

Development of a Qigong Nursing Therapeutic Program for Women with Menopausal Symptoms*

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Abstract:

Purpose: To develop a Qigong Nursing Therapeutic Program (QNTP) for reducing menopausal symptoms.

Design: Three phases of participatory action research were conducted. Phase I included knowledge exploration and a pilot study to develop a tentative QNTP. In phase II, the tentative QNTP was implemented using three cycles of participatory action research (PAR) with ten perimenopauses. Data were collected by interviews, symptom self-reports, participatory observation and field notes. Additionally, the overall programming outcomes were evaluated using descriptive and content analysis. In phase III, the final QNTP was formulated from the conclusions of process, outcomes and lessons learned.

Main finding: Three core components of final QNTP are: 1) education on holism, nutrition and concepts of QNTP; 2) five exercises consisting of diaphragmatic breathing, muscle and joint movements, and visualization; 3) program processing consisting of QNTP orientation, training and practice as well as six facilitations and three evaluations of nursing, three learning activities and three evaluations of participant. The QNTP was shown to decrease menopausal symptoms and promote well-being.

Conclusion and recommendations: This study provides an acceptable QNTP that could be a guideline for reducing menopausal symptoms and promoting health for menopause. However, the effectiveness of the program should be tested with a larger sample size.

Keywords: Qigong, menopausal symptom, program development, nursing therapies, menopause

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Introduction, background and significances

Menopausal symptoms in middle-aged women are a universal phenomena. Women in this age range are confronted with both short-term and long-term psychophysiological changes which cause discomfort and illness. Both short and long term menopausal changes can be decreased by hormonal replacement or non-hormonal management.¹ However, direct hormonal replacement may cause anxiety, fear and depression because of the risk of breast cancer, endometrial cancer, pulmonary embolism, thrombophlebitis, heart disease and stroke.² Furthermore, hormonal replacement results in a national economic loss. Therefore, in order to reduce health care costs, non-hormonal strategies have become the main preference for preventing and reducing menopausal symptoms. Several non-hormonal treatments have shown promise in reducing menopausal symptoms: diet including soy and soy extracts;³ minerals (calcium and magnesium), vitamins D, E, B6, B12,⁴ and vegetables; as well as other non-hormonal management such as acupuncture,⁵ Vipassana meditation,^{6,7} aerobic exercise,⁸ or mind-body exercises such as yoga,⁹ tai chi, Qigong, prayer and dancing¹⁰

Qigong is reputed to reduce menopausal disturbances over a long period in Chinese, Korean, and Japanese women. Qigong in QNTP consists of body movements that directly and indirectly stimulate Qi (vital energy), reduce psychological and physiological disturbances and slow bone loss during menopause.¹¹ In addition, diaphragmatic breathing is thought to reduce hot flashes,¹² while, visualization which is similar to Vipassana meditation, has been proven to reduce mood disturbances, vasomotor, and musculoskeletal disturbances in menopause.^{6,7} Many studies have also shown that Qigong improves some physical and psychological functions. For example, Qigong has reduced various pains,¹³ increased sleep quality,¹⁴ improved circulation,¹⁵ cardio-respiratory functions, and muscle strength.¹⁶ All of these symptoms are similar to those which occur in menopause. Therefore, the researcher introduced a QNTP to be an effective

non-hormonal alternative for reducing menopausal symptoms. Menopausal symptoms are multidimensional, complex, and highly unstable phenomena. Hence, participatory action research was selected to implement this program.

Participatory action research (PAR) is a research method which allows the researcher and participants reciprocally to evaluate, reorganize, act on, observe, and reform an intervention for a satisfactory outcome. It helps the researcher gain more personal knowledge before constructing an appropriate program.

Conceptual framework

Buddhism, Chinese and holistic nursing philosophies were the contextual frameworks for developing a tentative QNTP. Buddhism guided the women with menopausal symptoms to recognize their symptoms as natural changes in menopause and to focus on breathing to help self healing (Dhammamnanda, 2006). Chinese philosophies address Five Elements, Yin and Yang theory, Shen, Qi and Jen of Taoism, as well as the energy flow theory, all tailored to harmonize menopausal symptoms with daily life activities. The daily life activities included visualization, diaphragmatic breathing, and body movements in a clean environment. Holistic nursing educated the women with menopausal symptoms to understand holism, nutrition and clean air intake for self-healing. The development of QNTP for women with menopausal symptoms needed praxis knowledge from critical reflection within a democratic context. Therefore, technical PAR, which focused on the process of equity, empowerment, problem solving, and knowledge changes to achieve a satisfactory outcome was used. The PAR process assisted the participants with understanding the actual problems, and encouraged active participation in problem solving. Menopausal symptoms, including vasomotor instabilities, mood, and somatic disturbances, were evaluated as outcomes of this study.

Research objective

This study was undertaken to develop a Qigong Nursing Therapeutic Program (QNTP) for reducing menopausal symptoms.

Methodology

Three phases of Participatory Action Research were used to development this QNTP. They consisted of : 1) development of a tentative QNTP, 2) implementation and evaluation using participatory action research, and 3) the final QNTP was formulated and checking.

Phase I: A tentative QNTP was developed by reviewing existing healing methods, consulting Qigong experts experience to specify primary exercises and the philosophical basis of QNTP, and conducting a pilot study. In this phase a tentative QNTP was developed based on Buddhism, Chinese and holistic nursing philosophies. Additionally, procedures containing program orientation, training and practice for one and a half hours a day, three times a week were also developed.

Phase II: A tentative QNTP was implemented and evaluated through technical participatory action research.

Participants: Ten women who had at least three menopausal symptoms from mild to moderate level and no physical and mental restriction to meditation were selected. Each volunteer agreed to participate in the QNTP for at least three consecutive months.

Setting: This program was implemented at a Thailand public university in Songkla province. It is surrounded by a natural clean environment.

Ethical considerations: This study was approved by the Institute Research Board Committee, Faculty of Nursing, Prince of Songkla University. In addition, the primary program was created under supervision of a Qigong healer, a Buddhist healer, a nutritional specialist and key menopausal experts. It was also approved for primary safety by gynecologists, a natural healer and a gynecological nurse. Moreover, potential participants were told about the

objectives, processes, collaborative tasks, expected outcomes, potential risks and safety precautions of the study. Furthermore, participants were assured of their rights to participate or withdraw at any time without repercussion and the researcher provided time to answer any questions that related to the study. During the study, participants were free to express their feelings and were encouraged to do so. Issues of potential concern or harm, both physical and emotional were also considered and overall participant's responses were kept confidentially through using unique code number for all records, tape recording and transcription by only team researchers.

Instruments for program evaluation

Two evaluation instruments were used.

1. Outcomes evaluations. A menopausal symptom perception checklist was developed by the researcher after a literature review, validation by three menopause experts and pilot testing with 20 menopausal women. This checklist included fifty items categorized into three groups of vasomotor instabilities, mood, and somatic disturbances. The frequency and severity of each menopausal symptom was rated on a scale from one to ten. During QNTP practice each respondent was asked to indicate her own menopausal symptom occurrence before beginning the program, and every two weeks there after to detect changes.

2. Programming evaluation. The QNTP practice was evaluated by each participant's checklist, daily record, dialogue and reflection during each visit. The open-ended questions used for interview were as follows:

- 1) How do you feel during tentative QNTP practice, and why? Please describe your feelings in detail.
- 2) What have you learned from doing this tentative QNTP?
- 3) What needs to be improved with each exercise? Please feel free to make suggestions.
- 4) Which exercises caused you to feel bad? Please discuss any problems that came up in each exercise and explain in detail.

5) According to your practice, do you have any suggestions for program improvement?

Additionally, during the tentative QNTP application, actual nursing activities with theories supporting for each doing to empower the program success were recorded carefully in field notes. Moreover, participants' activities were collected in interview and diary notes.

Program implementation

This tentative QNTP was implemented through four steps of participatory action research: 1) reconnaissance, 2) planning, 3) acting, observing and, reflecting, as well as 4) revision of the program in spiraling until menopausal symptoms decreased.

1) Reconnaissance. The researcher and the participant created a therapeutic environment to build relationships and rapport. Next, the researcher explored in-depth understanding of participants' menopausal symptoms and helped participants to explore individual physical and psycho-social background.

2) Planning. After introducing the tentative QNTP, the researcher and participants developed mutual goals, attended training, and discussed ways to overcome barriers, collaboratively discussed critical innovation to carry out the agreed-upon tasks and set procedures for evaluating changes.

3) Acting, observing, and reflecting. Participants practiced the tentative QNTP, made observations and reflections on the process, the outcome, and needs in the program. The action, observation and reflection were done continuously until severity of menopausal symptoms decreased or the participants could cope with their symptoms.

4) Program revision. After drawing conclusions from all reflections and identifying lessons learned in each cycle, the researcher and participants collaboratively explored the meaning and discussed ideas for program revision under consultation with the Qigong expert.

Data collection

Two years data of QNTP implementation were collected. The researcher acted as an instrument to gain in depth data from each participant for 4-5 months long by using individual interview through audio recordings, observation and field notes. In addition, Participant's diary notes and checklists of symptoms were recorded every two weeks. Before entering into the QNTP practice, participant's background attitude, beliefs about menopause, and menopausal managements as well as context and situations were assessed. This was followed up with data from nursing and participants activities, including factors that both promoted and inhibited QNTP practice. Lessons learned during QNTP processing were also obtained. Additionally data regarding program revisions and the diary recording frequency, severity of menopausal symptoms duration QNTP practice and feelings toward QNTP practice and outcomes were recorded.

Data analysis

Data from menopausal symptoms checklist were analyzed for frequency and severity. The qualitative data of QNTP implementation were analyzed by content analysis simultaneously with data collection. Five steps of content analysis were used: 1) read all information from various data collection procedures to completely understand various situations; 2) identification and categorization of meaningful information; 3) creation of subthemes and themes with critical input from experts; 4) creation of detailed descriptions from rich information; 5) verification of conclusions with experts and participants' involvement.

Additionally, this study also met trustworthiness (credibility, conformability, and dependability) as follows:

1) The program was developed by a researcher who was qualified in Chinese Qigong training and was experienced in qualitative and quantitative research efforts;

2) The primary program was developed under supervision of Qigong and Buddhist healers, philosophers and validated by menopausal experts;

3) The researcher acted as a program facilitator and evaluator with investigation into creditable practitioners (nurses and medical scientist);

4) The researcher collected data from multiple techniques, confirmed data with participants checking and drawing themes from critical feedback by action research experts. Therefore, each theme was supported with sufficient clear description which enabled readers to transfer the conclusions of the study to other similar settings.

Results of QNTP implementation

The findings of QNTP implementation are reported in table 1.

Three cycles of QNTP implementation: 1) situation-realization and early learning; 2) self-learning, sharing, and adapting to daily life; and 3) modifications of QNTP and confirmation. The sequence of nursing provided a therapeutic training environment and program orientation in cycle one, supporting information and counseling to adapt QNTP into daily life in cycle two, and empowering mind to maintain program sustainable in cycle three. The nurse also acted as program evaluator to evaluate menopausal situations; the context before QNTP practice; the QNTP implementation process including factors promoting and inhibiting QNTP practice; lessons learnt to revise program; and outcomes of study. The sequence of participants' learning were mutual goal setting and conventional learning in cycle one, and self-directed learning and monitoring in cycles two and three. The participants' evaluation analyzing basic menopausal symptoms, impacts and QNTP in cycle one. Then participants reflected on the processes, outcomes and factors influencing QNTP implementation in cycles two and three.

During the programming, four themes promoting QNTP implication were found: positive attitude and belief in natural therapy; intention on learning; self recognition of lack of vitamin D; and program practicality. The following remarks highlight these themes.

"I belief in natural therapy, so I entered this program. I commit to practicing Qigong and checking the results step by step. In addition, I also need to discuss our findings each month." (C4)

Another participant said "After entering Qigong practice, I realized that I lacked vitamin D. So now I try to expose my skin to sunlight every morning for 10-15 minutes before going to work. After I expose my hands to sunlight, I feel refreshed." (C6)

Moreover, based on themes that emerged from the data, the researcher also found that the program could be improved by a more flexible period of program practice and the revision of four exercises. Three lessons were learned from QNTP implementation. The nurse's facilitating activities, including building trusting relationships, information giving, providing consultation and empowering participants, contributed to frequent and persistent QNTP practice. In addition, the nurse-researcher's step-by-step cooperation with participants in the program contributed to a deeper understanding of both the processes and outcomes of QNTP practice. Moreover, the participants who had meditation experience gained better menopausal symptoms balance than the general group.

After QNTP practice, nine participants reported decreases in three menopausal symptoms including vasomotor instability, somatic and mood disturbances, while general health improved.

1) Decreased vasomotor instabilities. Most vasomotor instabilities were decreased in sequential cycles. Headaches were decreased in cycles one and two. Hot flashes and heavy sweating were decreased in cycles two and three, chest tightness was decreased in cycle one and disappeared in cycle two. Difficulty sleeping decreased only in cycle three. The following were some participants' reflections:

"After two months of QNTP practice, I feel my headaches have decreased. I can read the newspaper on the airplane whereas I could not do this before. This program practice seems to have increased the oxygen supply to my brain." (C5)

Others said that “hot flashes decreased in the first two months of this program and disappeared completely after two months.”(C3, C10)

2) Decreased somatic disturbances. Most somatic disturbances were decreased after QNTP practice. Abdominal distention and constipation were decreased in cycles one and two, while frequent urination and skin problems decreased in cycle two. Nipple pain disappeared in cycle two, and itchy skin disappeared in cycle three. However, vaginal dryness and pain remained.

As one participant reported, “I felt very wonderful. My abdominal distention decreased after I tried finger moving for two weeks.” (C3).

Another woman reported, “After two months of QNTP practice, urine leakage disappeared. I feel my urinary functions have improved, and now I can control urination.” (C10)

3) Decreased mood disturbances. Mood disturbances were decreased in the early learning cycle. Some mood difficulties were reduced through cycle two, while a few were decreased in cycle three. One woman's said, “fear disappeared at the end of cycle one”. As one participant reported, “after a month QNTP practice, I feel warm and emotionally stable. My feelings of tiredness have decreased.

I can concentrate more on work and have a more positive self-image.” (C8)

4) Improved health. The QNTP also improved health in terms of general well-being, strength, relaxation and freedom from tension, concentration and memory, respiratory functioning, body temperature and vital energy as well as better sleep.

To summarize, nine participants out of ten experienced decreased vasomotor instabilities and decreased somatic disturbances, seven participants out of nine experienced decreased mood disturbances, and only one reported no change. In addition, seven showed decreased physical discomfort and greater working efficiency. Seven reported better well-being. Overall there were greater positive attitudes and beliefs in natural therapy, intention to learn more and institute a manageable schedule for QNTP practice.

Phase III. After a tentative program was implemented by three cycles of technical participatory action research, the conclusions of the processes, outcomes, and lessons learned were confirmed by participant checking and the final QNTP was articulated. The overall process of QNTP development is presented in figure I.

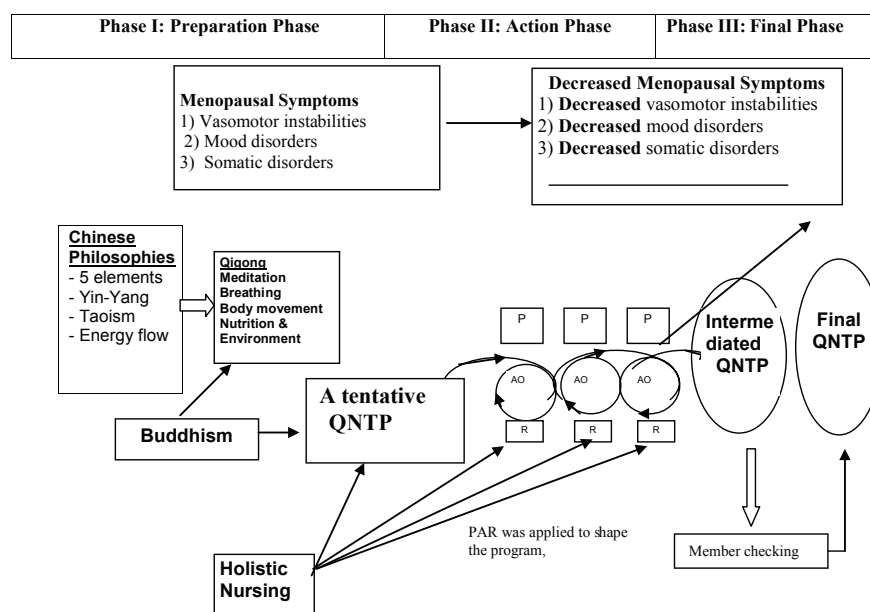


Figure1. The Process of a QNTP Development

P = Planning AO = Action and Observe R = Reflection RP = Revising - Planning

Additionally, the core components of the final QNTP included three parts:

1) Education of holism, nutrition, concepts of Qigong and QNTP application: The instruction included seven sections: 1) a holistic view of human life, 2) the nature of menopause and its impacts, 3) existing research on menopausal managements, 4) the concept of Qigong, 5) self-preparation the essences of QNTP practices, 6) three preparatory body-mind QNTP practice techniques: diaphragmatic breathing, concentration and gathering environmental energy, and abdominal massage coupled with energy retention, and 7) the five holistic exercises. This is listed as 7) here but 2) below. Please clarify if the holistic exercises are included in the first or second part.

2) Five holistic exercises. Five holistic exercises consisted of: 1) horse-like standing, 2) finger moving, 3) chest expansion, 4) balance heart and kidney Qi, and 5) sitting or lying meditation. Each of these five exercises was integrated with visualization, diaphragmatic breathing, and multiple body movements. Visualization focused on emptying the mind attaining, silence and stillness cultivating a positive inner view, and expelling waste from the body. Diaphragmatic breathing focused on inhaling fresh air toward the lower part of the lungs while keeping the lower abdominal muscles moving forward and exhaling the carbon dioxide by keeping the lower abdominal muscles moving back. Multiple body movements focused on simple, slow, symmetric, repetitive rhythmic movement of muscles, tendons and joints. The movement stimulated energy points in order to access energy channels.

3) Programming. Programming the QNTP consisted of QNTP orientation, training and practice as well as nine nursing and six participant activities. Both nursing and participants' activities varied based on the situation.

Discussion

Vasomotor instabilities are reduced by Qigong mechanisms that shift the autonomic nervous system toward a parasympathetic-sympathetic balance. This study is

consistent with many findings of the utility of Qigong for reducing neurotic symptoms,¹⁷ reducing insomnia,¹⁸ increasing sleep activity,¹⁴ reducing discomfort,¹⁹ and stimulating healthy cardiac functions. Additionally, Qigong increases lymphatic circulation to eliminate waste from cells and tissues. Diaphragmatic breathing helps strengthen abdomen, urinary and perineal muscles to excrete waste from the body. These findings are consistent with indications that Qigong reduces pain,^{18,19} and decreases musculoskeletal disabilities.²⁰ The current study also indicates that Qigong increases self-psychological regulation, leading to psychological balance. During Qigong the body is in a trance state, leading to feelings of freedom, calm, and open-mindedness. These positive emotional states fully recharge a person after psychological stress, objectively changing neurological endocrine functions.²¹ These findings are further supported with Qigong shown to reduce anxiety,¹⁹ negative moods,²² fatigue,^{18,19} and depression.¹⁹ Qigong has also been shown to improve health and daily work habits through increased cellular and hormonal immunity, improve respiratory functions,¹⁶ increase calmness, increase self-efficacy and cognitive functions,¹⁸ increase concentration, and increase positive social behavior.²³

This QNTP serves as an example to reduce menopausal symptoms. However, several methodological considerations are suggested for future trials. Before becoming a QNTP trainer, the clinical nurse or health personals (health educator, physical therapist, and exercise scientist or health volunteer) should fully participate in QNTP for at least two months. The movements within the program will help them attain calmness and greater health. Additionally the practitioner should recognize this program as an additional therapy and be familiar with the concepts of Qigong, pedagogy and evaluation techniques. The goals of the program should come from mutual planning because this QNTP practicing is time consuming. Participants' co-operation in programming is important for program achievement. During QNTP practice, participants' background in practicing meditation affects nursing

activities. Participants who had more experience in meditation only required three days orientation to incorporate QNTP into their daily life, and some discussion to confirm their actions. On the other hand the non meditation participants needed longer training and careful explanation on integrating three techniques in the five exercises. For general menopausal women, due to the limitation of PAR, testing effectiveness with a larger sample size and a quasi experimental study should be carried out beforehand. Finally, program evaluation should measure participants' menopausal sensations, learning and their healing processes.

Conclusion

This study provides an acceptable QNTP that could be approached for menopause in various health settings and presents a case of program development through participatory action research. The outcomes of the study also provided ideas which could be used for menopausal symptoms prevention. To ensure the success of QNTP in Thailand, educational media on QNTP should be developed and disseminated. Additionally, nurses, health educators, and health volunteers need to be trained so that QNTP becomes widely available. A curriculum of QNTP for menopausal symptoms management is also required to aid in professional training. In order to extend QNTP into national health policy, further research testing the QNTP effectiveness in the larger sample sizes with rigorous quasi experimental study is required. To extend QNTP internationally, researchers plan to conduct knowledge exchanges and the provision of training workshops.

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APPENDIX

PAR	Nursing	Participant Activities	Outcome Evaluation
Cycle 1: Situation Realization & Early Learning	<p><u>Evaluating activities</u> Understanding the participants' background. Evaluation of QNTP practices, outcomes, and influencing factors Asking for QNTP revision <u>Facilitating activities</u> Establishing trusting relationships Introducing QNTP contents, and conducting QNTP training. Establishing mutual goals Providing information and consultation</p>	<p><u>Evaluating activities</u> Understanding menopausal syndromes, impacts, and QNTP healing Reflection on QNTP practice, outcomes and influencing factors Suggestion for QNTP revision <u>Learning activities</u> Establishing mutual goals Learning and monitoring QNTP Asking information and consultation</p>	<p><u>Decreasing menopausal symptoms</u> Decreased headaches, chest tightness Decreased abdominal distention, constipation Decreased pain in the extremities, Decreased physical weakness Decreased emotional disturbances of anger, irritability, & anxiety <u>Improving health</u> Felt healthy, and relaxation Increased respiratory efficiency Increased efficiency at work</p>
Cycle 2: Self-Learning, Sharing, & Adoption into Daily Life	<p><u>Evaluating activities</u> Evaluation of QNTP practice, outcomes, and influencing factors Asking for QNTP revision <u>Facilitating activities</u> Maintaining a trusting relationship Sharing ideas and practices Recognizing participant abilities and accountability in learning</p>	<p><u>Evaluating activities</u> Careful reflection on QNTP practice, outcome evaluation, and influencing factors Suggestions for QNTP revision <u>Learning activities</u> Self-directed learning and, monitoring QNTP Asking for formation, consultation and empowering Integrating QNTP into daily life</p>	<p><u>Decreasing menopausal symptoms</u> Decreased abdominal distention Decreased hot flashes, headaches Decreased frequency of urination Increased body temperature and vital energy Decreased physical weakness muscle weakness and skin defects Decreased emotional disturbances of irritability, tiredness, felt bad at skin defect <u>Improving health</u> Felt healthier healthy and stronger Increased efficiency of the respiration Increased waste excretion Increased concentration & memory Increased efficiency at work</p>
Cycle 3: Modification and Confirmation	<p><u>Evaluating activities</u> Evaluation of the modified QNTP practice, outcomes, and influencing factors Asking for sustainable QNTP <u>Facilitating activities</u> Facilitating QNTP modification Recognizing participant abilities and accountability in self-directed learning and monitoring the modified QNTP practice</p>	<p><u>Evaluating activities</u> Reflection on food consultation and the modified QNTP practices Suggestions for sustainable the QNTP <u>Learning activities</u> Self-directed learning, and monitoring the modified QNTP Asking for additional information and empowering QNTP practices</p>	<p><u>Decreasing menopausal symptoms</u> Increased sleep efficiency Decreased headaches, heavy sweating Slightly decreased skin dryness, severe muscle pain Decreased emotional disorders of loss of social interest & nervousness <u>Improving health</u> Increased positive self-concept Decreased stress and anxiety Increased efficiency of the respiration Increased efficiency at work</p>

Table 1 shows the overall details of QNTP implementation in the action research process.

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วัตถุประสงค์: เพื่อพัฒนาโปรแกรมชี้ทางสำหรับบรรเทาอาการบวมน้ำในสตรีวัยทอง

รูปแบบการวิจัย: การวิจัยเชิงปฏิบัติการ

วิธีดำเนินการวิจัย: การพัฒนาโปรแกรมชี้ทางได้ดำเนินการสามขั้นตอน ดังนี้ 1) พัฒนาโปรแกรมชี้ทางชั่วคราวจากการทบทวนวรรณกรรม ปรึกษาชี้ทาง ประสบการณ์ของผู้เชี่ยวชาญ และการตรวจสอบโปรแกรมเบื้องต้นในผู้เชี่ยวชาญในสตรีวัยทองจำนวน 3 ราย 2) ทำการทดสอบการนำไปใช้ในสตรีวัยทองกับอาสาสมัคร 10 รายด้วยวิจัยเชิงปฏิบัติการสามรอบ การเก็บข้อมูลโดยให้รายงานตนเอง การสังเกตแบบมีส่วนร่วมและบันทึกสนทนากลุ่ม สำหรับการวิเคราะห์ข้อมูลใช้การวิเคราะห์เนื้อหา และการพรรณนา และ 3) ทำการประกอบโปรแกรมชี้ทางสำหรับสตรีวัยทองพร้อมการตรวจสอบกับผู้รับบริการ

ผลการวิจัย: องค์ประกอบหลักของโปรแกรมชี้ทางในสตรีวัยทองประกอบด้วยสามแกนหลักดังนี้ 1) การให้ความรู้เกี่ยวกับองค์รวม โภชนาการ ในวัยทอง และแนวคิดเกี่ยวกับชี้ทางกับการนำไปใช้ 2) การฝึกที่ผสมผสานการเคลื่อนไหว กล้ามเนื้อ ข้อต่อ กับการหายใจโดยใช้กระบังลม และจินตภาพตามเส้นปรมาณู และ 3) การดำเนินโครงการด้วยการปฐมนิเทศ การฝึก การปฏิบัติโปรแกรมชี้ทาง การเฝ้าระวังและการประเมินผลการฝึกโดยพยาบาล ตลอดจนการเรียนรู้และประเมินผล การฝึกโดยผู้ฝึก นอกจากนี้ความสำเร็จของการฝึกยังขึ้นกับความยืดหยุ่นและความเหมาะสมในแต่ละบุคคลอีกด้วย

สรุปและข้อเสนอแนะ: โปรแกรมสุดท้ายของชี้ทางในสตรีวัยทองสามารถลดอาการบวมน้ำจากการขาดระดับและส่งเสริมสุขภาพในสตรีวัยทอง

คำสำคัญ: ชี้ทาง สตรีวัยทอง การพัฒนาโปรแกรม การดูแลสุขภาพวัยทอง