

**A Pilot Trial of CFQ for Treatment of Fibromyalgia**

Dear Editor:

Fibromyalgia involves widespread pain and is accompanied by fatigue, insomnia, anxiety, and depression; it affects 2% of the population, and is more common in women than in men.<sup>1</sup> The etiology is unknown, but the condition involves aberrant pain processing in the peripheral and central nervous systems.<sup>2</sup> Fibromyalgia treatments focus on symptom relief by medical management, along with teaching patients self-management strategies. Single treatments have limited effects, and multimodal approaches are recommended.<sup>3,4</sup> In this context, it is important to examine alternative therapies that may contribute to benefit in fibromyalgia.

*Qigong* is part of Traditional Chinese Medicine.<sup>5</sup> The term can be used in a generic manner, whereby it refers to the cultivation of *qi*, and encompasses several different techniques, or can be understood in a more specific manner whereby it refers to a particular set of teachings. There are now several reports on *qigong* for fibromyalgia. An early open trial using *qigong* along with education and relaxation demonstrated significant improvements in fibromyalgia.<sup>6</sup> A second open trial reported that external *qigong* produced significant reductions in pain and improved functioning.<sup>7</sup> A recent controlled trial demonstrated positive results with several outcomes.<sup>8</sup> In the present pilot trial, we examined the effect of a specific type of self-practice *qigong* (*Chaoyi Fanhuan Qigong* [CFQ]),<sup>9</sup> which was available locally, in a group of patients with fibromyalgia.

The trial was conducted at the Pain Management Unit at the Queen Elizabeth II Health Sciences Centre in Halifax. Participants were recruited by a newspaper advertisement, and attended an information session about *qigong* and viewed a demonstration of the CFQ *qigong* movements. Participants subsequently attended two half-day training sessions to learn level I CFQ *qigong*, and were provided with a training DVD; there were then optional weekly 90-minute refresher sessions for 4 weeks, and subsequent *qigong* practice to 9 weeks (45 minutes daily at home). Pain was measured using an 11-point numerical rating scale for pain intensity. Other measures included the Fibromyalgia Impact Questionnaire and Quality of Life (SF-36) scales.

Twenty-three (23) patients met study criteria and were enrolled in the study; 21 completed 4 weeks of the study; 14 remained at week 9 (58%), 13 at 3 months (56%), and 12 completed the 6-month measures (52%). Of the 11 participants who did not complete the full study, 5 withdrew (2 due to increased pain, 1 due to new job, 1 due to inconvenience, 1 developed an upper respiratory infection) and 6 were lost to follow-up. All participants enrolled were women (mean age 51.1 ± 8.7, mean ± standard deviation) and had a duration of fibromyalgia of 12.0 ± 5.4 years. Twelve (12) participants also suffered from an additional pain diagnosis including low back pain, cervical sprain, headache, orofacial pain, osteoar-

thritis, and rheumatoid arthritis. Analgesic use continued throughout the study.

Study outcomes are presented in Tables 1 and 2. General linear statistical models (repeated-measures analyses of variance) revealed significant differences in pain, function, and physical well-being (but not mental well-being) among four times of measurement (baseline, 9-week, 3-month, 6-month) (Table 1). *Post-hoc* least significant difference pairwise comparisons examined these differences at each time point, and revealed improvements in pain (6 months), function (9 weeks–6 months), and physical well-being (3–6 months) compared to baseline scores ( $p < 0.05$ ) (Table 2).

This open pilot trial provides evidence indicating that CFQ *qigong* self-practice benefits pain and health-related quality of life in patients with fibromyalgia. A notable feature of the trial is the durability of effects, which remain sustained at 3 and 6 months following the trial. This general outcome supports previous open trials of *qigong*,<sup>6,7</sup> as well as a more recent controlled trial of *qigong*.<sup>8</sup> Further trials of CFQ *qigong* in a controlled setting are warranted.

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TABLE 1. STATISTICAL ANALYSIS FOR OUTCOMES OF MAIN MEASURES

Repeated-measures ANOVA					
Outcome variables	N	Mean (SD)	df	F	p
Pain scale			3	3.2	0.04*
Baseline	12	6.33 (1.50)			
9 weeks	12	5.08 (1.73)			
3 months	12	5.42 (1.78)			
6 months	12	5.00 (1.71)			
Fibromyalgia impact			3	3.32	0.03*
Baseline	12	63.17 (15.28)			
9 weeks	12	50.67 (18.48)			
3 months	12	49.25 (22.79)			
6 months	12	49.08 (24.77)			
Physical health and well-being			3	5.66	0.003*
Baseline	12	29.39 (9.93)			
9 weeks	12	36.31 (10.40)			
3 months	12	37.65 (8.28)			
6 months	12	40.0 (10.65)			
Mental health and well-being			3	0.51	0.68
Baseline	12	39.05 (13.05)			
9 weeks	12	43.11 (12.54)			
3 months	12	40.07 (13.99)			
6 months	12	38.98 (8.79)			

SD, standard deviation; *df*, degrees of freedom.

\* $p < 0.05$ .

TABLE 2. *POST-HOC* STATISTICAL ANALYSIS

<i>LSD Pairwise comparisons to baseline Outcome variables</i>	N	Mean (SD)	Mean diff.	SE	95% CI	p
<b>Pain scale</b>						
Baseline	12	6.33 (1.50)				
9 weeks	12	5.08 (1.73)	1.25	0.62	-0.11, 2.61	0.07
3 months	12	5.42 (1.78)	0.92	0.43	-0.04, 1.87	0.06
6 months	12	5.00 (1.71)	1.33	0.58	0.05, 2.61	0.04*
<b>Fibromyalgia impact</b>						
Baseline	12	63.17 (15.28)				
9 weeks	12	50.67 (18.48)	12.5	5.06	1.36, 23.64	0.03*
3 months	12	49.25 (22.79)	13.92	5.91	0.91, 26.92	0.04*
6 months	12	49.08 (24.77)	14.08	6.19	0.47, 27.70	0.04*
<b>Physical health and well-being</b>						
Baseline	12	29.39 (9.93)				
9 weeks	12	36.31 (10.40)	-6.92	3.23	-14.03, 0.20	0.56
3 months	12	37.65 (8.28)	-8.26	2.44	-13.64, -2.88	0.01*
6 months	12	40.0 (10.65)	-10.57	3.68	-18.66, -2.48	0.02*
<b>Mental health and well-being</b>						
Baseline	12	39.05 (13.05)				
9 weeks	12	43.11 (12.54)	-4.06	3.53	-11.82, 3.71	0.27
3 months	12	40.07 (13.99)	-1.02	4.93	-11.87, 9.83	0.84
6 months	12	38.98 (8.79)	0.07	4.23	-9.25, 9.38	0.99

LSD, least significant difference; SD, standard deviation; SE, standard error; CI, confidence interval.

\* $p < 0.05$ .

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