

An exploratory pilot study of Qi-therapy (External Qi Healing) on symptoms of premenstrual syndrome

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SUMMARY

This study assessed the effects of Qi therapy (QT) on premenstrual symptoms in women with premenstrual syndrome (PMS). Forty-six college women were randomly allocated to receive QT (QT group: n=23) or complete diary of PMS (control group: n=22, 1 was dropped out). The experimental group receives 12 minutes Qi therapy for 5 times (7, 4, 1 day before and 7, 14 day after menstruation), and control group relaxed in the same procedure with experimental group. We measured pain, depression and anxiety level with visual analogue scale (VAS) to investigate participants responses. There were significant reductions on pain, depression and anxiety in QT group compared with control. These findings suggest that Qi therapy may have a role in helping the women with PMS to cope with their pain, depression and anxiety symptoms.

Key words: Qigong; Qi-therapy; External Qi; Premenstrual syndrome; Pain; Depression; Anxiety

INTRODUCTION

Premenstrual symptoms are quite common during the reproductive years. Retrospective community survey estimate 79.4% of women have suffered from symptoms and 97.7% experienced at least one premenstrual symptom in Korea (Lee, 1987; Park, 1992). Many women who present for treatment of PMS suffer from psychiatric, medical, gynecologic or other disorders. Thus study for management of premenstrual syndrome is important in womens health. But, premenstrual syndrome is still debating issue regarding the nature and extent of symptoms. This has resulted in continued searches for explanatory theories, which in turn, provoke the evaluation of new treatments for its relief.

For PMS treatment, both pharmacological and non-pharmacological approaches have been used at clinical field. The pharmacological treatment

include natural progesterone and synthetic progestins; diuretics of edema; anti-prostaglandins; and Vitamin (Magos, 1990; Michener *et al.*, 1999; O'Brien *et al.*, 1999; Robinson *et al.*, 1977). Many of these have shown initial symptom relief during treatment studies when matched against placebo in single-blind trials. But often short-term and long-term follow-ups have not been reported (Freeman *et al.*, 1995; Walton and Youngkin, 1987).

Non-pharmacological interventions, like learning prior knowledge about PMS, cognitive therapy, a well balance diet, low in caffeine and sodium or with naturally diuretic foods, exercise therapy, stress management, and light therapy results on effective PMS control, less reliance on medications, fewer side effects, and less clinical impairment (Barnard *et al.*, 2000; Beck *et al.*, 1990; Blake *et al.*, 1998; Clare, 1979; Hightower, 1997; Lam *et al.*, 1999; Prior *et al.*, 1987; Walton and Youngkin, 1987). While pharmacological treatments are appropriately the central component of PMS, the under-utilization of effective non-pharmacological strategies (NPS) may contribute to the problem of PMS among

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reproductive women.

According to traditional Chinese ideas, discomforts of PMS are considered to be a disturbance of the circulation of Qi or disharmony and depletion in the supply of Qi. This blockage, stagnation, imbalance, or change in the pattern or organization of Qi results in diseases (Yang *et al.*, 1998). This disruption can be evidenced by such symptoms as pain, stiffness, roughness change in temperature, or discoloration of the skin. Qi therapy may entail a restoring, enhancing, renewing, rejuvenating, revitalizing, or replenishing process by the self as well as by others to attain harmony and balance.

Although neither the Qi-therapy itself nor the mechanism of its effects is understandable or explainable within any paradigm of modern medical science, its effects on the health in fact appear and are amazing. In Korea, Qi therapy is increasingly being used as the invention that could be benefited in reducing many negative symptoms, especially pain, but there is a little scientific evidence of its efficacy on PMS. The purpose of this study is to determine how women with PMS are influenced by Qi-therapy in their reports of premenstrual symptoms.

MATERIALS AND METHODS

Subjects

Volunteers were recruited for the study from one of University in Iksan, Korea. Before enrollment into the study, potential subjects underwent a pretreatment assessment of symptoms over two successive cycles to confirm a diagnosis of PMS. Of 60 subjects, 14 were excluded from the study because of no PMS and finally 46 actually enrolled

into the experiment. They were randomized into Qi therapy group (n=23) and resting control group (n=23) by secretary who did not know complete the experimental procedures. Of the 23 control groups, 1 was excluded because she did not know the complete study schedules.

The study received institutional approval from the Human Investigation Committee, and administrative approval from the Human Subjects Review Board in Wonkwang University Hospital and School of Medicine. All subjects agree to participate in the study and signed an informed consent.

Procedure

Prior to intervention, subjects were asked to refrain from food, coffee, tea and smoking for at least 4 hours before the assessment and to refrain from alcohol for at least 24 hours prior to the experiment. In order to avoid time dependent changes in mood and pain, all experimental procedures were done between 2 PM and 4 PM.

In the first and last session, QT group completed visual analogue scale (VAS) for pain, anxiety and depression level and subjects were taken to their comfortable room and seated on beds. After 10 minutes rest, subject received vital Qi in the front of the body for 6 minutes and in the back for 6 minutes (subjects received treatment for total 12 minutes). Following the QT, they rested for 20 minutes with free position and completed VAS for pain, anxiety and depression level again. Subjects assigned to the control group were following the same procedure with QT except lay down for identical amount of time.

In this experiment, Korean Qi therapy was performed by a Qi-Master in the SUHN Institute of

Table 1. Descriptions for each Qi-therapy steps

Step	Description
1	The Qi- Master centered herself, making a conscious intent to help the subject while becoming mentally aware of herself as one with the cosmos.
2	The Qi-Master moved his/her hand about 3~10 cm from the body in a pattern from head to toe, becoming aware of changes in sensory cues in her hands.
3	The Qi-Master redirected areas of accumulated tension in the subject's body by emitting Qi from her hands.
4	The Qi-Master concentrated attention on the specific direction of energy flow (sensory cues), finishing by holding the subject's feet.
5	The subjects turned over and received the same procedure for six minutes on the other side of her bodies.

Culture. Aged 36 years, the Qi master was a female nurse who had performed Qi training for eight years. QT was administered by the standard procedures outlined in the textbook for QT (Table 1).

Measurement of acute pain, depression and anxiety level

Subjects rate their current level of perceived pain, depression and anxiety on a each 0-100 horizontal linear visual analog scale (VAS) with 0 (at left) representing an absence of symptom and 100 representing an extreme level of symptom (Cline *et al.*, 1992). Numerical scales are commonly used as measures of symptoms and have established reliability and validity.

Statistical analysis

We used SPSS for statistical analysis. The results are presented as means \pm SD. Chi-square test and t-test were used to compare homogeneity of general characteristics and categorical variables between control and experimental groups. For the scores of pain, depression and anxiety, doubly repeated

measured ANOVA was used to examine the statistical differences between two groups (control and Qi-therapy) as two repeated factors (pre and post-session of each day).

RESULTS

The demographic characteristics and baseline scale for PMS and other psychological factors for the QT and control groups are shown in Table 2. The groups did not differ significantly in age and detail variables of menstruation.

The changes of pain level are shown in Table 3. Group by repeated measures (pre- vs. post-session) interaction effects suggested that the Qi-therapy group had lower pain score after the first day (from 25.6 to 18.6, $P < 0.01$) and the last day session (from 15.6 to 12.4, $P < 0.05$). The control group reported significant increase in pain intensity from the pre to post in the last day session (from 29.0 to 32.4, $P < 0.01$). Similarly, group by repeated measures (first/last day) interaction effect suggested that the QT group had lower pain scores (from 25.6 to 15.6, $P < 0.01$).

Table 2. Homogeneity test for general characteristics between two groups (mean \pm SD)

Characteristics	Qi therapy (N=23)	Control (N=22)	t or χ^2	p
Age (yr)	20.91 \pm 1.76	21.77 \pm 2.69	-1.28	0.21
Age at menarche (yr)	13.57 \pm 0.72	13.81 \pm 0.85	-1.07	0.29
Menstruation				
Cycle	30.56 \pm 4.24	29.68 \pm 4.51	0.68	0.50
Duration	5.35 \pm 1.07	5.50 \pm 1.41	-0.41	0.68
Pattern			0.02	0.88
Regular	11(47.8%)	11(50.0%)		
Irregular	12(52.2%)	11(50.0%)		
Amount			0.32	0.85
Profuse	4(17.4%)	5(22.7%)		
Moderate	16(69.6%)	15(68.2%)		
Scanty	3(13.0%)	2 (9.1%)		

Table 3. Means of pain for Qi therapy group and controls

Group	First day		Last day	
	Pre	Post	Pre	Post
Qi-therapy	25.6 \pm 17.4	18.6 \pm 17.6**	15.6 \pm 15.6**	12.4 \pm 13.1*
Control	30.1 \pm 27.0	31.6 \pm 24.6	29.0 \pm 21.9	32.4 \pm 20.0**

Note: Values are represented as mean \pm standard deviations. Superscripts next to post-values indicate pre/post-comparison P values (* $P < 0.05$, ** $P < 0.01$). Superscripts next to last day pre- values indicate pre-first day/pre-last day comparisons (** $P < 0.01$).

Table 4. Means of depression for Qi therapy group and controls

Group	First day		Last day	
	Pre	Post	Pre	Post
Qi-therapy	17.6 ± 13.2	10.4 ± 10.4**	15.2 ± 11.6	8.9 ± 9.4**
Control	17.7 ± 17.0	19.6 ± 17.1**	17.0 ± 16.2	18.7 ± 17.1*

Note: Values are represented as mean±standard deviations. Superscripts next to post-values indicate pre/post-comparison P values (* $P < 0.05$, ** $P < 0.01$).

Table 5. Means of anxiety for Qi therapy group and controls

Group	First day		Last day	
	Pre	Post	Pre	Post
Qi-therapy	21.1 ± 17.2	16.3 ± 14.4	17.2 ± 12.2	12.8 ± 10.0**
Control	20.9 ± 16.7	22.3 ± 15.9**	19.3 ± 13.5	20.5 ± 14.6

Note: Values are represented as mean±standard deviations. Superscripts next to post-values indicate pre/post-comparison P values (** $P < 0.01$).

The changes of depression scores are shown in Table 4. Qi-therapy group had lower depression score after the first day (from 17.6 to 10.4, $P < 0.01$) and the last day session (from 15.2 to 8.9, $P < 0.05$). The control group reported significant increase in depression levels from the pre to post in the first day session (from 17.7 to 19.6, $P < 0.01$) and last day (from 17.0 to 18.7, $P < 0.05$).

There was no group by time (pre- vs. post-session) of repeated measures ANOVA in the first day of anxiety scores (Table 5). Group by repeated measures (pre- vs. post-session) interaction effects suggested that the Qi-therapy group had lower pain score after the last day (from 17.2 to 12.8, $P < 0.01$).

DISCUSSION

This study was designed to measure the acute effects of Qi-therapy on the premenstrual syndrome (PMS). We found that the acute effects of reduction in pain, depression and anxiety level through QT. In an earlier study, we found Qi therapy improved psychological states, regulated positively the neurohormonal system and strengthened immune cells (Lee *et al.*, 2001a; 2001b; 2001c). As a comprehensive, multidisciplinary approach, Qi therapy may successfully relieve patients chronic pain and return them to the desired activities of daily living. It is said that the Qi informatory energy or energetic information, is emitted from the meridian point of the therapists palms and transferred to the patients body via a meridian point of the body (SUHN Institute of

Culture, 1997). An invisible life force called Qi can be modulated by the insertion of vital Qi at the designated point to achieve a more harmonious and normal state.

These results show that QT may diminish the locations and magnitude of pain stimuli by mobilizing the subject's own energy enabling healing and assisting the subjects to effectively cope with pain. Chronic pains as well as many health problems are considered to be disturbances of the circulation of Qi or disharmony and depletion of the supply of Qi (SUHN Institute of Culture, 1997). This blockage, stagnation, imbalance, or change in the pattern or organization of Qi results in diseases. The blockage, stagnation, imbalance, deficiency or change in the pattern or organization of Qi results in disease, and the loss of Qi yields a loss of energy and leads to fatigue and weakness. QT enables a restoring, enhancing, renewing, rejuvenating, revitalizing and replenishing process by the self as well as by others to attain harmony and balance. According to our recent report, Qigong increases oxygen concentration and decreases carbon dioxide levels in the blood (Lee *et al.*, 2002). And this may enable the removal of pain-inducing substances such as metabolic waste products from the tissues. Qigong may also enhance the delivery, through the blood stream, of pain-killing substances such as endorphins and drugs to control pain (Sancier and Hole, 2001).

These results show that Qi-therapy may enable a restoring, enhancing, renewing process as well as

attain harmony and balance. And the levels of pain, depression and anxiety were reduced by short-term QT, suggesting its usefulness as a complementary intervention will be necessary to develop Qigong programs that PMS sufferers can perform by themselves to maintain a balance of Qi.

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