

# The Experience of Persons With Allergic Respiratory Symptoms

## Practicing Yoga as a Self-healing Modality

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The purpose of this study was to describe the experience of persons with allergic respiratory symptoms who practice yoga as a self-healing modality. Fifteen participants were interviewed. Using the content analysis method, 5 themes emerged from the data: perceived positive effects, powerful and harmonious inner energy, mindfulness and self-awareness, understanding self and others, and promoting and achieving a state of balance and harmony. These findings foster the value of knowing the experience of persons who practice yoga as an intervention in holistic nursing. **KEY WORDS:** *content analysis, holistic nursing, mindfulness, respiratory allergy symptoms, self-healing, yoga* *Holist Nurs Pract* 2011;25(2):63–70

Yoga has been used as an effective intervention for a variety of health care conditions. Yoga techniques improve the individual's health and well-being by direct actions that move one's energies toward homeostatic stabilization—a system of natural self-healing that improves bodily functions and controls the subtle energies through the transformational methods of asanas, *pranayama* (breath control), and relaxation.<sup>1</sup> This study is focused on describing the experiences of persons who practice yoga as a self-healing modality, specifically those persons with allergic respiratory symptoms. Symptoms of allergic respiratory conditions are often aggravated by stress and heightened negative emotions and can lead to chronic respiratory illnesses. In addition, medical studies have suggested that, for people with respiratory allergy, yoga may even lessen the symptoms and improve their quality of life.<sup>2</sup>

Yoga improves strength, flexibility, and lung capacity,<sup>3</sup> the 3 necessary components of overall

fitness. Performing yoga's stretching and balancing movements or poses can lead to surprisingly quick improvement if done on a regular basis. Yoga may be ideal for people with exercise-induced respiratory function problems because it emphasizes conscious breathing and includes relaxation.<sup>2,4</sup>

Yoga can be helpful as an effective stress management technique to help people relax and control their mind and emotions. Many studies<sup>5-10</sup> have been undertaken to observe the effects of yoga. Most of them claim that almost all yoga-practicing programs have had positive effects either psychologically or mentally. Several randomized controlled trials done with patients with allergies or asthma have shown benefits from yoga postures and breathing.<sup>11-13</sup> Nevertheless, it is difficult to establish controls for all subjects following the same practice so that inconsistent effects are oftentimes observed.

Other reasons may be related to the principles of yoga, which emphasize that it is a way of life. Thus, to practice yoga as a self-healing modality necessitates that people should practice it as a way of life.

### YOGA AND SELF-HEALING

Yoga is one of the oldest systems of healing.<sup>14</sup> It is a mind-body connection method. The word *yoga* comes from the Sanskrit word *yuj*, meaning to join, which aims for the perfect union of body, mind, and spirit through a system of postures, breath control, sounds,

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meditation, and relaxation.<sup>15</sup> The goal of yoga practice is to integrate the body, mind, emotion, and spirit, which lead to self-healing.<sup>16,17</sup> It is a psychophilosophical-cultural method that induces relaxation and provides multiple health benefits to the person.

Self-healing is both a process and an outcome.<sup>18-20</sup> The self-healing process is a natural process occurring from within, restoring balance to systems, using the capacity for self-diagnosis and repair. It is a process of union of the physical, psychological, social, and spiritual aspects of persons. Self-healing provides an individual, unique experience, and involves active processes in which clients take responsibility for their own health. The consequences or outcomes of self-healing are balance, wholeness, relaxation, and harmony.<sup>21-24</sup> Yoga facilitates self-healing through a release of biological substrates and harmonious flow of energy. Yoga practice can influence human psychoneuroimmunological functions, which are identified by the way numerous mechanisms interact through the central nervous system and immune systems. It includes direct anatomical linkages and neuroendocrine-derived products. The self-healing of each person can occur when the nervous system is in homeostatic balance. It leads to individuals feeling an enhanced sense of well-being, being more effective in coping with their conditions of living, and therefore being less susceptible to stress-induced illness.<sup>25</sup> A number of biobehavioral strategies, including relaxation, imagery, biofeedback, and hypnosis, have been used to modulate immune function and have generally been associated with positive immunological changes.<sup>26</sup> These strategies include the practice of yoga as a self-healing modality.<sup>25,26</sup>

Yoga practice facilitates the flow of energy through the dense physical body.<sup>17</sup> It is a method of controlling the mind through the union of the individual's energy with the universal energy.<sup>15,27</sup> This universal energy is recognized as prana—the sum total of all energy that is manifested in the universe. Breath is the external manifestation of prana. By exercising control over this gross breath, one can control the subtle prana. Control of prana means control of mind. Mind cannot operate without the help of prana. Prana is the sum total of all latent forces that are hidden in human beings and that are around us. Prana is related to both the mind and the individual.<sup>17</sup> Because of the connection between breathing and consciousness, yoga has devised *pranayama* to stabilize energy and consciousness.<sup>28,29</sup> This allows a more healthy state to be experienced and

allows the mind to become calmer, balanced, and harmonious.

Yoga techniques may improve the individual's self-healing by direct actions that move toward homeostatic stabilization of the autonomic nervous system. It will not change the amount of struggle that a person experiences but will change the physiological response to them. The self-healing of each person can occur when the nervous system is in homeostatic balance. Individuals will feel an enhanced sense of well-being, be more effective in coping with their living conditions, and therefore be less susceptible to stress-induced illness like allergic respiratory conditions.<sup>25</sup>

*Pranayama* means voluntary control of breathing and control over the respiratory impulses. *Pranayama* utilizes breathing to influence the flow of prana in the *nadis* or energy channels of energy body. Moreover, the ancient texts declare that there are 70 000 *nadis* in the body. There are 3 particularly significant *nadis*: *ida*, *pingala*, and *shushumna*. The most important of these is known as the *shushumna* channel. The *shushumna* is situated in the energy field adjacent to the location of the spinal column in the physical body. It is flanked, on the left and right, by respective subsidiary channels known as the *ida* and *pingala*. The main aim of yoga *pranayama* is to bring about a balanced flow of prana in *ida* and *pingala nadis*. When people practice yoga *pranayama*, these *nadis* are purified and balanced, the mind is controlled, and then *shushumna* begins to flow.<sup>17,27</sup>

Although the literature reflects the positive outcomes of yoga on managing allergic respiratory symptoms, there are no published studies about the experiences of persons using yoga as a self-healing modality. Therefore, the purpose of this study was to describe the experience of persons with allergic respiratory symptoms who practice yoga as a self-healing modality.

## RESEARCH QUESTION

What is the experience of persons with allergic respiratory symptoms who practice yoga as a self-healing modality?

## SIGNIFICANCE OF THE STUDY

While this study provides opportunities for understanding the experiences of self-healing through yoga among persons with allergic respiratory

symptoms, the results of this study can benefit those who wish to enhance self-healing through yoga practice especially for persons who have allergic respiratory symptoms. Furthermore, yoga can also help nurses maintain balance in participants' lives.<sup>30</sup>

The data from the Index of Medical Specialties reported that in 2004, 2.250 million baht (\$70 000.00) were spent for drugs treating allergic diseases and asthma.<sup>31</sup> This was the result of increased clinic and hospital visits, and indirect expenses such as loss of work productivity, school absenteeism, and restricted daily activity.<sup>31</sup> The use of yoga as a self-healing practice may be a way to impact the reduction of these expenses particularly those afflicted with allergic respiratory problems.

## METHODOLOGY

This study was a part of an action research study that focused on the development of yoga as a self-healing process among persons with allergic respiratory symptoms. The purpose of this study was to describe the experience of persons with allergic respiratory symptoms who practice yoga as a self-healing modality. Content analysis from a phenomenological perspective was used in analyzing the narrative data that described the experience of the participants. The study took place at the Center for Holistic Health and Eastern Wisdom, Faculty of Nursing, Prince of Songkla University in Songkhla province, South of Thailand.

### Participants

Fifteen persons with allergic respiratory symptoms volunteered to participate in the study. They were recruited using advertising posters placed in strategic places such as bulletin boards of hospitals and the snowball method by word of mouth. The participants were selected using the following criteria: had a diagnosis of allergic respiratory symptoms and practiced yoga using the nursing therapeutic program at the Center for Holistic Health and Eastern Wisdom, Faculty of Nursing, Prince of Songkla University; were between the ages of 19 and 60 years at the time of the study; were able to read, write, and understand Thai language; and had no other chronic diseases, such as diabetes mellitus, hypertension, heart disease, or renal disease.

The mean age of the participants was 36 years. Five participants were younger than 30 years. Ten

participants were between the ages of 31 and 60 years. Their primary and continuing occupational roles are as teachers, or self-employment with their own businesses. The educational level of 6 participants was the bachelor's degree, while 3 of them had master's degree, although one of them was high school graduate. Fourteen participants were women and 1 was a man. Twelve participants were practicing the Buddhist religion and 3 of them were Muslims.

### Self-healing through yoga: A nursing therapeutic program

This program was developed specifically for persons with allergic respiratory symptoms, as an intervention in an action research project. To develop this therapeutic program, the researchers' experiences and prior training were used, particularly the training received from an experienced yoga teacher at the Thai Yoga Institute in Bangkok. This experience of practice, the literature review,<sup>15,16,28</sup> and consultations with yoga teachers provided the content and practice perspectives that influenced the development of the self-healing through yoga therapeutic nursing program.

Two principles guided this yoga practice: *Yama*, which means the principles of right relationship to the world and universal ethics, and *Niyama*, which means the principles of right relationship with self, disciplines, and observances.<sup>29</sup> This yoga practice for persons with allergic respiratory symptoms consisted of yoga principles (*yama* and *niyama*), a set of *asanas* including exercises for the joints (a warm-up of 10 minutes), standing postures (25 minutes), sitting postures and *pranayama* (25 minutes), and lying postures (15 minutes). This was followed by deep relaxation, for which the Corpse Pose (15 minutes) was recommended. The participants practiced for 1½ hour, 3 times a week. All participants performed the aforementioned therapeutic program within a 12-week period. Semistructured interviews were conducted after the completion of the therapeutic nursing program to generate the descriptive data of the participants' experiences.

### Ethical considerations

This study was approved by the committees of institutional review board of the Faculty of Nursing, Prince of Songkla University in Hat Yai, Songkhla, Thailand. A complete written description of the study,

the research method, potential risks, and benefits were explained to the participants. To maintain confidentiality of data, the participants' information such as names and demographic data were substituted with pseudonyms.

### Rigors of the study

Procedures identified by Lincoln and Guba<sup>32</sup> were used to ensure trustworthiness in this study. These included credibility, transferability, dependability, and confirmability.

*Credibility* is established through activities that increase the probability that reliable findings will be produced.<sup>32</sup> Recruited participants who described the experience were selected using the selection criteria for participants. All participants met the selection criteria. Rich narrative descriptions of their experiences were tape-recorded, transcribed, and analyzed.

*Transferability* is the probability that the study findings have meaning to others in similar situations. To facilitate the appreciation of transferability in this study, the researcher reported the context of the study, including the setting, and the participants' background. The findings of the study were reported in a style that gave an enriched picture by using the participants' accounts.

*Dependability or auditability* is the criterion ensuring the consistency of qualitative findings.<sup>32</sup> To achieve dependability, the themes included direct quotes, which provided the rich descriptions of the experiences of persons with allergic respiratory conditions who practiced in yoga as a self-healing modality. With these participant statements, another researcher can review the descriptions and understand the thematic descriptions as pertaining to the experience being described.

*Confirmability* is a process criterion. The technique used to assess confirmability is the audit trail.<sup>32</sup> The researcher's reflective journals, which provided ongoing documentation of the researcher's role, reactions, and influences on data collection and analysis, were available at all times.

### Data collection

The qualitative data were collected using individual semistructured interviews. These were conducted by the researcher after the completion of the therapeutic nursing program. Interviews were audio-tape

recorded, transcribed, and translated into English by a bilingual expert who is fluent in both Thai and English languages.

Using an interview guide, participants were asked to provide general information data including personal background and their experiences of self-healing. Semistructured interviews were conducted within 1 month of the completion of the nursing therapeutic program, which was a 3-month program. These interviews generated narrative descriptions of the participants' experiences of using yoga as a self-healing modality.

Sample questions included "Can you tell me about your experiences when you Practiced yoga?" or "Please describe to me your experiences of practicing yoga as a self-healing modality?"

### Data analysis

Content analysis was used to analyze the narrative data composed of descriptions of participant experiences following the semistructured interviews. The analysis included an immersion into the descriptions of the experience, that is, reading and reading the textual data. Subsequently, words, phrases, and statements were highlighted and identified. Subsequently, these were categorized as descriptors of the participants' experiences. From these thematic categories, themes were isolated ultimately providing the description of the experience of practicing yoga as a self-healing modality.

## FINDINGS OF THE STUDY

The experiences of practicing yoga as a self-healing modality were described by the participants in 5 themes: perceived positive effects, powerful and harmonious inner energy, mindfulness and self-awareness, understanding self and others, and achieving a state of balance and harmony.

### Perceived positive effects

Perceived positive effects of yoga as a self-healing modality were expressed by participants as "general relief of respiratory functions" often attributed to yoga postures. Participants found that their respirations were easier and that they were able to get more air into their lungs. The following quotes describe this experience.

Some postures stimulate circulation and [the functions of] internal abdominal organs. I felt that these helped increase lung capacity, such as the Fish Posture (Matsyasana), Locust Posture (shalabhasana), and Cobra (Bhujangasana). Sometimes, I did not need medicine to relieve my respiratory symptoms. (Am)

Even though the symptoms were not completely eliminated, these decreased in frequency and severity. This helped to motivate them to continuously practice yoga as one participant exclaimed:

I still have symptoms but not as often as before, and with less severity than previous times. I feel good and relaxed. Sometimes I do not use medicine. After practicing some postures and relaxation techniques for thirty minutes I feel better. (Ging)

Most of the participants who claimed to have positive benefits learned that the outcomes were beneficial to both their bodies and minds. They learned that their respiratory functions and other physical functions were improved. Participants stated the following:

I tried to practice and remember all yoga postures. After four weeks of continuing practice I began to learn the outcomes. For example I thought the set of joint exercises is good for me. This set of postures made me feel flexible in my joints and muscles . . . . (Aree)

Another participant exclaimed:

I still have symptoms but less severely than the previous time. I feel good and relaxed. Sometimes I do not use medicines. I feel my body is more flexible after practicing yoga. I could feel my body energy flowing throughout the body . . . . It means that after the practice I was still fresh and could continue working, and was not tired. (Na)

### Powerful and harmonious inner energy

The participants expressed their inner feelings as having more energy after doing some postures such as the Wheel posture, Sun Salutation posture, and Fist posture. They reported that they felt “fresh and felt more powerful to do things.” These experiences were expressed by the following participants in the following statements:

I could not exactly express in words that I felt the energy moving through both my hands especially when I was doing the wheel posture. (Noi)

Another participant declared that

I felt good and relaxed. After practicing yoga, I was still fresh, alert and could continue working, and was not tired as I used to be. (Na)

### Mindfulness and self-awareness

The participants found that they were more mindful about themselves and more aware of their selves after practicing yoga. Yoga practice not only engaged the body in movement but also brought about concentration of the mind along with the body movement as illustrated in the participant’s statement below:

While I was practicing yoga I can focus my breath on the body movement and I could do them continuously. I thought that it could affect me—both [on] my body and mind. I had more concentration and I thought that it led me to a more peaceful mind. (Sa)

A participant also exclaimed that

the breathing control postures [*pranayama*] made me peaceful and I felt I could get more air. I did not feel tired after the practice or after work. So I felt happier. Now I could do this set of the program well. (Nat)

The participants believed that during their yoga practice they felt something was changing. It made them more aware for their own selves.

I focus my mind on my breathing (inhale and exhale). I could follow my breathing continually. I did not think about anything. I felt more aware of myself while practicing yoga. (Pat)

Another participant exclaimed that

I feel like I am charged with energy. I become fresh and not tired after the practice. I feel relaxed and peaceful in my mind and body. (Na)

Focusing the mind during the yoga practice allowed the participants to gain greater self-awareness.<sup>33,34</sup> Self-awareness helped the participants gain more understanding of their situations. Some of the expressions led to “self-understanding of illness,” “causes and risks,” “impact on self,” and “self-management.” These expressions changed their outlook toward life and illness. They reported that self-awareness could guide them to a state of balance. One participant made the following statement:

Obviously, yoga changed my feelings and attitude toward life and illness. I feel that I have more control over the allergic respiratory symptoms. Yoga helped me to be aware of the illness, and to live harmoniously with these symptoms. (Toto)

### Understanding self and others

The participants reported that they were “sensitive to allergens,” which made them suffer allergic

symptoms. They explained that these symptoms were “chronic symptoms and might stay with them for their whole lives.” They tried to “balance their lives, and to accept and understand it.” Yoga taught them to understand themselves and be more mindful. For instance, one participant stated that

When I got allergic respiratory symptoms I was always anxious, fearful, and stressed. Now I feel my mind is relaxed. I am not anxious about my symptoms. Yoga taught me to be mindful of myself. So I thought yoga helped me to learn and understand about myself. (Sa)

Because the participants had suffered from allergic respiratory symptoms for a long time, they often felt that “they were a burden to their family members, friends, and colleagues.” They felt “moody when people did not do as they expected.” Sometimes they “felt angry for no apparent reason.” After practicing yoga, they found that their symptoms decreased, and were more comfortable and relaxed. They expressed that they “understand other people more and their situations better” and that they could “understand their families, friends, and colleagues better.” One participant felt that

In the past I often felt moody and acted with inappropriate behavior to other people such as my family and my friends. Now I understand other people better. After I had practiced yoga for over two months I perceived changes in my thinking.

### **Achieving a state of balance and harmony**

The participants reported that “their symptoms affected their lives,” making them think negatively, yet helping them promote harmony in their living. Many participants achieved a state of balance and harmony. Their experience was that yoga practice helped them “understand their inner-self better.” Their symptoms diminished, and most of them felt that they were in “harmony with the world” and “having a balanced life.” For example, one participant claimed that

I felt so good that I decided to continue yoga to manage my allergic symptoms. I felt peace of my mind. I felt really relaxed. I have never had good experiences like this before. Yoga made me happy and made me balance my life.

Another participant exclaimed that

I feel relaxed and understand other people more. I thought that everybody had their own reasons to do anything so I was not angry when they did not do as I expected.

## **DISCUSSION**

The findings of the study revealed 5 themes that provided the description of the experience of persons who practiced yoga as a self-healing modality. These include perceived positive effects, powerful and harmonious inner energy, mindfulness and self-awareness, understanding self and others, and achieving a state of balance and harmony. These thematic descriptions support the integrative work of yoga principles as reflective of the influences of *yama* and *niyama*, *yoga asana*, *pranayama*, and relaxation.

The mind-body connection is an important strategy that leads to self-healing.<sup>23</sup> The participants perceived positive effects of yoga on their health. Yoga principles (*yama* and *niyama*), *yoga asana*, *pranayama*, and relaxation brought them to the state of being mindful and aware of the mind-body connection.<sup>16-18,20</sup> This made them feel relaxed, calm, and fully aware. The participants noted their symptoms decreasing in severity and frequency. This is supported that relaxation was the first step toward restoring, renewing, and self-healing.<sup>35-39</sup>

The changes that occur after relaxation take place automatically. The alterations brought about by deep relaxation include increasing the peripheral blood flow (warm extremities), increasing the electrical resistance of the skin (dry palms), the production of slow alpha waves, and the greater activity of natural killer cells (improved immune function). These changes also included a decrease in oxygen consumption and decreases in the respiratory rates and volume, heart rates, skeletal muscle tension, epinephrine levels, gastric acidity and motility, sweat gland activity, and blood pressure.<sup>35,39,41</sup> These changes reflect physiological homeostasis as a result of yoga practice.

Mindfulness and realization were also important foundations for further development of the right understanding and positive attitude toward life.<sup>33,34,37,38</sup> Yoga also allowed the participants to fully explore themselves understand more clearly the risk factors, causes, the symptoms of respiratory allergy, and ways to manage the symptoms using yoga. Feelings of having more control on the symptoms enabled the participants to live with the illness more confidently and harmoniously. Feelings of fear and anxiety with the recurrence of the symptoms especially in the rainy season diminished.

The participants followed yoga principles (*yama* and *niyama*)<sup>29</sup> to guide their daily lives. These principles were used as promoting the right

relationship with the world and universal ethics, and the right relationship with the self, disciplines, and observances. This included nonpossessiveness, not being greedy, satisfying the needs rather than wants, and not being attached to material things, possessions, relationships, and habits.<sup>29</sup> Yoga principles guided them to understand themselves and others.<sup>42,43</sup> They learned these principles for face of change and want to devote their time for others. In this study, the participants voluntarily helped to teach yoga to others in their community.

Most participants expressed a state of balance and harmony. They shared their experiences that through yoga practice they could understand their inner selves better. The participants agreed that their minds were more calm and mindful when doing things. They thought that yoga made them happy and more balanced in their lives.<sup>44</sup> Most of them claimed that all yoga practicing programs have had positive effects both physically and psychologically.

The participants found self-healing as a process that facilitates health and restores harmony and balance of the mind and the body. Through the self-healing processes demonstrated in this study, participants drew on their inner strengths and had an innate sense of personal self-healing. This supports the concept that self-healing is a dynamic process of recovery, repair, restoration, renewal, and transformation.<sup>23,45</sup> The self-healing on the part of participants involved the whole person and was expressed in many ways, such as most of them perceived that they improved their respiratory functions initially and they had achieved the stages of balance and harmony finally.

## CONCLUSIONS

The purpose of this study was to describe the experience of 15 participants with allergic respiratory symptoms who were engaged in a self-healing practice through yoga program. The experience of self-healing through yoga is described as “the positive effects and powerful harmonious energy expressed through mindfulness and self-awareness in understanding self and others through the achievement of a state of balance and harmony.” This description is useful for nurses to understand the experiences of persons with allergic respiratory symptoms who practice yoga as a self-healing modality. In understanding their experiences, nurses are well informed about the benefits that this intervention offers. Important above

all, the practice of yoga as a self-healing modality provides yet another intervention that can be heralded as a holistic nursing intervention that is beneficial to patients who may have allergic respiratory symptoms.

## RECOMMENDATIONS

On the basis of the findings, nurses should encourage persons with allergic respiratory symptoms to integrate yoga as a self-healing modality in their daily life practices within a nursing care regimen of self-healing. It is hoped that these findings can also provide nurses to help themselves maintain balance and harmony in their own lives.

Further nursing research study is recommended that further study of self-healing through yoga be conducted with persons with other chronic illnesses, such as hypertension, diabetes mellitus, and cancer to understand their experiences, thus informing further the practice of holistic nursing.

It is recommended as well that nursing education enhance the integration of self-healing through yoga program into the nursing curriculum including it as a practice skill program and as a guide for students of nursing toward integrating appropriate nursing care within a holistic nursing perspective.

## REFERENCES

1. Cooper S, Osborne J, Newton S, et al. Effect of two breathing exercises (Buteyko and *pranayama*) in asthma: a randomized controlled trial. *Thorax*. 2003;58(8):674.
2. Halvorson C. Stretching to breathe: Can yoga help your asthma? *Asthma Mag*. 2002;7(3):27-29.
3. Bhattacharya S, Pandey US, Verma NS. Improvement in oxidative status with yogic breathing in young healthy males. *Indian J Physiol Pharmacol*. 2002;46(3):349-354.
4. Kai-Hakon C. Therapeutic strategies for allergic airways diseases. *Pae-diatri Respir Rev*. 2004;5(1):45-51.
5. Bharshankar J, Bharshankar R, Deshpande V, Kaore S, Gosavi G. Effect of yoga on cardiovascular system in subjects above 40 years. *Indian J Physiol Pharmacol*. 2003;47(2):202-206.
6. Carson JW, Carson KM, Porter LS, Keefe FJ, Shaw H, Miller JM. Yoga for women with metastatic breast cancer: results from a pilot study. *J Pain Symptom Manage*. 2007;33(3):331-341.
7. Malhotra V, Singh S, Tandon OP, Madhu SV, Prasad A, Sharma SB. Effect of yoga asanas on nerve conduction in type 2 diabetes. *Indian J Physiol Pharmacol*. 2002;46(3):298-232.
8. Mastrangelo MA, Galantino ML, House L. Effects of yoga on quality of life and flexibility in menopausal women: a case series. *J Sci Heal*. 2007;3(1):42-45.
9. Ravindra PN, Madanmohan, Pavithran P. Effect of pranayam (yogic breathing) and shavasana (relaxation training) on the frequency of benign ventricular ectopic in two patients with palpitations. *Int J Cardiol*. 2006;108(1):124-125.

10. Ruth M, Pratum R, Urai H, Payao K. The effects of yoga on hypertensive persons in Thailand. *Holist Nurs Pract*. 2005;19(4):173.
11. Singh V, Sinha HV, Gupta R. Barriers in the management of asthma and attitudes towards complementary medicine. *Respir Med*. 2002;96(10):835-840.
12. Visweswaraiyah NK, Telles S. Randomized trial of yoga as a complementary therapy for pulmonary tuberculosis. *Respirology*. 2004;9(1):96-101.
13. Workman ML. Interventions for clients with immune function excess: hypersensitivity (allergy) and autoimmunity. In: Ignatavicius DD, Workman ML, eds. *Medical-Surgical Nursing: Critical Thinking for Collaborative Care*. 4th ed. Philadelphia, PA: WB Saunders Company; 2002:392-398.
14. Birkel D, Edgren L. Hatha yoga: improved vital capacity of college students. *Altern Ther Health Med*. 2000;6(6):55.
15. Nagarathna R, Nagendra H, Monro R. *Yoga for Healthy Lifestyle*. London, England: Gaia Books Limited; 2002.
16. Gharote ML. *Yogic Techniques*. Lonavla, India: Lonavla Yoga Institute; 1999.
17. Saraswati SS. *Asana Pranayama Mudra Bandha*. Munger, India: Yoga Publications Trust; 2004.
18. Herrick CM, Ainsworth AD. Yoga as a self-care strategy. *Nurs Forum*. 2000;35:32-36.
19. Keegan L. *Healing With Complementary and Alternative Therapies*. Columbia: Thomson Learning; 2001.
20. Taylor MJ. Yoga therapeutics: an ancient, dynamic systems theory. *Tech Orthop*. 2003;18(1):115-125.
21. Glaister JA. Healing: analysis of the concept. *Int J Nurs Pract*. 2001;7(2):63-68.
22. Quinn JF. The self as healer: reflections from a nurse's journey. *AACN Clin Issues*. 2000;11(1):17-26.
23. Robb WJW. Self healing: a concept analysis. *Nurs Forum*. 2006;41(2):60-77.
24. Thorpe K, Barsky J. Healing through self-reflection. *J Adv Nurs*. 2001;35(5):760-768.
25. Walling A. Therapeutic modulation of the psychoneuroimmune system by medical acupuncture creates enhanced feelings of well-being. *J Am Acad Nurse Pract*. 2006;18(4):135-143.
26. Prolo P, Chiappelli F, Fiorucci A, Dovio A, Sartori ML, Angeli A. Psychoneuroimmunology: new avenues of research for the twenty-first century. *Ann NY Acad Sci*. 2002;966(1):400-408.
27. Sivananda SS. *Kundalini Yoga*. Himalayas, India: The Divine Life Society; 1999.
28. Gharote ML. *Pranayama: The Science of Breath*. Lonavla, India: The Lonavla Yoga Institute; 2003.
29. Sadhakas. *Patajali's Yoga Sutras*. Mumbai, Maharashtra, India: The Apple Studio; 1999.
30. Menuhin SY. Yoga. In: Fontaine KL, ed. *Healing Practice: Alternative Therapies for Nursing*. Upper Saddle River, NJ: Prentice-Hall; 2000: 245-258.
31. Bunnag C, Jareoncharsri P, Tantilipikorn P, Vichyanond P, Pawankar R. Epidemiology and current status of allergic rhinitis and asthma in Thailand ARIA Asia-Pacific workshop report. *Asian Pacific J Allergy Immunol*. 2009;27:79-86.
32. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications; 1985.
33. Dittmann K, Freedman M, Beddoe A, Waldrop J. Body Awareness, eating attitudes, and spiritual beliefs of women who practice yoga: a case for recovery. *J Am Diet Assoc*. 2008;108(9)(suppl 1):A34.
34. Schlinger M. Feldenkrais method, Alexander technique, and yoga-body awareness therapy in the performing arts. *Phys Med Rehabil Clin N Am*. 2006;17(4):865-875.
35. Anselmo J. Relaxation: The first step to restore, renew, and self heal. In: Dossey BM, Keegan L, Guzzetta CE, eds. *Holistic Nursing: A Handbook for Practice*. 4th ed. London, England: Jones and Bartlett Publishers Inc; 2005.
36. Javnbakht M, Hejazi Kenari R, Ghasemi M. Effects of yoga on depression and anxiety of women. *Complement Ther Clin Pract*. 2009;15(2):102-104.
37. Salmon P, Lush E, Jablonski M, Sephton SE. Yoga and mindfulness: clinical aspects of an ancient mind/body practice. *Cogn Behav Pract*. 2009;16(1):59-72.
38. McIver S, O'Halloran P, McGartland M. Yoga as a treatment for binge eating disorder: a preliminary study. *Complement Ther Med*. 2009;17(4):196-202.
39. Satyapriya M, Nagendra HR, Nagarathna R, Padmalatha V. Effect of integrated yoga on stress and heart rate variability in pregnant women. *Int J Gynecol Obstet*. 2009;104(3):218-222.
40. Chen K-M, Chen M-H, Chao H-C, Hung H-M, Lin H-S, Li C-H. Sleep quality, depression state, and health status of older adults after silver yoga exercises: cluster randomized trial. *Int J Nurs Stud*. 2009;46(2):154-163.
41. Cowen VS, Adams TB. Heart rate in yoga asana practice: a comparison of styles. *J Bodyw Mov Ther*. 2007;11(1):91-95.
42. Javnbakht M, Hejazi Kenari R, Ghasemi M. Effects of yoga on depression and anxiety of women. *Complement Ther Clin Pract*. 2009;15(2):102-104.
43. Lundgren T, Dahl J, Yardi N, Melin L. Acceptance and commitment therapy and yoga for drug-refractory epilepsy: a randomized controlled trial. *Epilepsy Behav*. 2008;13(1):102-108.
44. Sathyaprabha TN, Satishchandra P, Pradhan C, et al. Modulation of cardiac autonomic balance with adjuvant yoga therapy in patients with refractory epilepsy. *Epilepsy Behav*. 2008;12(2):245-252.
45. Jonas WB, Chez RA, Duffy B, Strand D. Investigating the impact of optimal healing environments. *Altern Ther Health Med*. 2003;9(6): 36.