatments while 10 patients completed the scheduled EQT treatments in 3 weeks with pre- and post-treatment assessments. Most subjects also had health problems other than FMS, such as rheumatoid arthritis, post Lyme disease syndrome,

TABLE 1. BRIEF DESCRIPTION OF SUBJECTS, OTHER THERAPIES USED AT THE BEGINNING OF THE STUDY, AND THEIR MAJOR HEALTH COMPLAINTS OTHER THAN FIBROMYALGIA SYNDROME (FMS)

| ID | Age | Years FMS | Other therapies used | Major health complaints other than FMS |
|----|-----|-----------|---|---|
| 02 | 62 | 7 | Chiropractic | Sinus headache, diffuse tendon 5 years, severe pain even at sham points |
| 03 | 23 | Miss | Ultrasound | Esophageal, reflux, arthritis, lupus |
| 06 | 52 | 10 | Chiropractic, acupuncture, tramadol/RLS, Lidoderm patch | Degenerated disc, bulgy disc, hypertension, high cholesterol (on Zocor), diabetes, menopause, arthritis |
| 07 | 56 | 3 | None | Muscle weakness, diabetes, high cholesterol, diarrhea for 6 years |
| 08 | 46 | 8 | Chiropractic, Roxicet | Neuropathy, constipation for years, shoulder tendonitis |
| 09 | 54 | 5 | Acupuncture | Rheumatoid arthritis, diabetes, metabolic syndrome, hypertension, post menopause |
| 12 | 50 | 5 | Ultram ^a | UDCTD (on Celebrex), arthritis |
| 13 | 44 | 6 | None | Mild heart attack, chronic stomach pain, Lyme disease |
| 14 | 58 | 10 | Chiropractic, herbs | Rheumatoid arthritis, Hx of gastric bypass, diabetes |
| 15 | 53 | 2 | Soma/Oxycontin ^a | Arthritis, diabetes, hypertension |

Note: All subjects were white women.

^aStopped using by the end of study.

UDCTD, undifferentiated connective tissue dysplasia.

or degenerated disc disease, which could significantly complicate the treatment outcomes (Table 1).

The duration of FMS pain ranged from 2 to 10 years (mean = 6.2 years). Six patients reported a family history of chronic pain; eight considered themselves religious and prayed for their health; and six had actually meditated for health purposes. All subjects expressed some confidence in complementary and alternative medicine (CAM), and 8 had used CAM previously, (acupuncture, herbal and chiropractic).

Protocol

With limited resources and availability of the healer, our intervention included seven sessions of EQT treatment over a 3-week period. The EQT took place twice a week in those 3 weeks. On the first and last treatment day, physician examinations and symptom assessments were conducted. All subjects underwent at least five sessions of EQT treatment by the same *qigong* healer (FH), and then completed another round of assessment after the final treatment.

EQT treatment by this specific healer consisted of administering acupressure, *qi* emission, *qi* balancing, and magnetic cupping on each individual. The following is a brief description of the main steps in the specific EQT of this healer, and the presumed functions of these various steps in the treatment process:

(a) The fully clothed patient lies down on her back on the examination table; the healer lightly touches the abdominal area to sense the blockage of *qi* flow in the major organs, allegedly moving the *qi* around, and driving the stagnant *qi* out via the bottom of the patient's feet.

- (b) The healer examines the key acupoints (not necessarily the tender points) to sense the extent of the blockages at each point and in the internal organs. He uses his palm(s) movements to generate the flow of *qi* in each blocked area, driving the stagnant *qi* out through the patient's feet (Yongchuan acupoint).
- (c) The patient turns around facing down on the examination bed and raises the back of her shirt;
- (d) The healer examines major organs from the patient's back with his palm to locate any deficiency in function and *qi* balance.
- (e) The healer moves his own *qi* to the organs and verifies that the organ is functioning normally with balanced energy. He drives the stagnant *qi* out, and supplies healthy *qi* energy to the major organs.
- (f) After the *qi* adjustment, small magnetic cupping is often used to directly take the excessive stagnant *qi* out from a specific organ (through acupoints).

The entire process took around 40 to 45 minutes. Each patient was treated individually. Some patients reported increased pain or discomfort during or after their first one to three treatments. According to the healer, this is due to a "healing crisis" where the motivated *qi* strikes against the patient's stagnant *qi*, a common phenomenon in medical *qigong* practice. This increased pain usually disappeared in 2 to 3 days after each treatment, and most patients came back for the following treatments despite discomfort and even bruising.

After 3 weeks of intervention, patients were invited to return for three monthly maintenance EQT treatments before their 3-month follow-up examination. Because this pilot study

did not have the element of self-practice of *qigong* (which usually has the problem of compliance in this type of patient population), the healer thought that monthly maintenance sessions were needed to maintain the healing results.

One subject dropped out because of previously scheduled knee surgery and two dropped out after one to three treatments. Thus, 10 of the 13 subjects completed all treatments with both before and after treatment evaluations, and 8 of them returned for follow-up 3 months after the intervention. The relatively low completion rate was due in part to the process of instant invitation of subjects without prior contact for feasibility of scheduling.

The healer

Because all *qigong* healers are not the same, it is important to know who the healer is and what *qigong* method is used in this study. Mr. Faxiang Hou was the *qigong* healer who treated patients with EQT in this study. Mr. Hou is a certified and highly accomplished healer of Medical *qigong* and TCM. As with the tradition of many great masters in *qigong*, his methods of healing *qigong*, acupuncture, and herbal medicine have been passed down to him through his family lineage for five generations. He and his brother are the recipients of a unique and powerful form of healing *qigong*, called "Ching Long Shan Dian Xue Mi Gong Fa." At the age of 13, Mr. Hou began training under his father in these healing arts. He also studied under five other accomplished masters of varying *qigong* specialties. He has undergone rigorous clinical testing of his healing ability in China. He is currently the director of the *Qigong* Research Society in Mt. Laurel, New Jersey, and has held private consultations and clinics in Cherry Hill, New Jersey and New York City over the past 15 years.

Measurements

Measurements used to evaluate treatment outcomes included the primary outcome measures: Fibromyalgia Impact Questionnaire (FIQ),¹⁵ tender point count (TPC) by the same physician (AL), Beck Depression Inventory-II (BDI),¹⁶ and McGill Pain Questionnaire (MPQ).¹⁷ The Pittsburgh Sleep Quality Index (PSQI),¹⁸ Spielberg State-Trait Anxiety Scales¹⁹ (STAI, state only), Lorig's Self-Efficacy Scale²⁰ (LSE), and visual analogue scales (VAS) for pain (100 mm line anchored with "no pain" (0) and "the worst possible pain") and mood (anchored by "the best I could feel" and "the worst I could feel") were also used. The same measurements were taken at baseline, immediately after intervention, and 3 months after the intervention.

RESULTS

Among the 10 subjects who completed the treatment and assessments, all reported some improvement in their major

FMS symptoms. Table 2 presents the results of the primary outcome measures before and after EQT treatment. After five to seven treatments in 3 weeks, the mean FIQ score was reduced by 47% (from 70.1 to 37.3); the TPC reduced by 56% (from 136.6 to 59.5); and the mean MPQ pain index reduced by 73% (from 27.0 down to 7.2; all $p < 0.01$). In two cases (patients #07 and #12), the changes were so dramatic and persistent that we may well label the cases "cured" after the treatment.

In addition, patients reported significant improvement in mood, with mean BDI depression scores dropping from 24.3 to 8.3, a 67% reduction. We also observed significant decreases in other symptoms including gastrointestinal complaints, fatigue, and cognitive "fogginess." These immediate reductions showed some rebound one month after the treatment (right before the monthly maintenance treatment) and at the three-month follow-up examination, but overall, scores on all outcomes were still significantly better than those at baseline in most cases. Table 3 presents the mean outcome measures at baseline and at the three points of follow-up. One case (#03) did not come back for the 1-month follow-up; another case (#08) did not participate in the 3-month follow-up after attending all maintenance treatment sessions.

Significant improvements were observed in all measurements after the EQT treatment except PSQI (sleep) score. One month after the EQT intervention, most patients experienced some rebound in symptoms in comparison with the assessment immediately after treatment. At 1-month follow-up, some measures were not significantly different from those at baseline, but the key FMS measures such as FIQ, MPQ pain index, and BDI remained significantly improved. After three monthly maintenance treatments, the results of the 3-month follow-up examination showed significant improvements in all mean scores except for VAS pain and PSQI, compared with baseline measures. Among them, the TPC and self-efficacy scores at 3 months were even better than those immediately after the treatment.

DISCUSSION

This open trial was designed to explore the effect of EQT on pain and functional improvement for FMS patients. Our preliminary results indicate that EQT had a significant impact on pain relief and functional improvement for most participants. All participants who underwent the complete treatment reported some improvement in pain and functionality, as well as improvement in TPC and depressive symptoms. Two of the participants (case #07 and #12) reported that they were completely symptom-free after the treatment; and remained so at 3-month follow-up. The symptoms of some subjects who had a less dramatic response to the treatment were in many cases complicated by comorbid conditions including rheumatoid arthritis and degenerative disc disease.

TABLE 2. PRIMARY OUTCOME MEASURES BEFORE AND AFTER EXTERNAL QIGONG THERAPY INTERVENTION BY SUBJECT

| ID | FIQ | | | Tender Point Count ^a | | | MPQ index | | | BDI | | |
|------|--------|--------|-------|---------------------------------|--------|-------|-----------|-------|-------|--------|-------|------|
| | Pre | Post | Diff | Pre | Post | Diff | Pre | Post | Diff | Pre | Post | Diff |
| 02 | 86.5 | 67.5 | -19.0 | 165 | 152 | -13 | 36 | 18 | -18 | 30 | 6 | -24 |
| 03 | 68.8 | 35.5 | -33.3 | 114 | 29 | -85 | 25 | 5 | -20 | 14 | 8 | -6 |
| 06 | 66.9 | 49.0 | -17.9 | 137 | 101 | -36 | 25 | 9 | -16 | 17 | 11 | -6 |
| 07 | 67.2 | 21.5 | -45.7 | 167 | 0 | -167 | 27 | 0 | -27 | 50 | 0 | -50 |
| 08 | 65.9 | 22.0 | -43.9 | 116 | 27 | -89 | 21 | 1 | -20 | 11 | 2 | -9 |
| 09 | 61.8 | 19.2 | -42.6 | 129 | 101 | -28 | 12 | 1 | -11 | 29 | 1 | -28 |
| 12 | 51.9 | 1.0 | -50.9 | 130 | 6 | -124 | 3 | 0 | -3 | 17 | 0 | -17 |
| 13 | 83.0 | 69.6 | -13.4 | 158 | 65 | -93 | 47 | 26 | -21 | 28 | 21 | -7 |
| 14 | 84.5 | 40.2 | -44.3 | 115 | 12 | -103 | 30 | 1 | -29 | 31 | 21 | -10 |
| 15 | 64.2 | 47.4 | -16.8 | 135 | 102 | -33 | 44 | 11 | -33 | 16 | 13 | -3 |
| Mean | 70.1 | 37.3 | -32.8 | 136.6 | 59.5 | -77.1 | 27 | 7.2 | -19.8 | 24.3 | 8.3 | -16 |
| (SD) | (11.1) | (22.0) | ** | (20.3) | (52.2) | ** | (13.4) | (8.9) | ** | (11.7) | (8.1) | ** |

^aPatient responded to each tender point with a pain scale from 0 (no pain) to 10 (excessive pain). A score of 5 was used to indicate reasonable pain at that point for the ACR diagnosis criteria.

** $p < 0.01$ in Student's t test.

FIQ, Fibromyalgia Impact Questionnaire; MPQ, McGill Pain Questionnaire; BDI, Beck Depression Inventory; SD, standard deviation.

Although we cannot eliminate the possibility that placebo effect or suggestibility explain some of the positive results in this trial due to the lack of a control group and belief in CAM therapy, we are encouraged by the lasting effectiveness of EQT for reducing pain and related symptoms. We started this anecdotal trial without financial support with the intention of testing master Hou's claim that he could "cure" FMS patients with 12–15 treatments of EQT. None of our patients were paid for their participation, nor were they charged for the EQT treatment. Although we did not carry out the protocol as planned in terms of the number of treatments, the results surprised us as much as the patient participants. As the healer predicted, patients had some rebound in pain and symptoms due to lack of *qigong* self-practice themselves (which was the therapy in other studies of *qigong* for FMS.^{10–12} Rebound included slightly more pain and

symptoms than immediately after the intervention; however, after the monthly maintenance treatment, patients' improvements were similar to those seen immediately after the intervention.

The mechanism underlying this promising healing intervention is unknown. However, according to the healer (FH), the combined technique of acupressure and *qigong* is believed to balance *yin* (blood) and *yang* (*qi*), keep the normal flow of energy, and restore health to the body. In the early stage of treatment, the healer pressed specific acupoints, and used his energy to detect the area of *qi* blockage in the patient's body. Once the areas of *qi* blockage were detected, he used *qigong* healing techniques to adjust the patient's *qi* balance, allow *qi* to reorient the internal organs, and return them to their normal functions. According to TCM theory, when *qi* and blood are in the balanced state,

TABLE 3. OVERALL OUTCOME MEASURES (MEAN AND SD) AT BASELINE AND FOLLOW-UPS

| Measures | Baseline | Post-Tx | 1-Month ^a | 3-Month |
|---------------------|--------------|---------------|----------------------|---------------|
| Tender point index | 136.6 (20.3) | 59.5 (52.2)** | N/A | 68.4 (57.7)** |
| FIQ score | 70.1 (11.1) | 37.3 (21.9)** | 45.1 (17.5)** | 43.4 (29.9)* |
| BDI (depression) | 24.3 (11.7) | 8.3 (8.1)** | 10.3 (6.4)** | 9.9 (8.4)** |
| MPQ pain index | 27.0 (13.4) | 7.2 (8.9)** | 11.5 (6.2)** | 11.8 (16.2)* |
| VAS global pain | 66.0 (24.3) | 27.9 (30.3)** | 47.9 (26.5) | 39.7 (42.0) |
| VAS negative mood | 58.6 (32.1) | 25.4 (23.3)** | 39.1 (25.0) | 25.0 (31.4)* |
| PSQI score | 13.5 (4.1) | 11.2 (5.4) | 12.6 (4.1) | 11.4 (5.3) |
| Anxiety state index | 26.9 (11.9) | 12.0 (15.6)* | 19.1 (10.8) | 12.7 (14.5)* |
| Self-efficacy index | 39.0 (18.7) | 63.0 (12.4)** | 46.6 (14.9) | 72.3 (29.1)** |
| N = | 10 | 10 | 9 | 8 |

^a1-month follow-up was conducted right before the first monthly maintenance treatment * $p < 0.05$; ** $p < 0.01$ in Student t test in comparison with the mean at baseline.

SD, standard deviation; FIQ, Fibromyalgia Impact Questionnaire; BDI, Beck Depression Inventory; MPQ, McGill Pain Questionnaire; VAS, visual analogue scale; PSQI, Pittsburgh Sleep Quality Index.

pain and other symptoms associated with FMS will disappear. Both internal *qigong* therapy (self-practice of *qigong*) and EQT are supposed to have a similar mechanism. These speculations about EQT mechanism need further research to verify.

As noted, we cannot exclude the possibility of nonspecific treatment effect such as placebo, psychological effect, or the statistical phenomenon of regression toward the mean (occurring when extreme scores that are invariably measured imperfectly move closer to their average level when measurement is repeated) accounting for part of our positive results. Moreover, it is likely that only patients with confidence in CAM would agree to participate. These patients were motivated and curious about CAM therapy. The other limitations of this open trial are that the sample is too small to be conclusive for any substantial result ($n = 10$), and that this study was based on a single healer, so it is not clear whether the treatment outcome was due to the specific healer or to the healing technique. It would be particularly helpful if we can involve two or more healers with the same technique in the future study with a larger sample.

Perhaps even more than with acupuncture, we are confronted with the challenge that a well-controlled trial of EQT is difficult to design and implement. *Qigong* therapy is, in essence, like psychotherapy; the healing is in the interaction between the therapist and the patient. Sham healers have been employed in *qigong* studies using nonhumans and cell lines.⁷ It is more difficult in human studies, given the confidence and strong presence the master exudes, as well as the biases of the subjects. In any case, this open trial was a necessary first step in establishing a potential effect in FMS. Given the results herein, properly controlled studies are justified.

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