

**Development of the Therapeutic Buddhist Meditation Nursing Model for
Self-Healing in Persons with Hypertension**

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Doctor of Philosophy in Nursing (International Program)**

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ชื่อวิทยานิพนธ์	การพัฒนารูปแบบการพยาบาลโดยใช้สมาธิบำบัดแบบพุทธเพื่อการ เยียวยาตนเองสำหรับผู้ที่มีความดันโลหิตสูง
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บทคัดย่อ

การวิจัยนี้เป็นการวิจัยเชิงปฏิบัติการ มีวัตถุประสงค์เพื่อพัฒนา รูปแบบการพยาบาลโดยใช้สมาธิบำบัดแบบพุทธเพื่อการเยียวยาตนเองสำหรับผู้ที่มีความดันโลหิตสูง กระบวนการวิจัยเกิดจากความร่วมมือของผู้วิจัย ผู้ที่มีความดันโลหิตสูง 12 ราย พยาบาล 1 รายพระภิกษุ 1 ราย และ อาสาสมัครประจำหมู่บ้าน 1 ราย ที่ชุมชนแห่งหนึ่งในภาคใต้ของประเทศไทย ตั้งแต่เดือนมิถุนายน 2551 ถึงเดือนสิงหาคม 2552 เก็บรวบรวมข้อมูลเชิงคุณภาพ โดยการสัมภาษณ์แบบเจาะลึก การสังเกต การสะท้อนคิดพิจารณา และบันทึกภาคสนาม นอกจากนี้มีการเก็บข้อมูลเชิงปริมาณโดยใช้แบบสอบถามความเครียด แบบสอบถามสติ และเครื่องวัดความดันแบบดิจิทัล และวิเคราะห์ข้อมูลโดยใช้สถิติบรรยายและการวิเคราะห์เชิงเนื้อหา

ผลการวิจัยพบว่ารูปแบบการพยาบาลโดยใช้สมาธิบำบัดแบบพุทธเพื่อการเยียวยาตนเองสำหรับผู้ที่มีความดันโลหิตสูง ประกอบด้วยกระบวนการเยียวยาตนเอง 4 ระยะ คือ (1) ทุกข์และยังคงมีพฤติกรรมที่ไม่เหมาะสมจึงเป็นเหตุให้ความดันโลหิตสูง (2) เข้าใจสาเหตุของภาวะความดันโลหิตสูงแต่ไม่สามารถแก้ไขได้ (3) เกิดความรู้สึกที่ดีจากการทำบุญแต่ยังไม่สามารถกำหนดสติได้ และ (4) เกิดความสงบและยอมรับความจริงของธรรมชาติ สำหรับแนวคิดหลักทางพุทธที่นำมาเป็นแนวทางในการพยาบาลประกอบด้วย การกำจัดความไม่รู้ การพัฒนาสติ การกำจัดอุปสรรคในการทำสมาธิ และการส่งเสริมการคงไว้ซึ่งการทำสมาธิอย่างต่อเนื่อง ซึ่งประกอบด้วยกิจกรรมการพยาบาลดังนี้ การให้ข้อมูล การวิเคราะห์หาสาเหตุของความดันโลหิตสูง การแนะนำและฝึกปฏิบัติการทำสมาธิแบบพุทธ การส่งเสริมความมั่นใจ การชื่นชมเมื่อมีความก้าวหน้าในการปฏิบัติ จัดเตรียมหนทางในการทำสมาธิ และแนะนำให้นำการทำสมาธิมาใช้กับกิจกรรมในชีวิตประจำวัน สำหรับกลยุทธ์ที่ช่วยส่งเสริมให้กิจกรรมการพยาบาลประสบผลสำเร็จได้

ประกอบด้วย การสร้างสัมพันธภาพที่เป็นกันเอง เข้าใจและช่วยแก้ปัญหาด้วยใจ สร้างบรรยากาศที่ผ่อนคลาย สอนการปฏิบัติสมาธิด้วยความกรุณา อยู่เป็นเพื่อนและปฏิบัติร่วมกัน เป็นแบบอย่างในการปฏิบัติ บูรณาการการทำสมาธิให้สอดคล้องกับความเชื่อเรื่องบุญและวิถีชีวิตแบบพุทธ และการให้สะท้อนคิดพิจารณา

ผลของการศึกษาครั้งนี้พบว่า ผู้ที่มีภาวะความดันโลหิตสูงสามารถนำการปฏิบัติสมาธิแบบพุทธแทรกเข้ามาในวิถีชีวิตได้อย่างลงตัวจนเกิดการเยียวยาตนเองได้ โดยเกิดความสุขของจิตใจ รู้สึกสบายใจ จิตใจสงบ และเกิดสติ ปัญญา สามารถยอมรับและแก้ไขปัญหาที่เกิดขึ้นได้ตรงกับสาเหตุที่แท้จริง และมีพฤติกรรมการดูแลตนเองที่ถูกต้องเหมาะสม ส่งผลให้เกิดความสุขของร่างกายคือสามารถควบคุมระดับความดันโลหิตให้ต่ำกว่า 140/90 มิลลิเมตรปรอท และไม่มีอาการและอาการแสดงที่ผิดปกติ

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ABSTRACT

This action research aimed to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension. The research process is based on the collaborative approach among a researcher, twelve persons with hypertension, a nurse, a monk, and a village health care volunteer at one community in Southern Thailand. The study was conducted during June 2008 to August 2009. The qualitative data were collected through in-depth-interview, observation, critical reflection, and field note taking. Additionally, quantitative data were collected using the stress questionnaire, mindfulness questionnaire, and digital blood pressure monitoring. The descriptive statistics and content analysis were used for data analysis.

The findings revealed that the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension consisted of 4 phases of self-healing process- (1) encountering suffering and having inappropriate health-related behaviors which lead to persistent high blood pressure, (2) understanding the causes of hypertension but unable to eliminate the suffering and inappropriate health-related

behavior, (3) practicing Buddhist meditation leads to receive the good feelings from merit making but unable to perform meditation well, and (4) achieving peacefulness and accepting the nature of Buddhist truths. The principle of Buddhist concept guiding nursing care for enhancing self-healing in persons with hypertension were composed of eliminating ignorance, developing mindfulness, overcoming the obstacle of Buddhist meditation practice, and promoting maintenance the regular meditation practice. The nurse's activities composed of providing information, analyzing the causes of hypertension, advising and training Buddhist meditation practice, encouraging confidence, appreciating their devotion to progress in meditation practice, organizing venues for practicing meditation, and advising to concentrate on activities in daily life. The strategies that a researcher and a nurse utilized for encouraging the successful nursing care composed of building friendly relation, understanding and helping to solve the problem with heart, creating relaxing environment, training for Buddhist meditation practice with kindness, accompanying with and practicing Buddhist meditation together, showing the role model, integrating Buddhist meditation congruently with belief of merit making and Buddhist way of life, and promoting learning through critical reflection.

The outcomes of this study revealed that the persons with hypertension could integrate Buddhist meditation into daily life to enhance self-healing. Their peacefulness, calmness, mindfulness and wisdom were developed. They accepted the problems and have been searching for the ways to solve them and they finally had appropriate health behaviors. Consequently, they have the physical balance- blood pressure lower than 140/90 mmHg and no signs and symptoms of abnormal condition.

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Jamjuree Saeloo

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CHAPTER 1

INTRODUCTION

Background and significance of the problem

Hypertension is a major health problem in developing countries because the incidence is increasing every year. In 2000, 26.4% or 972 millions of the global adult population is currently living with hypertension and almost three quarters, 639 millions live in the developing countries. This number is projected to rise to 1.56 billion by 2025 (Hajjar, Kotchen, & Kotchen, 2006). In Thailand, the number of persons with hypertension also had a tendency to rise. The latest Health Examination Survey in Adult Thai Population, Third Round, found that the number of persons with hypertension were high to 10.1 millions in 2004 (Health Systems Research Institute, 2008). This incident impacts not only on the economy and the social development, but also the persons who suffer from this disease which includes their bodies and minds, and socioeconomic environment. Prolonged hypertension increases accumulation of atherosclerotic plaque in arterial wall and damages blood vessels throughout the body, particularly in target organs such as the heart, brain, and kidneys (Smeltzer & Bare, 2004). In addition, these severe complications make them fear and side effects of antihypertensive drugs may reduce their performance of activities of daily living and occupation (Van-Wissen, Litchfield & Maling, 1998).

The higher blood pressure, the greater the complication and mortality rate (Smeltzer & Bare, 2004). Thus, the controlling blood pressure lower than 140/90 mmHg is important to decrease these impacts (Mohan, et al., 2005; Moore, 2005;

Smeltzer & Bare, 2004). A reduction of 5 mmHg in systolic blood pressure has been associated with reductions of 14% in mortality caused by stroke, 9 % in mortality caused by heart disease, and 7 % in all-cause mortality (Wexler & Aukerman, 2006).

The nursing care for persons with hypertension in the past followed to the Western viewpoint- to see the mind and body as two separated entities and specially concerned to care only physical part (Capra, 1986). The recommendation for controlling blood pressure of the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) also pays attention to physical part. It composes of reducing dietary sodium to less than 2.4 gm per day; increasing exercise to at least 30 minutes per day, four days per week; limiting alcohol consumption to two drinks or less per day for men and one drink or less per day for woman; eating high potassium but low fat and salt; and achieving a weight loss goal of 4.5 kg (Wexler & Aukerman, 2006). If these lifestyle changes alone cannot reduce blood pressure enough, taking antihypertensive drugs are necessary (O'Boyle, 2002). However, in Thailand, the numbers of persons with hypertension who can control blood pressure had only 3.9 million in 2004 (Health Systems Research Institute, 2008). The significant barriers of uncontrolled hypertension were stress, less awareness, no compliance to changing health behavior, non-adherence to prescribed therapies, no follow up, and economic problem (Borzecki, Oliveria & Berlowitz, 2005; Khantee, Treeson, & Phojai, 2005; Mohan, et al., 2005).

Afterwards, the health care personal changed the view point and became more attention in the mind more than in the past since they were influenced by the discoveries of quantum physics that let them know the matter in the universe can not

separate and have interaction (Capra, 1991; Bartol & Courts, 2005). The mind and body are connected together- thoughts, feelings, beliefs, and attitudes can positively or negatively affect our biological functioning and problems of the body can affect the mind (Glaister, 2001). They became more interested in the knowledge of Eastern wisdom that views person as a whole of dimensions (bio-psycho-social-spiritual) with inseparable parts and more than the sum of the parts (Hatthakit, Parker, & Niyomthai, 2004). The good way to treat disease is to enhance harmony of all dimensions of human (Erickson, 2007; Jackson, 2004).

There are many methods of Eastern wisdom that use for balancing mind and body (Lindberg, 2005). Meditation is an important one that uses to treat mild to moderate hypertension (Bonadonna, 2003). Peacefulness of the mind arising is energetic catalyst for the self-healing to begin through the Psychoneuroimmunology (PNI) mechanism (Achterberg, et al., 2006; Waldspurger-Robb, 2003) by stimulating functioning in the parasympathetic system, resulting in a decrease in heart rate, dilation of peripheral blood vessels, and improvement of blood flow. All of these factors reduce overall blood pressure levels (Dossey, Keegan, & Guzzetta, 2005; Gianfranco & Andrew, 2004; Manocha, 2000). Many studies showed that meditation results in decreasing systolic and diastolic blood pressure (Alexander, et al., 1996; Barnes, Davis, Murzynowski, & Treiber, 2004; Barnes, Treiber, & Davis, 2001; Barnes, Treiber, & Johnson, 2004), decreasing heart rate (Barnes, Davis, et al., 2004; Barnes, Treiber, et al., 2001), reducing antihypertensive drugs use (Schneider, et al., 2005), decreasing stress, increasing mindfulness level (Nuibandana, Sae-Sia, Noopetch, Athaphun, & Roummanarat, 2006), and decreasing carotid intima-media thickness (Castillo-Richmond, et al., 2000).

Most nurses are aware of the effectiveness of meditation and the benefit of integration of meditation into nursing care (Sooksuk, Hatthakit, & Kasetsomboon, 2005) but there are still very few nurses involves in meditation because many nurses do not have much knowledge about meditation (Sohn & Loveland Cook, 2002; Sooksuk, Hatthakit, & Kasetsomboon, 2005; Tracy, et al., 2003). These points lead to lack of confidence in practicing (Hatthakit, Parker & Niyomthai, 2004; Panwong, 2008). Moreover, most of the previous studies about meditation used randomized controlled trials and quasi-experiments design that showed the positive effect on hypertension with scare knowledge of how to integrate meditation in the nursing care for best benefit to persons with hypertension in real circumstance.

As the nurses at one Community Medical Health Care Center in Southern Thailand, found that hypertension is ranked the first chronic health problem and most of persons with hypertension cannot control blood pressure lower than 140/90 mmHg. They used to integrate Buddhist meditation for increasing the effectiveness of care because they have found that the important risk factor of hypertension is the stress. However, it was unsuccessful because they had not done the right Buddhist meditation practice which could enhance the self-healing for the persons who suffer from hypertension specifically. There was no consistent meditation support and evaluation, and they also lacked of time, knowledge and self-confidence to do it on their owns. Thus, this study, the development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension, was constructed for solving the problem occurred in this community, improving the nursing care effectiveness and for helping the persons with hypertension to be able to maintain blood pressure lower than 140/90 mmHg.

The model development required participation, collaboration, and the knowledge from nurses, persons with hypertension, the monk, and the village health care volunteers. Thus, action research: mutual collaborative approach was adopted to use in real situations and focus on solving real problems (Kilgour & Fleming, 2000; O' Brien, 1998). The researcher and participants collaborated to identify a problem, plan intervention, action follow to the plan and revise plan together for formulating program (Holter & Schwartz-Barcott, 1993; Kemmis & Mctaggert, 1988). This methodology helped the researcher to understand the causes of uncontrolled blood pressure and to develop model that benefits persons with hypertension. The researcher believes that this model can be used to control blood pressure to the normal level which would help to decrease the complications such as stroke, heart disease, and renal failure, which in turn would minimize medical expense and mortality rate.

Objectives of the study

The purpose of the study is to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension.

Research questions

The research questions are composed of two points as follows:

1. What are the components of the Therapeutic Buddhist Meditation Nursing Model for Enhancing Self-Healing in Persons with Hypertension?

2. How can nurses enhance self-healing through the Therapeutic Buddhist Meditation Nursing Model?

Conceptual and methodological framework

The conceptual framework of the Development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension was guided by Buddhist philosophy, self-healing concept, and holistic nursing. Buddhist philosophy guided to understanding human life and the principle of Buddhist meditation practice. Self-healing concept guided to understanding the mechanism of decreasing blood pressure through Buddhist meditation practice and the self-healing outcome that occurs from Buddhist meditation practice in persons with hypertension. Holistic nursing concept guided to understanding the nurses' roles and goal for enhancing self-healing in persons with hypertension.

In the holistic nursing and Buddhism view, illnesses including hypertension caused by the imbalance of mind and body (Dossey, Keengan, & Guzzetta, 2005; Erickson, 2007). The occurring of stress or suffering affects the blood pressure level because mind and body have interaction through the Psychoneuroimmunology mechanism (Achterberg, et al., 2006; Glaister, 2001; Gordon, 2000). When suffering occurs in one's mind, norepinephrine and epinephrine release and lead to increase heart rate and vasoconstriction. The sympathetic nervous system secretes rennin which transforms angiotensinogen to angiotensin II that causes increase vasoconstriction and water retention. Moreover, antidiuretic and aldosterone hormone are secreted leading to retention of water- increase blood circulation volume (Bartol &

Courts, 2005; Kaplan, 1990). The increasing of heart rate, vasoconstriction, and blood circulation volume causes high blood pressure. Thus, the good way for controlling blood pressure is to enhance harmony of mind and body. The Buddhist meditation is a method that likes an energetic catalyst for the self-healing (restores and balances between the mind and body) to begin (Glaister, 2001, Waldspurger-Robb, 2003) by increasing peacefulness and decreasing suffering.

The conceptual based of Buddhist meditation is Buddhist philosophy which gives precedence to human and human existence. In Buddhism view, human life composes of the Five Aggregates (*khandha*). It confronts with suffering all the time because the nature of life exists in the Three Characteristics of Existence (*tilakkhana*) and carries on the dependent origination (*paticcasamuppada*). However, understanding the Four Noble Truths (*ariyasacca*) helps the human living to be free from suffering (Payutto, 2009).

Human life is constructed from the Five Aggregates that composes of physical (*rupa*) and mind (*nama*): sensation (*vedana*), perception (*sanna*), mental formations (*sankhara*), and consciousness (*vinnana*). Physical refers to the body and behavior of the body, or matter and material energy. Sensation is an impression of pleasurable (*sukha*), unpleasant (*dukkha*), or neutral (indifference) that occur by contact with the world through the six senses organs. Perception is an establishment of knowledge of conditions and the characteristics of the various features and objects that are the causes for remembering that object. Mental formation is the psychological compositions that decorate the mind making it good, bad, or neutral. Consciousness involves being aware of sensations via the six senses organs (Payutto, 1995). The

persons will suffer if they cling to the Five Aggregates which they think are real (Payutto, 2009; Tanphaichitr, 2005, 2006)

The nature of human life exists in the Three Characteristics of Existence - impermanence (*anicca*), suffering (*dukkha*), and no self (*anatta*). It changes all the time, constant arising and passing away and it is no real essence or self of lives which results in numerous pressures, resistance, and conflict (Bonadonna, 2003; Payutto, 1995; Tanphaichitr, 2005).

Furthermore, human life carries on the dependent origination - everything that happens has its cause and has its effect. It is the process of the arising and extinguishing of suffering that involve with the twelve elements inter-related in the shape of a circle, without beginning and without end. The process of suffering arising has inter-related like cause and effect- because of ignorance (*avijja*), mental formation (*sankhara*) arises; because of mental formation, consciousness (*vinnana*) arises; because of consciousness, mind-and-body (*nama-rupa*) arises; because of mind-and-body, six senses (*salayatana*) arises; because of six senses, contact (*phassa*) arises; because of contact, sensation (*vedana*) arises; because of sensation, craving (*tanha*) arises; because of craving, attachment (*upadana*) arises; because of attachment, becoming (*bhava*) arises; because of becoming, birth (*jati*) arises; because of birth, decay-and-death (*jara-marana*) arises; sorrow, lamentation, pain, grief, displeasure, and distress all arise. On the contrary, the process of suffering extinguishing involve with the twelve elements like the process of suffering arising but these elements are extinguished instead of arises (Brahamvamso, 2005; Buddhadasa, 1978; Payutto, 1995).

As above-mentioned, human life unavoidably confront with suffering. However, the human can live without suffering by understanding The Four Noble Truths- suffering (*dukkha*), the cause of suffering (*samudaya*), cessation of suffering (*nirodha*), and the way to overcome suffering (Eight Fold Paths, *magga or majjhima patipada*) including right speech, right action, right livelihood, right effort, right mindfulness, right concentration, right understanding and right thought (Kumar, 2002; Marlatt, 2002; Payutto, 1995). The human should understand the three characteristics of suffering; *Dukkha-dukkhata*- the feeling of stress, *Viparinama-dukkhata*- the condition of suffering that associated with happy feeling fade away, and *Sankhata-dukkhata*- the condition of suffering that is oppressed by conflicting causal factors which arise and pass away and no complete in and of it self (Payutto, 1995; Tanphaichitr, 2005). For understanding cause of suffering, they should know the major cause of suffering that composes of ignorance, craving, attachment, and unwholesome tendencies (*kilesa*); greed (*lobha*), hated (*dosa*), and delusion (*moha*) (Burn, 1994; Payutto, 1995; Tanphaichitr, 2005). In addition, understanding cessation of suffering- the happy state, calm, living without desires is the one important point that they should know. The last point that they should know is understanding practice to eliminate suffering that is called the Three-fold Training (*trisikkha*) which are categorized from the noble eightfold paths into three categories of practice; (1) training in morality (*sila*) including right speech, right action, and right livelihood, (2) training in mind (*samadhi* or meditation) including right effort, right mindfulness, and right concentration, and (3) training in wisdom (*panna*) including right understanding and right thought (Goenka, 2001; Payutto, 1995; Tanphaichitr, 2005). These training are relation from low level to high level of practice. Training in morality is the base of

training in mind and training in mind is the base of training in wisdom (Goenka, 2001; Payutto, 1995; Tanphaichitr, 2005).

Training in morality is practiced by maintaining the precepts that help to develop purify and concentration of mind. The meditation is used for cultivating concentration and wisdom. The techniques of meditation taught by Buddha have many techniques but the supreme technique which takes human to cessation of suffering is *satipatthana* (Tanphaichitr, 2005). This technique involves practicing both *samatha*- develop mind to concentrate and *vipassana*- develop mind to calmness and insight. Meditators may start with *samatha* and then go to *vipassana* or start with *vipassana* and then go to *samatha* or practise together (Mahadhammarakkhito, 2004; Vajiranana, 1961). The principle practice of *satipatthana* is cultivating mindfulness (*sati*) and wisdom by focusing on four foundations- body, feelings, mind state, and *Dhammas* (Buddhadasa, 1987; Jotika & Dhamminda, 2007; Payutto, 1995). The principle of practice consists of (1) observation of body, feeling, mind state, and *Dhammas*, with awareness and mindfulness, (2) knowing and seeing them for what they are, (3) not reacting or equanimity or bare awareness, and (4) observing of arising, enduring and ceasing. This practice help meditators to establish firmly mindfulness, understand the nature of life (the Three Characteristics of Existence- *anicca*, *dukkha*, and *anatta*), free from craving, and not longer clings to anything in the world (Buddhadasa, 1987; Goenka, 2001; Payutto, 1995).

Buddhist meditation practice helps to enhance self-healing process by decreasing suffering and affect to the body subsequently. Cheerfulness (*pramod*), joy (*piti*), tranquility (*passaddhi*), pleasure (*sukha*), and concentration (*samadhi*) that are occurred from Buddhist meditation practice which motivate functions of

parasympathetic nervous system leading to decrease heart rate, peripheral blood vessels dilates, and improve the flow of blood that cause to decrease blood pressure (Dossey, et al., 2005; Manocha, 2000). Thus, the outcomes of self-healing that arise from Buddhist meditation practice in persons with hypertension can evaluate by being positive feeling, decreasing the stress level, decreasing blood pressure level, and increasing sati level.

Although the self-healing process through Buddhist meditation is motivated and directed by the patients, the holistic nursing is also an important factor that can cultivate the progress of this process. The holistic nurses incorporate a variety of roles in their practice. They may take a role as the “option giver”, who can provide the various options of mind-body connection methods, help the patients to develop an understanding of these methods, and provide opportunities for them to consider (Erickson, 2007; Mariano, 2007; Potter & Frisch, 2007). Encourage and support in use of mind-body connection methods and facilitate to use own inner strength for healing are one of holistic nurses’ role. For the implementation, the holistic nurse takes a role as a tool of healing- expert clinician and facilitator of healing; consultant and collaborator; educator and guide; administrator, leader and change agent; and advocate to promote empowerment, peace, comfort, and a subjective sense of harmony and well-being (Lai & Hsieh, 2003; Mariano, 2007; Quinn, 1999). They also help remove the barrier of healing process to facilitate healing process (Dossey & Guzzetta, 2005; Simpson, 2005). The creation of therapeutic environments for healing is one of the roles of them (Mariano, 2007; Quinn, 1999). According to Erickson (2007), he mentioned that the holistic nursing should used the art of nursing to restore balance of all dimension of human and between human and environment. They should

create the healing field by using gentle comforting touch, presence, intent, unconditional acceptance, love, and compassion for enhancing self-healing.

The methodological framework which guides research study is action research - mutual collaborative approach that is the knowledge inquiry undertaken by researcher and participants in social situations in order to increase understanding of their practice, improve their situation, expect of change, and need of a changed situation remand a reformation of progress (Kemmis & McTaggart, 1988; Kilgour & Fleming, 2000; O' Brien, 1998). The research process is consisted of two steps- the basic step (reconnaissance) and the main step (planning, acting and observing, and reflection) (Kemmis & McTaggart, 1988). In this study, reconnaissance step, the researcher and participants have collaborated to identify the factors that caused persons with hypertension unable to maintain their blood pressure levels under 140/90 mmHg. In the planning step, the researcher has developed the preliminary Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension by reviewing the Buddhist philosophy, self-healing concept, and the holistic nursing. In addition, the researcher interviewed the monks who are the experts in Buddhist meditation and have the experiences of taking the courses of moving meditation and *vipassana* meditation. Then, the researcher brought this model to discuss with the participants and conducted the pilot study for setting the tentative model. In the acting and observing step, the researcher and participants have practiced following the tentative model and have observed the events that occurred in the action step. In reflecting step, the researcher have motivated the participants to reflect their feeling, the outstanding outcomes of Buddhist meditation practice, facilitating factors, and hindering factors of Buddhist meditation practice. In re-planning step, the

researcher has summarized the data from reflection and has brought them to discuss with the participants for improving or revising to be the perfect plan. This process has been conducted continuously until the persons with hypertension could enhance self-healing- decreasing blood pressure (lower than 140/90 mmHg), reducing the stress, and improving their mindfulness. Finally, the researcher has summarized the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension.

The conceptual and methodological framework is demonstrated in figure 1.

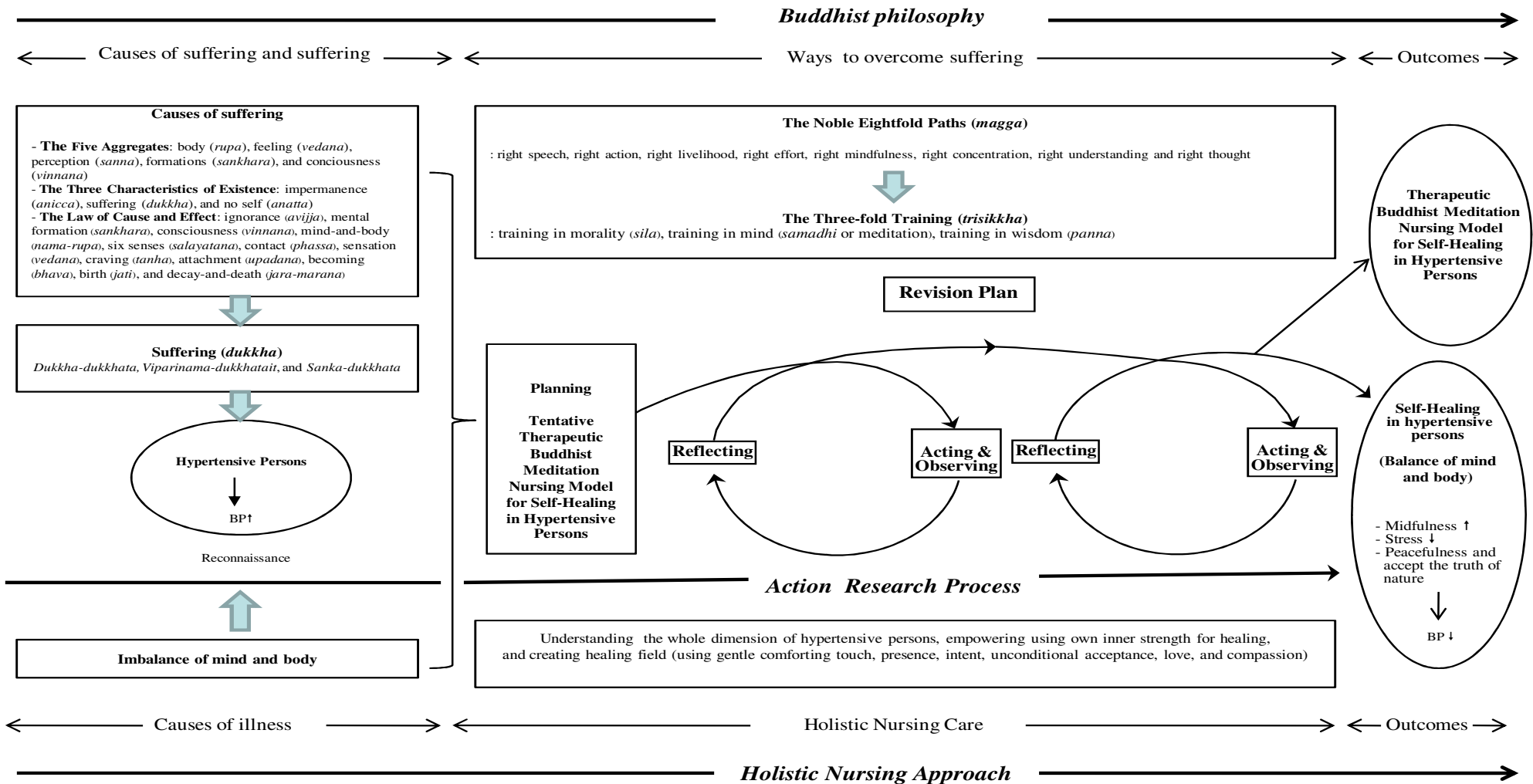


Figure 1 The Conceptual and Methodological Framework of The Study

Definition of terms

“Persons with hypertension” refers to the persons who are diagnosed as primary hypertension and have systolic blood pressure equal or above 140 mmHg and diastolic blood pressure equal or above 90 mmHg.

“Therapeutic Buddhist Meditation Nursing Model” refers to a set of nursing intervention which uses the methods of practice underpinning Buddhist philosophy and holistic nursing to enhance self-healing. The methods of practice consist of praying, maintaining five precepts, *anapanasati* meditation, moving meditation (*Kayubkai Sabaichivee Withee Puth*), and *vipassana* sitting meditation.

“Self-healing” refers to the process of recovering from unhealthy stage to regaining healthy stage. This process is motivated by persons with hypertension and facilitated by a nurse or other persons. Self-healing that occurred by practicing Buddhist meditation evaluated by being positive feeling, decreasing of blood pressure level, decreasing of stress level, and increasing of mindfulness level.

Expected outcomes from the research

The Therapeutic Buddhist Meditation Nursing Model can enhance self-healing in persons with hypertension.

CHAPTER 2

LITERATURE REVIEW

Introduction

In this chapter, the literature review on the background and theory of the concerned areas, definition of some study topics, concepts, approach, methodology and issues related to the study are presented. The literature review covered in this chapter is listed below followed by further details of each topic.

1. Hypertension

1.1 Definition and classification of hypertension

1.2 Types, causes and risk factors of hypertension

1.3 Impacts of hypertension

1.4 Hypertension management

1.5 Integration of complementary and alternative medicine into nursing care for persons with hypertension

2. Buddhist meditation

2.1 Types of Buddhist meditation

2.2 Philosophical basis of Buddhist meditation

2.3 The techniques of Buddhist meditation practice

2.4 The pattern of Buddhist meditation practice in Thai society

2.5 Facilitators and barriers of meditation practice

3. Self-healing

3.1 Healing: concept analysis

3.2 Mechanism of self-healing process through Buddhist meditation in persons with hypertension

3.3 Instrumentation for measurement self-healing outcome through Buddhist meditation in persons with hypertension

3.4 Evidence based of the effect of meditation on hypertension

4. Holistic nursing

4.1 Definition of holistic nursing

4.2 The role of holistic nurse

5. Action research

5.1 Definition and characteristics of action research

5.2 The theoretical basis of action research

5.3 Principle of action research

5.4 Types of action research

5.5 Action research process

5.6 Trustworthiness in action research

Hypertension

1. Definition and classification of hypertension

Hypertension, or high blood pressure, is defined as a persistent elevated arterial blood pressure- a systolic blood pressure equal or above 140 mmHg and diastolic blood pressure equal or above 90 mmHg, or current use of antihypertensive

medication (Bradley, 2007; Kaplan, 2006; Smeltzer & Bare, 2004; White & Duncan, 2002). The diagnosis of hypertension is made by showing an increasing in blood pressure over time, based on the average of two or more blood pressure measurements taken in two or more contacts with the health care provider after an initial screening (Barenbrock, Hausberg, & Spieker, 1999; Smeltzer & Bare, 2004). The JNC7 classified blood pressure of adults aged 18 years or older into four groups; normal-blood pressure less than 120/80 mmHg, prehypertension- blood pressure equal 120-139/80-89 mmHg, stage 1 hypertension- blood pressure equal 140-159/90-99 mmHg, and stage 2 hypertension- blood pressure equal 160/100 mmHg or higher. These criteria use for individuals who are not taking antihypertensive medication and who have no acute illness (National Institutes of Health, 2003).

2. Types, causes and risk factors of hypertension

There are two main types of hypertension, primary or essential hypertension and secondary hypertension (Bradley, 2007; Christensen & Kockrow, 2006; Smeltzer & Bare, 2004; White & Duncan, 2002). The causes and risk factors that effects to increase blood pressure are those which increase heart rate, increase vasoconstriction, and increase blood volume because blood pressure is the product of cardiac output multiplied by peripheral resistance whereas cardiac output is the product of the heart rate multiplied by the stroke volume (Rabin, 2005; Smeltzer & Bare, 2004). The detail of types, causes, and risk factors are described as follow:

2.1 Primary hypertension

The most of persons with hypertension, 90 to 95%, are primary hypertension- elevated blood pressure without an identified cause. Although the exact

cause of this type is unknown, there are two major risk factors to develop high blood pressure- unalterable factors and alterable factors.

2.1.1 Unalterable factors: These factors compose of 4 factors.

2.1.1.1 Age: Blood pressure rises progressively with increase age because a restructuring of the arterioles that causes to increase vascular resistance (Julius & Nesbitt, 1996)

2.1.1.2 Ethnicity: The incidence of hypertension is twice as high in African Americans as in white because salt sensitivity is related to race- Black population (Kornitzer, Dramaix, & Backer, 1999)

2.1.1.3 Gender: Hypertension is more prevalent in men in young adulthood and early middle age. After age 55, hypertension is more prevalent in woman (Bradley, 2007; Beare & Myers, 1994; Weber, 2007)

2.1.1.4 Family history: The people whose parents have high blood pressure have a higher risk than someone with no family history of high blood pressure (Weber, 2007; Woods, Froelecher, & Motzec, 2000). The genetic predisposition associated with elevated intracellular sodium levels and lowered potassium to sodium ratios (Black, & Matassarini-Jacobs, 1997).

2.1.2 Alterable factors: there are many alterable factors that were showed as follow.

2.1.2.1 Stress: When stress is occurred in one mind, norepinephrine hormone is secreted from the locus ceruleus with nerve ending in the forebrain, the sympathetic nervous system (SNS), and the adrenal medulla. In addition, epinephrine is also released from adrenal medulla. Both hormones affect to increase heart rate and vasoconstriction. In addition, the SNS motivates

juxtaglomerular cell to secrete rennin which transforms angiotensinogen to angiotensin II that cause to increase vasoconstriction and water retention. Moreover, the stress motivates hypothalamus to secrete Corticotrophins releasing factor (CRF) into the hypothalamic-pituitary circulation in the brain. The CRF stimulate posterior pituitary gland to secrete antidiuretic hormone and stimulates anterior pituitary gland to secrete adrenocorticotrophic hormone (ACTH) which motivates adrenal cortex to secrete aldosterone. Antidiuretic and aldosterone hormone cause to retention water- increase blood circulation volume (Bartol & Courts, 2005; Kaplan, 1990). Thus, the increasing of heart rate, vasoconstriction, and blood circulation volume leads to high blood pressure.

2.1.2.2 Smoking: Smokers have evidence of an increase in blood pressure because of the vasoconstriction (Jacob, 2002).

2.1.2.3 Low activity/exercise: A low exercise lifestyle leads to obesity (Weber, 2007). Excess body fat causes narrowing blood vessels and creating higher peripheral resistance, which increase blood pressure (Wood, 2002).

2.1.2.4 High salt diet: The salt retention more fluid into blood vessels causes to raise blood pressure (Wood, 2002).

2.1.2.5 Low potassium diet: Potassium intake was negatively related to blood pressure (The Intersalt Cooperative Research Group study, 1988).

2.1.2.6 Alcohol intake: A moderate to heavy alcohol intake increases the incidence of hypertension because alcohol increases in catecholamine excretion (Herfindal & Gourley, 2000; Kornitzer, et al., 1999).

2.2 Secondary hypertension

The remaining 5-10 percent of persons with hypertension is secondary hypertension- elevated blood pressure with a specific cause. There are many specific causes including congenital narrowing of the aorta, renal disease, endocrine disorders, neurologic disorder, sleep apnea, sympathetic stimulants, oral contraceptive pills, nonsteroidal anti-inflammatory drugs, cirrhosis, and pregnancy-induced hypertension.

3. Impacts of hypertension

Hypertension is a chronic disease that has effect to body, mind, and socioeconomic.

3.1 Physical effect

Hypertension is the “silent killer” because it is deadly and has no early significant symptoms (Bradley, 2007; O’Boyle, 2002; Smeltzer & Bare, 2004). A few people with early-stage high blood pressure have a dull ache in the back of their heads when they wake in the morning. Headaches, dizziness or nosebleeds typically do not occur until high blood pressure has reached a more advanced stage that is possibly life-threatening. Other signs and symptoms sometimes associated with high blood pressure caused such as weakness, reduced activity tolerance, palpitations, and edema (O’Boyle, 2002). Prolonged high blood pressure increases accumulation of atherosclerotic plaque in arterial wall and damages blood vessels throughout the body, particularly in target organs such as the heart, brain, kidneys, and eyes. The arteries blood vessels that circulate blood to these organs are narrowed, blocked, or ruptured. These problems cause to chest pain, heart attacks, left ventricular hypertrophy, heart failure, stroke, transient ischemic attack, renal failure, blurred vision or be lost entire

(Bradley, 2007; Christensen & Kockrow, 2006; Moore, 2005; O'Boyle, 2002; Smeltzer & Bare, 2004).

3.2 Psychological effect

Hypertensive patients are likely to be worried, bore to take medicine, view the event as threatening, and feel uncertainly (McEntee & Peddicord)

3.3 Socioeconomic effect

Approximately half of the hypertensive patients have experienced changes in their relationship with family and friends as well as changes in types of work, the number of hours spent at work, and the level of responsibility at work (Hwu, 1995). In addition, side effects of hypertensive drugs may reduce their performance of activities of daily living and occupation (Van-Wissen, Litchfield & Maling, 1998).

4. Hypertension management

The main goal of hypertension management is maintaining the arterial blood pressure within normal level (140/90 mmHg for most persons with hypertension and lower 130/80 mmHg for those with diabetes mellitus and chronic kidney disease) for preventing death and complication (Bradley, 2007; Chobanian et al., 2003; National Institutes of Health, 2003; Smeltzer & Bare, 2004; White & Duncan, 2002). The benefits of hypertension management have been associated with reduction in stroke incidence average 35-40%, myocardial infarction incidence average 20-25%, and heart failure more than 50% (Neal, McMohan, & Chapman, 2000). The regimen of hypertension management composed of three steps that are described as follow.

4.1 The first step

Encouraging the persons with hypertension to life style change is the strategy for management high blood pressure in this step (White & Duncan, 2002). The JNC7 recommend lifestyle modification for all patients with hypertension. Modifications include weight reduction, adopt DASH eating plan, dietary sodium reduction, physical activity, and moderation of alcohol consumption (see Table 1) (National Institutes of Health, 2003; Wexler & Aukerman, 2006). This step is tried for 3-6 months, and if the blood pressure is less than 140/90 mmHg this step will be continued (White & Duncan, 2002).

Table 1

Lifestyle modifications to manage hypertension (National Institutes of Health, 2003)

Modification	Recommendation	Approximate SBP Reduction (range)
- Weight reduction	Maintain normal body weight (body mass index 18.5-24.9 kg/m ²)	5-20 mmHg/10 kg Weight loss
- Adopt DASH eating plan	Consume a diet rich in fruit, vegetable, and low fat dairy products with a reduced content of saturated and total fat	8-14 mmHg
- Dietary sodium reduction	Reduce dietary sodium intake to no more than 100 mmol per day (2.4 g sodium or 6 g sodium chloride)	2-8 mmHg
- Physical activity	Engage in regular aerobic physical activity such as brisk walking (at least 30 min per day, most day of the week)	4-9 mmHg
- Moderation of alcohol consumption	Limit alcohol consumption to no more than 2 drinks (1 oz or 30 ml ethanol) per day in most men and no more than 1 drink per day in woman and lighter weight person	2-4 mmHg

4.2 The second step

For persons with hypertension with uncomplicated hypertension and no specific indications for another medication, the recommended initial medications include diuretic and/or beta blocker. Diuretic increases the renal excretion of sodium and water from the body decreasing the total fluid volume. Beta-blocker blocks the epinephrine and norepinephrine receptor sites that lead to the blood vessels dilatation and heart rate decreasing (Bradley, 2007; Christensen & Kockrow, 2006; White & Duncan, 2002).

4.3 The third step

This step will use when the blood pressure does not return to less than 140/90 mmHg within 2 month in second step. The regimens are increasing the drug dosage, try another drug, or adding a second antihypertensive drug such as angiotensin-coverting enzyme inhibitor (ACE-I), calcium channel blocker, or alpha blockers. ACE inhibitors can decrease blood pressure by preventing the body from making a hormone called angiotensin II lead to vasodilation. Calcium channel blockers block calcium from entering the cells of the heart and blood vessels, causing vasodilation and decreased heart rate and contractility. Alpha blockers decrease nerve impulses that tighten blood vessels (Bradley, 2007; Christensen & Kockrow, 2006; White & Duncan, 2002).

However, there are many persons with hypertension who are inadequate blood pressure control. Borzecki, Oliveria, and Berlowitz (2005) reviewed obstacle to successful management of hypertension in 3 domains- patient factors, provider factors, and medical environment factors. The major barrier of blood pressure control in patient factors domain was nonadherence to prescribed therapies because patients

believed they were cured, thought their physician advised them to stop therapy or perceived they were on too many medications. In addition, personality type (type A-high level of anger, anxiety, or stress), lack of social support, depressive symptoms, avoidant coping style, lack of trust in the medical care system, and poor sleeping habits are other factors that related to uncontrolled blood pressure. For provider factors domain, the most important barrier were clinical inertia, lack of provider agreement with guidelines, and failure to make lifestyle changes. Access to health care, patients-provider interaction, and practice setting were reviewed for medical environment factors. Patients could not control blood pressure because of cost, lack of insurance, and transportation problems. The less of communication of provider and patients, lack of financial support for education and counseling, lack of visit time, and lack of office support were also caused to poor blood pressure control.

5. Integration of complementary and alternative medicine into nursing care for persons with hypertension

The nursing care for patients including persons with hypertension during the 16th-17th century was under the influence of the perspective that viewed the world and life as machines. It was a belief according to the classical physics of Rene Descartes and Newton which believed that elements consisted of atom, the smallest unit and an inseparable solid. The physical occurrences happen from the movement of atom which comes from the forces of attraction among themselves called gravity. The results of this force toward atom or any object can be explained using the movement equation of Newton. These rules were assumed to be fixed for the movement of object and used to explain all the changes. Every aspect of the complicated occurrence is understandable by reducing in size to study only the sub-elements of those occurrences.

It believed that the body and mind were not related. This mentioned perspective of world and life affected the patient care in which the physicians do not seriously pay attention to the psychological aspect of sickness and the psychologist do not pay attention to the body of the patients. Using medicines for patient care was emphasized more instead with an enormous dedication for drug research. The great tension of life condition caused by the body, mind or society was presumed as the symptoms of sickness that can be cured by using medicines (Capra, 1986).

Subsequently, in the 20th century, a group of the international physicists comprised Max Planck, Albert Einstein, Niels Bohr, Paul Dirac, Erwin Schrodinger, and Werner Heisenberg had discovered many different kinds of phenomenon related to the atom structure such as x-ray and radioactivity which could not be explained using the classical physics. The discovery of alpha, whose particle is smaller than that of atom, released from the radioactive substance. Atom was not a solid particle that could not be destroyed according to the classical theory anymore but consisted of extensive space and there is a very small particle within this space called electron moving around the nucleus which comprises proton and neutron. This unit that is smaller than the atom of substance has two different characters within itself. It sometimes appears in the form of particle and sometimes in the form of wave. These two different characters of nature also appear in the light that is- light may either be in the form of electromagnetic wave or particle. Einstein called this light particle as quanta which were the origin of "quantum physics". Therefore, electron and other particles of atom do not have their actual property which is free from the surroundings. The characters that appear as particle or wave all depend on the experimental situation that is they depend on the equipment that causes their reaction.

This is then called the uncertainty principle. This mentioned discovery had crumbled the foundation of the original perspective. The found perspective occurred from the quantum physics views the world as an inseparable system. It views the world as a relationship and an integration of all things. Systems are holistic that are united as one. Its property can not be reduced in size to just remain the property of the sub-unit. The operation of every system relies on a process called transaction that is the collision among various elements which occur all together and are cause and factor of each other. The system property disappears when the system is separated into pieces (Capra, 1991).

As for the influence of the global perspective of quantum physics, the change of the nursing care had emphasized the holistic treatment more because it was believed that the body, mind, spirit and society were related and affect the patient health. For the nursing care of the persons with hypertension, the eastern wisdom method emphasizing holism both physical and mental was paid attention to such as meditation, yoga and Tai Chi Chuan due to the study that found that stress affects blood pressure. Furthermore, there are many studies about the effectiveness of the eastern wisdom method on blood pressure (Capra, 1991; Hatthakit, Parker, & Niyomthai, 2004). For example, Ruknui (2004) studied the effect of Yoga program; Tsai, et al. (2003) studied the beneficial effects of Tai Chi Chuan; Lee, Lim, and Lee (2004) studied the effect of Qigong; Alexander, et al., (1996), Barnes, Davis, Murzynowski, and Treiber, (2004), Barnes, Treiber, and Davis, (2001), Barnes, Treiber, and Johnson, (2004), Manikonda, et al., (2005), Schneider, et al., (2005), and Tacon, McComb, Caldera and Randolph, (2003) studied the effect of Meditation. All of the studies proposed the significant effectiveness to decrease systolic and diastolic

blood pressure. Therefore, in the present, meditation, yoga, Tai Chi Chuan, Qigong and other complementary approaches (massage, homeopathy, and aromatherapy) have become more widely used to integrate in nursing care for persons with hypertension (Lindberg, 2005).

Buddhist meditation

Buddhist meditation, meditation that used in the practice of Buddhism, is a method of Eastern wisdom which widely used to integrate in nursing care for persons with hypertension. It is the way to enlightenment of Buddha and is proposed in three baskets (*tripitaka*) (Mahadhammarakkhito, 2004; Vajiranana, 1961). The important goals of Buddhist meditation compose of three points, the primary goal is realization of *nibbana*- end of suffering, the secondary goal is realization of positive feelings such as love, compassion, equanimity, mental purity, and happiness, and the tertiary goal is non-attachment, insight, and concentration. These tertiary goals must be achieved before the higher ones can be fully realized (Burns, 1994; Vajiranana, 1961).

1. Types of Buddhist meditation

There are two basic types of Buddhist meditation- concentration meditation (*samatha*) and mindfulness/insight meditation (*vipassana*) (Bonadonna, 2003; Goenka, 2001; Lay, 2005; Ott, 2004; Tanphaichitr, 2005; Vajiranana, 1961).

1.1 Concentration meditation

Meditators learn how to cultivate one point of attention by focusing on the 40 subjects of meditation (*kammatthana*) which include ten *kasina* (earth, water, fire, air, the color blue, the color yellow, the color red, the color white, light, and

space), ten kinds of corpses at different stages of decay, ten bases for mindfulness, four unbounded states of mind, perceiving the loathsomeness of food, four elements, and four absorption of the formless sphere (Payutto, 1995). When thoughts other than the point of focusing come to mind, meditators observe it, accept it, and return to the original focus (Fontain, 2000). When the mind is deeply concentrated, it becomes free from hindrances (sensual desire, ill-will, sloth, distraction and anxiety, and uncertainty) and to gain calmness, tranquility blissful and happy while practicing. After practicing, the suffering will exist because this type can not get rid of greed, hatred, and delusion. This practicing can compare with the grass being covered by a rock. When the rock is lifted, the grass will grow back and may even be hardier than previous (Tanphaichitr, 2005).

The concentrate can be divided into three levels: (1) momentary concentration (*khanika-samadhi*) refers to little firmly concentrate, (2) concentration (*upacara-samadhi*) refers to mild firmly concentrate. This level of concentration can eliminate hindrances and (3) attainment concentration (*appana-samadhi*) refers to fixed and absorbed concentration (Payutto, 1995).

1.2 Mindfulness meditation

This is the way of careful observation on body, feelings, mind, and *Dhamma* that occur at the present moment and see them as they truly are without judgment. In addition, the observation of dynamic nature of them that are arising, enduring, and ceasing is necessary. These methods help meditators develop wisdom or clear understanding the nature of life, all phenomena follows the Three Characteristics of Existence. Furthermore, meditators do not allow greed, hatred, and delusion in one's mind. Finally, they can realization of *nibbana* or eliminate the

suffering which are ultimate goals of Buddhist meditation (Bonadonna, 2003; Buddhadasa, 1987; Goenka, 2001; Kumar, 2002; Lindberg, 2005; Ott, 2004; Payutto, 1995; Tanphaichitr, 2005). This way is similar to uprooting the grass and permanently kills them (Tanphaichitr, 2005).

2. Philosophical basis of Buddhist meditation

Buddhist meditation is stemmed from Buddhist philosophy which gives precedence to human and human existence. According to Buddha, human life composes of the Five Aggregates that is suffering because life must carry on the truth law of nature which consists of the Three Characteristics of Existence and the Law of Cause and Effect. However, the human can live without suffering by understanding the Four Noble Truths. The human life and human existence are described as follow (Payutto, 2009).

2.1 Life component

Life is constructed from the Five Aggregates that composed of physical (*rupa*) and mind (*nama*). Physical refer to the body and behavior of the body, or matter and material energy. Mind consists of the four aspects. The first, feelings or sensations (*vedana*) is to the impressions of pleasurable (*sukha*), unpleasant (*dukkha*), or neutral (indifference) that occur by contact with the world through the six senses organs (eye, ear, nose, tongue, body and mind) and six sense contacts (seeing, hearing, smelling, tasting, physical touching, and mental touching). The second, perception (*sanna*) is the establishment of knowledge of conditions and the characteristics of the various features and objects that are the causes for remembering that object. The third, mental formations (*sankhara*) are the psychological compositions that decorate the mind making it good, bad, or neutral, and they have

intention as their guide. The fourth, consciousness (*vinnana*) involves being aware of sensations via the six senses organs (Payutto, 1995). The purpose of the Buddha's teaching about the Five Aggregates is to give a picture of what is called person or self which once separated would find only the elements and they are no self or *anatta*. The persons will suffer if they cling to the Five Aggregates which they think are real (Payutto, 2009; Tanphaichitr, 2005, 2006).

2.2 Life nature

According to Buddha doctrine, the nature of life exists in the Three Characteristics of Existence (*tilakkhana*)- impermanence (*anicca*), suffering (*dukkha*), and no self (*anatta*). Impermanence means everything includes human life changing all the time- arising, enduring, and ceasing. Suffering is numerous pressures, resistance, and conflict that are resulting from the constant arising and passing away of phenomena. No self means no real essence, sole, or self of lives. A person can not control or change every thing in this world and his life according to his desire (Bonadonna, 2003; Payutto, 1995; Tanphaichitr, 2005). For example, one can not force himself not to be old, sick and die. If the persons understand the Three Characteristics of Existence then they will be able to accept the truth even though they may encounter the problems of being sick, not having good looking body and face due to the old age, losing family members or one's husband having mistress. On the contrary, if they do not understand the nature of life but understand that everything or life has self and is unchanged then it will be a cause of distress because they are unable to accept the occurred changes such as sickness, death, aging or one's husband having distress.

2.3 Life process

Life carries on the Law of Cause and Effect- everything that happens has its cause and has its effect. This is called conditionality (*idappaccayata*) and dependent origination (*paticcasamuppada*). These are the same principle and the same law, but depend on how they are applied or seen. *Idappaccayata* generally applies to the arising and manifestation of a general sense about all phenomena, whether mental or physical, animate or inanimate, having to do with human or not. On the other hand, *paticcasamuppada* specially applies to the situation of sentient beings, particular human beings. In addition, *idappaccayata* means cause and effect in a widely- “because this exists, this arises” but *paticcasamuppada* means process of the arising and extinguishing of suffering that involves the twelve elements. The detail of twelve elements is as follows:

Ignorance (*avijja*) is a condition of not understanding the Four Noble Truths, the *Patichsamuppada*, and the Three Characteristics of Existence.

Mental formation (*sankhara*) is a condition of volitional activities that relate to certain understanding and thoughts.

Consciousness (*vinnana*) is the condition of arising of knowing of the sense object through the six sense organs.

Mind-and-body (*nama-rupa*) is the condition of mental and physical phenomena.

Six sense organs (*salayatana*) are the six organs (eyes, ears, nose, tongue, body, and mind) that contact to forms, sounds, odors, tastes, and tangible and mental objects.

Contact (*phassa*) is the conjunction of the sense bases, senses object and the resultant consciousness.

Sensation (*vedana*) is the feeling that experiences an object when it comes in contact with the senses, weather it is pleasant, unpleasant or indifferent.

Craving (*tanha*) is the condition of need that has 6 kinds relate to the six sense objects: craving for forms, craving for sounds, craving for odors, craving for tastes, craving for tangible objects, and craving for mental objects.

Attachment (*upadana*) is the conditions of clinging to sense-objects and the five aggregates.

Becoming (*bhava*) is the condition of mind that is dominated by craving and attachment.

Birth (*jati*) is the condition of arising all aggregates that come from the various sense-bases.

Decay-and-death (*jara-marana*) is the condition of deterioration of the aggregates and the stopping of life function.

These twelve elements are inter-related in the shape of a circle, without beginning and without end. Taking ignorance as the first element helps to more understanding. The process of suffering arising has inter-related like cause and effect- because of ignorance, mental formation arises; because of mental formation, consciousness arises; because of consciousness, mind-and-body arises; because of mind-and-body, six senses arises; because of six senses, contact arises; because of contact, sensation arises; because of sensation, craving arises; because of craving, attachment arises; because of attachment, becoming arises; because of becoming, birth arises; because of birth, decay-and-death arises; sorrow, lamentation, pain, grief,

displeasure, and distress all arise. On the contrary, the process of suffering extinguishing involve with the twelve elements like the process of suffering arising but these elements are extinguished instead of arises (Brahamvamso, 2005; Buddhadasa, 1978; Payutto, 1995).

This law helps to understand suffering and the way to eliminate suffering. If the persons fall in ignorance, craving, and attachment, the arising of suffering will occur continuously. On the other hand, if the persons can eliminate ignorance, craving, and attachment, the suffering will be eliminated (Brahamvamso, 2005; Kattapunnyo, 2006; Payutto, 1995).

2.4 Life living

Buddha said that human can live without suffering by understanding the Four Noble Truths- suffering (*dukkha*), the cause of suffering (*samudaya*), cessation of suffering (*nirodha*), and the way to eliminate suffering (the noble eightfold paths, *magga, or majjhima patipada*) (Kumar, 2002; Marlatt, 2002; Payutto, 1995; Wathabunditkul, 2007).

Understanding suffering: Buddha said suffering has 3 characteristics. The first, *dukkha-dukkhata* is the feeling of stress, sorrow, lamentation, pain, grief, displeasure, and distress that is caused by encountered with disagreeable thing or conflict conditions. The second, *viparinama-dukkhatait* is condition of suffering that associated with change. It occur when persons feel happy and then this feeling dissipate or fade away. The third, *sanka- dukkhata* is condition of suffering that is oppressed by conflicting causal factors which arise and pass away and no complete in and of it self (Payutto, 1995; Tanphaichitr, 2005).

Understanding cause of suffering: the major causes of suffering are ignorance, craving, attachment, and unwholesome tendencies (*kilesa*). Ignorance means not understanding the truth of nature that everything in the world is impermanent and no self. In addition, it means not understanding suffering, cause of suffering, the cessation of suffering, and the way to eliminate suffering. Craving composes of 3 kinds. The first kind is craving for sense-pleasure (*kama-tanha*)- desiring to have everything which make happiness or satisfy. The second kind is craving for sense-existence (*bhava-tanha*)- desiring a condition of life that can provide everything wish. The third kind is craving for non-existence (*vibhava-tanha*)- desiring to pass away from conditions of life that are undesirable. Attachment (*upadana*) is the conditions of clinging to sense-objects and the five aggregates. Unwholesome tendencies consist of greed, hatred, and delusion (Burn, 1994; Payutto, 1995; Tanphaichitr, 2005).

Understanding cessation of suffering: the cessation of suffering is the state happy, calm, living without craving or desires which are called *nibbana*.

Understanding way to overcome suffering: Buddha mention about the practice to eliminate suffering that is called the Three-fold Training (*trisikkha*) which are categorized from the noble eightfold paths into three categories of practice; (1) training in morality (*sila*) including right speech, right action, and right livelihood, (2) training in mind (*samadhi* or meditation) including right effort, right mindfulness, and right concentration, and (3) training in wisdom (*panna*) including right understanding and right thought. *Sila*, *samadhi*, and *panna* are relation from low level to high level of practice. *Sila* is the base of *Samadhi* and *Samadhi* is the base of *panna*. The understanding and practise of *sila* is very important. *Sila* help to develop purify and

concentration of mind. Without *sila*, it is impossible to go to sufficient depth in their practice to *samadhi* and *panna* (Goenka, 2001; Payutto, 1995; Tanphaichitr, 2005).

3. *The techniques of Buddhist meditation practice*

The techniques of Buddhist meditation that teaching by Buddha has many techniques for individual whom has different need, characteristic, and capability. But the supreme technique which takes human to cessation of suffering is *satipatthana* or the four foundations of mindfulness (Mahadhammarakkhito, 2004; Tanphaichitr, 2005). As Buddha said:

“Bhikkhus, this is the supreme path for the purification of beings, for the overcoming of sorrow and lamentation, for the ending of pain and grief, for the attainment of the true path (the essential truth or righteous *Dhamma*, i.e., *the noble eightfold paths*), for the realization of *nibbana* (*Nirava-* the ultimate peace, freedom & happiness)- namely the four foundations of mindfulness.”

Satipatthana is systematically compiled the principle that used for an approach to *samadhi* in Buddhism for convenient education and practice. This technique involves practicing both *samatha* and *vipassana*. Meditators might start with *samatha* and then go to *vipassana* or start with *vipassana* and then go to *samatha* or practise together (Mahadhammarakkhito, 2004; Vajiranana, 1961). According to Payutto (1995), practising *samatha* before may be easier to apply wisdom because the mind had been prepared. *Satipatthana* helps to understanding suffering, the cause of suffering and the way to eliminate suffering. This is called practicing the *Dhamma* until wisdom arises. When wisdom appears, ignorance, craving, and clinging are eliminated (Kattapunnyo, 2006).

The principle of *satipatthana* practice is contemplation of four foundations- body, feelings, mind, and *Dhammas* (Buddhadasa, 1987; Jotika & Dhamminda, 2007; Payutto, 1995).

The contemplation of the body is called *kayanupassana* that is including many methods: (1) observing breathing- inhaling and exhaling (*anapana pabba*); (2) focusing on the state of the body in the various postures- standing, walking, sitting, or lying down (*iriyapatha pabba*); (3) contemplating of every kind of action and movement such as moving forward, looking around, opening the hand, dressing, eating, drinking, chewing, excreting, urinating, waking up, going to sleep, speaking, and keeping silent (*sampajanna pabba*); (4) observing the body as a composite of numerous unclean elements (*patikulamanasika pabba*); (5) contemplating of four elements of the body- earth, air, water, and fire (*dhatumanasika pabba*); and (6) observing stages of decay of the body from newly dead to reduced to crumbling bones, and accepting that our bodies will one day meet a similar fate (*navasivathika pabba*).

The contemplation on the feeling is called *vedananupassana* practising by observing unpleasant feeling (*dukkha*), pleasant feeling (*sukha*) or unexcitability (equanimity).

The contemplation of the mind is called *cittanupassana* practising by observing lust (*raga*) or non-lust, ill will (*dosa*) or non-ill will, delusion (*moha*) or non-delusion, unfocused or concentrated, liberated or unliberated.

The contemplation of the *Dhammas* is called *dhammanupassana*. This stage practice by observing five hindrances (*nivarana pabba*), five aggregates (*khandha*

pabba), sense bases (*ayatana pabba*), enlightenment factors (*bojjhanga pabba*), and four noble truths (*ariyasacca Pabba*) (Buddhadasa, 1987; Payutto, 1995).

The principle of contemplation of four foundations consist of (1) observing body, feeling, mind state, and *Dhammas*, with awareness and mindfulness, (2) knowing and seeing them for what they are, (3) not reacting or equanimity or bare awareness, and (4) observing of arising, enduring and ceasing. This practice help meditators to establish firmly mindfulness, understand the nature of life (*anicca*, *dukkha*, and *anatta*), free from craving, and not longer clings to anything in the world (Buddhadasa, 1987; Goenka, 2001; Payutto, 1995).

The most practice of Buddhist meditation in Thailand follows *satipatthana*. But the application has many methods and different. It depend on inherit from first teacher (Mahadhammarakkhito, 2004). Generally, the application of *satipatthana* does not use all of the doctrine from Buddha teaching because it is very complex and difficult for layman to practise (Buddhadasa, 1987). According to Goenka (2001), it is not necessary to pass through every section of *kayanupassana*, because each is complete in itself. The *anapana pabba*, *iriyapatha pabba*, and *sampajanna pabba* are necessary and must continue throughout practice. In addition, the *satipatthana* is applied to practise in various postures such as sitting, walking, standing, lying down, and moving (Payutto, 1995).

For moving meditation, there are many techniques of moving meditation in Thailand such as walking, rhythmic dynamic meditation that was developed by Luangpor Teean, or *Kayubkai Sabaichivee Withee Puth* that was developed by Buddha Isara. In this study, *Kayubkai Sabaichivee Withee Puth* is a method that uses to enhance self-healing because it is familiar in study setting and the posture of

moving like the exercise which is good for improving blood circulation in persons with hypertension. Buddha Isara (n.d) developed moving meditation technique when he takes to the road as form of merit making. He used this technique to treat joint pain, muscle pain, bronchitis, and blur vision. After he tried out for a period of time, he got better- decrease signs and symptoms of diseases, healthy of body and mind, and faster increase sati than sitting meditation. In the beginning of the development, this technique is composed of 84 postures: 17 sitting postures, 30 standing postures, 24 lying down postures, and 13 walking postures. In the present, he relay 11 sitting postures for the people to get healthy because they are easily to practise and appropriate for all persons (Buddha Isara, n.d.; Mannature Project, n.d.). This is a technique for exercising the body and developing the mind. He combines three concepts of *kayanupassana- anapana pabba*, *iriyapatha pabba*, and *sampajanna pabba* into one practice. The practice is modified by observing breathing, body postures, and body movement. It involved simple stretches and postures designed to strengthen and relax the musculoskeletal system and the development of mindfulness during the movement of the body, or meditation in motion- concentrate to breathing in and breathing out, concentrate follow to the movement. (Buddha Isara, n.d.). From practicing experience of Buddha Isara (n.d.), this practice is beneficial to relax the body and mind, improve function of the lung and heart, increase concentrate, increase blood circulation, and balance blood pressure.

4. The pattern of Buddhist meditation practice in Thai society

In Thailand, Buddhist meditation is popularly used in temples and meditation centers for developing concentration and wisdom. The most teaching meditation practice in Thai society is a teaching that follows *Theravada* Buddhist. It is

the school of Buddhism that draws its scriptural inspiration from the *tipitaka* which scholars generally agree to contain the earliest surviving record of the Buddha's teachings (Bullitt, 2005). The pattern of teaching meditation practice does not aim only at practising meditation but also aim at preparing the body, mind and knowledge before practising which comprises advising the basic knowledge related to Buddhist meditation, praying, and maintaining the five precepts.

The advising the basic knowledge related to Buddhist meditation is the most important thing as stated by Payutto (2009) "One must has the knowledge of the teachings of the Buddha before practising the meditation because these teachings were what the Buddha had experienced practising by himself and gained a result from the practice then transformed the experiences to others." These mentioned teachings are like a compass or spot light that guide the correct practice so that one would not walk in the dark and search for way by themselves. This is compatible with Goenka (2001) emphasized "theory and practice should go together." The teaching content should be composed of important basic principles such as the Five Aggregates, the Three Characteristics of Existence, the Law of Cause and Effect and the Four Noble Truths (Payutto, 2009).

Prayer is an activity for soul development. In Buddhism, it is a ritual the monks have been routinely performing since the time of the Buddha. Thai Buddhists have observed this because it is believed that prayer helps to protect them from various forms of evil spirit, misfortune, and sickness and provide auspice to their lives and families (Kulavinychai, 2005). Prayer is mediation which can create calmness and facilitate healing because those people who pray correctly must have a concentrated and focused mind toward the prayer. In addition, the chanting words are those

describing the teachings of the Buddha or *Dhamma*. Thus, the prayer with consider and comprehend helps to develop understanding of Buddha's teachings. Therefore, praying before the meditation practice helps prepare a pure and steady mind. One is able to be easily calmed as same as warming up before exercising so that the body is ready to do the activities because we encounter so many things daily which are still stuck in our thinking or mind. Those things would linger if we just sit down and close our eyes which make us to not be able to be easily calmed (Buddhadasa, 1983; Kar, 2005)

Receiving the five precepts from the monks before the meditation practice is a ritual that the layman says the promise that they shall maintain the five precepts (to refrain from killing, stealing, telling lies, sexual misconduct, and taking any intoxicant). Maintaining precepts helps to develop purify and concentration of mind and therefore a meditation shall be easily obtained (Goenka, 2001; Payutto, 1995; Tanphaichitr, 2005).

5. Facilitators and barriers of meditation practice

In Buddhism, there are many factors that obstruct and facilitate meditation practice.

5.1 The obstacle of meditation practice

The major barriers that obstruct the progression of meditation practice and lead away from enlightenment are negative mental states that call the five hindrances (*nivarana*). They consist of sensual desire (*kamachada*), ill-will (*byapada*), sloth and torpor (*thina-niddha*), restlessness and remorse (*uddhacca-kukkuca*), and uncertainty (*vicikiccha*). Sensual desire occurs by attachment to five senses and craving for pleasure to the senses. It is a desire of greed. Ill-will is feelings

of malice or anger towards others. Sloth and torpor is feeling of laziness and dullness. Restlessness is occurred when the mind is not contented, think of everything and can not focus on one thing. Remorse is anxiety that occurs by thinking of bad or mistake thing or event in the past. The last hindrance, uncertainty occurs when the persons have no confidence or doubt that meditation practice is useful or not. When these hindrances occur, the mind will not have concentrate, calmness, or success in meditation (Payutto, 1995).

5.2 The facilitator of meditation practice

The facilitating factors compose of the five powers (*pala*), the five faculties (*indriya*), the seven factors of enlightenment (*bojjhanga 7*), the spiritual friend (*kalyanamitta*) and the critical reflection (*yonisomanasikara*) that are showed as follow.

5.2.1 Five powers and five faculties are *Dhamma* rules that have the same components. The only difference is that five powers is a power that builds strength whereas five faculties dominates five hindrances or is like a defensive side. The components comprise confidence or faith (*saddha*), energy (*viriya*), mindfulness (*sati*), concentration (*samadhi*) and wisdom (*panna*).

Faith is the belief of the enlightenment wisdom of the Buddha, the wisdom that enables human to enlighten and believe that human is capable to be developed. It creates confidence in what one does. Energy is perseverance, hardworking, overcoming difficulty, stability, effort, enthusiasm, progress and courage. Mindfulness helps one to remind of what should be done or related. Concentration is having a single-minded, intention and constancy in what one determines. Wisdom is seeing the truth, knowing the things that are being done and comprehending the

condition. These five components are factors for continuous support that is faith generates energy, energy provides stability to the mind, determined emotion after the mind is stabilized obtains concentration, and concentration provides comprehension toward detriment of ignorance and craving that are causes of suffering and an understanding of the value of *nibbana*. Self-acknowledgement creates a great faith (Payutto, 1995; Dhammacaro, 2008).

5.2.2 *Seven factors of enlightenment* comprise mindfulness (*sati*), investigation of the *Dhamma* (*dharmaviriya*), energy (*viriyā*), joy (*pīti*), tranquility (*passaddhi*), concentration (*samadhi*) and equanimity (*upekkha*). It is seen that some of the factors are duplicated with those mentioned in five powers and five faculties but the different is the investigation of the *Dhamma* which uses wisdom to investigate and consider the things determined by the mind such as considering in order to understand the meaning, understanding the essentials of what is being considered, examining and choosing the things that support the mind or seeing the arising, enduring, and ceasing of what is being considered, understanding the condition of the Three Characteristics of Existence as well as the Four Noble Truths. Joy means the state of sensation of happiness or fulfillment. Tranquility refers to peacefulness both physical and mental. Equanimity refers to the state of a calmness and neutrality. These seven factors help improve the meditation practice and achieve the objective even faster (Payutto, 1995, 2009).

5.2.3 *A good friend (kalyanamitta)* is deemed as an external factor that helps generate the correct knowledge and understanding, lead to generating good opinion and attitude toward meditation practice. It also helps lead to performing the right thing and be an example for the meditation pragmatist to have a confidence that

meditation is a thing that can actually be done and achieved which is called the way of faith. *kalyanamitta* may mean person, method, tool or tactic of teaching and books. The 7 basic characters for persons with good *kalyanamitta* are (1) sincerity; (2) respectability; (3) knowledge; (4) being consultative; (5) calmness; (6) being able to inform the complicated issues that is to inform and teach their students the complicated issues; and (7) not leading to the spoiled way and nonsense or inappropriate issues (Payutto, 1995, 2009).

5.2.4 *Critical reflection (yonisomanasikara)* is deemed as an internal factor which is thinkable, thinking and finding the reason, searching for the source, being able to analyze the problem, seeing according to the condition and the relationship of the cause and factor without using ones own feeling. It helps oneself to generate a correct understanding and to be self-reliant. For ordinary persons whose wisdom is not strong should be promoted the ability to rightly thinking by themselves. The persons with strong wisdom are able to better use *yonisomanasikara* but they should depend on the right guidance as the primary guideline and supporting device for a quick progress during the meditation training (Payutto, 1995, 2009).

Self-healing

Buddhist meditation practice is energetic catalyst for the self-healing to begin (Waldspurger-Robb, 2003). Self-healing refers to the process that facilitates health, restores and balance between the mind and body which motivated by and directed by the persons who have the power or property of healing self (Glaister, 2001).

This concept is very abstract and difficult to understand. Thus, the concept analysis of healing is usefulness to clearly understand.

1. Healing: concept analysis

Glaister (2001) analyzed healing concept by using Walker and Avant's method to explore and clarify healing meaning and factor influencing healing. She defined attributes of healing to four attributes- healing is a nature, active, multidimensional and individually expressed. Healing is a natural process that occurs from within for proposes of restoring balance. The process consisted of complex internal process that happens with or without external interventions. The body has ability of self-diagnosis, self-repair and regeneration without the conscious effort or knowledge of the individual. It is actively flowing of the energy to improved function. It is multidimensional balancing between physical, emotional, mental, social and spiritual dimensions and it is individual and unique pattern.

The antecedent of healing is injury, illness, or something causing a physical, mental, emotion, or spiritual disruption. When disruption occurs, the body's natural responses begin to work and the process of healing begins. The consequences of healing are change and reconnection of the mind and body. Change may be physical, mental, emotion, social, or spiritual. For the empirical referents of healing, the healing process occur within the individual can not be measured but the outcomes of healing can be measured. The physical healing outcome can be observed such as wound can be seen as healing with decreased swelling and inflammation. The mental, emotion, social, or spiritual healing outcome can be measured by self-report: report of feeling healed or changed, clinical scales, observation of body language, posture, and facial expressions.

The occurrence of healing process is interesting. The mechanisms that can explain how self-healing occur through Buddhist meditation in persons with hypertension, are explained as follow.

2. Mechanism of self-healing process through Buddhist meditation in persons with hypertension

Mechanism of mind-body connection is helped to explain the self-healing process occur through Buddhist meditation. Mind-body connection is the interaction between mind and body. Thoughts, feelings, beliefs, and attitudes can positively or negatively affect our biological functioning and problem of the body can affect to mind. That is related to the Buddha mention “Everything that arises in the mind is accompanied by a concomitant physical sensation” (Pethe & Chokhani, 2006). Psychoneuroimmunology (PNI) discipline can help to understand this connection (Achterberg, et al., 2006; Glaister, 2001; Gordon, 2000).

PNI deals with the interactions among the mind, the nervous system, the immune system, and the endocrine system (Glaister, 2001; Kaufman, 2006; Maier-Lorentz, 2004). Practising Buddhist meditation cultivates concentrate and develops mindfulness and wisdom that causes to feel calm and decrease stress or suffering. This positive mind stimulates the process of self-healing by involving in two pathways- the endocrine pathway and the autonomic nervous system pathway (Kaufman, 2006; Maier-Lorentz, 2004; Zeller, McCain, & Swanson, 1995). The autonomic nervous system pathway, parasympathetic response is stimulated leading to decrease heart rate, peripheral blood vessels dilates, and improve the flow of blood cause to decrease blood pressure. The endocrine pathway, hypothalamus and pituitary gland decrease to release antidiuretic hormone and rennin-angiotensin II lead to dilate

blood vessel and does not increase blood circulation volume (Dossey, et al., 2005; Manocha, 2000).

In addition, Shapiro, Carson, Astin, and Freedman (2006) propose the mechanism of mindfulness that related to health and stress reduction. They separate mindfulness into three components-intention, attention, and attitude. They suggest that intentionally attending with openness and non-judgmentalness lead to a significant shift in perspective, which they call reperceiving. They believe reperceiving is a meta-mechanism of action which lead to change and positive outcome. The meta-mechanism composes of four mechanisms: 1) self-regulation, 2) values clarification, 3) cognitive, emotional, and behavioral flexibility, and 4) exposure. *Self-regulation* is the process whereby systems maintain stability of functioning and adaptability to change. This mechanism help a person to see the event and emotional clearly and choose to self-regulate in ways that foster greater health and well-being. That allows for more adaptive responses to stressful situations/stimuli as automatic maladaptive habits responses to stress are interrupted and coping responses are created. *Values clarification* help people recognize what is meaningful for them and what they truly value. When people observe their value and reflect upon them with greater objectivity, they have opportunity to rediscover and choose values or behaviors that are congruent with they needs, interests and values. *Cognitive, Emotional, and Behavioral Flexibility* facilitates more adaptive, flexible responding to the environment. This mechanism enables the development of capacity to observe ever-changing inner experience and see more clearly mental-emotional content, which in turn foster greater cognitive-behavioral flexibility and less automaticity or reactivity. *Exposure* enables a person to experience even very strong emotions with

greater objectivity and less reactivity. This mechanism serves as a counter to the habitual tendency to avoid or deny difficult emotional states thereby increasing exposure to such states that they eventually pass away.

Thus, mindfulness help the hypertensive patients have awareness and carefulness to practice in daily life. It helps the hypertensive patients practice in the way that good for health and avoid practice in the way that harmful for health. For example, when the patients have sati when eating, the patient aware the salty and fat diet can increase blood pressure. They will avoid or decrease to eat salty and fat diet, not allow mind to cling the taste of food or the habitual habit. Hypertensive patients can control risk factor- smoking, diet high in sodium, diet high in fat, and alcohol intake, by themselves lead to increasing the effectiveness to control blood pressure to normal level. In addition, panna help the hypertensive patients understanding the nature of reality that lead to increase capability of coping with stress.

Furthermore, Buddhist meditation is a practice that relate to the religion. It is influential to develop the spirituality- the individual's inner beliefs commonly related to religious affiliation (McSherry, 2000). According to George, Larson, Koenig, and Mccullough (2000), religion affects health by three hypothesized mechanisms; health behaviors, social support, and a sense of coherence or meaning. Health behaviors, in the Buddhist doctrine include specific prohibition against behaviors that are risk for increasing blood pressure such as refraining from using tobacco and alcohol. Social support, the religious participation is one of the major avenues available for developing social bound outside that lead to facilitate recovery from illness. Because the religious participants have more interaction with their social networks, receive more assistance from others, and have higher level of satisfaction with the social

support. A sense of coherence or meaning, the religious faith helps people to understand their role in the universe, the purpose of life, and develop the courage to endure suffering.

3. Instrumentation for measurement self-healing outcome through Buddhist meditation in persons with hypertension

According to meaning of self-healing, it is the process that facilitates health, restores and balances between the mind and body. Thus, after self-healing occurs, the physical, mental, emotion, social, or spiritual will change positively or healthily (Glaister, 2001). The previous study used various tools to measure different outcome of self-healing. The outcomes which were measured and the tools that used to measure can be divided into four groups.

The whole outcomes (which cover physical domain, psychological domain, social relationship, and environment): The example of the tool that was used to measure this outcome was European Organization for Research on Treatment of Cancer Quality of life Questionnaire (EORTC QLQ-30).

The mental outcomes (stress, depression, anxiety, mood states): The examples of tool that were used to measure these outcomes were Beck Depression Inventory (BDI), State Trait Anxiety Inventory (STAI), Symptoms of Stress Inventory (SOSI), Profile of Mood State (POMS), Beck Anxiety Inventory (BAI), Fear Survey Schedule (FSS), Thai Stress Test Questionnaire, and Symptom Checklist-90 (SCL-90-R).

The physical outcomes (pain, fatigue, heart rate, blood pressure, and respiration rate): The examples of tool that were used to measure these outcomes were Fatigue Assessment Questionnaire (FAQ), Pain Rating Index (PRI), Pain Beliefs and Perceptions Inventory (PBAPI), and sphygmomanometer.

The technical outcome (outcome that results from using each technique): The examples of tool that were used to measure mindfulness level occurring from Buddhist meditation practice include of Freiburg Mindfulness Inventory (FMI), Mindfulness and Attention Awareness Scale (MAAS), Toronto Mindfulness Scale, Kentucky Inventory of Mindfulness Scale (KIMS), Philadelphia Mindfulness Scale (PHLMS), and Sati questionnaire.

This study need to measure self-healing outcome that occurs from Buddhist meditation practice in persons with hypertension. Therefore, the measurement of the self-healing outcome that fit with the objective consists of (1) measuring stress because stress is the major risk factor of hypertension, (2) measuring blood pressure level because it is a sign that manifests the imbalance of persons with hypertension (the other abnormal signs are few), and (3) measuring mindfulness level because it is the result from Buddhist meditation practice.

There are many tools to measure mindfulness level and stress level. The consideration to select tools for using in this study is considered from criticism of strength points and weak points of tools. The guideline or standard format that use for criticism according to Jacobson (1997) and Singchungchai (2006), that are composed of purpose, conceptual base, subjects, data-gathering method, content, administration and scoring, reliability and validity, sensitivity, objectivity, and feasibility. The summary of criticism and consideration will describe as follow:

For mindfulness assessment, Freiburg Mindfulness Inventory-14 items are selected to measure mindfulness level of persons with hypertension because it covered assessment construct of mindfulness (nonjudgmental present-moment observation and openness to negative experience), had adequate psychometric

properties, showed good internal consistency (.86) and sensitive to change. In addition, it is easy to answer, not time consuming, and can be use with and without previous meditation experience (Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006).

For stress assessment, Thai Stress Test (TST) is selected to measure stress because this instrument development is based on psychometric principles- construct validity, discriminace validity, to be sound. The internal consistency of Cronbach alpha = .88. In addition, it fit for participant culture (Thai culture). It consists of 24 items that are rated on a 3-point ordinal rating scale. It is easy to answer and does not take time (Patarayuttawat, 2000).

4. Evidence based of the effect of meditation on hypertension

Research on effectiveness of meditation on hypertension that published from the past to 2008 were searched on six electronic databases- CINAHL, Science Direct, PUBMED, Cochrane, and OVID and Central Library of Prince of Songkla University. Key words were meditation, meditation and hypertension, and meditation and stress. The 16 studies were analyzed and summarized in this report. Type of meditation that used in these studies composed of transcendental meditation (TM), *vipassana* meditation, *anapanasati* meditation, Mindfulness-Based Stress Reduction (MBSR) Program, and contemplative meditation combined with breathing techniques (CMBT).

There are seven randomized controlled trials (RCT) that studied effect of TM, six study effectiveness of TM on blood pressure and one study effectiveness of TM on carotid intima-media thickness. These studies were conducted on persons with hypertension and healthy persons. Four studies practiced TM 20 minutes twice a day

(Alexander, et. al., 1996; Castillo-Richmond, et. al., 2000; Schneider, et. al., 2005; Wenneberg, et al., 2003), two studies practiced TM 15 minutes twice a day (Barnes, Treiber, & Davis, 2001; Barnes, Treiber, & Johnson, 2004), and one practiced TM 10 minutes twice a day (Barnes, Davis, et al., 2004). The period of practice ranged from 2 months to 1 year. Six of studies proposed the significant effectiveness of TM that can decrease 2-12.7 mmHg systolic blood pressure and 2.6-9 mmHg diastolic blood pressure. The highest of decreasing of blood pressure occur in the study that practiced 20 minutes twice a day for 3 months (12.7 mmHg in systolic blood pressure/8.1 mmHg in diastolic blood pressure). The finding of other one study revealed a significant decrease carotid intima-media thickness-0.098 mm in TM group compared with an increase of 0.054 mm in the control group (Castillo-Richmond, et. al., 2000).

Seven research projects were reviewed to study the effects of *vipassana* meditation and *anapanasati* meditation. All of them were quasi experimental studies. The period of the studies and practices varies: 7-8 hours per day for 5 days, 20 minute twice a day for 4 months and 1 hour per week for 6 weeks. Six of them studied the effectiveness on stress in nursing students (Krachangdan, 2003; Nuibandan, Sae-Sia, Noopethch, Athaphun, & Roummanarat, 2006; Udomsinka, 1998), nurses (Klinhom, 2004), and persons with hypertension (Soongkote, 2007; Sukonthasarn, 2001) and some studies included the effectiveness on blood pressure (Sukonthasarn, 2001), academic achievement (Krachangdan, 2003), or mindfulness level (Nuibandan, et. al., 2006). Five study findings revealed significant decrease of stress after practising meditation and one decrease in stress is not statistically significant (practise meditation 7-8 hours/day for 5 day). Furthermore, blood pressure significantly decrease, mindfulness level and academic achievement significantly increase after

practising meditation. The other one paper is studied the effect of *vipassana* meditation on self-esteem, creative visualization, health status, pulse, respiration rate, and blood pressure (Pongpieng, 2003). The findings showed significant decrease of pulse, respiration and blood pressure and significantly increase self-esteem, creative visualization, and health status.

One research studied the efficacy of Mindfulness Base Stress Reduction (MBSR) Program using RCT on 9 cardiovascular (hypertension, angina) patients. The period of practice was 45 minute per day, six days per week for 8 weeks. The results show a reduction of stress, significant improvement in expressing negative feeling from pre-intervention, show less reactive, immediate behaviors in response to coping, and no effect on the status of participants' health (Tacon, McComb, Caldera & Randolph, 2003).

Other research studies the efficacy of contemplative meditation combined with breathing technique (CMBT) using RCT on mind to moderate primary persons with hypertension. Experimental group practises intensive CMBT 30 minutes, twice a day for 8 weeks. At baseline and follow-up, resting BP (mean of 3 recordings), a standardized computerized 30 min mental stress test, bicycle ergometry, and ambulatory blood pressure measurement was performed. The finding showed, in experimental group, resting systolic BP fell from 151 to 136 mmHg, mean systolic BP during mental stress decreased from 170 to 143 mmHg, maximal systolic BP during exercise fell from 218 mmHg to 199 mmHg after CMBT. Mean systolic and diastolic BP during ambulatory blood pressure measurement fell from 137 to 133 mmHg and 85 to 80 mmHg.

In conclusion, even though each study implemented different meditation methods of practice. Performance of meditation practice daily and consistently for 10-60 minutes per session, at least one to two times per day, and continually for six weeks or more resulted in significant decreases in systolic blood pressure and diastolic blood pressure. In addition, it also leads to significantly lower levels of stress and helps increase mindfulness.

Holistic nursing

In this study, the holistic nursing was used as a way or guideline for enhancing self-healing through Buddhism meditation in persons with hypertension. It is appropriate because the goal of it is facilitate the healing process and achieve wholeness (Erickson, 2007; Mariano, 2007).

The word “holism” was invented by Jan Christian Smuts: South African philosopher, since 1926 (Erickson, 2007; Shannon, 2002). It derives from the Greek word “holos”, meaning whole (McEvoy & Duffy, 2008). The inference of holism is the nature state of human that is composed of mind, body, and spirit. This whole dimensions is greater than the sum of the parts and is inseparable parts (Erickson, 2007; Davis-Floyd, 2001; Mariano, 2007; Saks, 1997). In addition, the whole have dynamic interaction within the human, between humans, and between humans and the universe (Erickson, 2007). Furthermore, human, underline holistic nursing, are unique, able to find meaning and aim in their life experience and illness, and have innate power and capacity for self-healing (Mariano, 2007). According to McEvoy

and Duffy (2008), the attributes of holism are “mind, body, and spirit”, “whole”, “harmony”, and “healing”.

Health, in holistic paradigms, is defined as a sense of well-being that will occur when all parts of human are balanced, harmony, integration, right relationship, and betterment, not just the absence of disease (Erickson, 2007; Mariano, 2007). On the other hand, disease is defined as a breakdown, block, or imbalance somewhere in the human parts and symptoms are evidence of imbalance (Erickson, 2007; European Committee for Homeopathy, 2004). Therefore, the treatment of disease is not merely treating the obvious signs and symptoms but to consider the root of problem or to help the whole dimensions balance (European Committee for Homeopathy, 2004; Mariano, 2007).

1. Definition of holistic nursing

The American Holistic Nurses Association (AHNA) (2004) provide a more comprehensive definition of holistic nursing as

“Holistic nursing embraces all nursing which has as its goal the enhancement of healing the whole person from birth to death. Holistic nursing recognizes that there are two views regarding holism: that holism involves identifying the interrelationships of the bio-psycho-social-spiritual dimensions of the person, recognizing that the whole is greater than the sum of its parts; and that holism involves understanding the individual as a unitary whole in mutual process with the environment.”

From this definition, it can be summarized that holistic nursing is the nursing practice that facilitates healing process of the whole person. According to Mariano (2007), besides facilitate healing, holistic nursing protects, promote, and optimize

health and wellness, prevent illness and injury, decrease suffering and support people to peace, comfort, harmony and balance.

Holistic nursing is a specialty because it is inspired by nursing knowledge, theories of nursing and wholeness, expertise, intuition, and creativity to guide nurse function to facilitate the healing process. Nursing knowledge is necessary for basic, legally-defensible nursing practice. Theories are needed to articulate, understand, and reflect on practice. Expertise is needed to perform tasks easily and for the ability to make accurate decisions about care. Intuition is required to understand the subjective experience of others and interpret its meaning to healing. Creativity is needed to solve problems and to identify new ways of being with clients (Frisch, 2001; Mariano, 2007).

2. The role of holistic nurse

The heart role of holistic nurse is enhancing healing process for balancing of all dimension of human. This function will be successful when the nurse believes in person and health follow to holism perspective and integrate these believe and recognize in clinical practice (Erickson, 2007). More over, the nurse must follow to the holistic nursing process that is composed of 6 steps- assessment, diagnosis, outcomes, therapeutic plan and care, implementation, and evaluation (Mariano, 2007).

For assessment, holistic nurse assess the patterns of illness and wellness in term of the whole for understanding person's situation which focus on lifestyles, habits, personal and family health history, age-related conditions (Erickson, 2007; Mariano, 2007; Potter & Frisch, 2007). In addition, cognitively perceiving and emotionally dealing with the illness, the effect of illness on the person's family and social relationships and economic resources, the person's values and cultural or spiritual

beliefs and preference regarding treatment, and the meaning of this experience to the person's life are necessary to be assessed because these influence to the individual's behavior. Culture also provides an understanding of a person's concept of the illness or disease and appropriate treatment. Spiritual assessments include religious beliefs and practices, person's meaning and purpose in life, individual's sense of serenity and peace, what provides joy and fulfillment, and the source of strength and hope. The assessment is carried out in partnership by various communication techniques such as responding, reflecting, summarizing and listening with the heart (conscious, intension and without preconceptions, distractions, or analysis). These help individual to perceive authentic, caring, compassionate, and sincere of nurse (Mariano, 2007).

After that, the individual and nurse discuss problem and risk factor, set outcome, and plan to resolve problem together. These activities nurse must concerns about culture, believe, value of individual and respects the person's decision about his or her own health. The goal is set by individual, not by nurse. The nurse may take a role as "option giver"- provide options of alternatives regarding health and treatment, help the person develop an understanding of alternatives, and provide opportunities for clients to consider (Erickson, 2007; Mariano, 2007; Potter & Frisch, 2007). Encourage and support in use of modalities and facilitate to use own inner strength for healing are one of holistic nurse's role.

For the implementation, holistic nurse takes a role as "instrument of healing" by incorporate a variety of roles in their practice such as expert clinician and facilitator of healing; consultant and collaborator; educator and guide; administrator, leader and change agent; researcher; and advocate (Mariano, 2007) to promote empowerment, peace, comfort, and a subjective sense of harmony and well-being for

the individual (Lai & Hsieh, 2003; Mariano, 2007; Quinn, 2005). They also incorporate a number of modalities with conventional nursing interventions and help to remove the barrier of healing process to facilitate healing process (Dossey, et al, 2005). As Mariano (2007) stated, holistic nurse is not a healer but they guide and facilitator of the individual's own healing. The creation of healing environment is one of holistic nurse's roles. They use warmth, compassion, caring, authenticity, respect, trust, and relationship to conduct environment where clients and staff feel connected, supported, and respected. Furthermore, they create a physical environment for self-healing environment for example light, fresh air, pleasant sound or quiet, neatness and order, healing smells. In addition, they create sacred space through presence and intention where as another can feel safe, can unfold, can explore the dimensions of self in healing.

In addition, Erickson (2007) mentioned that the holistic nursing used the art of nursing to restore balance of all dimension of human and between human and environment. The goal of nursing was to create healing field by using gentle comforting touch, presence, intent, unconditional acceptance, love, and compassion. Healing field require that the nurse aim to synchronize energy fields and facilitate growth in nurse and patient for facilitating healing process- to create a sense of safety, comfort, and release unhealthy cellular memories.

Presence, a prerequisite for creating healing field, is a state of opening oneself to the needs of another, without expectations or distractions. It is the way of being or being with someone. The intentionality is essential concept for facilitating healing. Intention, based on feeling and thought, affects the direction of energy flow. The nurses make the intent to care for the person with as a little as a smile, eye contact,

gentle touch, or quiet words of reassurance. These affect that the nurse's energy field synchronize with the client's, creating holistic energy field between them. They are put in the best condition to heal and the patients feel safety and comfort.

Other concept that helps to create a healing field is unconditional acceptance. It means the acceptance of the human being as a being of the universe without expectations of who he or she becomes. If holistic nurse unconditionally accept the essence of another human being, they will recognize the inherent need of all people to be valued and to have self-worth and self-dignity. It is the basic of love- to show compassion for the human, without judgment or values. This creates the connection of heart-to-heart and spirit-to-spirit. Compassion includes love and understanding of human nature, the human condition, and its vulnerabilities.

Furthermore, the holistic nurse helps patient to find meaning in their life experiences because if the patients are unable to find it, they will suffer: they are disconnected body and soul. The feeling of safe, loved, and connection conduct healing that help patients to become understanding life experience and become more fully aware of their potential and their life purpose. Their soul work leading to live life more fully and transcend the physical peacefully.

Action research

Action research initially mentioned by Kurt Lewin, a social psychologist, in 1940 (O' Brien, 1998; Hampshire, 2000). According to his idea, action research is the problem-center research which integrates between experiment method and social activities for resolving the social problem (Naiyapat, 2005). In the present, this

method has been increasingly applied to professional and organization setting because the research process relate to the practical situation, it help to bridge the theory and practice, it propose the way to resolve the real problem and conduct a theory, and the practitioner want to study the own social problem by themselves (Holloway & Wheeler, 2002; Lofman, Pelkonen, & Pietila, 2004; Naiyapat, 2005).

1. Definition and characteristics of action research

Action research is the knowledge inquiry undertaken by researcher and participants in social situations in order to increase understanding of their practice, improve their situation, expect of change, and need of a changed situation remand a reformation of progress (Kemmis & McTaggart, 1988; Kilgour & Fleming, 2000; O' Brien, 1998).

The main characteristics of action research are composed of collaboration and participation, practical problem, cyclical aspect, and change-promoting. Participants participate and collaborate in every step of research process such as the design, data collection, data analysis and evaluation (Kemmis and McTaggart, 2000; Kilgour & Fleming, 2000; O' Brien, 1998). Even though, the participants have different power and status but they have same thematic concern and have equal importance and power (McTaggart, 1997).

2. The theoretical basis of action research

Many ideas of action research have their based in critical social theory and critical social science (Hollway & Wheeler, 2002; Masters, 2000; Webb, 1989). The critical theory was established in 1924 with a group of scholars from the Frankfurt School in Germany (Habermas, 1971 cited in Wilson-Thomas, 1995). Later, critical theorists of the 1950s, such as Horkheimer, Adorno, and Marcuse integrated the

elements of social thought which concerned the values, judgments and interests of humankind into a new framework which could provide a new and justification approach to social science (Carr & Kemmis, 1986; Hollway & Wheeler, 2002).

Critical social science is an approach for critiquing existing conditions for the purpose of enhancing individual autonomy, responsibility and transform the present reality through reflection, individuals liberation from internal constraints (biases, lack of a skill, point of view) and social freedom from external constraints (oppression, exclusion, abuse of power relations), and empowerment (Wilson-Thomas, 1995). The self-reflection is an important method in this approach because it motivates individual to be able to interpret themselves and their situation differently and the repressive condition. In addition, it helps theorist to be able to understand or explain the individual (Carr & Kemmis, 1986).

According to developing theory of a critical social science of Habermas, he describes the three kinds of knowledge (the technical, the practical, and the emancipatory) that are shaped by the particular human interest. The technical interest is the interest of human beings in acquiring knowledge that will facilitate their technical control over natural objects. The knowledge of this interest is instrumental knowledge taking the form of causal explanations. The practical interest is the interest in understanding and clarifying the conditions for meaningful communication and dialogue. The knowledge of this interest is interpretive understanding which can inform and guide practice judgment. Emancipatory interest is the interest of freedom and rational autonomy. The knowledge of this interest is to overcome social problems and change power relationships (Carr & Kemmis, 1986; Hollway & Wheeler, 2002; Wilson-Thomas, 1995). Emancipatory interest is the essentially knowledge in critical

social science. Self-emancipation can explain and know how they can be eliminated distortion of self-reflect and self-understanding (Carr & Kemmis, 1986).

3. Principle of action research

There are six principles for action research conduct- reflexive critique, dialectical critique, collaborative resource, risk, plural structure, and theory, practical, transformation (Winter, 1995) that are shown as follow.

3.1 Reflexive critique

The principle of reflective critique ensures people reflection issues and process and makes clear the interpretations, biases, assumptions, and concern upon which judgments are made. In this way, practical accounts can set up to theoretical considerations.

3.2 Dialectical critique

The principle of dialectical critique is consensual reality validation through dialogue. It is required to understand the relationship of the phenomena, the context, and the elements. The key elements are the component elements that are in opposition to one another. These are the ones that give them to create changes.

3.3 Collaborative resource

In action research, the participants collaborate to work as a co-researcher. Thus, each person's ideas are equally significant as potential resources for creating interpretive categories of analysis, negotiated among participants. The insights gleaned from both between many viewpoints and within a single viewpoint.

3.4 Risk

The change process threatens all previously constructed ways of doing things, thus creating fears among the participants. One of the fears comes from the risk to stemming from open discussion of one's interpretations, ideas, and judgments. The researcher reduces this fear by pointing out that they will be subject to the same process, outcome, and learning.

3.5 Plural structure

The nature of the research organizes a multiplicity of commentaries, views, and critiques, leading to multiple possible actions and interpretations. These will create a plural structure, consisting of various accounts and various critiques of those accounts. Therefore, a report acts as a support for ongoing discussion among participants, rather than a final conclusion of fact.

3.6 Theory, Practical, Transformation

For action research, theory informs practice, practice refines theory, in a continuous transformation. The action of people are based on implicit assumptions, theories, and hypotheses, and with every observe result, theoretical knowledge is enhanced. The practical and theory are aspects of a change process.

4. Types of action research

According to Holter and Schwartz-Barcott (1993), the typology of action research is divided to three main approaches- a technical collaborative approach, a mutual collaborative approach, and an enhancement approach. Each type is described as follow:

4.1 Technical collaborative approach

In this approach, the basic philosophy is based on natural science. The researcher's goal is to test a particular intervention based on a pre-specified theoretical framework that it can be applied in a practical setting. The researcher identifies the problem, plans a specific intervention, and facilitates and collaborates with practitioners to carry out a plan. The result of this approach is an efficient and immediately change in practice but the effectiveness gradually decrease when time go on. The predictive knowledge is emerged from this approach which helps to validate and refine theory for clear understanding.

4.2 Mutual collaborative approach

In this approach, the basic philosophy is based on historical-hermeneutic. The researcher and participants collaborate to identify a problem and possible intervention together until understanding problem, its cause and plan for initiating a change process. After that, the researcher works follow the plan with participants as equal partners. The result or changing of this approach has a lasting. However, it can not continue when the participants leave or new people enter the system. The new theory and descriptive knowledge is emerged from this approach.

4.3 Enhancement collaborative approach

In this approach, the basic philosophy is based on critical science. There are two researcher's goals- (1) to increase familiarity between practical problem and the theory that use to explain and resolve problem and (2) to assist participants in identifying and making clearness problems by motivating their collective consciousness. The researcher asks question to stimulate practitioner to reflect and discuss of problem and assumptions on culture, value, norms, and conflicts

of personal and organization. The new theory and new practice and the predictive and descriptive knowledge are emerged from this approach. In addition, the changing can continue even though the researcher leaves.

5. Action research process

The action research process according to the idea of Kemmis and McTaggart (1988) is well known in academician and the researchers who are interested in action research and widely to apply. It is composed of two steps- the basic step and the main step. The basic step is reconnaissance and the main step is planning, acting and observing, and reflection. This research process is the way which helps to guide process of this study. The detail is described as follow.

5.1 Reconnaissance

This is a step of clarifying the context and phenomenon of the study for in depth understanding of values, belief, context of society, cultural, the problem that need to improve, and barriers and facilitator to change by questionnaire, in-dept interview or focus group. This knowledge like basic information that helps to think ahead about the way of problem resolving, the method to decrease hindering factors and the goal of the study.

5.2 Planning

This is the step of deciding the plan to resolve the problem by discussion between researcher and participants. This plan includes aim of the study, activities for implementation, role of participants, and evaluation of change. The activities that use to improve practice should relate to the social context, culture, and belief of the participants. In addition, the other point for considering is the availability of resources and the limitation of time and space, and the factor that relate to the

successful practice. This planning should be flexible and can change following the future event.

5.3 Acting and observing

This is the step of practice following planning but the action can be changed depending on conditional factors. The participants may use their experience to decide the action. While acting through planning, the collecting data by observing and note taking should be performing. The important data needed to collect compose of the process of the study, the result of action including intended and unintended, facilitating and hindering factors, and other issues which arise.

5.4 Reflection

This is the step of critical discussion about the process of practice, the effect of practice, the barriers and facilitator factors, and the problems between research and participants. This strategy motivates participants to expose their thoughts, concerns and feelings. In addition, it leads to the reconstruction of their ideas, beliefs, and the previous practice and provides the basis for revising and formulating a new plan to implement on the next cycle.

The period of action process can not determine (Kemmis & McTaggart, 1988). The action and monitoring process continues until participants reach the gold (Holloway & Wheeler, 2002) or until the data is saturated- the same information reported and no longer learning anything new (Lincoln & Guba, 1985).

6. Trustworthiness in action research

Establishing trustworthiness is necessary for any researcher wishing to convince others of their findings' importance, logically developed information and unbiased argument (Badger, 2000). In qualitative research, there are four criteria that

should be considered in pursuit of trustworthy study (Lincoln & Guba, 1985). These criteria are credibility, transferability, dependability and confirmability.

6.1 Credibility (internal validity)

It is the strategy that researcher attempt to show a true picture of the phenomenon under scrutiny (Shenton, 2004). The researcher can promote confidence accurate phenomena by techniques that are showed as follows (Lincoln & Guba, 1985):

Prolonged engagement is investment of sufficient time to stay in the study field to achieve certain purpose: gaining an adequate understanding of an organization and culture, establish a relationship of trust, and testing for misinformation (Lincoln & Guba, 1985; Shenton, 2004).

Persistent observation is the strategy which helps the researcher to identify characteristics and elements in the situation that are most relevant to the problem and focus on them in detail.

Triangulation is an approach to research that uses a combination of more than one research strategy in a single investigation to confirm finding. There are four types of triangulation- data, investigator, theory, and methods (Shenton, 2004; Streubert Speziale & Carpenter, 2003; Thurmond, 2001). Danzin (1989 cited in Streubert & Carpenter, 1999) described three types of data triangulation, 1) time triangulation, the researchers collect data about a phenomenon at different point in time, 2) space triangulation, it is a collecting data at more than one site, 3) person triangulation, researchers collect data from more than one level of person such as individual or group. Investigator triangulation involves using more than one observer, interviewer, and data analysis in the same study- confirmation of data among investigator without

prior discussion with one another. Theory triangulation is the use of multiple theories in the analysis of the same data set. Method triangulation involves the use of different data collection methods- observation, focus group and individual interviews.

Peer debriefing, the researcher and debriefer such as project director discuss the information for probed inquirer's bias, explored meaning, clarified the basis for interpretation, test his or her developing idea (Lincoln & Guba, 1985; Shenton, 2004).

Negative case analysis, the researcher refining a hypothesis until it addresses all cases within the data (Lincoln & Guba, 1985; Shenton, 2004).

Referential adequacy, the researcher should use various materials to record raw data such as videotape recorders, movie cameras, or tape recorder. The recorded materials provide a kind of benchmark against which later data analyses and interpretations could be tested for adequacy.

Member checking related to proving the accuracy of data. Informants are asked to read any transcripts of dialogues in which they have participated to consider that their words match what they usually intend (Shenton, 2004).

6.2 Transferability (generalisability)

Researcher should provide sufficient contextual information about fieldwork sites to allow readers to have a proper understanding of it and they can be applied in situations similar to that described in the study (Lincoln & Guba, 1985; Speziale Streubert & Carpenter, 2003).

6.3 Dependability (reliability)

The researcher should describe the process of the study in detail for enabling a future researcher to repeat the work (Lincoln & Guba, 1985; Shenton, 2004).

6.4 Confirmability (objectivity)

This must be taken to help ensure work's findings by conducting a data audit and triangulation to reduce the effect of researcher bias (Shenton, 2004).

In summary, hypertensive patients have a high prevalence in developing countries especially in Thailand. These lead to high rate of mortality from heart failure, myocardial infarction, stroke, and renal failure. Thus, the management of control blood pressure is very important. Although, there are many effective way to reduce blood pressure but the rate of uncontrolled blood pressure are increasing because the most persons with hypertension are not aware of change risk behavior and they are having stress. Therefore, the effective way to control blood pressure is facilitation awareness of healing by themselves. The Buddhist meditation is a technique that can use to control blood pressure by mind-body path way- PNI mechanism. Many studies showed and strongly supports that meditation can have powerful effects on blood pressure. Most of the nurses are aware of the positive result of meditation on hypertension but utilization of meditation in nursing care is low because they do not have much knowledge about it. Like nurses who work at the Community Medical Health Care Center are interested in integrating Buddhist meditation in caring persons with hypertension because hypertension is ranged as the first chronic health problem in this area but they do not have much knowledge about it. Thus, this study is carried out with aims for development the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension. The concepts of hypertension, Buddhist philosophy, self-healing, holistic nursing, and action research are appropriate for guiding the way to develop this model.

CHAPTER 3

METHODOLOGY

The purpose of this study was to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with hypertension. It was the action research following the mutual collaborative approach. This chapter presents the study participants, ethical considerations, research setting, research process and data collection, research instruments, data analysis, and trustworthiness of the study.

Study participants

The participants of this study comprised of 12 persons with hypertension, a nurse, a village health volunteer, and a monk.

1. Persons with hypertension

The persons with hypertension were the people who have been receiving health care services at the Community Medical Health Care Center and resided in the province of Nakhon Si Thammarat, Southern of Thailand. They were selected based on the following criteria:

- Systolic blood pressure equal to or above 140 mmHg and diastolic blood pressure equal to or above 90 mmHg, including those who have been taking antihypertensive drugs and have not been taking antihypertensive drugs and perceived that they have high blood pressure

- Diagnosed with primary hypertension by a physician

- Aged over 15 at the time of study
- Able to communicate in Thai language

2. Nurse

A nurse is a person who provided health care at the Community Medical Health Care Center.

3. Village health care volunteer

A villager, who voluntarily provided care for the patients at the local community, and has received a training course of hypertensive patient care.

4. Monk

A monk is a Buddhist religious man who has been living in the community temple, and was able to teach Buddhist philosophy and meditation practice.

Ethical considerations

The study and its procedures were reviewed and approved by the Institutional Review Board (IRB) of the Faculty of Nursing, Prince of Songkla University. Prior to being accepted into the study, the researcher have made a self-introduction and explained to the participants about the objective, process and duration of the study, as well as the data collection method. To avoid the anxiety that could occur upon the participation in the study, the subjects were informed toward their right in participating and/or withdrawing from this study at any time they deem necessarily to do and they can also decline to answer any questions without losing any hypertensive treatment that they supposed to receive. The participants would also be free to ask any questions about the study. The data were kept confidentially and stored in a secure

place, no sharing any information without the participants' permission, and when the data were to be reported, pseudonyms were used to identify the subjects (see Appendix A).

After the above explanation and once the participants expressed their willingness to participate in this study, the researcher requested that the consent forms be signed. However this was a cause of frustration among our subjects. Finally, to encourage them to agree on participating in this study, we had to make verbal communication on agreement and also had the nurse and the village health care volunteer to be the witnesses. In addition, the researcher has given the monetary compensation to each participant for transportation expenses when they came to learn the Buddhist meditation practice at the temple.

Research setting

This study was implemented in a community of five villages of one sub district in Nakhon Si Thammarat Province , around 780 Km south of Bangkok and the second largest province in the Southern Region of Thailand as well as a prominent Buddhist center during the Srivijaya period. The numbers of population in five villages was 5,640 persons and the language ordinarily used to communicate is the Southern Thai dialect. In this area, hypertension is ranked the first chronic health problem. According to the health survey of the Community Medical Health Care Center, the number of person with hypertension is increasing every year. It raises from 273 cases in 2006 to 619 cases in 2008 (Family Folder, 2008). Furthermore, the

leading cause of paralysis was hypertension and most of hypertensive persons could not maintain their blood pressure lower than 140/90 mmHg.

Research process and data collection

The research process consisted of three phases: (1) preparation phase; (2) action phase, including reconnaissance, planning, acting and observing, reflecting, and revising plan; and (3) final phase. These phases were based on the action research process mentioned by Kemmis and McTaggart (1988).

1. Preparation phase

The activities in this phase consisted of reviewing the related concept of the study, rapport building and recruitment, and preparation of instruments. These activities will be described as follow:

1.1 Reviewing the related concept of the study

The objective of this activity was to be crystal clear understanding toward the related concept of the study. The researcher has reviewed the concept of action research that includes its definition, the theoretical based (critical social science), characteristics, and process. In addition, the researcher has also reviewed the concept of self-healing, Buddhist meditation, and holistic nursing. Furthermore, the researcher has completed a course in *vipassana* sitting meditation at *Dhamma Abha* Center, Phitsanulok Province, Thailand, over 10 days and another one at Si Thawi temple, Nakhon Sri Thammarat Province, Thailand, over 3 days. Besides, the researcher has also attended a course in moving meditation at Conservation Health Park, Baan Chao Phraya, Bangkok, Thailand, for 3 days. The researcher has been

deliberately integrating meditation concept into her daily life. Consequently she was gradually getting into the deeper understanding of this issue at hand.

1.2 Building rapport and recruiting participants

The researcher has contacted a head nurse and two staff nurses at the Community Medical Health Care Center. The researcher introduced herself and talked to them about the objectives and the processes of this study. After that, the researcher invited them to participate in the study. Only the head nurse agreed to participate in, because basically she was fond of practicing meditation as well. She also had some experiences in meditation and had even integrated it into her nursing care. The staff nurses refused to participate in the study, because they have never had any experience in meditating practice and because of their heavy workload at that time.

After being informed about the study objective and process, the nurse has suggested the researcher to cooperate with the acting abbot of the community temple and village health care volunteers who have experience in meditation. The acting abbot of community temple was capable of teaching meditation practices and enjoyed the respect and following of almost all of the villagers. The village health care volunteers have motivated the villagers to practice meditation at home. The head nurse and the researcher have visited the acting abbot and, after introducing themselves, they have informed him about the objective and the process of this research and invited him to participate in the study and the monk agreed to do so with pleasure. Regarding to the village health care volunteers, five of them were introduced to the researcher by the head nurse. After the researcher has introduced herself to them and explained about the details of the study, she has invited them to participate in this study. Nevertheless, there was only one village health care volunteer was

interested in participation. The others have opted not to participate in this study because of their busy work schedules.

Then, the researcher asked the head nurse to introduce the study to her primary persons with hypertension who could not lower their blood pressure below 140/90 mmHg and 30 such patients were introduced. The researcher has reviewed the medical histories of the whole 30 persons with hypertension and consulted their physician in order to confirm that all of the 30 patients have suffered from primary hypertension. After that, the researcher has visited each hypertensive person at home; accompanying by either the head nurse or the village healthcare volunteer. After introducing themselves, the researcher and the head nurse and/or healthcare volunteer would assess the patient's blood pressure and self-management practices. The baseline assessment revealed that all patients have reading the higher blood pressure than 140/90 mmHg and have been following some inappropriate practices in self-management. The researcher has introduced the study objective and procedure to the patients and invited them to participate in the study. At the first time, five hypertensive persons agreed to participate in this study. Later on, another ten of them have also decided to participate in this study. However, during the first week of enrolling the meditating practice, three of them have asked to withdraw from the study because they learnt that the Buddhist meditation is too difficult for them to practice and they have finally realized that they had no sufficient time to participate in this study. Nevertheless, the other 15 patients declined to agree on participation, because they haven't considered themselves stressed, thus Buddhist meditation was not necessary for them. In addition, they reported that they have no time to practice meditation due to the busy daily schedules. Furthermore, some of them have multiple

health problems; for example, ankle and/or back pain which are the obstacle of practicing the Buddhist meditation.

1.3 Preparing the instruments

The researcher has prepared the research instruments; including the Demographic Data Form, the Interview Guideline for exploring the personal situation of persons with hypertension, the interview guideline for exploring the nursing care for persons with hypertension, the focus group discussion guideline for developing the Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension, and the reflective guideline for exploring the opinions of the participants about the model use. The booklet of Buddhist meditation practice and the VCD on moving meditation practice were also prepared by the researcher. Concerning the instrument measuring the mindfulness level, the researcher received permission to use and translate the Freiburg Mindfulness Inventory (FMI) short form into Thai by the author. The content validity of these instruments was evaluated by three experts; one expert in qualitative studies and Buddhist philosophy and two experts in Buddhist philosophy. In addition, all three experts were knowledgeable of the English language. Regarding the instrument measuring stress level (the Thai Stress Test), the researcher received permission to use from Patarayuttawat (2000), after formally contacting her.

The Microlife 3AG 1 automatic blood pressure monitor was used for measuring blood pressure. It has a measurement range of 30-280 mmHg, with a reliability of $\pm 3\%$. For accurate blood pressure measurement, the researcher followed the blood pressure measurement principle of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. This

principle is composed of 4 points: (1) preparing persons with hypertension by having them sit quietly for at least 5 minutes before blood pressure measurement, (2) measuring blood pressure in the sitting position; arm laid at heart level and measurement carried out on same side every time, (3) using appropriately sized cuff to ensure accuracy, and (4) measuring blood pressure two times, at least 1 minute apart, and calculating the mean blood pressure (National Institutes of Health, 2003).

2. Action phase

2.1 Reconnaissance

This is the stage where the researcher gathered data on the situations of persons with hypertension and condition of nursing care. At this stage, the researcher has built a good relationship with the chief of village, district administrative chief officer, and the villagers. Furthermore, in order to understand the social context as well as the religious beliefs and practices of people in the community, the researcher has joined their local activities, i.e., practicing meditation on the Buddhist holy days and taking part in Buddhist ceremonies (wrapping Lord Buddha cloth around the pagoda, making sand statues). And to see clearly about the religious beliefs and practices, the perception of hypertension disease, the knowledge of self-management and the previous self-management experience toward each individual hypertensive persons, the researcher has built a continuous relationship with each patient until they felt trust. Then, the researcher has conducted the in-depth interviews, critical reflection, observed their behaviors and collected data from their diaries which the Community Medical Health Care Center has provided to them. Each individual diary was used to record the basic information of each patient; such as blood pressure level, weight, laboratory results, medication, and physician appointments. Furthermore, in

order to understand the situation of nursing care for persons with hypertension, the researcher has observed the nursing care at the community medical center and has conducted the in-depth interviews and critical reflection with the nurses. During the in-depth interview or observation period, the researcher has utilized a tape recorder and has taken notes at all times. In order to understand the causes leading to the hypertensive persons unable to consistently maintain their blood pressure level under 140/90 mmHg, after all the data were attained, those data were analyzed and discussed together by the researcher, the head nurse and the persons with hypertension.

2.2 Planning

Upon the basic data analysis of each individual hypertensive person, we discovered that the main problem of each person was lacking of mental control and will power. Perpetuates suffering mind and self-indulgent behaviors is harmful to those with high blood pressure. The researcher has discussed with the nurse and agreed that the most appropriate solution to this problem is mind development through the Buddhist meditation. This practice would enhance self-healing because it would be helpful for the persons with hypertension to heal themselves, alleviate the suffering, and might help them to maintain their blood pressure levels under 140/90 mmHg consistently. Upon the meditating practice, they might become more concentration and get better conscious condition that would help them to change their bad eating habit to be better which leading them to avoid the inappropriate foods. Furthermore, they might have better compliance to the treatment; such as taking their antihypertensive drugs correctly and consistently. In addition, the Buddhist meditation is always the appropriate method for their just-enough-to-get-by-on economic

condition because it can be practiced alone and without any expense. Moreover, it was also compatible with their religious beliefs and practices.

Adapting the Buddhist meditation in nursing care for such patients had long been tried before by many nurses, but there was no evidence of effectiveness or success due to the reasons previously mentioned. Thus, the researcher and the participants have conducted the tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension in order to develop the effectiveness on enhancing self-healing in persons with hypertension. This process comprised the following three steps.

Step 1: The researcher developed a preliminary model by reviewing Buddhist philosophy, Buddhist meditation, and the concepts of self-healing and holistic nursing care. Furthermore, it was developed by exploring the previous Buddhist meditation practice in the studied community. The researcher has interviewed the monks who were the experts in Buddhist meditation. In addition, the researcher has taken the courses of moving meditation and *vipassana* sitting meditation.

Step 2: The researcher has taken a preliminary model as a group discussion among nurse, monk, and a village health care volunteer about the preliminary model, to consider revising the model. Moreover, to improve and make it easy to practice for consequently derive the effectiveness, and compatibility to the needs of all participants.

Step 3: The researcher conducted a pilot study on two persons with hypertension for two months in order to verify and improve the model.

The Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension was shown as figure 2.

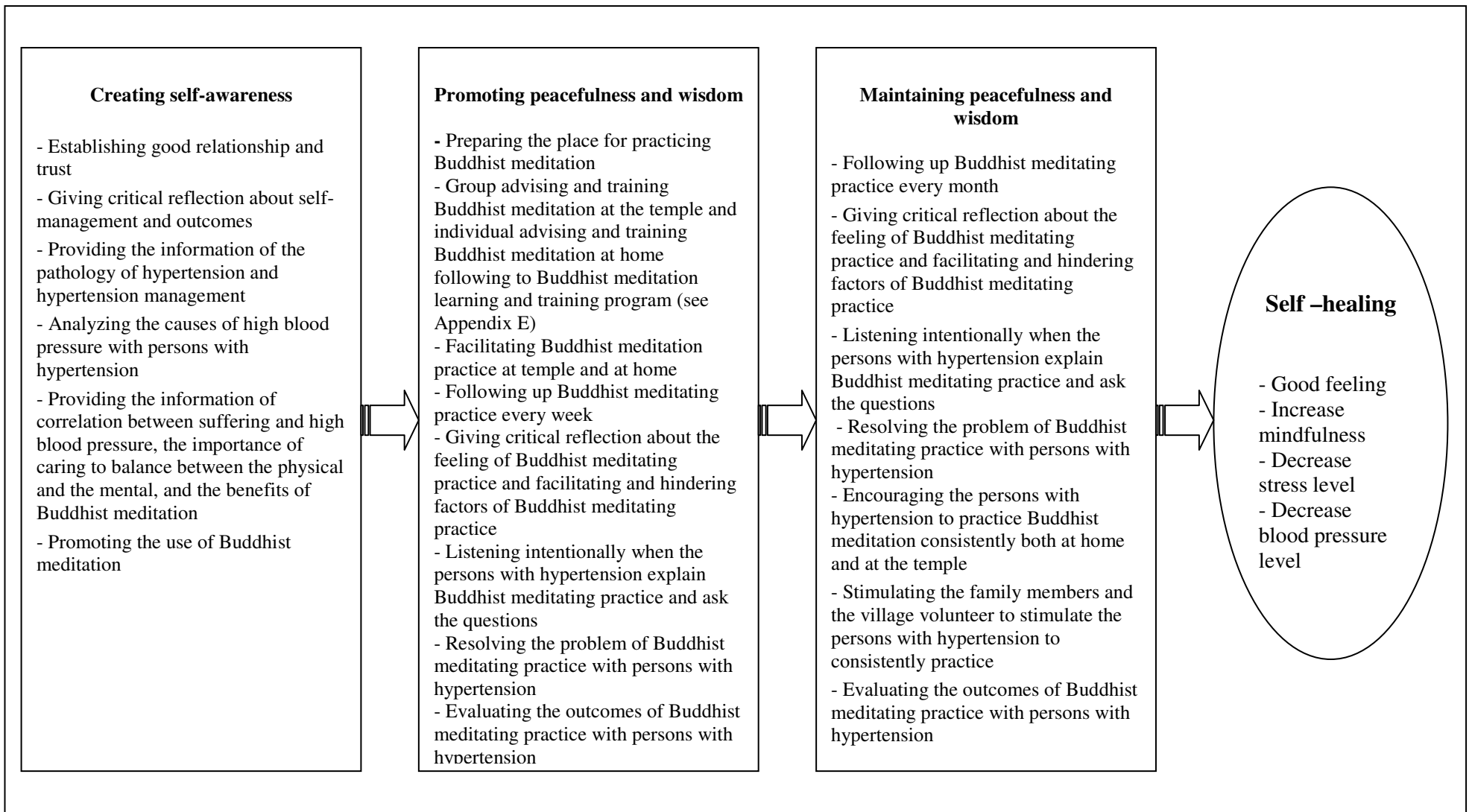


Figure 2 The Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension

2.3 Acting and Observing

The researcher and all participants have taken the action according to the model study of the Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension. The researcher has been observing diligently and in the same time she has taken the photographs and the short notes during all the activities occur according to the plan.

2.4 Reflecting

During the process of this study, the researcher has encouraged the participants to reflect their opinion and feelings on the meditating practice, as well as the individual outcomes of this practice, including the facilitating and hindering factors. In this phase, the researcher has made tape recordings and taken the notes.

2.5 Plan revision

The researcher has analyzed the data collected from the observation and reflection phases and has made a revision of plan appropriately. Then the revised plan has implemented, followed by the acting and observing, reflecting, and plan revision circle again until meet the objectives of this study.

2.6 Outcome evaluation

This stage was involved the evaluation of self-healing resulting from Buddhist meditation practice by assessing the feelings of patients, and by measuring blood pressure, stress level, and mindfulness levels. The assessment methods comprised of in-depth interviews, observations, and questionnaires. The period of assessment included the time before and after this study was applied by the persons with hypertension. The patients' feelings and blood pressure levels were assessed

every month, whereas the stress and mindfulness levels were assessed at least once a month while they have been continuing practice of meditation.

3. Final phase

When the persons with hypertension were successful in self-healing; blood pressure decreased to the normal levels (not more than 140/90 mmHg), the stress levels decreased, as well as the sati level and the data collection was completed (the same information reported and no longer any new learning) (Lincoln & Guba, 1985), The researcher has summarized all the data and discovered it generated the great results of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension.

The research process and data collection was summarized in figure 3.

Preparation phase

- Reviewing the concept of action research methodology, concept of self-healing, Buddhist philosophy, Buddhist meditation, and holistic nursing
- Building rapport and recruiting participants
- Preparing the instruments
 - : Demographic Data Form
 - : Interview Guideline for Exploring Situation of Persons with Hypertension
 - : Interview Guideline for Exploring Nursing Care of Persons with Hypertension
 - : Focus Group Discussion Guideline for Developing Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension
 - : Reflective Guideline for Exploring Opinion of Participants about Program Using
 - : The Freiburg Mindfulness Inventory (FMI) Short Form
 - : Stress Assessment Questionnaire (SAQ)
 - : Booklet and video compact disc



Action phase

Reconnaissance

- : Prolonged engagement to understand social context in community
- : Conducted in-depth interview the situation of hypertensive care
- : Conducted in-depth interview the persons with hypertension to understand the individual hypertensive person's religious beliefs and practices, perception of hypertension, self-management knowledge and previous self-management experience



Planning

- Developed preliminary tentative model by review literature, expert interview, and Buddhist meditation practice experience
- Modified preliminary tentative model by discussion with a monk, a nurse, a village care volunteer
- Conducted pilot study and modified preliminary tentative model again
- Developed the Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension

Revising model

- Revised model for appropriation to enhance self-healing in persons with hypertension

Action and Observation

- : Practised following the Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension
- : Observed the behavior of participants when follow through the role, the context of the situation and will take field note

Reflection

- : Motivated participants' reflection the Buddhist meditation practice, the feeling of practice, and hindering/facilitating factor



Final phase

- : Established the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension

Figure 3 Research process and data collection

Researcher's Role

In this study, the researcher played a couple roles, as a nurse and a researcher. As a nurse, the researcher has been working with the other nurses and the village health care volunteer as well as the monk in every activities of this study including the stage of assessment. The researcher has also given the knowledge of Buddhist meditation to the persons with hypertension as well as helped in solving the problem during meditating practice. Furthermore, the researcher has encouraged and given the mental support for the patients and executed the evaluation. As the role of a researcher, she has collected and analyzed the data, including made a continuous adjustment of the plan until the final step of Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension study was implemented.

Research instruments

The instruments used in this study are classified into two categories:

1. Instruments for data collection; consisted of:

1.1 Demographic Data and Health Related Factors Record Form comprised questions about age, gender, marital status, education level, occupation, religion, income, history of smoking; alcoholic consumption, exercise, fat eating behavior, and salt eating behavior (see Appendix B).

1.2 The Freiburg Mindfulness Inventory (FMI) Short Form (Walach, et al., 2006) was used to measure mindfulness or sati level. It consisted of 14 items rated according to how frequent each item was experienced during a specific previous

timeframe. Items were rated on a 4-point Likert scale; rarely (1), occasionally (2), fairly often (3), and almost always (4). A higher score indicated greater mindfulness (see Appendix B).

1.3 The Thai Stress Test (TST) (Patarayuttawat, 2000) (see Appendix B) was used for measuring the perception of stress. This instrument involves 24 questions about present feelings and thoughts. The items are rated on a 3-point ordinal rating scale; never (0), sometimes (1), and often (3). The sum of negative scores (items 1-12) and positive scores (items 13-24) were used to compare the level or group of stress with the matrix table (Table 2). The score interpretations are: (Group 1) good mental health, (Groups 2, 3, and 4) normal, (Groups 5 and 6) mild stress, and (Groups 7, 8, and 9) severe stress.

Table 2

Matrix table (Patarayuttawat, 2000)

Sum negative score (item 1-12)	Sum of positive score (item 13-24)				
	12-36	9-11	6-8	3-5	0-2
0-1	1	2	3	4	5
2-3	2	3	4	5	6
4-5	3	4	5	6	7
6-7	4	5	6	7	8
8-36	5	6	7	8	9

1.4 Blood pressure, sati level, stress level, and frequency of meditation practice record form

1.5 The Microlife 3AG 1 automatic blood pressure monitor

1.6 Interview Guideline (Appendix C)

1.7 Tape recorder and camera

1.8 Paper note books

2. *Instruments for Buddhist meditation practice*: booklets, prayer books, moving meditation practice poster and video compact disc

Data analysis

Descriptive statistics was used to analyze the demographic data, health related factors, stress level, and mindfulness level.

The Content Analysis was used to analyze the in-depth interviews and the observation information of this study which has started to analyze since at the early stage of data collection. It was an important tool for the researchers to move back-and-forth between concept developing and data collecting in order to answer the research question. The step of content analysis included the followings (Graneheim & Lundman, 2004; Zhang, 2006):

1. The researcher transcribed from the in-depth interview data and critical reflecting tape recording. Also the raw data from the interview, the critical reflection, and the notes were reviewed word by word repeatedly to get crystal clear understanding about the content. The researcher underlined the data that relate to the issue of the study; such as the nursing care for persons with hypertension, individual situation of each patient, the individual feelings and the outcome from the Buddhist meditating practice, as well as the facilitating and hindering factors of Buddhist meditation practice, including the role of the nurse, monk, and the village health care

volunteer in promoting self-healing through Buddhist meditation. In addition, the researcher has also made the decision to use the words or phrases referential to data's meaning.

2. The researcher has studied the meaning of the data labels, words or phrases, and compared their similarities and differences in order to categorized them and formulated the theme to suit each data group.

3. The researcher analyzed the relationship of the themes and linked them to reveal the structure of all study issue: Self-healing process of persons with hypertension through Buddhist meditation, the promoting or obstructing factors of Buddhist meditations practice, the role of nurse, monk, and village health care volunteer for enhancing self healing, and outcome of Buddhist meditation practice.

4. The Therapeutic Buddhist meditation Nursing Model for Self-healing in Persons with Hypertension was conducted after the researcher has clearly understood the effectiveness of the process of enhancing self-healing in persons with hypertension through Buddhist meditation.

Trustworthiness

In this study, the researcher has established the trustworthiness by following four criteria; credibility, transferability, dependability, and confirmability, based on Lincoln and Guba's suggestions (1985).

1. *Credibility*: The researcher has promoted the accuracy of finding by using various techniques that are the prolonged engagement, the persistent observation,

triangulation methods, peer debriefing, negative cases, referential adequacy, and member checking.

1.1 Prolonged engagement: The researcher has gone to the community setting for this study and she has tried to get used to the environment in advance for one month before the starting of study. She has created the rapport with the village's chief, the sub-district administrative chief officer and villagers. Moreover, she has been participating in the community activities, for example, she has joined the meditation on Buddhist holy days and in the Buddhist ceremonies such as wrapping Lord Buddha cloth around the pagoda and making sand statues. In the same time, the researcher has also created the good relationship with the hypertensive persons and nurses. The researcher has also observed nursing management for persons with hypertension at the Community Medical Health Care Center. All these activities that the researcher has joined in the study setting were helpful for her to build trust and to gain the real information.

1.2 Persistent observation: The researcher has done the continuous observation of the Buddhist meditation practicing and behavior changing of persons with hypertension. Moreover she has also observed the role of the nurse, monk, and the village health care volunteer entire the research process to be clear understanding overall toward them.

1.3 Triangulation methods: The researcher used the different data collection methods; including the observation, the critical reflection, and the individual interviews for checking and confirming the accuracy.

1.4 Peer debriefing: The researcher, the advisor and co-advisor have collaborated in analyzing the content. They have executed all information by coding,

interpreting, formulating the themes, categorizing the data, finding the relationships between different data, and describing the data clearly in order to avoid the bias.

1.5 Negative cases: all of the findings were reported including case of persons with hypertension who were unable to integrate the Buddhist meditation for self-healing into their daily life. These cases have shown the real phenomena that occur during the study were processing.

1.6 Referential adequacy: The researcher has used various materials to record raw data; including tape recorders, cameras, and paper note books. These tools were used for re-checking and confirming the accuracy.

1.7 Member checking: In order to get the accuracy of the finding interpretation, all the analyzed data were re-checked and confirmed by the participants.

2. *Transferability:* The personal situation of persons with hypertension, situation of nursing care for persons with hypertension, and the spiral participatory action research process, including planning, acting, observing, and reflecting, to develop Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension were clearly described for the reader to understand and to be able to apply in using in the similar settings.

3. *Dependability:* The researcher provided clear and detailed information about the participants, research setting, process and instruments, data collection and analysis in the researched paper in order to enhance the future researchers to repeat and develop the work, or even expand for the advance study in the future.

4. *Confirmability:* The researcher has analyzed the data from interview and the focus group data and has re-checked the correctness by means of the advisors and

participants in order to reduce the bias effect from the researcher. This entire step is to ensure the correctness of the findings.

CHAPTER 4

FINDINGS AND DISCUSSIONS

The development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension was conducted among the twelve persons with hypertension, a researcher, a nurse, a monk, and a village health care volunteer by using action research. The results of this study based on qualitative and quantitative data analysis as presented below;

1. Demographic data, health related factors and description of persons with hypertension
2. The developing process of “Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension”
3. Discussions
4. Lessons learned from the study

Demographic data, health related factors and description of persons with hypertension

1. Demographic data and health related factors of persons with hypertension

There were twelve persons with hypertension participated in this study, eleven females and one male, age range from 44 to 75 years old; nine married, two widowed, and one single. All of them were Buddhist. Eleven graduated from primary school and one finished secondary school. Most of them were agriculturist. Average incomes were in the range of 4,000-10,000 Baht/month. Regarding to the economic

status; six claimed having the adequate income to support their living, while five also claimed having the adequate incomes but they have no saving money, and one claimed her income was inadequate. About the risk behaviors; most of them were non-smoking, some were drinking the alcohol and eating salty diet, and some do the exercise regularly and some of them were irregular eating fatty diet. Nevertheless, ten of them have been taking the antihypertensive drugs (see Table 3).

Table 3

Socio-demographic characteristic of persons with hypertension (n=12)

Characteristic	N	Characteristic	n
Sex		Smoking	
Male	1	No	12
Female	11	Drinking alcohol	
Age (year)		No	11
40 - 60 years	6	Yes but irregular	1
61 – 80 years	6	Eating salty diet	
Religion		No	7
Buddhist	12	Yes but irregular	2
Education level		Yes and regular at	
Primary school	11	least three times/day	3
Secondary school	1	Eating fatty diet	
Marital status		No	1
Single	1	Yes but irregular	6
Married	9	Yes and regular at	
Widowed	2	least three times/day	5
Family income (Baht/month)		Exercise	
1,000 - 5,000	5	No	4
5,001 - 10,000	7	Yes but irregular	6
Economic status		Yes and regular at	
Inadequate	1	least three times/week	2
Adequate but no saving	5	Taking antihypertensive drug	
Adequate and have saving	6	- No	2
Occupational		- Yes	10
Agriculturist	9		
Trader	1		
Housewife	2		

2. Description of persons with hypertension

P1

P1 was a 44-year-old single woman. She had three brothers and four sisters, six of whom were married. One of her sisters died from the diabetes mellitus disease and another sister are suffering from high blood pressure. P1 was living with both the sister who had high blood pressure and father with multiple health problems; including hypertension, prostate gland hypertrophy, and elephantiasis. The main source of income of this family was a morning glory farming and harvesting operation. The family earned around 4,000 Baht per month. Thus, they had to spend the money carefully. P1 has isolate personality. She has very little socialized with friends. She normally doesn't go to the temple, even on the famous religious days such as the Holy Day on Tenth Lunar Month and Songkran. However, when she got the stress, she always expresses her feeling with her sister.

She has realized that her blood pressure was high since five years ago, through the annual hypertensive survey which was conducted by the Community Medical Health Care Center. Because she learned from the television that high blood pressure can cause rupture of blood vessels in the brain, then when she was informed about her high blood pressure, she was so anxious and felt scared, so it leaded her to go visiting the doctor immediately. She began to take care of herself by starting low salt and low fat diet as well as taking antihypertensive drugs. However, she did not comply well toward the treating regimen; she often skipped taking the medicine because she sometimes got bored and sometime she has just forgot to take it. In addition, she thought that stopping medications for one or two weeks might not cause any problems because she has never experienced any problematic signs, such as dizziness or

headaches. Her medical history shows that most of her previous blood pressure levels were higher than 140/90 mmHg. When her blood pressure reaches 180/100 mmHg, her doctor prescribed her higher dose of Enalapril from 5 to 20 mgs

P2

P2 was a 44-year-old married woman. She has been living with her husband and sons in her house, located near her parents' house. She was a housekeeper and her husband was a bus driver and he drinks heavily. She has a daughter and a son. They both graduated bachelor's degrees. Her daughter work in Bangkok and her son was unemployed, drinking alcohol, smoking and always bet on football matches, and he also behaves as a lover of night life. Every day after P2 finished her housework, she went to her parents' house to do cooking for her family. Her mother has been living with diabetes mellitus for years. Her younger brother has been suffering from slowed physical movement as resulted from car accident. In addition, P2 has to take her family members to the hospital every doctor's appointments. When she feels stress, she always expresses her feeling with her mother.

She has discovered her high blood pressure three years ago on visiting a doctor with a common cold. Because she believed that her high blood pressure was caused by a cold. Thus, she stopped taking hypertensive drugs after her cold was relieved. Three months later, she got severe headache, dizziness, and hot red face. Then, she sought help by visiting a nurse at a clinic and she was informed that her systolic blood pressure was very high; 180 mmHg. As her health condition at that time was dangerous; it could cause rupture of blood vessels in the brain which consequently might be paralysis, and deformity of the mouth. She finally was recommended to see a doctor and so did she immediately. She has also started to

restrict on her habit of eating and cooking. She has cooked low salt and low fat food for herself and has chosen to steam or boil instead of fry the foods. She has also chosen to eat fish instead of pork or meat. She has started to do the exercise by walking four to five kilometers together with other hypertensive peoples in every evening. She has gone visiting the doctor and taking her antihypertensive medicines regularly. Nevertheless, her blood pressure has still remained higher than 140/90 mmHg. When her blood pressure reached as high as 180/121 mmHg, the doctor prescribed the higher dose of Enalapril, from 20 to 40 mgs, along with 5 mg of Feloten. She was so anxious because she has done what should be done for hypertensive person as well, but her blood pressure was still remaining high.

P3

P3 was a 46-year-old married woman. She was a betel palm gardener and her husband was a soldier. She has five sisters and five brothers and they all were married. Her house is near her parents' house. She had no children because she had her uterus removed many years ago. However, her husband still needs a child to be their heir. This matter has caused stress in her life for long, because she afraid that her husband might have other woman someday in the future. She has been living alone for a while because her husband had been relocated of work place to the other place where is in the border of unrest area in the South of Thailand. Hence, the concern about security of her husband also caused her to be more anxious. However, she has been trying to relieve her anxious and stress by helping her sister to sell groceries and trying not to think about it.

She has found her high blood pressure three years ago when she went to see a doctor to check up for cervix cancer. When she was informed about her high blood

pressure, she felt indifferent because she believed that hypertension do not cause the sudden death. Nevertheless, she has been trying to take care of herself by reducing the consumption of salt, along with taking antihypertensive medicines as prescribed and doing some exercise by walking. Because she loves eating fat, then she has still been consuming quite a lot of fat and sometimes skipping some dosage of hypertensive medicines. So as the results; her blood pressure was still higher than 140/90 mmHg.

P4

P4 was a 66-year-old married woman. She was a betel palm gardener and her husband works in construction. She has three daughters and two sons; four of her children were married. An unmarried child is a son with mental retard who lived with her. She has no financial problems. However, taking care of her son with mental retard is her burden. In addition, she has to give food and financial support for an unemployed brother of her. She has an isolated personality and seldom socializes with friends. When she feels stress, she tries to compensate and relieve the stress by working harder as chopping the betel palms and mowing the grass.

She has discovered her high blood pressure two years ago from the annual hypertensive survey which conducted by the Community Medical Health Care Center. When she was informed of having high blood pressure, she was not frightened because she perceived it could be controlled by taking antihypertensive drugs. She has handled the problem by starting low salt and low fat diet and taking antihypertensive medicines. However, she has stopped taking the medicines when she got other health problems; gastritis and gall stones and she was afraid of renal failure from drug overdose. When her blood pressure reached as high as 169/86 mmHg, her doctor raised the dose of Enalapril from 5 to 10 mgs.

P5

P5 was a 70-year-old married woman. She and her husband were fruit gardeners. She has three daughters and five sons. Four sons had histories of mental disorder; one died three years ago, one is admitting in a hospital, and the other two are living with her. She has been very tired and burdened because one son who was living with her do not take his medicine regularly, resulted in abnormal symptoms; including fatigue and sleeping all day. He doesn't do the daily activities even having meals or taking a bath. When she felt anxious and stress, P5 went to the temple.

P5 discovered her high blood pressure 26 years ago when she gave birth for a child in the hospital and experienced dizziness. However, she has stopped taking antihypertensive medicines after her dizziness was relieved. Two years ago, she got severe dizziness again while her blood pressure was very high. Then she resumed taking antihypertensive medicines again, along with low salt and low fat diet. However, she thought that the complications of hypertension would be preceded by severe headaches, which she had no such experience. Thus, she resumed high fat diet and neglected antihypertensive drugs. Finally, her blood pressure reached 200/100 mmHg, the doctor then raised the dose of Enalapril from 5 to 10 mgs.

P6

P6 was a 51-year-old married woman. She was a fruit gardener and her husband was a businessman. P6, her son, and her daughter are Buddhist, whereas her husband is Muslim. She has been living with her family in the unrest area near the southern border of Thailand for 18 years now. She has been so frustrated because the cousins of her husband have put pressure on her to follow the Muslim religious practices. Moreover, when the business of her husband failed, she was blamed as a

victim by his cousins that it was a punishment from god because P6 lack of respect to him. Finally, she has decided to live separately from her husband and move back to her parent's home with her children a year ago. Then, she got a heavy burden in daily life and she has been feeling too tired both physical and mind. She has a lot of daily tasks to accomplish. She has not only to work for living but also to do chore every day, as well as to take care of her mother and father with diabetes mellitus, and of course, her children. Furthermore, she worried about her health problems as well as her husband's lung disease and his security. When she got stress, she always talks with her sister.

She discovered her high blood pressure four years ago when she went to see a doctor because she fell from the high. After she was informed about her high blood pressure, she was scared because she knew hypertension is a severe disease that can cause paralysis, renal failure, and heart disease. She began to take care of herself by consuming low salt and low fat diet, doing the exercise, taking antihypertensive drugs as prescribed and taking some herbal medicines. However, her blood pressure has still remained higher than 140/90 mmHg.

P7

P7 was a 48-year-old married woman. She and her husband were fruit gardeners and general laborers. She has two daughters and they were studying in primary school. She has seven relatives, six of whom have sick with hypertension and two of six have died from renal failure and stroke. P7 has a lot of responsibilities, besides working in the garden and taking care of her children, she has also take care of her mother who is unable to walk because she got osteoarthritis. P7 has isolate personality. She has little socialized with others. In addition, she has been worrying

that her husband might have other lady because she is older than him about ten years. When she felt stressed in life, she has tried to let it go and not to be serious about it.

She has discovered her high blood pressure eight years ago when she went to see the doctor because she experienced dizziness, blurred vision, and headache. She wasn't frightened by the time of knowing about her high blood pressure because she believed that she was still young and this disease could be recovered by taking medicine regularly. However, she has stopped taking hypertensive drugs after the symptom of dizziness, blurred vision, and headache was relieved. And a few months later, she got severe headache and dizziness that caused her went visiting a doctor immediately as she was afraid of the complication of hypertension would happen to her. Subsequently, she has realized that she has to do better in taking care of herself and she has done by consuming low salt and low fat diet. Moreover, she has become better compliant to her prescriptive medicines. However her blood pressure was still higher than the acceptable range and when it reach as high as 191/101 mmHg, her doctor would add 50 mg of Atenolol to her previous prescription.

P8

P8 was a 56-year-old married woman. She was a vender who sold boiled peanuts, potatoes, and taro. Her husband was a sub-district administrative member. She has a daughter and two sons. Two of her children had finished bachelor's degree. The youngest son is still a student. However he is a lazy boy and always spends his time for drinking, smoking, and partying. P8 had a lot of responsibilities; working, taking care of her son, and preparing food for her mother-in-law who got stroke. She often quarrels with her husband because of his flirtatious habit. When she felt unhappy in life, she tried to let it go and tried not to be serious about things.

She has discovered her high blood pressure eight months ago through the annual hypertensive survey which conducted by the Community Medical Health Care Center. Upon her high blood pressure was informed, she was frightened and sought help by visiting the doctor immediately because she knew that hypertension can cause paralysis and renal failure. At that time the doctor has only suggested her to make change her lifestyle by restricting salty and fatty diet and doing the exercise regularly, without any prescription. However, she can't change her habit of eating because she loves salty and fatty food so much and her blood pressure still remains higher than 140/90 mmHg.

P9

P9 was a 75-year-old widowed woman. She was a housekeeper who has four sons. Over the past ten years, she had lost four beloved family members: two sons who died from HIV infection, her husband, and her sister. She has still been grieving because of that loss. And she is now living with her oldest son, daughter-in-law, and two young nephews. Because of a huge loss happened to her in a short period, then her personality was changed as she became getting angry easier than the past especially when her nephews made noise and were nuisance. She just wanted to be in a quiet place in order to regain a peaceful mind, and then, sometime she stays alone in a small hut near her son's house. Because she cannot recover the grief, she became isolated. She often reminisces about the loss of her two sons and crying. Her eldest son noticed her abnormal behaviors and took her to see a doctor. The doctor prescribed her diazepam to relieve stress.

She discovered her high blood pressure three months ago when she went to see the doctor for chronic cough. After she was informed about her condition, she did not

experience fear because she thought that hypertension is not a severe disease. However, she was annoyed by the fact that it required her to take medicine every day. She has started taking care of herself by changing her habit of eating to low fat diet. However, she has still been consuming a lot of salty foods and not complies well with the hypertensive medicines. So, her blood pressure has still remained high.

P10

P10 was a 56-year-old-widowed woman. She was a fruit gardener. She has two sons; one died from car accident and the other was married and is working in other place. She has separated from her husband since her sons were very young because her husband has other woman. Her husband initially persuaded her to stay with him but she could only bear to stay with him again for a few months because she was so unhappy about his new woman. Thus, she decided to live separately in a big house even though she sometimes feels lonely. When she felt stressed, she ventilated her feeling and talk with her neighbors.

She has discovered her high blood pressure four years ago when she went to see the doctor because she got severe dizziness, nausea, and vomiting. After she was informed of having high blood pressure, she felt scared because she perceived hypertension is very dangerous and can cause paralysis. She has started taking care of herself by having low fat and low salt diet, as well as taking antihypertensive drugs. However, she could not avoid fatty foods for long, and then her blood pressure has remained high. Her medical history showed that her antihypertensive drug regimen was adjusted three times: (1) 80 mg of Propranolol and 5 mg of Enalapril were added, (2) increasing the dose of Enalapril from 5 to 10 mgs, and (3) increasing (again) the dose of Enalapril from 10 to 20 mgs.

P11

P11 was a 64-year-old married man. He and his wife were fruit gardeners and frog farmers. His wife has diabetes mellitus and hypertension. He has three sons and one daughter; all of them were married. He lived with his wife in a big house. He was a serious man and always works hard because he wanted to have many possessions and he has many fruit gardens and a big frog farm any way. He has been working too hard every day entire his life and now he became stressful. He has been trying to handle it on his own for a long time but he could not.

He has discovered his high blood pressure four years ago when he went to see the doctor with severe dizziness. He thought that it was not necessary to take the medicine if there was no abnormal symptom. Then he stopped taking it when the dizziness was relieved. However, in the last few months, he experienced a new episode of dizziness upon awakening in the morning. He was suggested to take his antihypertensive drugs regularly. Although he has been trying to take care of himself by doing the exercise regularly, however he has still loved to have salty and fatty foods and he has often forgotten taking the medicine. So, his blood pressure was still higher than 140/90 mmHg.

P12

P12 was a 63-year-old married woman. She was a pig farmer and her husband worked in construction. She has three daughters and three sons. All of them were married. The situation of her business made her to be anxious all the time because the price of pork was always fluctuating and she was afraid to lose the money. She had to take care of the pigs in her farm when they were sick. She has administered the medicines for them and had to make sure that the diseases do not

spread. When she felt stressed, she went to the temple. She often quarreled with her husband because her husband was a heavy drinker and had negative attitude towards the monks and their teachings. He felt this way because some monks have bad behaviors by drinking alcohol and committing adultery.

P12 has discovered her high blood pressure four years ago when she went to see a doctor due to headache. After she was informed about her high blood pressure, she was not worried because she believed that paralysis and renal failure would occur only with the hypertensive person who have severe headache, but she experienced only mild to moderate headache. She stopped taking her antihypertensive medicine after her headache subsided. Moreover, she has never stop eating fatty and salty foods, so her blood pressure remained higher than 140/90 mmHg.

In brief, the period of time of discovery high blood pressure of twelve persons with hypertension were varied between three months to 26 years ago. Eight of them have accidentally discovered their high blood pressure from the annual hypertensive survey or when they went to see the doctor with common cold, cervix cancer exam, delivered a child, falling, or chronic cough. The remaining four persons with hypertension has discovered their high blood pressure when they went to see the doctor due to severe dizziness, headache, nausea, and vomiting. All of them have underestimated about the danger of hypertension, and then they have not paid close attention to control their blood pressure. They have been continuing to live their lives according to their self-indulgent that are inappropriate for hypertensive situation. In addition, all of them have been suffering from many problems in the same time, such as illness, economic difficulty, or family problems. The ways that they used to

alleviate suffering have helped them to feel comfortable just only temporary. However, the suffering has still been remaining and been ready to resurface when they re-examine their problems. Thus, their blood pressure has remained higher than 140/90 mmHg.

The developing process for “The Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension”

The development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension consisted of two main steps: reconnaissance and the spiral action research process, which included planning, acting, observing, and reflecting.

1. Reconnaissance

In this step the researcher has studied about the caused factors that limit the ability to maintain blood pressure levels under 140/90 mmHg of the persons with hypertension. The researcher has explored not only by approaching to the nursing care of persons with hypertension, but also finding out toward their current individual personal situation. To understand well about the current nursing care for persons with hypertension, the researcher has explored the previous nursing care, the history of integrating meditation into nursing care, as well as the facilitating and hindering factors of integrating the Buddhist meditation into nursing care. To comprehend the individual situations of each hypertensive person, the researcher has explored the social context, religious beliefs and practices, and risk factors that lead to uncontrolled blood pressure in each participant. The results are as follows.

1.1 Nursing care for persons with hypertension

1.1.1 Previous nursing care

The previous care for persons with hypertension was provided by physicians, nurses, and the village health care volunteers in the Community Medical Health Care Center and was primarily concerned with the traditional treatment of hypertension. Such treatments included the recommendation of compliance with medication regimens, low salt and low fat diet, consuming high potassium diet, ample exercise, avoiding alcohol drinking and smoking, and routine check-up through by physicians. In addition, the “Preventing and Controlling High Blood Pressure Project” was conducted in 2004 and the “Sufficient Year, Defeat High Blood Pressure Project” was held in 2005 for the persons with hypertension to gain knowledge of the appropriate behaviors for managing high blood pressure. Despite the fact that stress is an important factor that can precipitate high blood pressure, stress reduction through mental care was not recommended. According to person with hypertension history files, most persons with hypertension were unable to maintain their blood pressure lower than 140/90 mmHg consistently. Some of them had very higher blood pressure, causing physicians to increase the doses of antihypertensive drugs. Furthermore, some persons with hypertension have already developed complications, such as stroke, heart disease, and renal failure.

1.1.2 Integrating meditation with nursing care

In 2006, nurses has started to shift focus of nursing care to mental health care for the hypertensive persons who were unable to maintain their blood pressure under 140/90 mmHg consistently, because the results of a community survey indicated that top three problems in this community were breast cancer checks, stray

dogs, and stress consecutively. The nurses and villagers have agreed that the problem about stress could be resolved. Many villagers have experienced stress because of the sickness, the economic difficulty, and family problems. The method that they have used to reduce stress was meditation because the villagers aware the result from meditation is peaceful mind. Furthermore, the nurses themselves were personally interested in this practicing as well, and they already have the positive views towards it since they have experienced from the workshops related to complementary therapy that they have joined. Buddhist meditation has therefore been integrated into the nursing care effort since then.

In previous nursing care example, the nurses who work at the Community Medical Health Care Center has conducted one day and three day of meditating programs in order to enhance the mental health and to boost the quality of life of the target group, that were elderly persons, chronic diseases patients (hypertension, diabetes mellitus, and heart disease), stressed people, and anyone in the community who was interested in participation. The success of the project was assessed through the report of satisfaction of all participants. Interestingly, every participant has reported high level of satisfaction. The details of all the projects that the nurses operated from 2006-2008 are shown in Table 4.

Table 4

The projects of integration meditation into nursing care in 2006-2008

Project	Target population	Place	Period of time	Evaluation
- Mental health promotion	- Elderly persons, persons with hypertension, and diabetes mellitus patients	- Temple in Phatthalung Province	- 3 days and 2 nights	Satisfaction
- Mental health promotion	- Elderly persons	- Temple in Suratthani Province	- 1 day	Satisfaction
- Mental development for quality of life	- Persons with stress	- Temple in Nakhon Si Thammarat Province	- 3 days and 2 nights - Continue meeting on every Buddhist holy day: the middle of the lunar month	Satisfaction
- Mental health promotion	- Chronic patients (persons with hypertension, diabetes mellitus, heart disease)	- Community Medical Health Care Center	- The first Monday of every month	Satisfaction
- Body and mind health promotion by moving meditation	- General people in community	- Community Medical Health Care Center	- 3 days	Satisfaction

1.1.3 Facilitating factors and hindering factors in integrating Buddhist meditation into nursing care

The previous intervention of using meditation practice for health enhancement was found both supportive and obstructive factors in implementing meditation practice into nursing care efforts.

The facilitating factors included; (1) the Community Medical Health Care Center had a policy of promoting health using meditation, (2) the health care providers (physicians, nurses, and village health care volunteers) had good attitudes toward meditating practice and agreed to integrate it into patient care, (3) there was a monk in the community who has knowledge and experiences of meditation, has the ability to teach meditation, and was willing to cooperate with healthcare providers in this regard, (4) the villagers and the community leaders had favorable attitudes toward meditating practice and agreed to support this activity, and (5) the comfortable places to be used for practice meditation as a group were well prepared, both at the temple and the Community Medical Health Care Center.

The hindering factors of integrating meditation with nursing care included; (1) the majority of the health care providers (nurses and village health care volunteers) lacked the sufficient knowledge and the skill of meditating practice, therefore, they were not confident in leading and coaching the patients in meditating practice; (2) the health care providers already had heavy daily workload of providing care, and then they remained a little time to instruct the patients in practicing meditation; and (3) Even many patients had good attitude towards meditating practice, however not all of them have the chance to participate in this practice due to the heavy burden in daily life; earning for living, taking care of children and/or sick person in family. Thus, these people were precluded from practicing meditation due to time constraints.

1.1.4 The problem of integrating Buddhist meditation with nursing care

As a study on the previous nursing care intervention for persons with hypertension has conducted, and found that the nurses has attempted to integrate

the meditation in helping the persons with hypertension to maintain their blood pressure levels under 140/90 mmHg, but this effort had not been very successful. The researcher and the nurse, who was participating in the study, have analyzed and summarized the obstacles, as below;

1.1.4.1 There was no practice of using meditation for self-healing for persons with hypertension specifically. It has rather been practiced in other kinds of patients; such as those with diabetes mellitus, cardiovascular problems, or the aged people. This might due to inappropriate of project goal setting, meditation activity, as well as the assessment that was not specific to the needs of the persons with hypertension.

1.1.4.2 Inconsistency support and evaluation for meditation. After ending of the meditation project, health care providers had no plan for further evaluation or follow up for the consistency of the participants' meditation efforts, which is very important to enhance the success of the program, as the meditation should be practiced consistently in order to achieve self-healing, good health and balance between body and mind.

1.1.4.3 Lack of time and self-confidence in the program. Since the health care providers lacked of knowledge about the meditation, so they were not confident to apply this practice into patient care. The role of the health care providers in previous projects had only been as project organizers and coordinators, not spiritual leaders. Due to the low confidence and huge workload in daily patient care, thus they could not manage the time to put more effort on patient health through meditation.

1.2 Personal situations of the persons with hypertension

The researcher and the nurse have studied and analyzed twelve persons with hypertension who joined the study in following areas;

1.2.1 Social context

The social context where the persons with hypertension live was categorized as either sub-urban or sub-rural. Most of the villagers worked in agricultural occupations. Some worked on mixed-fruits plantations; others were involved in crop cultivation, rice farming, or animal breeding. Labors were family-oriented as all members helped together in daily working. Some working-age villagers were employed at the shops or companies in the municipal area, and some were employed in construction work. The economic status of most villagers was meager as they earned just enough to survive. Most people live in bonding to the family line model, and they help each other among family members and among close families. The neighbors would willingly come to help when they have special events; such as ordination ceremony, weddings, and funerals. The educational level of most people was primary level; the higher education was rare.

One hundred percent of the villagers in this area were Buddhists, but the practice of Buddhism was not obvious. Most villagers went to the temple on important religious holidays, such as Songkran Festival, the Tenth Lunar Month, and other important religious days that was traditional to circle the temple. However, they were seldom to go to the temple on the Buddhist holy day. In 2008, it was found that the villagers in the community began to change their Buddhist practices after a new acting abbot, who was originally from the community came back to stay in the community temple. He followed the vows and teachings strictly. He taught morning

and evening chanting, gave sermons, taught meditation, and joined many social activities. One such activity was dharma practice training for everyone, including the persons with hypertension. This activity resulted in greatly renew the level of faith among the villagers. Subsequently, the villagers began to get more involve with the temple, such as going to pray at the temple more often, offering food to the monk, giving to charity, and practicing meditation. A group called “The Yatidham Group” was later organized. It was a group of people who ware white clothing when they go to the temple. Wearing white clothing is to help encourage them to make themselves pure physically and mentally. This group helped when temple activities occurred on the important Buddhist days. At starting, the membership was only about 20 people, but later on, there were more people joined in this group. All these changes made people in the community became more familiar with meditating practice, as well as morning and evening chanting.

1.2.2 Religious beliefs and practices

The twelve persons with hypertension believed that Buddhism teaches people to be good and to control one’s emotion against anger. The correlated practices are offering food to monks, praying, donating money, listening to dharma teaching, and meditating that are believed to gain merits which will lead to good results included happiness, healthiness, and wealth. These benefits extend to one’s family members as well as oneself, and endure into the next life. The following are some quotes on Buddhism.

“I must say that Buddhism is good. It teaches us to be good people, not to get angry, and to feel relaxed...Offering food to the monks gives us merit. So does praying, meditation practice, listening to dharma teaching, and offering money to the temple. We make merit so that we and our families will be happy and prosperous in the next life.” (P9)

Regarding to Buddhist practice, the persons with hypertension have been trying to perform the way came down from their ancestors teaching. The three major things they have been keeping to included;

1.2.2.1 Keeping the five precepts: Despite they have been acknowledged about the importance of the five precepts since at the first time of listening to *Dharma* teaching at the temple when they were children, eleven persons with hypertension have still chosen not to follow some precepts, those were refraining from killing and refraining from telling lies due to the economic necessity and then they had to kill animals for food. In addition, they have used the white lies to make others feel good, as can be noted in the following quotes.

“I maintain the five precepts. I follow most of them: I don’t tell lies, I don’t take other people’s husbands, I don’t steal, and I don’t drink or smoke. However, it is difficult to abstain from killing because I have to kill the fish I catch from the rice field by myself, as well as the live ones I buy from the market. It is also against the precept by asking others to kill them for you. I shall request four precepts when I go to the temple.” (P1)

“I don’t maintain every precept...I tell a lie occasionally in order to make someone else feel good, but not so often.” (P6)

1.2.2.2 Going to the temple: Due to their busy lives, the persons with hypertension could not go to the temple often. However, they could go on the specific occasions such as Songkran Day and the Tenth Lunar Month Day. And on these days, they would make merit for their ancestors and prayed for the merit to help themselves and their families to be healthy and wealthy, as appears in these quote.

“I go to the temple, but not often. I go during the merit-making festivals in the fifth and tenth month... I make merit for my ancestors. I offer money and pray that the merit I make shall help me, my father, and my sister to be happy, healthy and prosperous in this world.” (P1)

1.2.2.3 *Praying*: The every person with hypertension was praying (chanting the Buddhist words) before bedtime. They prayed to worship the Triple Gems or worship the Lord Buddha according to the teaching from their ancestors. They felt comfortable when they have done, even though they did not understand the meaning of the chanting words, as is evident in these quotes.

“I only pray “Arahansamma,” bow down three times, and then go to bed.” (P2)

“I only pray “Namotassa” three times before I go to bed, and then bow down on the pillow. I have always done this since I was a kid. My father taught me to pray, then bow down on the pillow every night before going to bed... I just followed what he taught. It makes me feel comfortable. I don’t understand the meaning of my prayer. I just do what I was taught.” (P7)

When the villagers in the community became more involved in the activities in the temple; praying, and practicing meditation--the twelve persons with hypertension had the feeling of change in their mind. They have started developing good attitude toward the changes and better admired the acting abbot. They agreed that he was a good monk who followed the vows, taught and trained the people in meditating practice effectively, and brought the renew Buddhism into the community. Six persons with hypertension have continued following their previous ways of Buddhist practice and refused to join the meditating practice while the other six (who were persuaded to join by the nurses and neighbors) have joined the practice at the temple in a past few years. They felt relax after practicing the meditation; however they have not continue doing at home because they were busy on working for living and taking care of their grandchildren. In addition, they have not concern about the necessity of meditation. The following are some quotes.

“I had done the meditation practice one or two times before...I felt relaxed... I was persuaded by a village health care volunteer to join the project that has been set for the elderly go to practice meditation. In fact, they originally tried to persuade my mother, but she didn't go because she couldn't walk, so they asked me to go instead. I really didn't want to go because I didn't think it was necessary. Why just sit there? It was all right if I didn't go, but I agreed on courtesy because they had taken the trouble to come to my house.” (P7)

1.2.3 Risk factors that lead to uncontrolled blood pressure

Through interviewing and observing the persons with hypertension, found that everyone was well educated on preventive self-management measures, but they could not follow those instructions because their minds were full of suffering and self-indulgent thoughts which were counterproductive in consistently controlling high blood pressure. The details are following;

1.2.3.1 Being in a deep sea of suffering: Each of them had multiple life problems; economic difficulty, family problems, or illness-related problems. The suffering of the persons with hypertension was reflected in their words, gestures, and physical disorders. Regarding to the words, the participants have described their suffering as they were on tension; worry, anxious, pathetic, discouraged, disturbed, fear, desire to die, unhappy, depressed, and uneasy. Regarding to the gestures, it was noted that the participants appeared sad, sullen, unsmiling faces, distressful, hopeless, and weepy while talking about their stress. In addition, some of them have long been suffering from other health problems such as gastritis, insomnia, and dizziness.

Their levels of suffering and stress were found through the assessment conducted by using the Thai Stress Test questionnaire. Ten persons with hypertension had severe level of stress and two have mild level of stress (see Appendix G). The

types of stress that affected the persons with hypertension, and their causes, are explained as following;

1.2.3.1.1 Fear that the sickness would become more serious: This fear included both fear of high blood pressure and fear of the complication would happen to them, as is described below.

- Fear of paralysis and renal disease: For the past one to three months, three persons with hypertension had experienced migraines, headaches, dizziness, blurred vision, and hot red face. They have stopped taking their medicine during the past three to eight years. Then, when they have visited the doctor and learned that those symptoms occurred from the very high blood pressure, they became frightened and worried if the more dangerous complications could happen to them; such as the rupture of blood vessels in brain, paralysis or renal disease. Some quotes as following;

“About three months ago, I seldom had migraines and red face. Recently, everyone mentioned that my face was very red. It was hot as well. I wondered if my blood pressure was high so I went to a clinic to check it out. It turned out to be very high. The nurse told me to see the doctor, otherwise there might cause the rupture of blood vessels in my brain and I might get the deformed mouth... I was afraid. I heard that it causes paralysis and renal disease. I was afraid and didn't want to feel like that.” (P2)

“I had stopped taking antihypertensive medicines five years ago. I experienced dizziness in last month. I always experience dizziness whenever my blood pressure is high, so I went to see a doctor and he confirmed that it was very high... I am very scared now. What scares me the most is the paralysis that might occur, and it would be very hard to cope with.” (P7)

Despite taking antihypertensive medicines continuously and trying to change their diets, two persons with hypertension still had very high blood pressure, so they were worried that the serious complication like paralysis might occur, as their quotes below;

“I was very scared that my blood pressure would be high. I went to see the doctor and it was indeed high... I am very concerned about my health...What scares me so much is the high possibility of causing paralysis and renal disease.” (P6)

- Fear that the present disease was actually

cancer: One person with hypertension was not worried much about high blood pressure because it was not too high and she had no experience of abnormal symptoms. There was another health problem that affected her more. It has been causing her to constantly feel hot inside her stomach. She has visited both a physician and a spiritualist but it did not improve, so she worried that she might have cancer.

Her quote is below;

“It was hot inside my stomach. I received an ultrasound and the doctor said I had gallstones but it was still small and he gave me a lot of medicines to cure this problem. The feeling hot is still remaining in my stomach, so the doctor had I checked by ultrasound once every three months. I have gone for it four times now. The gallstone didn’t get much bigger. The doctor said the gall bladder is situated on the right side, but I feel hot on the left side. I was surprised. Other doctors said it was gastroenteritis and gave me antacid medication, but it didn’t help me to get better. I went to see many doctors but my problem hasn’t been resolved...I also went to see a spiritualist at a Chinese temple but nothing is different (look so worried). The spiritualist said there was nothing wrong. The ultrasound showed my stomach was normal but I still feel hot inside. I am afraid of it could have something else. I don’t know if it’s cancer or not.” (P4)

1.2.3.1.2 Stress from earning for living: Four persons with hypertension have encountered the different problems regarding to their occupation. These problems included flooding in the fields, changing of sales locations, losing due to the civil unrest in the South, declining of the commodity prices, and the epidemic in livestock. Such problems caused to reduce their income, which in turn caused tension and worry regarding to their daily expenses and inability to pay back the debt. Some quotes are following;

“The income I obtain is just enough to live on. I have nothing left to save. Most of my income comes from selling morning glories. When the field was flooded, I was in a tough situation. I wondered such things as ‘How am I going to buy things?’ and ‘What shall I eat?’” (P1)

“My husband and I have run a factory where we transform the fish and squid in animal food. We had about twenty employees. There has been shootings and bombings in three southern provinces, and then we could not obtain the raw materials any more. I was very tense. The workers had little thing to do. They have worked only 15 days a month but we had to pay them in full. We were losing money so we had to lay off some employees in order to survive.” (P6)

1.2.3.1.3 Suffering due to family problems: The persons with hypertension love and care for their family members and want these people to be with them as long as possible and to have good futures. They would worry more than usual if there are sicknesses or any problems happen in their families. Also, the grief from the previous death of family member always remains in their memories. The sorrows caused by family situations are explained as following;

- Fear that sickness would cause their family member’s death: Six persons with hypertension were responsible for family members who were sick with diabetes mellitus, hypertension, elephantiasis, osteoarthritis, mental disorder, or cerebrovascular disease. The persons with hypertension had to care for them. However they have been living in fear and worry that the symptoms would become more severe and then they would lose their family member. Some quotes express this concern;

“I think and worry so much about my father would unable to walk. I am afraid that his condition will become more serious. I don’t want any bad thing happen to him. I want him to live with me for a long time.” (P1)

“The doctor told me that my son has psychosis. He is depressed. He just lies still and doesn’t eat or bathe. He has been like that for a long time as well... It was intermittent symptoms. I have to feed him and have him bathed. I am discouraged and worried (interviewee sighs with a sad look). I am afraid that his condition will become more serious. How can he survive without eating? He has been like this for 26 years now and I have been taking care of him the entire time. I always suffer when he is sick and I feel comfortable when he gets better, though this is often temporary... I wonder why my kid is not normal like others. I am so sorry and really pity on him.” (P5)

- Being concerned that family members would

face harm: Two persons with hypertension have sons who like to go out for pleasure.

These sons always return home late at night, and they do not like studying. In addition, they have been accumulating debt from football betting. Their misbehavior often causes trouble to their parents, and makes them to get angry. The parents have been concerning that harm could befall to their children from this lifestyle, as the following quote indicates;

“I am very depressed and am suffering right now because of my son (interviewee is tearful). He has been drinking, smoking, and betting on football games. I don’t know what I should do. I have warned him but nothing change. I was very angry and scolded him hard... However, he still likes to go out for pleasure. He often spends the whole night outside and didn’t come home. One night, I was lying down and worried. I was frightened when I heard somebody shouting at the door. I was afraid to be told what happened to him. I am very worried... It was demanded to pay the debt of him yesterday and I did, otherwise I would be sued. I am worried about him very much.” (P2)

The husbands of four persons with hypertension loved drinking. Despite they were repeatedly requested to stop or reduce drinking, they still behaved as the same. They always have a quarrel every time when the husbands returned home drunk. Even though these women did not like this behavior of their husbands, they still worry that their husbands would have accident while driving. The following quote illustrated;

“My husband likes to drink a lot. He talks too much when he got drunk. I got angry and scold him loudly, but I am worried whenever he has to drive a hired vehicle to other province. I become afraid he will crash or have an accident because of his drinking.” (P2)

The husbands of two persons with hypertension work in southern provinces where there is civil unrest, with frequent shootings and bombings. This situation causes their wives great tension every time they heard about the bad news of that area on television because they were afraid that their husbands would be harmed, as can be seen in this quote.

“My husband is a soldier. His boss asked him to move to Yala, where there is fighting... I am concerned about him. I am frightened upon hearing the news about people being killed there on television...I am so concerned. In fact, I wanted him to resign from this job. All of his friends had resigned...It is getting worse every day in the south. There were many shooting two days ago. I was worried and unable to sleep when I saw it on television.” (P3)

- *Concern about the education and the future of their children:* Three persons with hypertension have children that are still studying and one has a child who has just graduated. As mothers, they were concerned about the future of their children, because they wanted them to get successful in education and working. The concern toward their children is multifaceted: concern that they would fail to finish their education, concern that they would fail the University Entrance Examination. In addition, the parents have also concerned that they might not be able to provide the opportunity of higher education to their children due to their low income. Moreover, they have still concerned even after their children finished the education that they might not be able to get good jobs. These concerns are illustrated as the following quotes.

“My son has just graduated. I heard he will soon go to take a test to become a prison’s guard. I don’t know if he will pass. He is unemployed right now... I don’t know when he will get a job.” (P2)

“My daughter is about to take an entrance exam. I don’t know where she will be admitted. I am worried about where she will study if she doesn’t pass the exam.” (P6)

“My kids are still young. I am worried that I don’t make enough income. I just earn a little from my plantation. The expenses will be greater when they grow up and study at high levels. I am very worried and don’t know if we can afford to pay for their education.” (P7)

- Fear that their husbands will take another

lady: Three hypertensive women were afraid that their husbands would have other ladies. The reasons for this fear are that one husband is known to visit prostitutes, one wanted to have children but was unsuccessful due to the previous uterus operation of his hypertensive wife, and one hypertensive woman is ten years older than her husband. The following quotes cast light on these fears.

“I have been married for 11 years now and don’t have any children. I don’t think I will ever have a child (interviewee looks sad and has tearful eyes) because of my previous uterus operation...My husband wanted to have children, so I thought he would leave me someday. Men usually don’t like to live with a woman who has no uterus. They are unhappy and want to have children who will be their heirs...I am worried about my husband right now. I ask him every time I call him whether he has another woman, but he says no. I sometimes believe him but other times I doubted him. Men are unreliable, even one’s own husband.” (P3)

“My husband likes to go out for pleasure. He sometimes chases other women. It’s okay if he does it for fun but I am afraid he will take them as a concubine ...I would be angry if I knew he had another woman. We always have a quarrel when he comes home. I always cry after that.” (P8)

- Sadness from losing family members: One

person with hypertension has faced a situation that greatly affected her feelings. She had lost four of her loved ones over the past ten years--two sons, her husband, and her elder sister. Both of her sons were good looking, well-behaved, and closer with her than other children. Despite the amount of time that has passed, she has still been

reminiscing about them. She cries whenever she is alone and sees the pictures of her deceased family members. Her quote follows.

“My house had many funerals over the past ten years. To be precise, four funerals in ten years--two sons, my husband, and my elder sister...The doctor said both of my sons died of AIDS. I wondered why there were so many funerals in my family...I still think of them a lot. I always miss them and cry when I see their pictures and I am alone (interviewee looks sad and has tearful eyes).” (P9)

1.2.3.2 Not taking medicine regularly due to self-indulgence: The persons with hypertension in this study have already known about the necessity of taking medication as prescribed regularly. However, eight of them did not follow the regimen of treatment and stopped taking it, because of their own misperceptions or simple self-indulgence. Some reasons include; (1) they thought that no need to continue taking medicine if there were no abnormal symptoms like headaches, dizziness, or blurred vision; (2) they thought that it would not cause any harm if they just stop taking the medicine for only two or three; (3) they did not want to take too much medicine because they were scared of getting renal disease; (4) they have just forgot to take their medicines; and (5) they got bored about to take medications, as seen in the quotes below;

“The doctor told me to go visit him again when the medicines are out.... I just followed what he said. However, I sometimes forgot taking my medicine. It would be like telling a lie if I said I was taking the medicine regularly... I supposed to see the doctor every appointment I had, but sometimes I just didn't go. I got bored sometimes. I have just finished the medicine. I thought it was okay to go visiting the doctor and get more medicine again on next Friday. I also thought that it would be okay to stop taking medicine for only one week. Nothing bad is going to happen.” (P1)

“The doctor said I had high blood pressure and prescribed me some medications. After 15 days of taking those medicines, I stopped taking it because nothing happened to me. I thought the cold I got at that time caused the high blood pressure. I thought my blood pressure would fall when I get better from the cold, so I stopped seeing the doctor... Three months ago, I have often had migraines. My face was very hot and red, so I went to see a nurse at the clinic. I was told I got very high blood pressure. The nurse asked whether I was scared of becoming paralyzed or getting a deformed mouth, and suggested that I should see the doctor. Otherwise, I might be risk to have ruptured blood vessels in my brain. I went to see the doctor and he gave me some medications.” (P2)

“I did take medicine. When I felt heat on the left side of my stomach, the doctor said I had gallstone and prescribed me a lot of medicines. Once the symptom of headaches or dizziness ceased, I have stopped taking the antihypertensive medicine for a year. People said that taking too much medicine is not good; it could cause renal disease... I didn’t take antihypertensive medicine regularly. I didn’t take it when my stomach was hot, but I did when it was not hot.” (P4)

1.2.3.3 Continuing consumption of salty and high fat foods due

to self-indulgence: Despite knowing that eating salty and fatty foods causes high blood pressure, six of the persons with hypertension could not repress their desires to eat such foods because they were very fond of dishes like braised pig knuckles or streaky pork with spices, fish maw curry, salted fish, and coconut milk, as the following quotes;

“The doctor said not to eat fatty or salty food... I eat fatty food about three times a week. Today I had quite a lot of fatty food, like corn in coconut milk and pork curry with coconut milk. My husband likes to eat it and we always eat together.” (P5)

“I like to eat desserts, salty foods, and salted fish. Fish maw curry is my favorite. I tried to cut down but I couldn’t resist whenever I smelled its odor... I also like fatty foods like fried fish, fried vegetables, and curry with coconut milk.” (P8)

Upon reviewing the history files of the 12 persons with hypertension found that their blood cholesterol levels were higher than normal. Eleven persons had cholesterol level higher than 200 mg/dl, five persons had LDL cholesterol higher than

130 mg/dl, and three persons had triglyceride higher than 200 mg/dl. In addition, six of these persons with hypertension measured higher than average in Body Mass Index (BMI); five were rated as overweight and one was rated as obese.

1.2.4 The related factors of risk behaviors

The factors that cause risky behaviors of all 12 persons with hypertension were lack of self-caring and self-concern to consistently control their blood pressure levels. They lacked of knowledge about the dangers and complications of high blood pressure and were self-indulgent whims. Furthermore, they got misperception and underestimate about this disease, resulting in ignoring to pay attention on continuous controlling their blood pressure level, as well as missing to adapt their life according to the high blood pressure status. Nevertheless, they have still been living as usual while they were having high blood pressure.

Eight persons with hypertension believed that high blood pressure is not dangerous, may only cause dizziness or blurred vision. They did not believe it can cause serious problems or sudden death. Despite being informed that it could cause paralysis, renal disease, or heart disease, they believed that such problems would take a long time to develop. Or if it so, there will have a warning sign such as severe headache. Since they did not experience any serious symptoms, they believed that the further severe problems or complications were unlikely to happen to them, as seen in the quotes below;

“It is not a scary disease or one which can cause sudden death. It takes a long time before one dies. One of my neighbors just died from high blood pressure at the age of 75. I think dying at that such age is not bad.” (P3)

“The doctor said that high blood pressure needs to be treated, otherwise paralysis or heart disease can occur. However, I think there would be warning symptoms like serious headaches or dizziness beforehand. I don’t have many serious problems like that, so I don’t think any serious problem will happen to me.” (P5)

Those attitudes have resulted in the inappropriate behaviors of the persons with hypertension and then their risky behaviors have still remained

Four persons with hypertension understood that high blood pressure is a dangerous state, which can cause rupture of blood vessels in the brain, paralysis, renal disease, and heart disease. So they were scared and worried, as in the quotes below;

“I was worried and afraid that I would have ruptured blood vessels in the brain, as I saw on television. I went to see a doctor when the village volunteer said that I had high blood pressure...Sometimes my blood pressure was high as 170. The doctor said that very high blood pressure could cause paralysis and the rupture of blood vessels in the brain. I am very scared.” (P1)

“I learned from television and books that high blood pressure is a dangerous disease which can cause paralysis, renal disease, and heart disease, and this really scares me. The more I know, the more frightened I am.” (P6)

The understanding of these persons with hypertension resulted in strictly taking care of themselves to control their blood pressure. However, whenever the abnormal symptoms dissipated as the time went by, their adherence to consistent treatment eroded. And finally they behaved as the usual life again that exacerbated their high blood pressure condition.

2. The spiral action research process to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension

From the developing process for “Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension” through action research process, the finding revealed that the persons with hypertension passed through four

phases in the process of self-healing through Buddhist meditation: (1) encountering suffering and having inappropriate health-related behaviors which lead to persistent high blood pressure, (2) understanding the causes of hypertension but unable to eliminate the suffering and the inappropriate health related behaviors, (3) practicing Buddhist meditation leads to receive good feelings from merit making but unable to perform meditation well, and (4) achieving peacefulness and accepting the nature of Buddhist truths (see Figure 4). During each phase, the persons with hypertension were motivated by many facilitating factors and were troubled by many hindering factors. The details of the action research process to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension are given as follows.

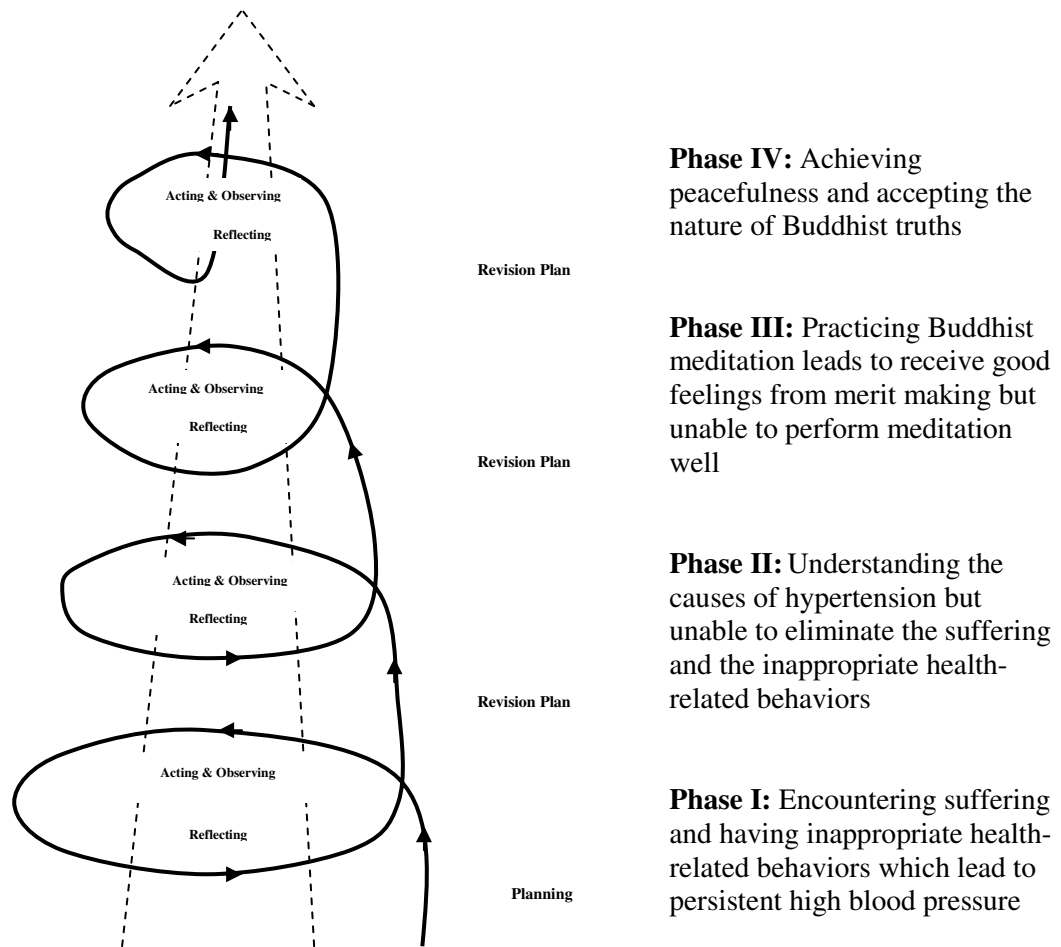


Figure 4 The process of self-healing through Buddhist meditation in persons with hypertension

Phase I: Encountering suffering and having inappropriate health-related behaviors which lead to persistent high blood pressure

This phase describes the persons with hypertension have been suffering and perpetuating self-indulgent behaviors that were inappropriate health-related behaviors for reducing high blood pressure. Such behaviors included eating salty and fatty foods and have not been strict to the medication regimen, resulting in failure to maintain

blood pressure under 140/90 mmHg. The main reason that they engaged in these behaviors was the incorrect comprehension about the dangers of high blood pressure. They have just taken care of themselves seriously whenever they got the abnormal symptoms like headaches, dizziness, and blurred vision. However when they got better or felt comfortable they have just lived as the usual life again. In addition, they have just taken actions to reduce their current sufferings which were not enough to resolve the causes of problems. Hence, the sufferings have always returned at the moment they re-encountered difficulties in their lives. These included sickness, poor economic conditions, and family problems.

From critical reflection among a researcher, a nurse, a monk, and a village health care volunteer, the problems of uncontrolled blood pressure in persons with hypertension described in Buddhist concept were presented as follow:

1. Ignorance

The major cause of suffering in persons with hypertension in this study was ignorance. They did not understand the natural truth of life which consists of the Five Aggregates; physical (*rupa*), feelings (*vedana*), perception (*sanna*), mental formation (*sankhara*), and consciousness (*vinna*). It exists in the Three Characteristics of Existence: impermanence (*anicca*)- changing on the time, suffering (*dukkha*), and no self (*anatta*). In addition, it carry on the dependent origination (*Paticcasamuppada*). If the persons fall in ignorance, craving, and attachment, the arising of suffering will occur continuously. Because of the persons with hypertension's ignorance, the mental formation arises that decorated their mind to think over and over that their sickness would become more serious, the sickness would cause their family member's death, family members would be harmed, their children would fail in education and their

husbands will have another lady. These thoughts lead to be craving that their illness and family members have to get better and be safe, their children have to get successful in studying, and their husbands must be honest to them. These desires influenced attachment: a feeling of ownership toward those persons. Also, these desires might reduce their acceptance to the failure in education of their children, the unfaithful husbands, the sicknesses, the loss of family members, and the loss of their property and wealth. Consequently, they got the experience of feelings of fear, stress, anxiety, and sorrow.

Moreover, because of the persons with hypertension did not understand the pathology of hypertension, and have mental formation arisen that decorate misperception that it was unnecessary to take the antihypertensive medicines or eat low salt and low fat diet continuously when there were no abnormal symptoms-headaches, dizziness, and blurred vision. Furthermore, some of them thought that halting the antihypertensive medications just for only two or three weeks would not cause any harm to them. Thus, they have still been acting as the usual lives that were not appropriate to their hypertensive condition.

2. Did not understand their causes of hypertension

The persons with hypertension have perceived that their blood pressure still higher than normal but they did not know the real causes of their uncontrolled blood pressure. Then, they could not adjust their lifestyle to handle the problems, consequently their blood pressure have still remained higher than 140/90 mmHg.

Nursing care for enhancing self-healing

The principle of Buddhist concept was used as the guidance in nursing care for enhancing self-healing in persons with hypertension on this phase was *eliminating ignorance*. The nursing activities were as following;

1. Providing information

A researcher, a nurse, and a monk have provided the basic knowledge related to Buddhist meditation for self-healing including the Five Aggregates, the Three Characteristics of Existence, the Four Noble Truths, and the Law of Cause and Effect. They have also given them the knowledge about the pathology of hypertension, the risk factors of hypertension, and the danger of high blood pressure. Moreover, they have provided them the correlation among signs and symptoms of hypertension, salty diet, and fatty diet as well as addressing the importance of self-caring to balance among physical, mental and spiritual.

2. Analyzing the causes of hypertension of each individual person with hypertension

After the persons with hypertension have understood the basic knowledge related to Buddhist meditation for self-healing and the pathology of hypertension, the researcher and nurse have analyzed the causes of uncontrolled blood pressure according to Buddhism of each individual person with hypertension.

The strategies for enhancing effectiveness of nursing care

In this phase, the strategies that the researcher and a nurse have used for encouraging the successful nursing care are below;

1. Building friendly relation

Upon the researcher and the nurse have provided the information and analyzed the causes of hypertension with each person with hypertension, they have established friendly relationship by many techniques included: (1) familiarizing with the hypertensive persons by remembering and calling their name correctly, as well as the individual data of persons with hypertension, and also the name of their family members; (2) keep smiling; (3) using the soft voice while explaining; and (4) soft touching. These strategies help persons with hypertension to be relaxed, promote their ability to perceive the information, and facilitate them to dare to ask the questions.

2. Understanding persons with hypertension's problem and helping to solve the problem with heart

The persons with hypertension did not understand well about what was explained to them because there was a lot of information. And also the involved things that happen inside their minds that are abstracts. The nurse and the researcher have understood their problems and have been trying to help them to be clear understanding all information by explaining in simple language along with using the visceral pictures and other related pictures that display the correlation between suffering and hypertension. In addition, they have proven the relationship between the state of mind and blood pressure by first measuring their blood pressure levels, then advising them to relax by focusing on breathing in and out for ten minutes and finally re-measured their blood pressure level again and they have found that it was reduced.

For example, P11 initially has doubted the assertion about the correlation between suffering or relaxation and the body could occur; "I wonder how unhappiness or happiness and our bodies are related. I just don't think they are related." However,

after P11 focused on breathing for ten minutes, it was found that his blood pressure level had decreased from 164/98 mmHg to 160/91 mmHg. P11 then understood the relationship, and is quoted as following;

“Oh, it’s true. I have clearly seen it now. I would not know how happiness, unhappiness, and our blood pressure were related if I had not seen this proof of measurement.” (P11)

3. Promoting learning through critical reflection

The critical reflection was an important strategy that the researcher has used throughout the process of development the therapeutic Buddhist meditation nursing model for self-healing in persons with hypertension. In this phase, the researcher and a nurse have motivated the persons with hypertension to freely consider and reflect their health behaviors and compare to the basic knowledge that related to the Buddhist meditation for self-healing and the pathology of hypertension. This strategy helped to encourage the persons with hypertension to understand the real causes of uncontrolled blood pressure. In addition, the persons with hypertension have had awareness of the ways to solve the problems that related to their culture, belief, and life style.

Reflection of the outcomes of enhancing self-healing

The persons with hypertension have developed the better self understanding that presented as following;

1. Understanding their inappropriate health-related behaviors and realizing the necessity of changing behavior

By reflecting their health-related behaviors, the persons with hypertension began to understand the inappropriate behaviors that cause uncontrollable blood

pressure. In addition, they realized that in order to get successfully on reducing their blood pressure to normal level, those inappropriate behaviors must be stopped, as quoted.

“I had noticed that if I ate fatty foods, when I had my doctor checked, my blood pressure would be higher. I think I should eat less fatty foods.” (P1)

“I like curry with coconut milk, streaky pork, and pork stew with aromatic spices very much. However, I think these foods caused my blood pressure to be high. I should stop eating them.” (P10)

2. Understanding and believing that suffering cause hypertension

From reflection, the persons with hypertension were closer to understand that suffering was the major reason for their inability to consistently control their blood pressure. In addition to the information provided by the nurses, some hypertensive persons have also begun to realize this aspect from reading the book or watching television, and have known from their direct experiences that it was true. Some quotes are below;

“I think that distress and tension are likely to contribute high blood pressure. When I was angry or unhappy, my blood pressure tended to be high. It was very high when I had the doctor check it. My face was hot and very red.” (P2)

“I believe that tension can cause my blood pressure to be high. Sleeplessness can also make it high. I think the reasons for my blood pressure is high are that I am tired, tense, and unable to sleep because my younger brother, who just had his gallstone and a kidney cut out, came to stay at my house and I had to look after him. I observed that I was sometimes dazed and in pain at the nape of my neck, and I had blurred vision whenever I became moody or angry at my kid...My blood pressure was really high when I had it checked.” (P7)

3. Understanding the nature of life but could not accept

The persons with hypertension reflected that they have known and understood the nature of birth, death, and illness which every person must have

experience. However, when these natures of life occurred in their own family, it's very difficult to accept, as quoted;

“The Buddha taught that birth, old, sickness, and dying happen to everyone and that we should accept them. I understand that these things are common and can happen to everyone but it's hard to accept when it happens to my family member. I wonder why my kid is not normal like others are. I feel sorry for him and pity on him.” (P5)

4. Understanding the muddled thought leading to suffering but unable to eliminate it

The persons with hypertension realized that being occupied with the too much thinking could cause suffering. However, they could not cut off the muddled thought, as quoted.

“I always think about everything. Sometime, it was the nonsensical things but I just keep thinking about it. I have been trying to control my mind not to think but I could not do it. When I thought purposeless too much, I felt stress.” (P6)

A summary of the spiral action research process, including the planning, acting, observing, and reflecting in Phase 1, is shown in Figure 5.

**Nursing care for enhancing self-healing
: Eliminating ignorance**

The nursing activities

1. Providing information
2. Analyzing the causes of hypertension with individual person with hypertension

The strategies for enhancing effectiveness of nursing care

1. Building friendly relation
2. Understanding persons with hypertension's problem and helping to solve the problem with heart
3. Promoting learning through critical reflection

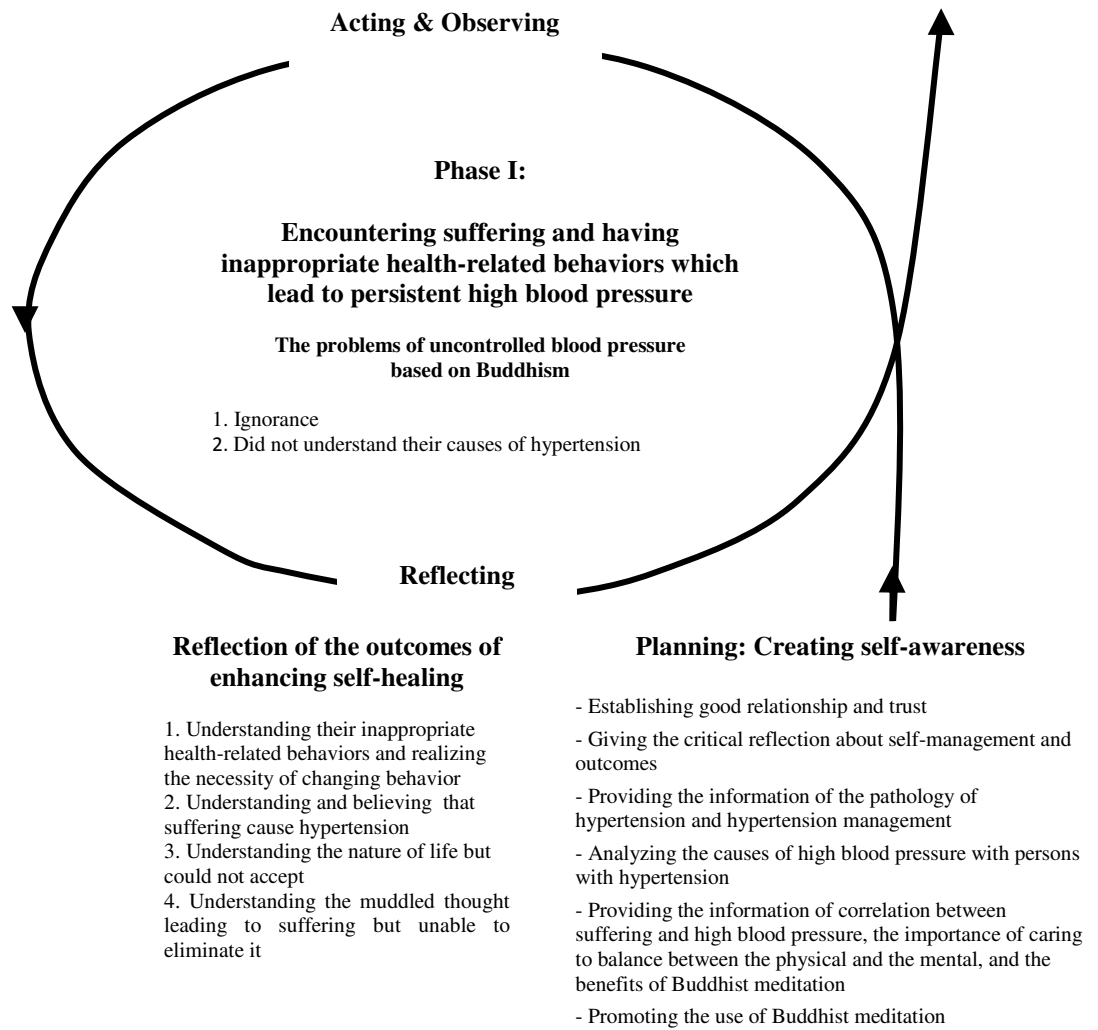


Figure 5 The spiral action research process including planning, acting and observing, and reflection in Phase I

Phase II: Understanding the causes of hypertension but unable to eliminate the suffering and the inappropriate health-related behaviors

This phase describes the state of persons with hypertension understand the causes of uncontrolled blood pressure under 140/90 mmHg; including the suffering and the inappropriate health behaviors (eating salty or/and fatty foods or/and refuse to comply with the medication regimen). Nevertheless, they could not eliminate these behaviors because they could not adapt themselves to change the habits. In addition, they could not repress their desires to eat fatty and salty food because they love it. This is noted in a quote.

“I love to eat the desserts, salty foods, and especially salted fish. Fish maw curry is my favorite. I have tried to cut down but I couldn’t resist whenever I smelled its odor... I also love fatty foods like fried fish, fried vegetables, and curry with coconut milk.” (P8)

Through the critical reflection by researched team revealed the problems of persons with hypertension in this phase based on Buddhism that they *lose of mindfulness*. The persons with hypertension could not apply the knowledge that perceived from the researcher and team to solve their problems because their mindfulness level was too low to catch up their thought and to avoid following the thought that popped up into their minds. Thus, they were still unable to get rid of the causes of suffering and stop following self-indulgence.

Nursing care for enhancing self-healing

The principle of Buddhist concept was used to be the guidance in nursing care for enhancing self-healing in persons with hypertension in this phase was *developing mindfulness*. The nursing activities details are below;

1. Providing the knowledge about benefits of Buddhist meditation

The benefits of Buddhist meditation practice were explained to persons with hypertension by the researcher and team; including a nurse and a monk. And those benefits included; promoting the concentrate, mindfulness, and wisdom. These help to calm mind, increase ability to catch up their thoughts, accept the truth of nature, and finally eliminate the suffering. These enhance self-healing that lead to consistently maintain their blood pressure level under 140/90 mmHg. In addition, the result of Buddhist meditation also helps the persons with hypertension to become more conscious, avoid unhealthy foods, and comply with the medication regimen as taking the medicines correctly and regularly. Furthermore, the researcher and a nurse have confirmed the benefit of Buddhist meditation by giving them the example of the study of effectiveness of Buddhist meditation to decrease stress and blood pressure.

2. Providing and training Buddhist meditating practice following the Buddhist meditation program

The content of providing and training Buddhist meditation following the *Buddhist meditation* program (see Appendix D) is presented below;

2.1 Providing self-preparation prior to practice the Buddhist meditation

The self-preparation prior to practice Buddhist meditation included: (1) selecting the suitable time for practice, (2) practicing before meal or after a big meal two hours, (3) finding a quiet place, away from other people and noise, and (4) wearing the comfortable clothing, and relax.

2.2 Providing Buddhist meditation methods and training

The methods of Buddhist meditating practice consist of prayer (salutation to the Triple Gems, Homage to the Buddha, morning chanting,

contemplation on sankhara, spreading loving kindness to all beings and oneself, and request for five precepts), give a sermon, *anapanasati* meditation, moving meditation, *vipassana* sitting meditation, and integrating Buddhist meditation into one's daily life.

The process of advising started by bowing down to the Buddha image, praying, and accepting the precepts from the monks in order to achieve the state of purified body and mind which should be calm and ready to practice. And then, follow by practicing to maintain mindfulness on breathing alone with *anapanassati* meditation. Subsequently, follow by maintaining mindfulness through both breathing and the moving of the body, so called *moving meditation*. Finally, maintain mindfulness on feelings, mind, and *Dharma* by means of *vipassana* sitting meditation were advised to persons with hypertension. The details of advising and training were shown in Appendix E.

3. Encouraging confidence in the ability to practice meditation on one own

Six persons with hypertension who have never experienced in practicing meditation were lacked of confidence and were afraid that they could not do it. One quote follows.

"I have never done meditation before. I am afraid I can't do it. I think it's difficult. I am afraid I can't sit for long. My mind just doesn't have any concentration." (P2)

The researcher and team then encouraged the persons with hypertension to have confidence and reassured that everyone is capable to practice meditation if they just start trying to do it, and that meditation practice was not as difficult as they thought. The researcher and team have also recommended that they talk to people who have experience of meditation.

4. Encouraging persons with hypertension to allocate the time to practice meditation for the benefits to their health

One of the major problems of using Buddhist meditation for the self-healing of the persons with hypertension was lack of time. Every hypertensive person has said the same, as “I would like to do it but I just don’t have time.” This was probably because they have spent almost of the time to earn for living, take care of some family members who were sick, and some of them have to take care of their grandchildren. They have paid more attention to those things than to their own health. The researcher and the nurse have motivated them to allocate their time to take good care of themselves because it would have greatly negative impact to both themselves and their families if their hypertension have developed to be more dangerous and they might end up with paralysis, heart disease, or renal disease.

5. Encouraging the persons with hypertension who were downhearted to return to meditation practice

In the first week of Buddhist meditating practice, four persons with hypertension reflected their feeling that they did not want to continue practicing the meditation because they were unable to focus their mindfulness on breathing, and they complained of leg pain while sitting. Then, they decided to stop practicing, as the following quote indicates;

“I had never done this before. I was afraid that I wouldn’t be able to do it when I first tried. To tell the truth, I couldn’t do it when the monk told me to sit still and focus on breathing in and out...I felt that my heart was shaking and I was afraid when I sat still...I just thought about other things. I was worried about many things at that time that my older sister wouldn’t be able to stay with my father, she might not be able to pick the morning glories, and she might not be able to sell them.” (P1)

The researcher and team have encouraged the participants who wanted to stop practicing meditation as details below;

5.1 Providing enthusiasm and encouraging them to have confidence

The researcher and nurse have promoted enthusiasm by explaining that it is common to feel discouraging at the beginning. They have also encouraged them to be confident by reassuring that they all have capability to do it successfully.

5.2 Teaching the correct meditation practice

The researcher and team have advised the participants in the correct method of sitting meditation by instructing them to relax all the muscle in their bodies, inhale and exhale deeply and slowly to achieve relaxing state of the whole body and mind, and to try to avoid thinking for a while by focusing only on breathing. The instructors; a nurse and the researcher have reassured them that it was all right that at the beginning they might unable to eliminate the thought out of their minds, but they have to bring back their minds to concentrate on inhalation and exhalation whenever they can catch up their thoughts. Thinking about other things would then be lessened. Furthermore, the more frequent practice, the better of focusing on breathing. After finished explaining, the researcher and nurse have practiced alongside the participants who have chosen to continue joining this program. It was found through the observation and questioning that they have eventually done much better than before as they have been able to calmly practice meditation with less unease.

5.3 Stimulating family members to support them

The researcher and nurse have motivated the family members of the hesitant participants to encourage and support them to return to practice meditation

again and they have done well. They have been told by family members that “Go do it just for your health.”

After encouraging, one person with hypertension has chosen to return and she said “I will try again. I think I can do it if I just keep on trying.”

The strategies for enhancing the effectiveness of nursing care

The strategies used in this phase to enhance the successful of nursing care were below;

1. Creating relaxing environment

The researcher and team have set up the place appropriately to promote the atmosphere for Buddhist meditating practice at the pavilion of community temple because it was the most sacred, quiet and roomy place in that area. They have cleansed that place and arranged the cushions and fans for them.

2. Training for Buddhist meditating practice with kindness

The researcher and team have provided knowledge and trained the persons with hypertension to practice Buddhist meditation for helping them to be able to comprehend and practice correctly and in return, they could deliver themselves from sufferings. The researcher and team have communicated with them in soft voice and been friendly all the time being with them. When the persons with hypertension could not follow their teaching, the researcher and team have not be angry but they have encouraged them to try more on practicing and gently explained until they could practice by themselves. In addition, the researcher and team have followed up the participants on practicing Buddhist meditation at home every week. The follow up activity has encouraged them to do it consistently at home. In addition, by visiting

them at home to follow up their meditation practicing regularly has shown the intention and sincere of the researched team in helping them to apply the Buddhist meditation for decreasing blood pressure. In case the persons with hypertension have faced with Buddhist meditation practice problem, the researched team have listened to their problems intentionally and helped to solve their problems together with them until they could practice by themselves. This activity has promoted the effectiveness of Buddhist meditating practice of persons with hypertension.

3. Promoting learning through critical reflection

The critical reflection helped to motivate persons with hypertension to analyze and consider their Buddhist meditating practice. These helped them to look insight and understand themselves better, including their feeling while practicing. In addition, they could see their weak points on practicing, as well as discovered the way to increase the effectiveness of Buddhist meditating practice.

Reflection

The persons with hypertension have reflected their meditating practice both at the temple and at home in the aspect of obstructive factors, supportive factors, and the results they have obtained from meditation practice as details below;

1. Meditating practice at the temple

The temple is a sacred place and is quiet and peaceful atmosphere that promoted the meditating practice for healing in hypertensive persons. All of them have reflected that they have experienced the feeling of both physical and mental comfort once they entered into the area of temple. They have preferred practicing at the temple to at home, because they have been able to maintain the concentration of

breathing longer. In addition, they have felt that practicing meditation as a group was better than doing alone. They have also enjoyed exchanging knowledge and experiences of meditating practice with friends, as indicated in these quotes below;

“Practicing meditation as a group at the temple is good. It is quiet there and we have fun to meet and talk with others. We asked one another about our progress and about individual techniques.” (P1)

“Practicing meditation at the temple is good. I could practice longer than at home because the temple’s atmosphere is quiet and peaceful...when I entered to the temple I felt comfortable both body and mind. I could concentrate on the breathing...I could do the moving meditation together with friends at the temple but I couldn’t do it alone at home.” (P9)

2. Meditating practice at home

Twelve persons with hypertension have applied the knowledge from learning each week to practice meditation at home. However, they have been unable to do it every day and the duration of practice was too short as the average of two to four sessions only 10-30 minutes per week. Details of their practice are following;

2.1 Praying: Every hypertensive person has prayed before doing *anapanassati* meditation. Four persons with hypertension (P1, P8, P9, and P12) have prayed about 20-30 minutes in each practice. The chanted prayer consist of the salutation to the Triple Gems, Homage to the Lord Buddha, morning chanting, evening chanting, contemplation on *sankhara*, the extension of loving kindness to oneself and all beings, the transfer of merits to departed relatives, *Bahum*, *Itipiso*, and *Chinbunchon*. The participants have prayed both in Pali and Thai languages because it was the best way that allow them to understand the teachings of the Buddha. Eight persons with hypertension have only prayed the salutation to the Triple Gems and Homage to the Buddha, sometimes in Pali alone and sometimes both in Pali and Thai.

2.2 *Anapanasati meditation*: It was found that during the first stage of *anapanasati* meditation, every hypertensive person could practice it for a short period of time-about five to ten minutes. The practicing procedure of all participants has involved focusing on thinking of the word “*Buddho*”, along with breathing in and out slowly. It was supposed to be thinking of the word “*Budd*” during inhalation while thinking of the word “*Dho*” during exhalation. This procedure can help them to focus better on their breathing during practice the mediataion, as the participant’s quote illustrates below;

“I thought of the word Buddho while doing sitting meditation. I think if we didn’t think of Buddho then we would often think about other things, but once we think of it, we will not think about other things. We will just think about Buddho. It will be easier than not thinking of it.” (P2)

One hypertensive person, however, have achieved the breathing concentration by counting numbers while breathing because it helped her to get more concentration than using *Buddho*, as stated in this quote;

“I focused on my breath while counting numbers. I think it is better than using Buddho. My mind had to be steady state while counting the numbers; otherwise, I couldn’t count them correctly. It made me really steady.” (P11)

2.3 *Moving meditation*: All the persons with hypertension liked moving meditation more than sitting meditation because they could move their bodies, so they were not getting bored. Upon starting, they could not focus enough on synchronizing their movement and breathing, however they have still had feeling good because they have moved their bodies and have been sweating, and then have felt like during doing the exercise. They always practice in the morning or evening, though nobody practiced before going to bed. Regarding to practicing procedure, four persons with hypertension (P6, P7, P8, and P11) have practiced according to the VCD of moving

meditating practice while another eight have used the booklet to be the guidance. Four persons with hypertension have practiced according to only the postures that they remembered. Six participants have taken each other who live nearby to be a partner on practicing meditation. By doing like this, they could advise and encourage one another on practicing. In addition, it helped them to avoid boredom.

3. The hindering factors in meditating practice

It was noticed since during the first stage of practice both at home and at the temple that the participants could not perform well and could only practice in a short periods of time because they have encountered many obstacles. And then, they would stop practicing when they could not overcome the obstacle, thus causing their practice to be slow and undeveloped. The participants reflected on these obstacles both at home and at the temple were; confusing mind, drowsiness and laziness, leg pain, and having confusion on focusing of breathing. The barrier at home were; the inability to practice entire the postures for moving meditation, bothersome noises, and lacking of time. The information is given below.

3.1 An unsteady mind: All the persons with hypertension reflected that they could not focus on their breathing while practicing the sitting meditation because they have often thought about other things almost all the time and they would stop practicing once they realized that they could not concentrate on their breathing. The following quote is illustrated;

“I couldn’t control my mind from thinking about other things while practicing the sitting meditation...I just couldn’t be steady for long. I kept thinking about my husband, my family, and many other things for a long time before I came to my senses. My mind just likes to play around.” (P3)

3.2 *Drowsiness and laziness*: Six persons with hypertension reflected that drowsiness and laziness were their major obstacles that kept them from practicing.

And they could not overcome these feelings, as quoted below;

“Sometimes I was just lazy to do it properly. It is my mind that doesn’t want to do it.” (P7)

“I intended to practice before bedtime but I felt too sleepy to perform it. Then I went to bed.” (P5)

3.3 *Having leg pain while practicing the sitting meditation*: Six persons with hypertension reflected that they got leg pain while practicing the sitting meditation and it was so torturous. Then, they were unable to focus on their breathing and they had to change their positions very often, so their minds were not steady. Furthermore, they sometimes had to stop practicing because they could not resist this pain, as quoted;

“I sat for about ten minutes and then my thighs started to be painful and got worse and worse when the time gone by. I was suffering so much. It made me feel being stabbed. I just couldn’t focus on my breathing and couldn’t sit still because it was very painful...I was worried about the pain and had to change positions every five minutes. Sometimes I just quit.” (P2)

3.4 *Confusing about to focus on breathing while practicing the moving meditation*: All the participants have stated that they were sometimes confused about the relationship between focusing on breathing and moving during practicing the moving meditation. They have also complained about feeling tired and having chest tightened because they have stiffened during breathing in and out slowly. This quote provides further insight;

“I think it’s hard to focus on inhaling or exhaling while moving the body. I just don’t know when to inhale and when to exhale. I felt tired sometimes. I had to stiffen upon inhalation and exhalation. It looked like I had to force my breath. Sometimes I just had tightness in my chest if I stiffened or held my breath too much.” (P5)

3.5 *The inability to practice all the postures of moving meditation:* All of persons with hypertension have stated that they have been unable to remember every posture of moving meditation. They could, however, if they have got help from friends during practicing. Otherwise, if they have had to practice alone, they would practice only the same posture that they remembered, as illustrated in the following quote;

“I can’t remember many postures of meditation. I just practiced the posture I could remember. I think I didn’t do it right when I have to do it alone.” (P9)

3.6 *Bothersome noises:* Five persons with hypertension reflected that they could not practice meditation at home due to bothersome noises, such as while their children were watching television or some family members calling them. Some quotes are following.

“I couldn’t do meditation at home. Sometimes my son, when he couldn’t sleep, got up at 4 a.m. and turned on the TV. The loud noise just made me lose my concentration.” (P5)

“I practiced meditation in my room. Sometimes my niece and nephew just kept calling me when I didn’t answer, so I couldn’t sit still or do much of the meditation.” (P12)

3.7 *Lack of time:* Six persons with hypertension have been in low economic situation, they have earned only small money that just for getting by. Thus, most of their time has been spent on working. Furthermore, some of them have also had to take care of their sick family members. As the busy daily living, it caused them have no more time to practice meditation, as seen in these quotes.

“Sometimes I practice and sometimes I just don’t because I am very busy from taking care of my father and knitting the seines. Sometimes I have to hurry in making them because it was rushed by the customers, so I have often to get up at 4 a.m. Then, I don’t have much time to practice meditation.” (P1)

“I am busy, so I don’t practice everyday. My husband was working on construction and I have to help him carry the cement or tile. We couldn’t hire someone else to do it. However, it consumed almost of my time, and then I couldn’t practice meditation.” (P7)

4. The facilitating factors of meditating practice

The facilitating factors of meditating practice were described as following;

4.1 Faith in Buddhism and in the monk: Every participant has had faith in Buddhism. They believed Buddhism is a good religion that teaches people to be good. In addition, they have felt that prayer and meditating practice according to the teachings of the Lord Buddha are the valuable activities that can return the merit and happiness to people who perform it as well as their family, both in this life and in the next life. Furthermore, everyone has also had faith in the monk who helped teaching *Dharma* and how to practice meditation. They have felt that he was a good monk who has been following the vows. He could provide the helpful advice regarding to the meditation, and he was so kind. And then, they have thought that they should follow what he taught and they all have desired to learn and practice meditation every time when he was the instructor.

4.2 The favorable attitudes of family members toward meditating practice: Most of the family members of participants have the favorable attitudes toward Buddhist meditation and have agreed that they should practice it, except P12’s husband. He disagreed due to his bad attitude towards the monks who were not strict on keeping the monkhood’s vows. Therefore he did not allow his wife to practice. Her daughter, however, has supported her. The support from family included driving them to the temple, encouraging and reminding them when practicing date would arrive, preparing food for them to offer to the monks on the day of practice, giving them

wake-up calls for meditation practice, and helped assessing the progress of their practice as illustrated in the following quotes.

“My older sister woke me up in the morning for prayer. She observed and told me if I moved my body correctly and if my meditation was improved. She helped me by being my consultant. My father also wanted me to practice.” (P1)

“My children and my husband encouraged me to do it. Nobody annoyed me while I was practicing. They reminded me of the practice date when it arrived...I went every time scheduled and my children always gave me a ride.” (P5)

4.3 The broadcast of prayer by the monks: The monks at the community temple have broadcasted the prayers and morning-evening chanting every day. This broadcast was heard throughout the villages in the community. The participants have been stimulated by broadcasting to pray at home. Two persons with hypertension prayed along with the broadcast, and one is quoted as follows.

“I always wake up and pray along with the broadcast prayer for about 30 minutes...I pray “Arahangsamma” three times. I participate in the morning chanting, consider the body, and pray to extend loving kindness to all...I like it because I can pray, translate, and understand the meaning of the prayer.” (P1)

5. The positive outcomes and feelings from learning and practicing meditation

5.1 Feeling good: All the persons with hypertension reflected that they have had feeling good from this program. The happiness came from the feelings of “being good” and “doing good deeds”; such as going to the temple, offering food to the monks, praying, and practicing meditation. These actions returned them merit. They believed the merit acquired made them and their families to be happy, secure from danger, healthy, and prosperity, and it would be back up further into the next life. Quotes on this issue are following;

“I felt good just from having done good things. The monk said we would gain merit if we pray or practice meditation. This merit is extended to others and helps us to live happily, be healthy, and enjoy prosperity in both this life and the next life.” (P1)

“I felt comfortable after practicing because praying is good for us. We are protected and provided good things by the Lord Buddha when we pray. Practicing meditation gives us merit and helps our families to live happily.” (P2)

The good feelings developed in the persons with hypertension were noticeable. They have looked cheerful, bright eyes and smiling faces. They have begun to talk, ask the questions, and laugh out loud, contrary to the time before, as they have been worried and looked serious, frowning, un-smiling faces or often keeping straight faces, keeping quiet and quite isolated. In addition, through the eyes of their friends or neighbors, they were perceived the changes have occurred in them.

The following quote is illustrated;

“I feel that I don’t appear too serious anymore...I met someone the other day while I was selling morning glories at the market. She said I looked bright, and that my face was brighter than the first time we met at the beginning when we went to join practicing meditation together.” (P1)

5.2 *Being able to stretch:* At the first period, the practicing of moving meditation was compared to the exercise. They moved the body according to the posture. Even they could not concentrate on both the breathing and the body movement in the same time; however they have just got to stretch their bodies and sweated thoroughly only, liked doing the exercise. And then they liked to practice moving meditation because it made their bodies feels good, as quoted below;

“I think moving meditation is good. It enables me to stretch every part of my body. The bending posture is good (interviewee shows postures two and five). It gives me strength and allows me to stretch my body from my thighs all the way down to my coccyx and from my spinal cord all the way up to my head. The posture that requires one to look up (shows posture four) enables me to stretch my neck and the posture that requires one to turn face enables me to stretch my neck tendons. I get to stretch my arms when I lift them. I think it’s good that I get to stretch every part of my body. It’s better than aerobics, which makes me afraid of falling. I am not afraid of doing this.” (P5)

“I like moving meditation. I used to do the exercise regularly. I play badminton the other day but I don’t play it anymore because I sweated a lot since I practiced the moving meditation.” (P6)

The evaluation outcome of blood pressure levels

The results of assessing blood pressure levels before and after learning and practicing meditation for four weeks were collected. It was found that four persons with hypertension had lower blood pressure levels after ending the program that below 140/90 mmHg. Two hypertensive persons had blood pressure levels lower than before but still higher than 140/90 mmHg. Another two had lower blood pressure levels than before the program, and below 140/90 mmHg, as they have received the additional antihypertensive medicines during the period of participating in this program. However, there was one hypertensive person who also had lower blood pressure level after the program, but still higher than 140/90 mmHg, despite this person has also received the additional antihypertensive medicines during the program. Nevertheless, there were three persons with hypertension have got the higher level of blood pressure than before learning and practicing meditation in the program (see Appendix F).

A summary of the spiral action research process, including the planning, acting, observing, and reflecting in Phase II, is shown in Figure 6.

Nursing care for enhancing self-healing : Developing mindfulness

The nursing activities

1. Providing the benefit of Buddhist meditation
2. Providing and training Buddhist meditating practice following the Buddhist meditation program
 - 2.1 Providing self-preparation prior to Buddhist meditating practice
 - 2.2 Providing Buddhist meditation methods and training
3. Encouraging confidence in the ability to practice meditation for oneself
4. Encouraging persons with hypertension to allocate time for the benefit of their health
5. For persons with hypertension who be downhearted: encouraging persons with hypertension to return to meditation practice

The strategies for enhancing effectiveness of nursing care

1. Creating relaxing environment
2. Training for Buddhist meditating practice with kindness
3. Promoting learning through critical reflection

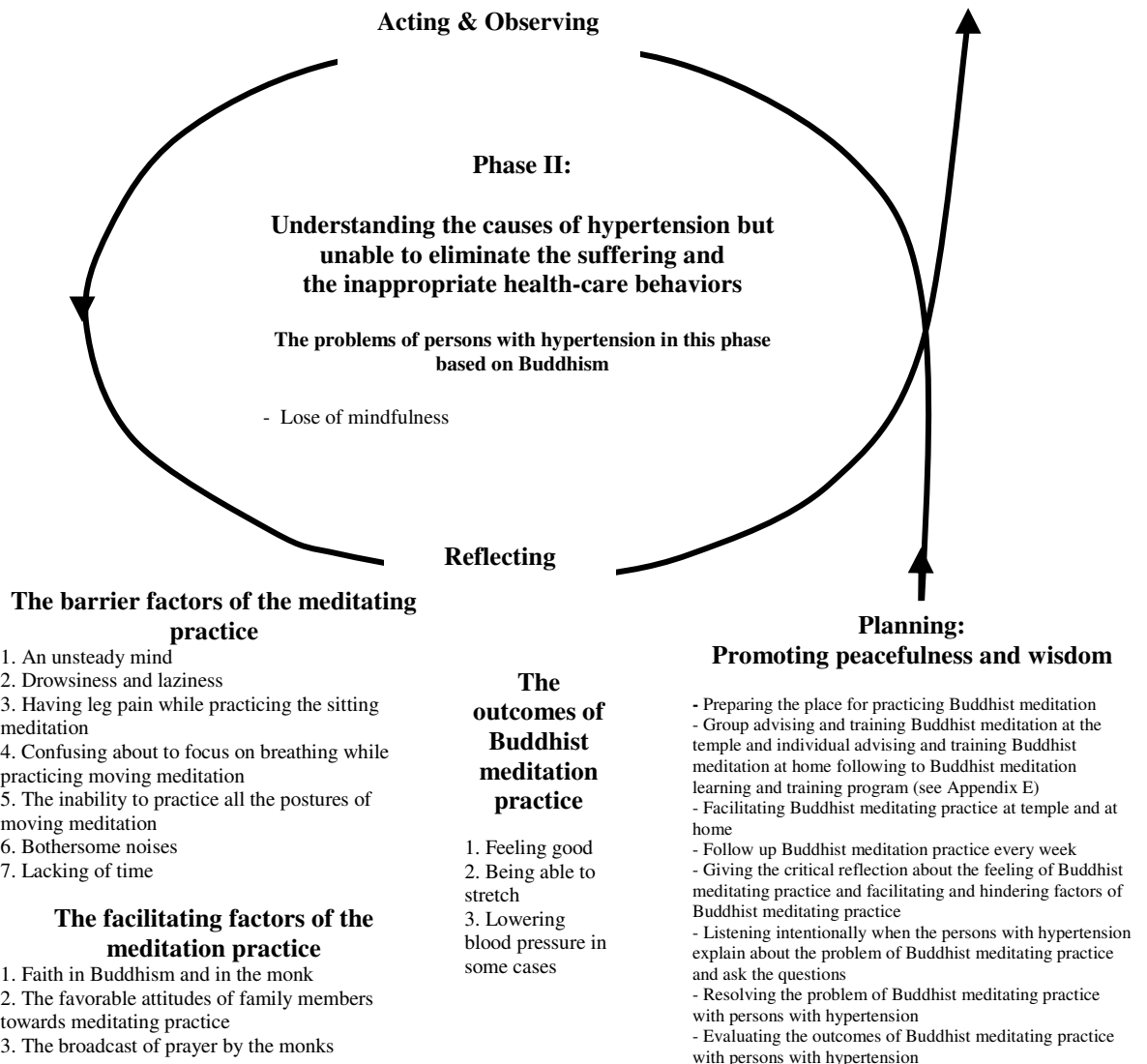


Figure 6 The spiral action research process, including planning, acting and observing and reflection in Phase II

Phase III: Practicing Buddhist meditation leads to receive good feelings from merit making but still unable to perform meditation well

In this phase, the persons with hypertension have still been unable to keep concentration on breathing. They have always kept thinking about other things and need longer time to bring back their mind to focus on breathing again. However, praying, practicing meditation, and offering food to the monks when they went to practice meditation at temple made them feel meritorious and feel good. The good feelings acquired from receiving merit have delivered them the important turning point, as they have no longer thought to stop practicing meditation just because of the lacking of skills, or the training program was ended. On the contrary, they wanted to continue trying to practice Buddhist meditation consistently. Even though they had many daily tasks to do; such as earning for living, doing chore, or taking care of sick people in their families, they have tried to find the time to practice meditation. This is indicated in the following quotes;

“Now I know that practicing meditation is good. It makes me feel comfortable. I won’t stop practicing. I just like doing it and would like to do it well. I will try to find the time to practice.” (P1)

“I know that meditation practice is good for me. I can feel that it is good for me when I practice. I feel more comfortable. I will keep practicing and will try to do it better.” (P7)

Upon critical reflection among researched team member, have found that the problems of persons with hypertension based on Buddhism in this phase was *the inability to overcome the obstacles of Buddhist meditation practice*. Therefore, the persons with hypertension could not develop the concentration, peacefulness, and wisdom. If they confront with the obstacles for a long time, they will be discouraged

and finally stop to practicing. As the result, they were unable to reach the goal of self-healing.

Nursing care for enhancing self-healing

The principle of Buddhist concept used to be the guidance in nursing care for enhancing self-healing in persons with hypertension in this phase was to help for *overcoming the obstacles of Buddhist meditation practice*. The nursing activities were as following;

1. Advising and practicing together

It was found that the persons with hypertension still did not understand how to do the right way to practice and they have been able to do it only in a short period of time; about ten minutes. Because it was the ineffective practicing, then they could not get self-healing. However, the researched team included a researcher, a nurse, and a village health care volunteer have acted as their mentors and coached them to correct the way to practice *anapanasati* meditation and moving meditation to enhance the effectiveness on practicing.

About *anapanasati* meditation, the researched team has advised them to relax, not to tighten any muscle, inhale and exhale deeply and slowly to achieve the relaxing state, and try to eliminate the confusing thoughts for a while by focusing only on their breathing. Upon explaining, they have practiced alongside with the participants. Nevertheless, some persons with hypertension have encountered the problem of leg pain after ten minutes of sitting. This caused them to lose concentration of their breathing and they have finally stopped practicing. The researcher and a nurse have consulted with the monk to find out the solution. And he has advised that they should

shift focusing from breathing to the pain by observe how painful they have at that time and observe further that how the pain change, while keeping their mind calm and indifferent to the pain until the pain is gone, and then shift back their concentration to their breathing again. After they have followed this advice, they have done it better and as the problems were solved. They could meditate longer without suffering from pain.

The problems occurred in participants while practicing *the moving meditation* included; unable to remember all postures of the practice and unable to synchronize the body movement with breathing. However, after the researched team have advised them the correct method and have practiced along with them, they eventually have done correctly. In addition, they have created the posters of image that show every step of changing to each posture for the participants who have no VCD players. These posters served as a guideline of practicing and help them to get more convenient. Furthermore, it helped them to perform smoother in each posture of practicing.

2. Encouraging family members to provide support

The researched team has asked for assistance from family members to stimulate and encourage the participants in practicing meditation.

3. Enhancing their confidence

Four persons with hypertension have encountered many obstacles of meditating practice while they have been trying to practice at home. They could not focus on breathing, unable to remember the postures of moving meditation, could not tolerate against leg pain and sleepiness. These obstacles have weakened their practice efforts. The researcher's team has explained to the participants who were new in meditative practicing that these problems could be overcome by perseverance or

being attempted to do it with highly intention. The researcher and a nurse have kept encouraging them verbally that they had the abilities to practice successfully.

4. Stimulating them to put forth effort

The researcher's team has stimulated and encouraged the persons with hypertension to try to practice consistently. They have also suggested them to keep considering that "one is the best support for one own" and that "finally, only oneself can help one own when facing health problem." The persons with hypertension have agreed with these statements and tried to take better care of their health.

5. Appreciating their devotion to progress in meditating practice

The researched team included; a researcher, a nurse and a village health care volunteer have expressed the appreciation verbally to the persons with hypertension who have progressed in practicing and their blood pressure became to the normal levels. This admiring expression made them to feel good and be proud of themselves and it served as the stimulant for them to continue practicing and practice consistently, as the following quote.

"I went to see the doctor on last Friday. The doctor and the nurse asked whether I have still been practicing meditation. I said yes. They greatly admired of me for this. After the blood pressure checked, the doctor complimented me because the pressure had decreased. Their appreciation made me feel very proud (interviewee smiles proudly). It really made me want to keep practicing." (P1)

6. Reassuring the persons with hypertension

When the persons with hypertension have encountered the obstacles that threatened to the consistent practice of meditation, the nurses have listened to them carefully and intentionally while they have been explaining about them. In addition,

the researcher and nurse have encouraged them to overcome and eliminate those obstacles, and then they have return to practice meditation consistently again.

7. Promoting progression in Buddhist meditating practice

For the participants who were able to practice *anapanasati* mediation well, the researcher, nurse, and monk have encourage them to proceed further on practicing by advising them to observe the arising, enduring, and ceasing of feeling and the state of mind in order to advance the understanding of the law of nature (*anicca, dukkha, and anatta*).

The strategies for enhancing effectiveness of nursing care

The strategies that the researcher and nurse have used to promote the successful of nursing care in this phase are following.

1. Accompanying with and practicing Buddhist meditation alongside

During the first one to three weeks, the participants have encountered many obstacles upon at home practicing, so the advice and assistance were needed. The researched team has followed them up regularly to help them solve the problems and to promote progression on meditating practice. When the persons with hypertension have reflected they were unable to practice Buddhist meditation because of many obstacles has occurred. The researched team has listened to the problems they have explained intentionally, helped them to analyze the problems and cooperated with the participants to solve the problems without negative reaction to them or being angry. In addition, they have accompanied with them and practice Buddhist meditation alongside with them until they could practice alone.

2. Promoting learning through critical reflection

The critical reflection has helped to motivate persons with hypertension to review and consider about their Buddhist meditation practice. This helped them to understand clearly about the feeling occur while practicing; the weak points of their practices, and the way to facilitate themselves to practice Buddhist meditation regularly.

Reflection

1. Meditating practice at home of the persons with hypertension

The persons with hypertension have tried to apply the knowledge about praying and meditating practice they had learned to practice at home. However, they have adapted various strategies and techniques differently among twelve participants, depending on each individual daily activity, method, frequency of practice, and locations. Nevertheless, all of their developing processes of meditating practice were the same. They have adapted and changed their approaches until they have eventually developed to use the appropriated practicing method in the first stage, and henceforth they all have practiced regularly in the second stage.

1.1 The first stage: Adapting and changing approaches to find the appropriated practicing method

In the first stage that they have attempted to integrate praying and meditating practice into their daily lives, the persons with hypertension have not known what is the appropriated prayer and practice should be like. They have just prayed and practiced meditation with unknown if they have been doing right or wrong method. If they feel indifferent, or nothing better in their minds, or it was not

working, they would adapt and change the way to practice in order to find the most suitable path for them. It was found that during the first two to three weeks, their approaches to meditating practice have changed every week. The adaptations and changes that occurred are following;

1.1.1 Adapting meditating practice activities: At first, every participant has tried to apply everything they have learned about praying, sitting meditation, and moving meditation into their practice. However, later on they have discovered that some methods of the practices were not suitable for them or caused the problems; as the reasons included being dislike of practice, the inability to practice, lacking of time, or distracting environment (noisy, too warm weather, or mosquitoes). Eventually, they have chosen to practice only the activities they have been enjoyed or able to do. A quote illustrates below;

“I tried to do everything at first, like praying, sitting meditation, and moving meditation. I don’t do sitting meditation or moving meditation now but I pray almost every night...I don’t have much time because I have to take care of my grandchildren...These kids are living with me and they keep calling me whenever I practice meditation in my bedroom. I lose concentration. It is also very hot in my bedroom; it makes me dizzy to the point where I am about to faint...The mosquitoes bite me when I practice meditation outside...I actually like praying better than sitting meditation or body movement. I experienced dizziness when I sat still for too long. I think I like praying. I feel more peaceful and comfortable doing it. I pray for a long time. Sometimes I pray for half an hour and sometimes for an entire hour.” (P12)

1.1.2 Adapting appropriate time of practice: Every hypertensive person have started by practicing meditation before bedtime or after waking up in the morning. They thought these times are quiet and suitable for practice, but they found out later that these times were not suitable for them. This was because of the loud noise in the house, sleepiness, or sometimes they have rushed to finish other

necessary activities. They thus have adapted their times of practice according to each daily activity they have, as seen in these quotes.

“At first, I have practiced before I go to bed but my husband and children always turn on the television loudly, that I couldn’t practice. I couldn’t do it in the mornings either because I was not free then. I had to prepare food for everyone, including my parents, my husband, my children, and my younger brother. Hence, I have to practice at 2 p.m. I am at home alone in the daytime. It is a quiet and suitable time for practice, so I do it then.” (P2)

1.1.3 Adapting the frequency of practice: During the early period of practicing efforts, the persons with hypertension have gradually integrated Buddhist meditation practice into their lifestyle by practicing two to four times a week; 10-30 minutes of each time. They were unable to do more frequency because of many obstructive factors such as annoyances, laziness, sleepiness, leg pain, and the inability to remain calm. Subsequently, they have adapted to develop themselves and been able to eliminate these obstacles, resulting in more frequency and longer time of practicing sessions. Two quotes illustrated below;

“I couldn’t practice sitting meditation for long because I thought about other things and felt uneasy. Now I feel more comfortable and think less about other things when I do it. I could sit for about five minutes at first, and I gradually increased the time to 30, then 40, and then 50 minutes. Now, I can even sit for an hour (interviewee smiles proudly).” (P1)

“At first, I could sit for only ten minutes, before both of my thighs would be in pain. Now I can sit for 30 minutes without changing position (interviewee smiles proudly). My legs hurt, though, but I try to do it anyway. I just ignore them when they become painful. I know they hurt but I try to stick with my breath so I didn’t feel hurt so much.” (P2)

1.2 The second stage: Using an appropriate method to practice regularly

Seven persons with hypertension have taken the time in the first stage for two to three weeks; whilst the other two have been in the first stage for about two months. They have discovered the method, the suitable time, frequency, and location

of practice that were most suitable for them. These nine people have consistently maintained their practice for a period of one to three months. Nevertheless, the remaining three participants have still been in the first stage because they could not overcome the obstacles of meditating practice. The method, the suitable time, frequency, and location of practice for the nine respondents who have overcome their obstacles and found the appropriate routine are summarized and presented in Table 5.

Table 5

The patterns of maintaining Buddhist meditation practice

Persons with hypertension	Pattern	Frequency of practice	Time of practice/day	Time of practice maintenance
P1	- In the morning: pray 30 minutes and practice moving meditation 30 minutes - Before go to bed: pray 30 minutes and practice sitting meditation 30-60 minutes	6 days per week	2 hour - 2 hours and 30 minutes	3 months
P2	- In day time: pray 10-15 minutes, practice moving meditation 20-30 minutes, and sitting meditation 30 minutes	5-7 days per week	1 hour - 1 hour and 15 minutes	3 months
P4	- In the morning: practice moving meditation 20-30 minutes - Before go to bed: pray 2 minutes and practice sitting meditation 20-30 minutes	Every day	40 minutes-1 hour	2 months
P5	- In the morning: pray 2 minutes, practice moving meditation 20-30 minutes, and sitting meditation 5 minutes	Every day	25 minute-35 minutes	1 month
P6	- In the evening: pray 5 minutes and practice moving meditation 20-30 minutes	Every day	25 minutes-35 minutes	2 months
P7	- In the morning: pray 5 minutes, practice moving meditation 20-30 minutes, and sitting meditation 30 minutes	4-5 days per week	55 minutes-1 hour and 5 minutes	3 months
P8	- Before go to bed: pray 30 minutes	Every day	30 minutes	3 months
P9	- Before go to bed: pray 20-30 minutes, practice moving meditation 5-10 minutes, and sitting meditation 5-20 minutes	5-7 days per week	30 minutes-1 hour	3 months
P12	- Before go to bed: pray 30 minutes	Every day	30 minutes	1 month

2. Hindering factors, facilitating factors, and outcomes of Buddhist meditation practice

The results obtained from reflection regarding to the hindering factors, the facilitating factors, and outcomes of meditating practice were divided into two categories: the reflections from the hypertensive persons who have practiced meditation regularly and the reflections from those who have not practice meditation regularly.

2.1 Reflections from the group that has prayed and practiced Buddhist meditation regularly

2.1.1 The hindering factors in meditating practice

During the process of individual adaptation of practicing methods, the participants have encountered several obstacles, just as they have faced when they have been at first learning how to practice. However, they have not mentioned about those obstacles once they have developed to achieve the effective practicing methods because of the satisfaction when they have overcome them.

2.1.2 The facilitating factors in meditation practice

The hypertensive persons have reflected that the facilitating factors have helped them to overcome their obstacles and motivated them to practice meditation regularly. These are given as following;

2.1.2.1 Intention and effort: The most important thing that helped the hypertensive persons to overcome the obstacles on meditating practice was their own mind. All obstacles were ceased whenever the participants put forth intention and effort, as seen in this quote;

“I think it’s in our minds. It’s the intention and the belief that we can do it. We must try. We get results from what we do. We were discouraged at first, but we could do it successfully once we intend to do. I have confidence that I can do it now... I don’t think there are any obstacles remain now. I think it’s all in our minds. There are no obstacles if we fully intend to be successful with it.” (P1)

When the problems or questions occurred during practicing, nine hypertensive persons would ask the questions to clarify, or just simply study the practicing tips by themselves. They have used the booklet, VCD, and the poster as the guidelines to practice correctly. These behaviors have revealed their dedication to the development of their practice, as these quotes show.

“Moving meditation is not difficult but sometimes I can’t remember the postures. I consulted the book that the nurses gave to me and I could then remember, as long as I practiced frequently... However, I couldn’t do posture No. 10 correctly (interviewee shows posture No.10, which involves crossing both hands over each other). I was puzzled. I just don’t know which hand turns upside down and which one turns upwards. Could you (the nurse) show me how to do it so that I won’t do it wrong tonight?” (P1)

2.1.2.2 *Fear of developing complications from hypertension:* Five hypertensive persons have believed that hypertension is a dangerous state that can cause rupture of blood vessels in the brain, paralysis, renal disease, and heart disease. Their fear was the major factor that helped to encourage them to practice meditation, because they did not want to have these complications. Some quotes regarding this, is following;

“I intended to practice so that my blood pressure won’t be so high. I am afraid that very high blood pressure could develop the complication such as renal disease. The doctor said I was at risk for renal disease so I have to take care well of myself. I don’t want to have heart disease or paralysis either.” (P2)

“I was afraid of developing paralysis or paresis. It would be difficult if I cannot help myself that was what I am afraid of. I have to practice meditation; otherwise, my blood pressure will become high again.” (P7)

2.1.2.3 A Perception of good results from meditating practice:

After practicing meditation, nine hypertensive persons perceived good results, such as mental and physical comfort, peaceful mind, have a sound sleep, less dizziness, clearer breathing, and lower blood pressure. Hence, they liked to practice it, and did so consistently on a daily basis, as quoted;

“I practice every day because it provides good results: calm, peaceful mind; comfortable sleep; lowering my heart rate; lowering my blood pressure; and my face became less red. Furthermore, it makes my mind feel calm and comfortable.” (P2)

“I think it is good for me. It makes me feel good, not to think too much and not to have as much dizziness as before. I get to exercise too when I move my body. I can breathe clearly. I will try to continue doing it and not quit because I can see how good it is for me.” (P7)

2.1.2.4 *Pleasure*: Enjoyment is an important factor in stimulating consistent practice and in choosing the appropriate method for meditating practice. If the one likes prayer, sitting meditation, and moving meditation, then all three of these activities would be chosen by that person. However, if he or she prefers only one method, then that person would choose to practice only that method. The reason that each participant enjoy in different activities are given below;

- *Reasons for enjoyment of moving meditation*: The hypertensive persons have enjoyed moving meditation because it is like they are doing the exercise. It also facilitates them to be able to focus their minds on breathing and body movement in the same time. They have reflected that moving meditation satisfied them regarding to concentrating mind better than sitting meditation. Furthermore, they would not be able to do moving meditation correctly if their concentration was not on the synchronizing state between body movement and breathing. Two quotes illustrated;

“I like moving meditation. I get my body stretched; my legs, my arms, and everything. I think it’s like doing exercise. It makes me sweat and then I feel comfortable. Digging a hole in the ground is also exercising, but that makes us feel exhausted. Practicing moving meditation is not the same. It makes me feel comfortable physically and mentally.” (P1)

“I try to synchronize my breathing and body movement while doing it. I think it’s easier than practicing sitting meditation. Trying to stay with my breath in sitting meditation doesn’t help me to gain concentration; I tended to think about other things. I like doing this better. I just get to exercise and have a peaceful mind.” (P6)

- *Reasons for enjoyment of prayer:* They have enjoyed praying because they could do it easier than sitting meditation, as prayer required only concentrating on the chanting words. In addition, prayer was not considered boring activity like sitting meditation does, as it might cause one feel sleepy. It was also believed that through praying, the Lord Buddha will protect the one who pray as well as his or her family, provide happiness, protect from all harm, and make them sleep well. Two quotes illustrate the participants’ feelings on prayer.

“I like to pray. It helps me to concentrate easier because I must focus on the words, otherwise I will not pray correctly. I think I can achieve concentration if my mind can stay with the chanting words. I think prayer provides us better concentration than sitting meditation. I just thought about other things when I practiced sitting meditation. Prayer is not boring; I don’t just sit still. I can use my eyes and voices while praying, so I don’t get sleepy. Sitting meditation makes me sleepy...I mostly pray ‘Pahung’. The Lord Buddha provides us good things and protects us and our families from harm when we pray. Practicing meditation gives us merit and helps our families to live happily.” (P2)

“I pray ‘Itipiso’ repeatedly as the same number of my age, plus one. I am 63 years old so I pray 64 times...The book says our bad luck will be diminished if we pray one time more than our age...I also pray ‘Pahung’ and pray to consider the Sankara, extend loving kindness to all, transfer the merits to the departed relatives and then go to bed. It helps protect us...Praying before going to bed makes me sleep well. I don’t dream at all, and I sleep soundly until morning. I always dream if I don’t pray.” (P9)

- *Reasons for enjoyment of anapanasati meditation:* The first time that they practice sitting meditation, none of them enjoy it because they felt it was hard to keep

focusing only on breathing while sitting still. In addition, their minds have constantly thought about other things. As P3 stated, “Our minds like to play around.” Also there were several difficulties involved in practicing included suffering from leg pain and sleepiness while sitting. However, they have become to enjoy sitting meditation when they have developed their abilities in practicing and conquered those obstacles because it truly returned them the peaceful minds.

2.1.2.5 Continuous, sincerely care from the nurse and the village health care volunteer: The hypertensive persons reflected that having the nurse and the village health care volunteer regularly follow them up regarding to their meditation practice really encouraged them to gain the strength and determination to succeed. In addition, their sincerely recommendations and encouragement were much helpful in developing of meditative practice. The following quotes illustrated;

“I think you (the nurse and village health care volunteer) are an inspiring force that encouraged me continued practicing meditation...You taught me. I wouldn’t do it without your instruction. You really gave me the spirit to persevere in every aspect. You came to advise me and give me knowledge at my house...You advised me on everything. You continued to teach me until I could really do it. You gave me strength and were very friendly.” (P1)

“A nurse and a volunteer came to teach and advise me at my house. I think this was very helpful. It helped me to practice more. They gave me strength that allowed me to practice and feel excited about it.” (P2)

2.1.3 The outcome of the Buddhist meditating practice

Nine hypertensive persons have reflected that by praying or practicing meditation regularly; four to seven times per week, 30 to 90 minutes per session, for one to three months have provided the results of peaceful mind, consciousness, better regular heartbeat, deeper breathing, better digestive system as

shown the reduction of flatulence, and sounder sleep. The details on these are as follows.

2.1.3.1 Peaceful mind: Nine hypertensive persons have stated that while practicing sitting meditation, they have been able to focus on their breathing, think less about other things, and quickly recognize when their minds were about to be distracted by the confusing thought, and then they could return swiftly to focus on breathing again. They have also been able to practice their minds to focus on breathing and body movement during doing moving meditation, as well as concentrating well on words chanting or praying. These successes made their minds to be more peaceful and steady, as quoted.

“Now my mind is better in focusing on my breath and body movement while doing moving meditation, sitting meditation, and praying. I feel that my mind is more peaceful and better organized. I can calm my mind when it’s noisy. I can sit peacefully in noisy place. My mind has never been great like this before.” (P2)

“I tried to focus on my breathing and body movement when I practiced the moving meditation and I was successful. I felt my mind became steady and peaceful once I could do it.” (P6)

Even if the hypertensive persons have reflected that they have experienced peaceful minds during and after praying or practicing meditation, the suffering and anger have still remained when they encountered the difficulty in daily lives, as quoted.

“My mind becomes more comfortable, calm, and conscious when practicing meditation, but I still suffer when my kid is sick. The Lord Buddha has taught that being born, getting old, getting sick, and dying happen to everyone and that we should accept them. I understand that these things are common and can happen to everyone but it’s hard to accept when it happens to my family member. I wonder why my kid is not normal like others are. I feel sorry for him and really feel pity on him.” (P5)

“Doing sitting meditation and focusing on my breath makes my mind calm and comfortable, but I become touchy, angry, and uncomfortable when I get back home and be disturbed by children.” (P9)

2.1.3.2 *Consciousness*: Two hypertensive persons have reflected that their heads felt clearer and better conscious, no dizziness as resulted from practicing meditation, as quoted.

“It makes my head clear and eliminates my stress. I used to think confusingly for long but I don’t think much now. I also used to feel dizzy very often upon waking up in the mornings. Now I sleep well and wake up with a clear head.” (P1)

2.1.3.3 *Better regular heartbeat*: Nine hypertensive persons have stated that meditating practice and praying have helped to regulate their heart beat to be normal. A quote illustrates.

“I felt that my heart didn’t beat so fast after I have practiced meditation. I know it used to beat hard and fast. The doctor would always say that my heartbeat rate was up to 100 and sometimes higher. Now I feel it doesn’t beat so hard.” (P6)

2.1.3.4 *Deeper breathing*: Seven hypertensive persons have reflected that the moving meditation helped to improve their breathing, and that afterwards they could breathe freely and fully. One quote follows.

“Moving meditation helps me breathe freely and fully.” (P9)

2.1.3.5 *Better digestive system as shown in reduction of flatulence*: Two hypertensive persons reflected that moving meditation helped reduce flatulence. In addition, it also improved their bowel movements. The following quote illustrates.

“I think moving meditation has helped me in eliminating the waste in my body since I have started practicing. I used to take laxative drugs almost every night to stimulate bowel movement. After doing moving meditation, I now have bowel movements everyday without taking laxative drugs.” (P6)

2.1.3.6 *Sounder sleep*: Nine hypertensive persons have stated that practicing meditation and praying helped them sleep well, no excessive thinking, and free of nightmares, as shown in the quotes below;

“I have been experiencing of insomnia, restless and think purposeless all night for a long time. I sometimes wanted to ask the doctor for hypnotic drugs, but my older sister told me not to take them. Now I don’t think of taking drugs anymore. I sleep well every night and don’t think much.” (P1)

“When I go to bed after praying, I sleep soundly until morning and don’t dream about anything. I always have a dream if I don’t pray.” (P12)

2.2 *Reflections from the group that was unable to develop the regular meditation practice*

After being instructed about meditating practice, three hypertensive persons (P3, P10, and P11) have tried to continue practicing at home but failed to achieve progression. Since practicing meditation requires the determined mind. Even after six months has passed, they have still unable to practice regularly because they have no motivation, and then they could not focus on their breathing for long enough to achieve concentration. The following two quotes give some examples.

“I couldn’t sit for long in sitting meditation. I could only sit for about five minutes or less. I don’t know what happened to my mind. It just couldn’t concentrate. I kept thinking about different things until I gave up.” (P3)

“I don’t set a certain time for my practice. I just practice whenever I want to and I don’t do it when I don’t feel like it. I have focused on nothing while sitting; I’ve just thought about this and that, so I ended up after have sat for a while. I lie down if I can’t sit any longer.” (P10)

2.2.1 *The hindering factors in practicing meditation*

The major obstacles of practicing meditation were lacking of effort and no priority for meditating practice.

2.2.1.1 *Lacking of effort*: These hypertensive persons failed to overcome the obstacles of sleepiness and laziness due to lacking of effort and discipline. Thus, they failed to develop the ability to achieve concentration, as quoted.

“I think I could do it if I intended to but I am just lazy. I become sleepy easily. I always become sleepy after five minutes of practicing and I just go to sleep when this happens.” (P10)

2.2.1.2 *No priority of meditating practice*: The concern about sickness was decreased when the hypertensive persons found that their blood pressure levels were under 140/90 mmHg. Then instead of practicing meditation, they have shifted the priority of their times’ spending to other activities; such as earning for living or resting. They thought that if they stop practicing meditation was not so bad because they could take the times to make money and boost up their strengths. One quote illustrates.

“Practicing meditation is not necessary for me. It doesn’t affect me much if I don’t do it. It doesn’t make me sick or headache if I don’t do it. It’s not like tapping a rubber tree, where we must collect the latex before it is damaged. There are other things that are more important to do, such as earning for living and resting. We wouldn’t have anything to eat if we didn’t work and we wouldn’t have strength if we didn’t rest, but failing to practice meditation doesn’t affect us much.” (P11)

The evaluation outcome of blood pressure levels, stress levels, and mindfulness levels

1. Blood pressure levels

The blood pressure levels of the nine hypertensive persons who have got successful in consistency of praying and practicing meditation for one to three months were measured. It was found that eight of them have blood pressure lower than before and lower than 140/90 mmHg and no additional anti-hypertensive medicine added

during the period of this program. The ninth hypertensive person also has blood pressure lower than before, but higher than 140/90 mmHg. However, three hypertensive persons who failed to practice Buddhist meditation regularly, after six months have passed; their blood pressure levels have risen to be higher than before and no additional anti-hypertensive medicine added during the period of this program. (see Appendix F).

2. Stress levels

Through the assessment of the stress level of the nine hypertensive persons who have been able to pray and practice meditation consistently for one to three months, by the means of the Thai Stress Test (TST) Questionnaire, found that their stress levels after practicing meditation regularly, compared to those of before practicing, were all lower. Two persons decreased from “severe” to “good,” six persons decreased from “severe” to “normal”, and one person decreased from “mild” stress to “normal”. However, in three hypertensive persons who have failed to practice Buddhist meditation regularly have also been assessed the stress level and found that after six months of participating in this program, their stress level have also decreased compared to before; two decreased from “severe” stress to “mild” stress and one decreased from “mild” to “normal” (see Appendix G).

3. Mindfulness levels

Through the assessment of the mindfulness level of the nine hypertensive persons who have got successfully in consistency of praying and practicing meditation for one to three months, by the means of the Freiburg Mindfulness Inventory (FMI) Short Form, found that their mindfulness levels have increased by the end of the program, in comparison to their levels before starting the program.

Nevertheless, in three hypertensive persons who have failed to practice Buddhist meditation regularly, after six months of joining this program, their mindfulness level have slightly increased compared to measurements taken before the program (see Appendix H).

Summary of the spiral action research process, including the planning, acting, observing, and reflecting in Phase III, is shown in Figure 7.

**Nursing care for enhancing self-healing
: Overcoming the obstacle of Buddhist meditation**

The nursing activities

1. Advising and practicing together
2. Encouraging family members to provide support
3. Enhancing their confidence
4. Stimulating them to put forth effort
5. Appreciating their devotion to progress in meditating practice
6. Reassuring the hypertensive persons
7. Promoting progression in Buddhist meditating practice

The strategies for enhancing effectiveness of nursing care

1. Accompanying with and practicing Buddhist meditation together
2. Promoting learning through critical reflection

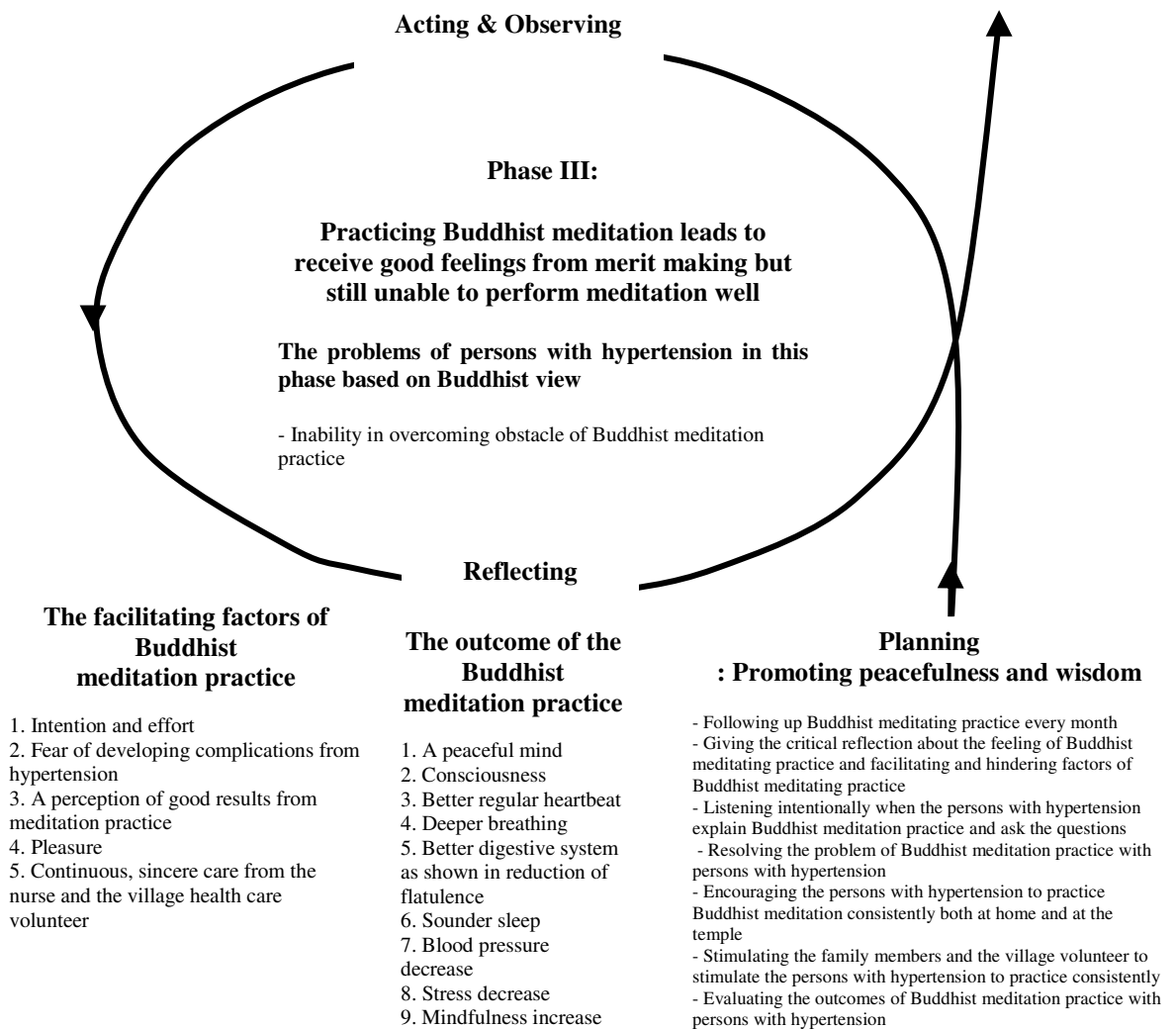


Figure 7 The spiral action research process, including planning, acting and observing and reflection in Phase III

Phase IV: Achieving peacefulness and accepting the nature of Buddhist truths

In this phase, nine persons with hypertension have experienced peaceful mind, increased mindfulness (recognize their thoughts, emotions, and feelings faster), and the increased wisdom (understanding the natural truth that everything is impermanent and that one has no real self). In addition, they have accepted the change of everything in their lives with calm and gradually found the way to solve their problems. As resulting in living on a balance between physical health and mental health that led to control blood pressure levels under 140/90 mmHg consistently.

The acceptance of the natural truth resulted from the regular habit of praying both in Pali and Thai languages. Thus, they have gained better understanding about the Lord Buddha's teaching, especially the contemplation of *sankhara*, which is much helpful to understand more of the truth behind everything in this world. In addition, their achievement has also come from the regular habit of listening to the sermons of the monks at the temple or on the radio, reading the *Dharma* books, and practicing *vipassana* sitting meditation. Some quotes are as follows:

"The words we chant during praying teach us that everything is temporary; that we should not form attachments but rather just let things go. If we attach to material things, then they will just cause us worry...I like the words in the chants a lot. They are always on my mind, especially "Suppae Dharma Anatta," which means 'everything both conditioned and unconditioned is not self and should not be attached to.' It teaches us a lot." (P1)

"I learn Dharma from listening to the sermons and by praying. I understand that we are born, getting old, getting sick, and die, so we don't have a permanent self. I understand more than before since I have started practicing meditation. It's true that pain is born, exists, and disappears. Life is uncertain, so we shouldn't form attachments. The more we attach to things, the more stressed we will be." (P2)

The persons with hypertension have reflected accepting life problems with their mindfulness and wisdom, as illustrated below;

1. Accepting problems and searching for the ways to solve them

Nine persons with hypertension have become better accepting the change in their lives that caused them the suffering including sickness of themselves or family members, economic problems, and family problems. In the past, they have refused to accept these problems by anger, abuse, arguments, or excessive thinking. However, as the results from practicing meditation, they have accepted those problems calmly and gradually have been searching for the causes and found out the solution, as quoted;

“Last week my morning glory field was flooded. I had already made sales deals with the customers. Now I couldn’t follow through because of the flood. It didn’t matter because I could put some fertilizer onto the field again once the water was gone... What else could I do? It was natural disaster...At this time; I just knit the seines instead... I used to worry so much about the expenses when the morning glory field was flooded. Now I can accept it.” (P1)

“Praying, practicing meditation, and visiting the temple frequently has allowed me to develop my strength and the ability to solve the problems. I must accept things. I used to worry so much about my son that it made me cry... Also, I used to get angry and scold my husband loudly when he got drunk and talked too much... Now I try to be mindful, avoid anger, and avoid scolding people when I am about to get angry. I am much more patient now. I try to talk positively to my son and husband and be reasonable. I try to understand the causes of my son’s problems with gambling and debt. Was it his friends, his environment, or me? I gradually solve these problems.” (P2)

“I have had enough distress in my life. I used to worry and think about my children when they got sick. I was afraid of what would happen to them... Now I can better endure these worries. Sickness is a common thing—you just go to see the doctor when you are sick. My mind has become much stronger and steadier since I have practiced meditation, prayed, and listened to Dharma. I understand better now that sickness is a common and natural thing that can happen, either fast or slow, to everyone. I understand and accept it. I shall also accept death when it to come.” (P5)

The family members of the participants have noticed the changes, especially they have become accept the problems peacefully and have not attempted to solve the problems through anger. Two quotes related;

“I think she is better now. She used to get angry easily. She has even complained about me every day. She is not quick to anger now. She smiles more. She used to have a very tense face.” (P1’s sister)

“She is more patient now. She used to scold her husband and son loudly when she was angry, but I don’t hear that anymore.” (P2’s mother)

In addition, five persons with hypertension (P1, P2, P4, P6, and P7) have accepted the fact that they have hypertension and realized that only they could help themselves. Therefore, they have looked after themselves more carefully in order to control their blood pressure by taking medicine regularly, seeing the doctor every appointment scheduled, avoiding the consumption of salty and fatty foods, and trying to maintain normal body weight. One quote is following:

“Now I take my medicine and don’t forget it. I try not to eat fatty foods. I have made an effort to lose my weight and have so far lost two kilograms. I don’t eat salty foods anymore and I don’t add fish sauce to my food. I don’t use monosodium glutamate either.” (P2)

2. Attempting to be mindful of the present in order to reduce chaotic thoughts

Nine persons with hypertension have tried to be mindful of the present moment and their daily activities so that they would not think confusingly about the future or about bad experiences from the past. They have realized that they previously had a lot of wild behaviors, confusing thoughts that caused them suffering, stress, and worry. Below are some quotes on this point.

“Before practicing sitting meditation, I used to think a lot about everything, and then I felt depressed until want not to continue my day... I don’t think much now. I just practice meditation as much as I can and rest when I am tired. I don’t think far into the future, I just plan what I will do on a daily basis.” (P1)

“I think practicing meditation helps me to reduce my confusing thoughts. I used to think a lot about past issues, such as losing my business and not getting along well with my husband’s relatives. It just couldn’t help remembering. Now I have deleted most of those negative thoughts and try to stay in the present moment.” (P6)

3. Satisfying their livelihood

Two persons with hypertension have tried to live according to their means, so they bought things only when they could afford and avoided buying or wanting things beyond their means. They knew if they spend too much or desired the expensive things, it would lead to be debt and they would eventually stress if they cannot pay the debt, as one quote below;

“Don’t be greedy. You can’t take anything with you when you die. Physical things are not ours. Such a concept exists only in our minds. It’s like the soap opera that just comes and goes... Sometimes when I went to buy fertilizer for my morning glory field, they would try to get me to buy the bigger sack because it was much cheaper on measuring unit basis. I didn’t have that much money. If I spent money like others do then I wouldn’t have money to do other things. Hence, I just bought the small one and will buy again when that fertilizer is gone. I would be in debt if I bought like others do.” (P1)

However, it was found through the follow-up that after they have received the positive outcome of Buddhist meditation, the frequency of their practicing was decreased. There have paused when they encountered the obstacles. The obstructive factors that hindered the maintaining practice are; (1) the sickness that occurred unexpectedly such the accidents, Chikungunya disease, and back pain and (2) lack of time and the priority of earning for living. Nevertheless, they have eventually resumed practicing when they had free time or when their sufferings worsened again.

Through the critical reflection among researcher’s team members have found the problems of persons with hypertension in this phase as presented below;

1. Inconsistency of meditating practice

The *Inconsistency of Buddhist meditating* practice caused to decrease the mindfulness. Thus, they have gradually been unable to catch up what popping up to their minds, unable to eliminate the causes of sufferings, as well as unable to accept

the truth of nature. Finally, they have to face the sufferings again, and their blood pressure could not be controlled to be lower than 140/90 mmHg.

2. Lack of time

Earning for living is first priority for the persons with hypertension who have low income. Due to this necessity, the participants would only be able to practice meditation occasionally. When something that affects their income happened, they would deal with it first, as two quotes below;

“Now I don’t have enough time to practice meditation often as before. My morning glory field was flooded so my older sister and I have to work on seine sewing. We could make four seines per day and earned 22 Baht each... Some days we had to hurry and work almost all night long; otherwise, we couldn’t finish on time. I have to put on earning for living first. I will return to practice meditation again when I become free. I won’t quit any way. I like it because it’s good for me.” (P1)

“I practiced meditation infrequently two weeks ago. I didn’t have much time to do it because I had to do construction work when I was hired. I have to earn for living first.” (P7)

Nursing care for enhancing self-healing

The principle of Buddhist concept used as the guideline in nursing care for enhancing self-healing in persons with hypertension in this phase was *promoting maintenance of the regular meditation practice*. The nursing activities were as follows.

1. Organizing the venues for practicing meditation

Through the observation found that the persons with hypertension have preferred practicing meditation at the temple to at the Community Medical Health Care Center. The nurses and the monk have cooperated to organize the activities of praying, listening to Dharma, sitting meditation, and moving meditation at the

community temple on every Buddhist Holy Day and every day during *Buddhist Lent*. In addition, these activities have also been held for three days and two nights during the important Buddhist days, such as *Visakha Puja Day* and *Magha Puja Day*, and during other national important days, such as Mother's Day and Father's Day. The persons with hypertension, persons with various health problems, and the general public were invited to participate in these activities. It was hoped that the people in the community would become more familiar with praying and meditating practice, and it would persuade more people to go to the temple, pray, and practice meditation. Encouraging the persons with hypertension to practice with others people in the community was also a goal.

2. Advising to concentrate on activities in daily life

The researcher, the nurse, and a monk understood the limitation of time for practicing meditation because the participants have loaded of responsibilities. Thus, they have advised the persons with hypertension to further practice the meditation by concentrate their minds on every action or the body moving while performing the activities in daily life such as washing, dressing, eating, drinking, speaking, or none speaking. In addition, they have also been advised to observe their body, feeling, and the state of mindfulness, as well as observing the arising, enduring, and ceasing of body, feeling, and mind state.

The strategies for enhancing the effectiveness of nursing care

The strategies that the researcher and the nurse have used to enhance the successful of nursing care are below;

1. Showing the role model of Buddhist meditating practice

The researcher and nurse have been practicing the Buddhist meditation at the temple and at home regularly. Furthermore, they have smiling faces, calm personality, and healthy. These characters were the good image that the persons with hypertension have perceived, and then it helped encourage them to imitate on practicing meditation, as this quote;

“I think the Buddhist meditation practice is good for health. If it is not good, nurses would not practice it regularly...I have ever seen from television. At the present, many doctors and nurses come to practice meditation. Thus, I should follow them.” (P2)

2. Integrating Buddhist meditation congruently with belief of merit making and Buddhist way of life

The researcher and nurse have found that the integration the belief of merit making by Buddhist meditating practice and Buddhist way of life were very important to motivate the participants to keep practicing continuously the Buddhist meditation. The persons with hypertension have thought praying, practicing meditation, listening to the *Dharma* teaching, and offering food to the monk would return them the merit. In addition, most of villagers have been going to the temple regularly on Buddhist Holy Day as following their ancestors. Even they have been busy, they have still tried to allocate the time for going to the temple. Thus, the researcher's team has also encouraged the persons with hypertension to go to the temple and join those religious activities with other community members at the temple on every Buddhist holy day; because it would help them to link the meditation with merit making that could motivate them to practice Buddhist meditation continuously.

Reflection

1. Buddhist meditating practice

Two (P2 and P4) persons with hypertension have reflected their progress in Buddhist meditating practice that they have developed their practicing to be longer in sitting meditation that is 20-60 minutes per session. Not only been able to focus better on their breathing, but they have also gained the benefits from lessening of pain, itchy skin, and various negative emotions (like annoyance). In addition, they have been observing the occurring, existing, and disappearing of the pain. This observation helped them to get better understanding of the Dharma teachings; the nature of impermanence, the causes of distress, the importance of selflessness, and the concept of reincarnation. The following quote illustrated;

“In sitting meditation, I could sit longer and smoother than before... Before, sometimes it annoyed me with legs pain. I felt like something were crawling on my skin when the wind blew and it made me annoyed, but I tried to sit further and not to think about it... The pain gradually increased but then it changed to be numb. I felt that my feet were swollen up as big as those of the elephant. When they were numb, the pain began to subside...In the past, I have just stop doing it when my legs got painful. I couldn't sit for long and I always changed my position once my mind couldn't stand...Now, I am all right and I can sit longer...I understand the truth more than at first of practicing meditation: pain is born, exists, and disappears. It is uncertain and impermanent. Don't attach yourself to it. The more you attach to it, the more you become stressed and uneasy.” (P2)

In addition, two persons with hypertension have reflected that they have tried to focus on the body movement while having the activities in daily life as quoted;

“While I was washing the dishes, I tried not to think about anything, but stay focusing on what I was doing. I think I am doing it better now; I don't think much. I used to think a lot.” (P7)

2. *The outcomes of practicing meditation: The cognitive and behaviors changing*

The persons with hypertension have reflected on the cognitive and behaviors changing as resulting from practicing meditation, as following;

2.1 *Enjoying wearing white clothing when going to the temple due to the feelings of having their physical and mental purified*

Six persons with hypertension have never worn white before practicing meditation. Once they have participated in practicing meditation and praying for self-healing, they have started to wear white clothing when going to the temple. At first, they have felt embarrassed as they have worried that people would think that they were insane or call them nuns. However, they have gradually got used to white clothing and felt no embarrassing. When they have worn white, they have felt like it encourages them automatically to talk, think and do good things. These made them feel comfortable, peaceful, and clean- both physically and mentally. The monk said that this was “Merit Bravery,” which means being brave in doing good things without feeling shy or embarrassed by what others might say. This bravery encompasses the actions of praying loudly, wearing white when going to the temple, and practicing meditation at the temple. The persons with hypertension have reflected on this in the following quotes;

“At first, I feel embarrassed, and then I didn’t wear white when I went to the temple. I wore color clothing when I left home and then have them changed in the bathroom at the temple ...People around here liked to joke with me by saying things like “Nun, where are you going today?” Later on, I wore white from home if I went with friends. I didn’t feel embarrassed if I wore it and walked with friends, but I was still embarrassed if I went alone...Now I wear it from home without feeling embarrassed. It makes me feel good, peaceful, and comfortable, and I feel like to talk about only good things. I would be more embarrassed now if I didn’t wear white.” (P9)

2.2 Being more moral

Three persons with hypertension have reflected that since they have joined this program and gone to the temple, they have tried to keep the five precepts, and then affirmed observance of the precepts. In addition, they have stated that they would feel uncomfortable if they fail to follow what they have affirmed, as following quoted;

“The only precept I couldn’t follow was the one that forbids telling lies. I told my husband I didn’t have money when he asked for some, even though I had. I didn’t want him to take all I had. I knew it wasn’t good but it was necessary because he would spend for buying the alcohol drink...Now I observe the five precepts. I often go to the temple and request the precepts from monk so I have to try to follow them. I don’t talk bad. I don’t tell my husband lies about money anymore. I just talk about good things. It makes me feel comfortable when I maintain all the precepts.” (P2)

2.3 Enjoying going to the temple due to calm in mind and the gaining the merit

Five persons with hypertension (P2, P4, P8, P9 and P12) have gone to the temple more often than before. Before starting the meditating practice program, they have only gone to the temple on the major merit-making days. However, after they have joined in the praying and meditating practice sessions, they have started to go to the temple on every Buddhist holy day (four times per month) if they were free, and they have been at the temple almost every day during Buddhist Lent. In addition, P4 and P8 have also joined meditating practice’s session of three days and two nights on Visakha Puja Day that the temple have jointly held with the Community Medical Health Care Center because they have enjoyed practicing meditation at the temple due to its quietness. It enabled them to practice sitting meditation longer and provided them good concentration, calm mind, and merit, as quoted below;

“I used to go to the temple with my mother on the important merit-making day of the fifth and tenth month. After I experienced practicing meditation, I went to the temple more often—on the Buddhist holy days, which occur two to four times per month...I took food there, listened to the Dharma teaching, and practiced sitting meditation. Sometimes I did moving meditation too. I practice well and I have good concentration when I do sitting meditation at the temple. I like it there because the atmosphere is nice—quiet and peaceful. I feel calm and can make merit there.” (P2)

“I go to the temple every Buddhist holy day and I try to find the extra time to go there when I am not busy. I also go there in the evenings during Buddhist Lent...I take food there, donate to charity, give things to the elderly, offer candles, practice meditation, pray, and offer beverages, all of which provides me calmness and merit. That’s why I like to go there...I can practice sitting meditation at the temple quite well because it’s quiet and this allows for good concentration. The monk has me sit there for 30 minutes or one hour and I can do it.” (P8)

2.4 Inviting others to practice meditation

Once the persons with hypertension have confidence in practicing meditation, and have seen the good results from their practice, they have started to recommend it to others, such as their children, other family members, and their neighbors, even if these people did not have hypertension. Some quotes illustrated below;

“I think practicing meditation is good for me. I feel good and don’t think much. I don’t have any dizziness like I had before. I do the exercise too when I do moving meditation. I can breathe clearly and I don’t have much pain...I asked my older sister, who also has hypertension to practice together with me, and she did.” (P7)

The evaluation outcome of Blood pressure levels

Through the follow-up with the nine persons with hypertension (six to ten months) have found that their blood pressure levels were related to various factors; including the consistency of practicing meditation, the diets, the compliance to medication regimens, and mental health status (experience of suffering, or none

experience of suffering, or experience of suffering but able to eliminate it). The correlation of these factors with their blood pressure levels is described below; (see also Appendix I).

- The participants have reported that they have felt comfortable and had peaceful minds when they have prayed and/or practiced meditation regularly. Furthermore, even they have faced the problem that caused suffering, they have still been able to accept it and solve that problem. They have also been able to maintain healthy diet and take their antihypertensive medicines as prescribed. Hence, their blood pressure levels lowered to below 140/90 mmHg.

- Some persons with hypertension have been unable to pray or practice meditation regularly, but they have maintained good diet, complied with the medication regimen, and have avoided the distress. The blood pressure levels of these group of participants have also found lower than 140/90 mmHg.

- The final group of participants who have been neither able to pray or practice meditation regularly, nor eliminated the suffering when problems occurred, their blood pressure levels were higher than 140/90 mmHg, despite the fact that they have maintained healthy diet and complied to the medication regimen.

Concerning to the numbers, it was found through the follow-up that nine persons with hypertension have been able to maintain their blood pressure lower than 140/90 mmHg and no increasing dosage of antihypertensive drug needed. As the persons with hypertension have consistently been keeping their blood pressure levels under 140/90 mmHg over time, the doctor have extended the intervals of check-up schedule. The check-up schedule was changed from every month to every two months for three persons and changed from every two months to every three months for one

person, and another one was changed from monthly to every three months. Those who were not treated by medication have still been so. In addition, it was found that none of them experience the unusual symptoms like dizziness, headaches, blurred vision, or flushed, hot faces.

Summary of the spiral action research process, including the planning, acting, observing, and reflecting in Phase IV, is shown in Figure 8.

**Nursing care for enhancing self-healing
: Promoting maintenance of the regular meditation practice**

The nursing activities

1. Organizing the venues for practicing meditation
2. Advising to concentrate on activities in daily life

The strategies for enhancing effectiveness of nursing care

1. Showing the role model of Buddhist meditating practice
2. Integrating Buddhist meditation congruently with belief of merit making and Buddhist way of life

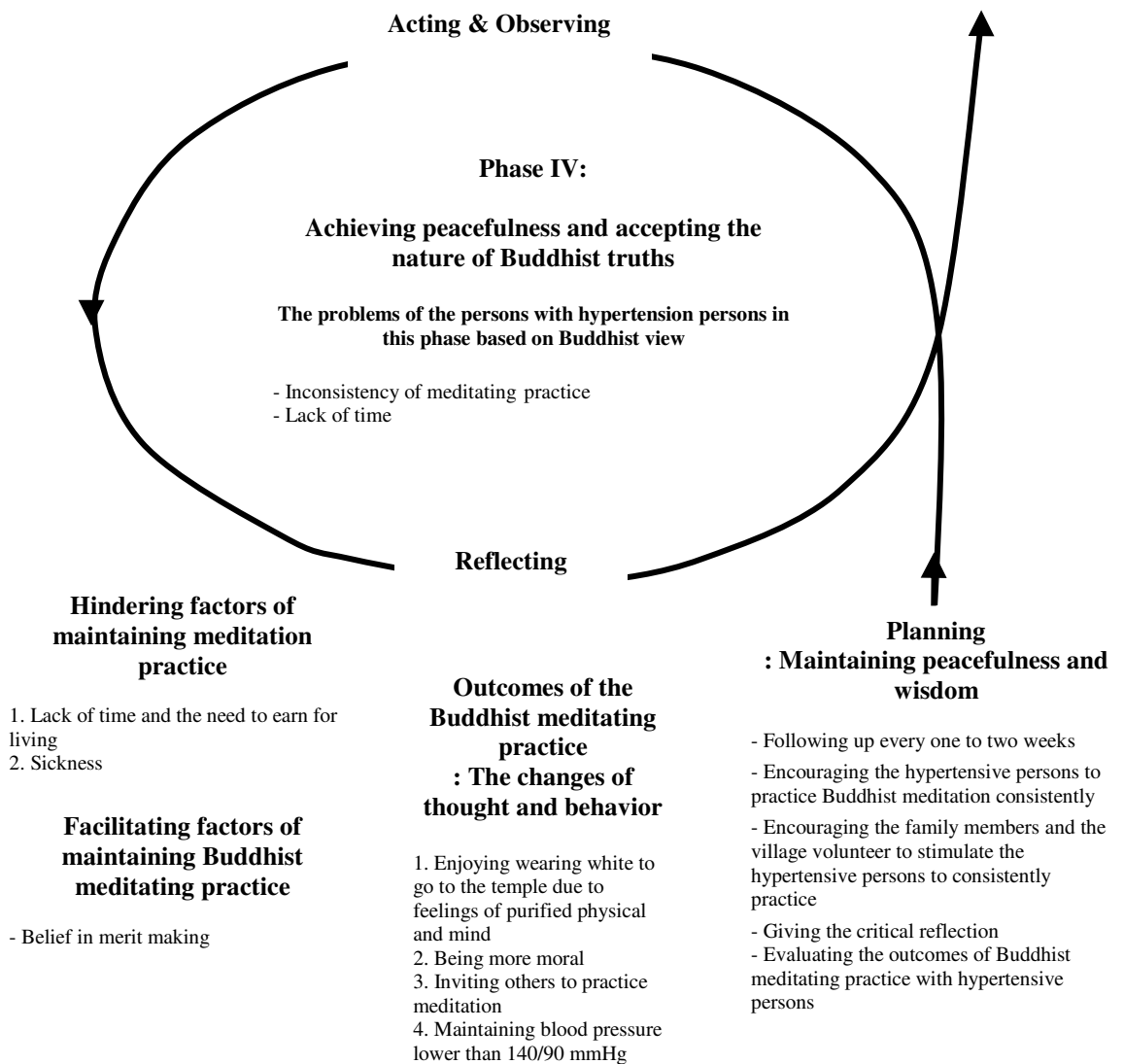


Figure 8 The spiral action research process, including planning, acting and observing and reflection in Phase IV

The Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension

The developing process of the model of the therapeutic Buddhist meditation nursing for enhancing self-healing in persons with hypertension was summarized. This model composed of four phases of self-healing: (1) encountering the suffering and having the inappropriate health-related behaviors which lead to persistent high blood pressure, (2) understanding the causes of hypertension but unable to eliminate the suffering and the inappropriate health-related behaviors, (3) practicing Buddhist meditation leads to receive good feelings from merit making but unable to perform meditation well, and (4) achieving peacefulness and accepting the nature of Buddhist truths. During each phase, the persons with hypertension have been supported by nursing care, several facilitating factors; however they have also been troubled by many hindering factors. This model is shown in Figure 9.

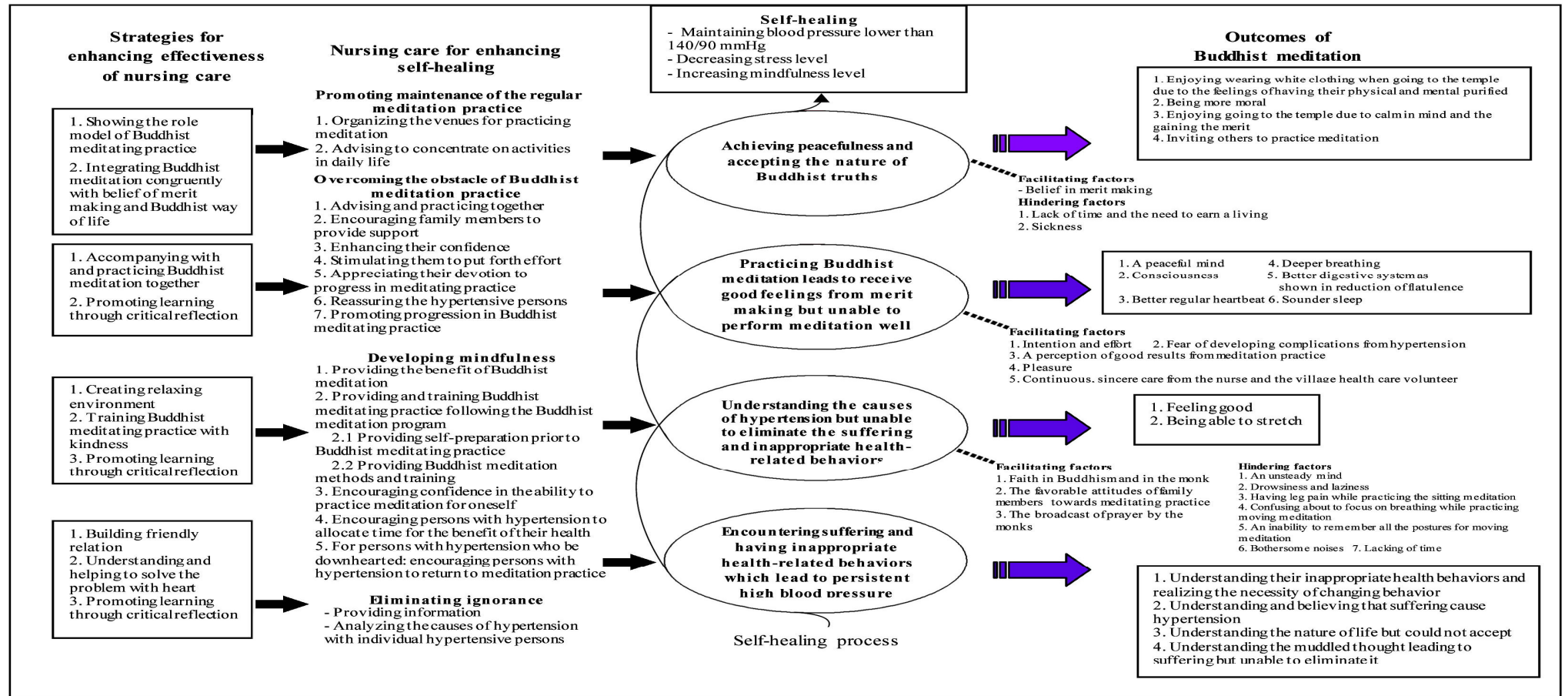


Figure 9 Model of enhancing self-healing through Buddhist meditation in persons with hypertension

Discussion

This section presents the discussion of the following research findings: (1) the process of self-healing through Buddhist meditation, (2) the nursing care for enhancing self-healing through Buddhist meditation, (3) factors related to meditating practice, and (4) the outcomes of meditating practice. The results of these findings are discussed below;

1. The process of self-healing through Buddhist meditation

The finding revealed that the self-healing process through Buddhist meditation composed of 4 phases. First phase; encountering suffering and having inappropriate health-related behaviors that lead to persistent high blood pressure; their minds were full of suffering caused by many problems; included sickness, poor economic conditions, and family problems. Second phase; understanding the causes of hypertension but unable to eliminate the suffering and the inappropriate health-related behaviors, the persons with hypertension have understood the causes of uncontrolled blood pressure that are sufferings and the inappropriate health-related behaviors. Nevertheless, they were unable to eliminate these causes because they could not accept the change of their lives and their family members. In addition, they could not repress their desires to eat fatty and salty foods because they really love it. Third phase, practicing Buddhist meditation leads to receive good feelings as making the merit but unable to perform meditation well enough, they were still unable to achieve the state of constantly concentration on breathing. However, praying, practicing meditation, and offering foods to the monks have returned them meritorious feeling and good feeling. Because of good feelings they attained as they deserved from merit making, they have stopped thinking to quit even in the cases of

inexperience of meditating practice. Thus, they have trying to continue practicing Buddhist meditation although they have been loaded of daily tasks. The last phase; achieving peacefulness and accepting the nature of Buddhist truths, after progressing in Buddhist meditation practice and maintaining the practice for one to three months, the persons with hypertension have experienced peaceful minds, higher state of mindfulness (recognize their current thoughts, emotions, and feelings faster), and the higher wisdom (understanding the natural truth that everything is impermanent and that one has no real self). In addition, they have accepted the change of everything in their lives calmly and have gradually been better intellect in problems solving, as the results of well balance between physical and mind. Consequently, they were able to deal with the problems and carry out their lives with less distress that lead to have their blood pressure levels controlled below 140/90 mmHg consistently. Nevertheless, in some cases, they have gradually reduce the frequency of practicing Buddhist meditation at home until ceasing, but some of them have still been continuing practicing because they have faiths in merit making.

It was found that there are many aspects of Buddhist concepts that have influenced the self-healing process through Buddhist meditation in persons with hypertension; including suffering, faith and belief, and wisdom. The details of these concepts are discussed below;

The suffering: The most persons with hypertension in this study were women from the agricultural communities with moderate and low incomes. Most of participants have sick persons in their families. In addition, this group of persons with hypertension has already loaded with daily responsibilities; including financial responsibility, housework, looking after young and elderly family members and sick

persons. They were more likely to take responsibility on taking care of family members because it is expected in society that women have to fulfill this role. It was expected by the society that women would take care of the sick family members better than men (Kerdmee, 2006). Moreover, they have also feared that their own sickness and family members' sickness would be more serious and in some cases, that their husbands would have another woman, resulting in accumulating chronic stress time over time as the problems have been unsolved. In Buddhist concept, the major cause of suffering in persons with hypertension was ignorance. They lack understanding about the Five Aggregates, the Three Characteristics of Existence, the Four Noble Truths, and the Law of Cause and Effect.

The findings of this study are correlated with the Buddhist teaching in the dependent origination (*paticcasamuppada*); suggesting that everything happened has its cause and effect. A major cause of suffering for human is ignorance (*avijja*), or lack of understanding about the Three Characteristics of Existence (*tilakkhana*) including the impermanence of all things (*anicca*), suffering (*dukkha*), and no self (*anatta*). These ignorance lead to desire to have everything which brings happiness or satisfaction (*kama-tanha*), to desire the condition of life that can provide everything to fulfill all wishes (*bhava-tanha*), and to desire to pass away from condition of life that are undesirable (*vibhava-tanha*). When these desires (*tanha*) are increased, the clinging (*upadana*) of self is also increased. These lead to sorrow, lamentation, pain, grief, displeasure, and distress because it is a belief that all things have a real self and are unable to accept changes that occur in their life (Bonadonna, 2003; Payutto, 1995; Tanphaichitr, 2005).

Perception of suffering is also the important factor that led the persons with hypertension to open their minds to accept the meditating practice for self-healing. The results of the study corroborated with Vinotago (n.d.) statement, stating that a person might overlook meditating practice if he or she has no experience of suffering, or if he or she feel happy, because the meditating practice was thought as the unnecessary thing. In addition, the results was also correlated with Buddhadasa's statement indicated that "The Lord Buddha is behind the curtain of suffering." This means that a person must open the curtain when he or she experiences suffering and then will see the Lord Buddha. There is no curtain to open for someone who does not experience suffering, so he or she would be less likely to see the Lord Buddha (Burn, 1994).

Faith and belief: These concepts have influenced not only to open one's mind to start practicing meditation but also to maintain practicing, and promote self-healing. The belief and faith in Buddhist meditating practice and in merit making are important to facilitate self-healing process.

The persons with hypertension have believed that Buddhist meditating practice help to reduce their sufferings and lower their blood pressure, as they perceived this information from the researcher, nurses, television, and especially from their own direct experiences. In addition, the Buddhism teaches people to be good and to control one's emotions against anger has infiltrated into persons with hypertension' belief since they were young. Thus, this belief has facilitated their minds to be opened to learn and practice Buddhist meditation. The findings of this study were correlated with Payutto's (1995) statement, stating that one must believe in the wisdom and the teachings of Buddhism in order to follow the teachings, otherwise he or she will be

unable to proceed. Once the persons believe in the *Dharma* teaching, they will be inspired to behave according to their beliefs.

The faith in Buddhist meditation was developed after they have practiced and have found by themselves that their blood pressure and the other abnormal symptoms included red face, dizziness, and headache were relieved. These motivated the persons with hypertension to continue practicing Buddhist meditation. The development of faith corroborated Payasiri (2003) state, there are many sources of faith development such as listening or reading, thoughts of considering, and self-discipline. The faith occurred from self-discipline leads to be powerful faith and difficult changing.

Moreover, the persons with hypertension have also believed that the practices, such as offering foods to monks, praying, donating money, listening to the *Dharma* teaching, and meditating, are to gain merits that consequently return good outcomes. Such outcomes include happy life, healthiness, and wealth. The benefits of merit are not only belonging to one, but also extend to one's family and endure into the next life. They believed that do good must receive good things in this life and in the next life. This belief relates to the Buddhist teaching in the Law of *Kamma* (the acts of persons leading to either good or bad outcomes) and the *Samsara* (cycle of death and rebirth). In fact, the Law of *kamma* is the Law of Cause and Effect (*paticcasamuppada*) but this term is more familiar and easier to understand in lay persons. The process of *Samsara* composed of unwholesome tendencies (*kilesa*: greed, hate, and delusion), *kamma*, and the outcomes of action (*vipaka*). This process starts from the unwholesome tendencies that bring about *kamma* to receive the outcomes. *Kamma* is action based on intention through the body, speech, and mind. It can be divided into two main types which are *akusala kamma* (evil deed) and *kusala*

kamma (good deed). If good *kamma* develops, the persons receive merit and reborn in a fortunate state, either as a human or a god, but if evil *kamma* develops, the persons receive sin and reborn in a lower state, as an animal, or a hell being (Payutto, 1995; Obhaso, 1999). Such belief might lead people to do good deed and avoid doing bad deed.

At the beginning, although they have been unable to achieve the state of concentration on breathing very well but they have had feeling good when they practiced meditation, prayed, and offered foods to the monks, and then they preferred to continue practicing meditation. Merit making worked as a bridge that motivated them to practice meditation before experiencing the absolute results. When their minds were filled with meritorious sense, they continued practicing until they attained the results, and then they maintained the practice regularly. The findings from this study were correlated with Benson's (1996) statement, explaining that meditation practice linked to religious belief is a technique that encourages belief, the spirit of acceptance, motivation, and faith, until these become incorporated into daily life. People might not practice meditation consistently if they have no religious belief and no hope of the positive outcomes from practicing.

According to Buddhism, merit making help to decrease suffering because it is to cleanse the body, speech, and mind from defilements that comprise of greed, hate, and delusion (Payutto, 1995). The ways of merit making that the persons with hypertension have done in this study are called in Buddhist term "*Boonkiriya-vutthu*." The benefits of merit making involves three steps: (1) primary advantages: the Four Basic Essential Needs, such as the benefit of offering foods to the monk is to have food to eat, (2) the presence of brilliant and comfortable mind, and (3) the perfect

freedom that occurs from abandoning attachment to the self (Visalo, 2009). However, one should not expect outcomes from merit making (Payutto, 1995). It is considered as attachment and selfish for one to make merit only for the benefits that may result from it. In fact, noble merit making abandons the self, defilements, and material attachment (Visalo, 2009).

The wisdom: after the persons with hypertension practice meditation regularly for a period of time, they have reflected that they have achieved the state of higher mindfulness (recognizing their thoughts, emotions, and feelings faster), peacefulness, and wisdom (understanding the natural truth that everything is impermanent and that one has no real self). In addition, they understood that the causes of suffering are greed, hatred, delusion, and attachment to things through the false belief that everything is real. They used their wisdom to resolve life problems such as (1) avoiding greed, (2) calmly accepting the problems in life and searching for the causes and the solutions, and (3) attempt to be mindful of the present in order to reduce muddled thoughts. This resulted in decreased suffering and helped to facilitate the process of self-healing.

The wisdom that nine persons with hypertension have gained was from the understanding of Buddhist teachings through praying, listening to the sermons, and reading the *Dharma* books. Nevertheless, the five persons with hypertension who have practiced *vipassana* sitting meditation have sometimes experienced the obvious uncomfortable feeling of the body and mind such as pain, itchy skin, and various negative emotions. However, they have deliberately observed how these feelings gradually change while they have been practicing (occurring, existing, and disappearing). They have finally understood the nature of impermanence, the causes

of distress, and the selflessness. According to Payutto (1995), there are three levels of wisdom: (1) *literary panna* that derives from listening or reading, (2) *contemplative panna* that occurs through the thoughts of considering and understanding the reasons and (3) *real mark panna* that occurs through self-discipline. The wisdom of that nine persons with hypertension in this study have procured was considered to be the *contemplative panna*. However, it could not be concluded that those five persons with hypertension have experienced the *real mark panna* because this experience would occurred when the persons with hypertension perceived the changing of body, feeling, mind state and *Dhamm* at all time until they have truly understood the impermanence, suffering, and no self and can let go for everything.

The finding of self-healing process of this study was correlated with the Four Noble Truths of Buddhist philosophy. At the beginning, the persons with hypertension have understood and accepted their sufferings (*dukkha*). Consequently, they have resolved their sufferings by practicing meditation and keeping the precepts. For this reason, they have been able to develop mindfulness and wisdom that helped them to understand the causes of their sufferings (*samudaya*). As the results, they have been able to deal with their problems and conduct their lives with less distress (*nirodha*) (Kumar, 2002; Marlatt, 2002; Payutto, 1995; Wathabunditkul, 2007). According to *paticcasamuppada*; understanding the nature of truth helps people to cut off the cycle of suffering by eliminating ignorance, craving, and attachment, as well as relieve the suffering. However, the persons with hypertension have not always been in the state of *nirodha* because they were unable to maintain conquering their desires.

2. *The nursing care for enhancing self-healing through Buddhist meditation*

The finding of this study revealed that the principle of Buddhist concept that used to be the guideline in nursing care for enhancing self-healing in persons with hypertension, composed of eliminating the ignorance, developing mindfulness, overcoming the obstacle of Buddhist meditating practice, and promoting of maintaining the regular meditating practice. The researcher and a nurse have collaborated with a monk and a village health care volunteer to provide the information about Buddhist meditation and how to practice, and the pathology of hypertension to the participants. They have created the relaxant, comfortable, and friendly atmosphere. While providing the information and advising, they used soft tone, smiling, and touching. Moreover, they have encouraged them to practice Buddhist meditation until they have gradually developed the abilities to practice on their own and gained self-healing. The researched team has further encouraged them through appreciating their devotions and the progress of their meditation practice. They have also shown their intention and sincere on helping the persons with hypertension to practice Buddhist meditation successfully in order to have their blood pressure levels decreased.

The nursing care concept in this study is correlated with the concept of good friends (*kalyanamitta*) in Buddhism. Good friends provide the right knowledge and understanding for generating good opinion and good attitude toward Buddhist meditation. In addition, good friends awake one to practice *yonisomanasikara* that is the ability to consider oneself by looking at the condition of all things in order to understand more about the nature of the world and life. Once *yonisomanasikara* occurs, it can help achieve goals of mindfulness and wisdom. Good friends not only

encourage the correct understanding, knowledge, and faith but also encourage *yoinisomanasikara* because if it is stopped at the level of faith, then those who have only the faith would be dependent upon friends and their behaviors would not be developed but still being like the imitation. However, as their *yoinisomanasikara*, developed, they would be able to see the Noble Truth through their insights and they would be free, otherwise they would not truly achieve the goal of Buddhist meditation (Payutto, 1995, 2009). As Yen and Rodgers (2002) explain that the major role of nurses for integrating the Buddhist concept in nursing care is to encourage the patients to have the truthful understanding and knowledge by providing health education, instructing on how to practice meditation correctly and how to keep good health-related behaviors.

In addition, this pattern of nursing care was related to the *Dhamma* in Buddhism regarding to Brahmavihara, the four divine sentiments, namely- love (metta): promoting the welfare of others, compassion (karuna): promoting the removal of others' suffering, sympathetic joy (mudita): joy with the success of others, and equanimity (upekkha): promoting the equipoise toward all being conditions.

Regarding to the successful of enhancing self-healing, the researcher and the nurse have integrated many roles in their works that are correlated with the roles of holistic nursing care. They have played the role as the health-leaders who suggest the behavioral methods for self-healing, the health-educators who advise their patients about the appropriate ways of self-healing practice, the collaborators who encourage the individuals to understand the principles of self-healing practice, the consultants who provide the information and support when each individual encounters the problems or obstacles while practicing self-healing procedures, and the administrators

who prepare the place to be ready for practicing self-healing procedures, all these were to facilitate the patients to truly find peace in their lives (AHNA, 2004; Dossey & Guzzetta, 2005; Erickson, 2007; Lai & Quinn, 1999; Hsieh, 2003; Mariano, 2007; Quinn, 2005; Potter & Frisch, 2007).

Furthermore, this finding was correlated to Erickson's statement (2007) that the art of nursing is very important to restore the balance of all dimensions of human or facilitate healing process by creating the healing field- using gentle comforting touch, presence, intent, unconditional acceptance, love, and compassion. The nurses should open oneself to the needs of another, without expectations or distractions. They should make the intent to care for the person with the smiling face, eye contact, gentle touch, or quiet words of reassurance. These affect that the nurse's energy field synchronizes with the client's, consequently creates the holistic energy field between them. They are put in the perfect condition to heal, as the results; the patients feel secure and comfortable. They should accept the human being as a being of this universe without any expectation of who he or she becomes. If the holistic nurses accept the essence of another human being unconditionally, they will recognize the inherent needs of all people to be valued, self-worthy and self-dignity. It is the basic of love to show the compassion on human being, without judgment or values. This creates the connection of heart-to-heart and spirit-to-spirit. Compassion included love and understanding the nature of human being, human condition, and its vulnerabilities. The feeling of being secure, being loved and connection conduct the healing that help patients to become better understanding about the life and become better awareness of their potentials and their lives' purposes. Their souls lead to live their lives accordingly and transcend the physical peacefully.

3. Factors related to meditating practice

3.1 Facilitating factors in meditation practice

The facilitating factors that promoted the abilities of persons with hypertension in practicing Buddhist meditation, included the faith in Buddhism and faith in the monks, the favorable attitude toward meditating practice of family members, the broadcast of praying by the monks, intention and effort, fear of complications of hypertension, perception of good results through practicing meditation, pleasure, and the sincerely care by the researched team members.

Having faith in Buddhism and monks helped the persons with hypertension to have more confidence in practicing meditation, resulting in decreasing of their sufferings. This also helped them to feel happier and to have confidence in those who recommended the meditation to them, thus making them more likely to practice meditation wholeheartedly (Payutto, 1995; Dhammacaro, 2008), the same as the positive attitude of family members and the mediated persons who have advised and persuaded the persons with hypertension to practicing meditation to achieve correct knowledge and understanding (Payutto, 2007, 2009). In the view of Pender, Murdaugh, and Parsons (2002), these facilitating factors were deemed as the cues to accelerate the actions and help stimulate more suitable practice. Intention and effort are factors mentioned in the *Dhamma* that encourage meditating practice (Five Powers and the Seven Factors of Enlightenment). Effort encourages one to be energetic, persevere, remain steady, have high spirits, not be discouraged, and eliminate laziness to improve meditating practice and achieve the goals (Payutto, 2007, 2009). As Pentel (1997) and Vorapongpichate (2008) explain, those who practice meditation must have great effort and motivation to be able to regularly and

consistently practice by themselves because they are less likely to perceive the benefits and may alter their intentions of practicing consistently.

The perception of good results from meditation is one of major factors that motivate individuals to perform behaviors mentioned in Health Belief Model and Health Promotion Model. In this model, the individual will perform one practice when they perceive it as beneficial to do so (Pender, 1996; Pender, Murdaugh, & Parsons, 2002). Pleasure was a factor that made the persons with hypertension choose different methods of practice. The persons with hypertension in this study were given freedom to apply and adjust their own meditating practice methods without being forced to do any particular one. Therefore, the meditating practice methods of the persons with hypertension were determined by individual motivation and decisions. As Payutto (2007) explained, meditating practice can be done in several ways depending on individual skill and disposition, and a person is motivated even more when he or she can practice the activity that he or she enjoys.

3.2 Hindering factors in meditating practice

The findings of this study showed that the persons with hypertension have confronted with many barriers during practicing meditation. Those barriers included experiencing of unsteady mind, drowsiness and laziness, leg pain while practicing sitting meditation, confusion about to focus on breathing while practicing the moving meditation, the inability to remember all the postures for moving meditation, bothersome noises in the environment, and the lack of time.

The obstacles listed above are common occurrences in meditating practice. They are called hindrances, or “the enemies of meditation.” Anyone who has ever practiced meditation has encountered at least one of these hindrances. The successful

meditation would not occur if one or more hindrances existed and could not be managed by the individual (Payutto, 2007).

It was found that nine persons with hypertension in this study were able to manage these obstacles during practicing meditation, but three persons with hypertension could not manage them. It was understood that the main reason that they could not overcome these obstacles was about the mind. One could not practice meditation if his or her mind has no desire to practice. As Tonkhongjun (2009) stated, the important enemies of meditation practice are mind, emotion, and thought that are undesired to practice meditation. Generally, minds like to accumulate desires. However, the mind can tricks to avoid practicing meditation by saying some words like, "I am so tired today," "Let's do it tomorrow," "It is too hot," "My legs hurt," and "I must get up early tomorrow." One has difficulty to refuse one's mind and procrastinates when he or she cannot recognize its trick. Emotions and thoughts toward work, children, parents, money, and friends also distract one's mind when practicing sitting meditation. These thoughts were floating around in one's mind and make it difficult to get peace. One might begin to think about these enemies, but has still been unable to catch up the emotions or thoughts while they were occurring.

Another obstacle is the confusion about to focus on breathing while practicing moving meditation. This made the participants unable to concentrate and remain in calm. This form of meditation consists of 11 postures of practice and mindfulness, which to focus on inhalation, exhalation, and body movement. It might be difficult for individuals in late adulthood and for the elderly to remember during practicing.

4. Meditating practice outcomes

After the persons with hypertension have practiced Buddhist meditation, they have reflected about the outcomes of practicing of each stage of Buddhist meditating practice. In the initial stage, they were unable to focus on breathing along with the body movements. However, they still have some good outcomes included good feelings that obtained from merit making, as well as being able to stretch their bodies during practicing the moving meditation. Furthermore, when they have progressed their practicing as developing the better focusing technique, they have consequently gained more peaceful minds, have better regular heartbeats, clearer heads or better conscious, deeper breathing, and sounder sleep. Moreover, their spiritualities were developed. Greater belief in Buddhism and changing in cognition and behavior patterns (as seen on enjoy going to the temple due to mental calm and the gain of merit, enjoy wearing white when going to the temple due to the feelings of purified physical and mind, being more moral, and inviting others to practice meditation) were also observed. As a result regarding to their health, their blood pressure level and stress levels were decreased and mindfulness level was increased.

These outcomes expressed the successful results of Buddhist meditating practice. As Payutto (2007) explained, the success of meditating practice can be evaluated by (1) looking at the increase of merit making; including increased faith, better keeping of the precepts, reduced desire (greed, hate, and delusion), and improved knowledge and understanding of the truth of all things; (2) looking at one's own performance regarding the Four Noble Truths; included learning about the stress, looking for the causes of sufferings, determining goals, and implementing new behaviors in order to achieve goals; and (3) paying attention on the condition of the

mind when it wanders. The characteristics of mind on the correct path; includes cheerfulness (*pramod*), joy (*piti*), tranquility (*passaddhi*), pleasure (*sukha*), and concentration (*samadhi*).

Peacefulness and concentration of the persons with hypertension' mind arose by practicing Buddhist meditation could stimulate to increase the releasing of Beta endorphin levels produced by hypothalamus gland in the brain. It has morphine-like characteristic that is the positive effect on mood such as happiness, peace, and calmness (Dossey, et al., 2005; Htut, 1999; Zeller, et al., 1995). Therefore, these positive feeling of mind resulting from both meditating practice and Beta endorphin were effected to lower blood pressure levels of the participants because their minds and bodies were connected through the PNI mechanism. The peaceful mind and the concentrated mind stimulated functioning in the parasympathetic system, resulting in decreasing of heart rate, dilating of the peripheral blood vessels, and improving blood flow. For these reasons, blood pressure level was reduced (Dossey, et al., 2005; Manocha, 2000).

Positive changes in behaviors and increasing the ability to cope with stress in the persons with hypertension can be explained by the mindfulness mechanisms mentioned by Shapiro, Carson, Astin, and Freedma (2006). Buddhist meditating practice includes the qualities of intention, attention, and mindfulness, which lead to shifts in perspective, so called "re-perceiving" and can promote increasing in self-regulation mechanism. This mechanism helps to increase one's ability to change behaviors and retain healthy behaviors without self-indulgence, as well as refusing the negative behaviors. In addition, the re-perceiving act produces cognitive, emotional, and behavioral flexibility. This mechanism improves the ability to adjust the

responses that easily stimulated by reducing automatic reactions. This allows the ability to encounter the problems without suffering that consequently decrease in risk factors that cause hypertension.

Furthermore, Buddhist meditation is the religious practice. It is influential to develop the spirituality- the individual's inner beliefs commonly related to religious affiliation (McSherry, 2000). According to George, Larson, Koenig, and McCullough (2000), religion affects health by three hypothesized mechanisms; health behaviors, social support, and a sense of coherence or meaning. Health behaviors; in the Buddhist doctrine includes the specific prohibition against the behaviors that are risk for increasing blood pressure, such as refraining from using tobacco and alcohol. Social support; the religious participation is one of the major avenues available for developing social bound outside that lead to facilitate recovery from illness. Because the religious participants have more interaction with their social networks, receive more assistance from others, and have higher level of satisfaction with the social support. A sense of coherence or meaning; the religious faith helps people to understand their roles in the universe, the purpose of life, and develop the courage to endure suffering.

Many studies have shown that the activity related to the religious beliefs helps to keep blood pressure levels under control. One study examined the outcome of religious activities, such as attending church, watching religious television programs, and engaging in private prayer and meditation. In a large sample of African-Americans (5,300 in total), those individuals who joined these kinds of religious activities had significantly lower levels of blood pressure than those who did not (Wyatt & Giles, 2006). In addition, Koenig et al. (1998) studied the relationship

between religious activities and blood pressure in a six-year prospective study of 4,000 older adults who attended religious services once a week or more and prayed or studied the Bible once a day or more. The findings showed that their diastolic blood pressure was lower than individuals who attended services and prayer 40% less often.

The outcomes of meditating practice on decreasing blood pressure and stress, and increasing mindfulness, are harmonious with the findings of many studies about the effectiveness of meditation on hypertension and stress. This was true even though each study implemented in different methods of meditating practice, including transcendental meditation, *vipassana* meditation, *anapanasati* meditation, Mindfulness-Based Stress Reduction, and Contemplative Meditation Combined with Breathing Techniques. Performance of meditating practice daily and consistently for 10-45 minutes per session, at least one to two times per day, and continually for six weeks or more resulted in significant decreases in systolic blood pressure and diastolic blood pressure (Alexander, et. al., 1996; Barnes, Davis, et al., 2004; Barnes, Treiber, & Davis, 2001; Barnes, Treiber, & Johnson, 2004; Castillo-Richmond, et. al., 2000; Manikonda, et. al., 2005; Schneider, et. al., 2005; Sukonthasarn, 2001; Wenneberg, et al., 2003) and leads to significantly lower levels of stress (Krachangdan, 2003; Nuibandan, et. al., 2006; Soongkote, 2007; Sukonthasarn, 2001; Tacon, McComb, Caldera & Randolph, 2003; Udomsinka, 1998). In addition, it also helps increase mindfulness (Nuibandan et. al., 2006).

Lessons learned from the study

1. Action research

Action research requires the understanding of the problems in the certain context and developing the plan in order to solve the problems occurs in real situation. The researcher has positive feeling toward this methodology because all problems can be understood clearly and the researcher also has ability to develop the model or program to solve the problems. Although this type of research was useful for this study, it was also difficult because it required cooperation of many people, it was time consuming, and involved a huge expenditures. Nevertheless, the desires to solve problems for hypertensive persons have influenced the decision to conduct this research study.

Once this method; Action Research was chosen, the researcher discovered that finding the solutions by cooperating with many people in the similar interests enhanced the power of problem solving. It was important for the researcher to build good relationships with all participants as it helped to improve the operation of the study. Prior to this research study; the researcher had no experience with action research and has a little bit worry whether the components were being conducted according to the research methodology correctly. The researcher has studied more from the books and has consulted with advisor in order to confirm the proper operation of research. In addition, she was confronted with problems concerning to the organization of group meeting scheduling because each person had conflict on availability. The researcher was patient and accepted the problems that occurred and continued looking for the solutions for these problems.

Despite encountering many problems during operating this study, the researcher has still preferred the action research method because it is one of the effective methodologies on finding the solutions of problems faced by persons with hypertension. The researcher received praise from the participants and other people as helping them to solve the problems in the community. This included the compliment from one hypertensive person, who said, "I think I was blessed that I could learn meditating practice. I must thank you (the researcher) so much for giving me good knowledge. It made me glad to have knowledge, which is like a common household remedy I can use any time. Thank you so much. I wish you a great deal of happiness. May you be satisfied with your work and may the relic of the Lord Buddha protect you." Thanks and blessings from participants helped the researcher to continue without weariness.

2. Self-development from conducting action research:

The researcher performed two roles in this research; as a researcher and as a nurse. As a researcher, she created and developed relationships with people in order to enhance cooperation by mingling herself with people and joined the activities in the setting's community for one month before starting the study. She has introduced herself to the village chief, sub-district administrative chief officer, and villagers. She has participated in meditating practice on Buddhist holy days and in various Buddhist ceremonies' activities. She has adapted herself to get along well with everyone in the community. She has also developed patience as learning how to encourage the participants to reflect their thoughts and taking time on waiting for their responses and interactions.

As a nurse, the researcher has studied and practiced Buddhist meditation in order to understand and gain confidence in ability to suggest the methods of meditating practice to others. Despite being a Buddhist and having a few experiences in Buddhist meditating practice, the researcher had little understanding about its principles and methods prior to this research study. She has spent time on studying, practicing, and applying Buddhist meditation in her daily life prior conducting the research. The researcher has also experienced many positive outcomes from practicing meditation, such as greater patient, easier on controlling the anxiety, higher mindfulness and concentration on work, and eliminating the distress from studying.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions of the study and recommendations that are made for nursing practice, education and nursing administration based on the findings from the research study. In addition, the limitation of this study is reported along with proposal for further research.

Conclusions

The purpose of the study was to develop the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension. The method that use in this study is action research that required mutual collaborative approach of a researcher, a nurse, a monk, a village health care volunteer, and twelve persons with hypertension.

The research process started from a researcher and a nurse understanding the problems that caused persons with hypertension not being able to consistently maintain their blood pressure levels under 140/90 mmHg. The main problem for the persons with hypertension was a lack of mental control and willpower. A mind that perpetuates suffering and self-indulgent behaviors is harmful to those with high blood pressure. A nurse and a researcher made an attempted to apply meditation to help the persons with hypertension directly maintain their blood pressure levels, but this effort was not very successful. The problems of integrating Buddhist meditation with nursing care composed of (1) there was no practice of using meditation for self-

healing for persons with hypertension specifically, (2) inconsistency support and evaluation for meditation, and (3) lack of time and self-confidence in the program. They consulted with each other and agreed that the most appropriate solution to this problem is mind development through Buddhist meditation. After that, the Tentative Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension was conducted after reviewing literatures, interviewing experts, discussing with participants. The pilot study was then commenced. Then, the model was brought to practice following the research process, planning, acting and observing, reflection, and revising plan. The data was collected by interviewing, critical reflection, observing and taking photograph. Interview and observation data were recorded by taking notes. The data were then analyzed by descriptive statistics and content analysis. Analyzed data was examined and confirmed by participants and advisors for accuracy in interpretation and findings. Finally, the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension was developed.

The Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension composed of; (1) four phases of self-healing process through Buddhist meditation; (2) the nursing care for enhancing self-healing in each phase; (3) facilitation factors and hindering factor of Buddhist meditation practice in each phase; and (4) outcome of Buddhist meditation practice in each phase.

In phase I: Encountering suffering and having inappropriate health-related behaviors which lead to persistent high blood pressure, the persons with hypertension were suffering and perpetuating self-indulgent behaviors that were not appropriate to reduce high blood pressure. In Buddhism, the major cause of suffering and

inappropriate behaviors in persons with hypertension was ignorance. They did not understand the Five Aggregates, the Three Characteristics of Existence, the Four Noble Truths, the Law of Cause and Effect, and the pathology of hypertension. Therefore, the principle of Buddhist concept guiding nursing care for enhancing self-healing in persons with hypertension in this phase was eliminating ignorance. The nurse's activities in this phase composed of providing information and analyzing the causes of hypertension to individual persons with hypertension. The strategies that the researcher and nurse utilized for encouraging the successful nursing care consisted of building friendly relation, understanding persons with hypertension's problems and helping to solve the problem with heart, and giving the critical reflection. After that, the persons with hypertension understood their inappropriate health behaviors and realizing the necessity of changing behavior, understood and believed suffering due to hypertension, understood the nature of life but could not accept, and understood the muddled thought leading to suffering but unable to eliminate it.

In phase II: Understanding the causes of hypertension but unable to eliminate the suffering and inappropriate health-related behaviors, the persons with hypertension understood the causes of uncontrolled blood pressure including suffering and inappropriate health behaviors (eating foods high in salt or/and eating high in fat or/and not taking antihypertensive drugs regularly). However, they could not eliminate these causes because of incompetent adaptation and acceptance of changing their life style and that of their family members. In addition, they could not repress their desire to eat fatty and salty foods because they enjoyed having them. The problems of persons with hypertension in this phase based on the point of view in Buddhism is the lost of mindfulness. Therefore, the principle of Buddhist concept

guiding nursing care to enhance self-healing in persons with hypertension in this phase was developing mindfulness. The nurse's activities in this phase comprises: (1) providing the knowledge about benefits of Buddhist meditation; (2) providing and training Buddhist meditation practice following the Buddhist meditation program; (3) encouraging confidence in the ability to practice meditation on one own; (4) encouraging persons with hypertension to allocate the time to practice meditation for the benefits to their health; and (5) encouraging the persons with hypertension who were downhearted to return to meditation practice. The strategies applied by the researcher and the nurse to encourage the successful nursing care in this phase consisted of preparing the comfortable environment, providing and training for Buddhist meditation practice with kindness, and giving the critical reflection. In the earliest stage of learning and practice Buddhist meditation, they confronted with many obstacles such as unsteady mind, drowsiness and laziness, having leg pain while practicing the sitting meditation, confusion about to focus on breathing while practicing the moving meditation, inability to practice all the postures of moving meditation, bothersome noises, and lack of time. However, there are many facilitators that motivated them to practice such as faith in Buddhism and in the monks, the favorable attitudes of family members toward meditation practice, and the broadcast of prayer by the monks. The outcome of the Buddhist meditation practice includes having good feeling and being able to stretch.

In phase III: Practicing Buddhist meditation leads to receiving good feelings from merit making but still unable to perform meditation well, the persons with hypertension were still not able to achieve breath concentration very well. They usually thought about other things and then had to spend a long time to bring their

focus back to their breath again. However, praying, practicing meditation, and offering food to the monks when they went to practice meditation at temple made them feel meritorious and feeling good. Therefore, they no longer thought of stopping meditation practice just because of a lack of skills. On the contrary, they wanted to continue practicing Buddhist meditation consistently. The problems of persons with hypertension in this phase based on Buddhist view was inability in overcoming obstacle of Buddhist meditation practice. Thus, the persons with hypertension could not develop concentration, peacefulness, and wisdom. Therefore, the principle of Buddhist concept guiding nursing care to enhance self-healing in persons with hypertension in this phase was overcoming the obstacle of Buddhist meditation practice. The nurse's activities in this phase involved (1) advising and practicing together; (2) encouraging family members to provide support; (3) enhancing their confidence; (4) stimulating them to put forth effort; (5) appreciating their devotion to progress in meditation practice; (6) reassuring the persons with hypertension; and (7) promoting progression in Buddhist meditation practice. The strategies that the researcher and the nurse utilized for encouraging the successful nursing care consisted of accompanying with and practicing Buddhist meditation alongside and giving critical reflection. The facilitating factors that made them progress in practice regularly composed of intention and effort, fear of developing complications from hypertension, perception of good results from meditation practice, pleasure, and continuous, sincerely care from the nurse and the village health care volunteer. There were many outcomes resulted from regular Buddhist meditation practice: peaceful mind, consciousness, better regular heartbeat, deeper breathing, better digestive

system as shown in reduction of flatulence, sounder sleep, decrease of blood pressure, decrease of stress, and increase in mindfulness.

In phase IV: Achieving peacefulness and accepting the nature of Buddhist truths, the nine persons with hypertension perceived they had peaceful mind, increasing mindfulness (perceiving their thoughts, emotions, and feelings faster), and increasing wisdom (understanding the natural truth that everything is impermanent and that one has no real self). In addition, they could accept the changing of everything with calm and gradually finding the way to resolve the problem. However, it was found through follow-up with the persons with hypertension that, after they received the positive outcome of Buddhist meditation, the frequency of Buddhist meditation practice was decreased. There were pauses and periods of regular practice when they encountered obstacles. The problems of persons with hypertension in this phase were inability to maintain meditation practice and lack of time. Therefore, the principle of Buddhist concept guiding nursing care to enhance self-healing in persons with hypertension in this phase was encouraging and promoting maintenance of the regular meditation practice. The actions from nurses in this phase include organizing venues for practicing meditation and advising to concentrate on activities in daily life. The strategies that the researcher and nurse applied to encourage the successful nursing care consisted of showing the role model of Buddhist meditation practice and integrating the belief of merit making by Buddhist meditation and Buddhist way of life. The outcome of Buddhist meditation practice was changing of cognitive and behavior: enjoyed wearing white clothing when going to the temple due to the feelings of having their physical and mental purified; being more moral; enjoying going to the temple due to calm in mind and the gaining the merit; and inviting others

to practice meditation. In addition, they could control blood pressure lower than 140/90 mmHg continuously.

Recommendations

1. Nursing practice

From the findings of the study, the researcher found that Buddhist meditation is a method that helps persons with hypertension obtain self-healing, balancing body and mind and consistently maintaining a normal level of blood pressure. Therefore, it was concluded that Buddhist meditation is an appropriate method that nurses should use to enhance the health of persons with hypertension in both clinic and community.

Integrating Buddhist meditation into nursing care is not an easy task. Difficult issues such as how to implement this practice- these include figuring out how to open the mind of the persons with hypertension to accept meditation for self-healing, increasing their knowledge of meditation, and encouraging consistent practice. The important points which solved these problems besides mentioning earlier were effort, patient, and good role model of nurses.

The nurses should not simply say, "Practicing Buddhist meditation is good because it decreases blood pressure." This alone is not enough to influence change in thinking processes or behaviors. Nurses must show effort in order to encourage faith or belief in Buddhist meditation and its ability to decrease blood pressure. In addition, nurses must practice Buddhist meditation themselves in order to show that they have knowledge and understanding of Buddhist meditation practice so that they can

suggest methods of practice. It would be difficult to create faith if the nurses suggested a method of Buddhist meditation practice without ever practicing themselves. Nurses must remain even-tempered, friendly, and patient because some persons with hypertension may have problems while practicing meditation. They may be slow in learning of meditation practice, they may be unable to remember what is taught, or discontinue practicing meditation. Nurses must accept these occurrences and problems and try to solve these without reacting to, or getting angry at, the persons with hypertension.

In addition, in promoting the application of meditation for self-healing in persons, the nurse should concern their belief, pleasure, culture, and life style. The method of meditation practice that corresponds with these factors encourages the persons to practice meditation regularly and continuously. On the contrary, the method of meditation practice that does not match with these factors would gradually decrease in regular practice and finally stop practicing.

2. Nursing education

At present, the nursing curriculum is still lack of demonstration how to integrate meditation into nursing practice. In some school, nursing students are taught meditation for mind development. They are unable to use these methods to care for patients after graduation. Therefore, the nursing curriculum should modify to include the subject “the integrating complementary and alternative medicine (CAM) into nursing care.” The content in this subject should compose of: (1) the meaning of CAM, (2) the type of CAM, (3) the philosophy base, the mechanism effect on health, and the practice of each type of CAM. For the learning activities, it should include theory part and practical part- listening and understanding the content, practice by

themselves in order to improve their own health and create a confidence for integrating CAM into nursing care. And finally attempt should be made to integrate CAM into nursing care when nurses go to practice at clinic and community.

3. Nursing administration

To seriously encouraging the integration of meditation practice into nursing practice to achieve effective and efficient care, the policy should be set to promote meditation practice in nursing care. This policy should include: (1) encourage learning and training meditation practice of health care personals, (2) encourage using of meditation practice by including it into nurse job description, (3) encourage arranging the space for meditation in nursing care, and (4) encourage concerning of cultural, value, and belief of patients.

4. Nursing research

Recommendations for further research related to meditation practice for hypertension are as follows:

4.1 The study's findings revealed positively on a program for self-healing using Buddhist meditation for a community. Future studies should be conducted to test the effectiveness of this model using quasi-experimental methods in order to obtain greater confidence of its ability to improve health.

4.2 The number of chronic patients with inappropriate health behavior and states of tension, including heart disease, diabetes, and chronic gastritis, increases every year. This also increases the cost of health care. For further study, model that encourage self-healing applying Buddhist meditation should be researched to adapt to the needs of chronic patients and test the effectiveness of this model using quasi-experimental methods.

4.3 With social, economic, and health changes, people seem to encounter stress at a higher level today than in the past. Many people have used meditation practice for self-healing, and it has helped creating balance. It is beneficial and interesting to study the experiences of individuals (with different background such as different in religion, level of education, economic conditions, and age) who have used meditation practice for self-healing. This study will help nurses understand meditation practice: its definition, reasons for its use, beliefs and perceptions, obstacles, how to overcome obstacles, supportive factors, methods of adapting meditation practice for use, and important motivational factors that encourage continuous practice of meditation. Nurses can adapt the knowledge to increase the effectiveness of nursing care by enhancing self-healing through Buddhist meditation.

Limitation of this study

This study was conducted only with persons with hypertension at community in southern part of Thailand. All of them are Buddhist, agriculturist, and educated to primary level. Thus the findings may not be applicable to persons with hypertension from other context and religious beliefs or culture.

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APPENDICES

Appendix A

Protection of Human Subjects

CONSENT FORM (ไทย): ใบแสดงความยินยอมของผู้ที่มีภาวะความดันโลหิตสูง
การพัฒนารูปแบบการพยาบาลโดยการทำสมาธิแบบพุทธบำบัด
เพื่อการเยียวยาตนเองสำหรับผู้ที่มีภาวะความดันโลหิตสูง

ดิฉัน นางสาวจามจรี แซ่หลู่ นักศึกษาปริญญาเอกทางการพยาบาล คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ ได้ทำการวิจัยเรื่องการพัฒนาแบบการพยาบาลโดยการ ใช้สมาธิแบบพุทธบำบัดเพื่อการเยียวยาตนเองสำหรับผู้ที่มีภาวะความดันโลหิตสูง ซึ่งผลการวิจัยที่ได้จะเป็นประโยชน์อย่างยิ่งต่อการให้การพยาบาลผู้ที่มีภาวะความดันโลหิตสูงในการช่วยลดความเครียด ความคุมระดับความดันโลหิตให้อยู่ในเกณฑ์ปกติได้อย่างต่อเนื่องและป้องกันไม่ให้เกิดภาวะแทรกซ้อนจากการมีภาวะความดันโลหิตสูงอย่างต่อเนื่อง เช่น โรคหัวใจ โรคเส้นเลือดในสมองแตก ตีบหรืออุดตัน และโรคไตวาย

ในการวิจัยครั้งนี้ต้องอาศัยการมีส่วนร่วมของท่านในทุกๆ ขั้นตอนของการวิจัย โดยท่านจะมีส่วนร่วมในการวิจัยครั้งนี้ ดังนี้

1. ตอบแบบสอบถามเกี่ยวกับข้อมูลส่วนบุคคล ข้อมูลการเจ็บป่วย การประเมินความเครียด การประเมินสติ และให้สัมภาษณ์เกี่ยวกับ การรับรู้ภาวะความดันโลหิตสูง การปฏิบัติตัวเมื่อรับรู้ว่ามีภาวะความดันโลหิตสูง
2. ให้ความคิดเห็นในการพัฒนารูปแบบการพยาบาลโดยการ ใช้สมาธิแบบพุทธที่เหมาะสมกับผู้ที่มีภาวะความดันโลหิตสูง
3. ปฏิบัติตามโปรแกรมการปฏิบัติสมาธิแบบพุทธสำหรับผู้ที่มีภาวะความดันโลหิตสูงที่ได้ตกลงร่วมกัน
4. ให้ข้อมูลเกี่ยวกับวิธีการปฏิบัติสมาธิแบบพุทธ ความรู้สึกต่อการปฏิบัติสมาธิแบบพุทธ ปัจจัยที่ส่งเสริม และปัจจัยที่เป็นอุปสรรคในการปฏิบัติสมาธิแบบพุทธ และให้ข้อคิดเห็นเพื่อปรับปรุงโปรแกรมให้เหมาะสมต่อไป

ในกระบวนการศึกษา ดิฉันต้องขออนุญาตบันทึกเทป จดบันทึกและถ่ายภาพ ระหว่างสัมภาษณ์หรือประชุมกลุ่ม เพื่อประกอบการศึกษา และในขณะที่สัมภาษณ์หรือประชุมกลุ่มถ้าหากว่าคำถามใดที่ทำให้ท่านรู้สึกอึดอัดและไม่ต้องการที่จะบอกเล่าแก่ผู้อื่น ท่านสามารถบอกผู้วิจัยและมีอิสระเต็มที่ที่จะตอบคำถามหรือไม่ก็ได้ สำหรับรายละเอียดของข้อมูลจะถูกเก็บเป็นความลับและ

ใช้เฉพาะการวิจัยนี้เท่านั้น โดยข้อมูลที่ได้จะนำมาให้ท่านพิจารณาและอนุญาตก่อนนำไปใช้ หากท่านมีข้อสงสัย ดิฉันยินดีที่จะให้ความกระจ่างเพิ่มเติม โดยท่านสามารถติดต่อกับดิฉันได้ที่เบอร์มือถือ 086-9407647 หรือเบอร์บ้าน 075- 481242 ท่านมีสิทธิที่จะตอบรับหรือปฏิเสธในการเข้าร่วมโครงการได้ตลอดเวลาตามที่ท่านต้องการ โดยไม่มีผลกระทบต่อการรักษาพยาบาลที่ท่านจะได้รับ

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ลายมือชื่อผู้วิจัย

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วัน/เดือน/ปี

สำหรับผู้มีส่วนร่วมในการศึกษา

ข้าพเจ้าได้รับการชี้แจงรายละเอียดดังกล่าวข้างต้น ข้าพเจ้าเข้าใจในวัตถุประสงค์ของการศึกษา และทราบว่าข้าพเจ้าต้องปฏิบัติตามแผนการที่ได้ตกลงร่วมกัน ต้องให้สัมภาษณ์และต้องตอบแบบสอบถาม ข้าพเจ้ามีความยินดีในการเข้าร่วมโครงการวิจัยในครั้งนี้

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ลายมือชื่อผู้เข้าร่วมวิจัย

.....
วัน/เดือน/ปี

CONSENT FORM (ไทย): ใบแสดงความยินยอมของพยาบาลและอาสาสมัครประจำหมู่บ้าน
การพัฒนารูปแบบการพยาบาลโดยการทำสมาธิแบบพุทธบำบัด
เพื่อการเยียวยาตนเองสำหรับผู้ที่มีความดันโลหิตสูง

ดิฉัน นางสาวจามจุรี แซ่หลู่ นักศึกษาปริญญาเอกทางการพยาบาล คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ ได้ทำการวิจัยเรื่องการพัฒนาแบบการพยาบาลโดยการ ใช้สมาธิแบบพุทธบำบัดเพื่อการเยียวยาตนเองสำหรับผู้ที่มีความดันโลหิตสูง ซึ่งผลการวิจัยที่ได้จะเป็นประโยชน์อย่างยิ่งต่อการให้การพยาบาลผู้ที่มีความดันโลหิตสูงในการช่วยลดความเครียดควบคุมระดับความดันโลหิตให้อยู่ในเกณฑ์ปกติได้อย่างต่อเนื่อง และป้องกันไม่ให้เกิดภาวะแทรกซ้อนจากการมีความดันโลหิตสูงอย่างต่อเนื่อง เช่น โรคหัวใจ โรคเส้นเลือดในสมองแตก ตีบหรืออุดตัน และโรคไตวาย

ในการวิจัยครั้งนี้ต้องอาศัยการมีส่วนร่วมของท่านในทุกๆ ขั้นตอนของการวิจัย โดยท่านจะมีส่วนร่วมในการวิจัยครั้งนี้ ดังนี้

1. ให้ข้อมูลเกี่ยวกับการดูแลผู้ที่มีความดันโลหิตสูงที่ปฏิบัติอยู่
2. ให้ความคิดเห็นในการพัฒนาแบบการพยาบาลโดยการ ใช้สมาธิแบบพุทธที่เหมาะสมกับผู้ที่มีความดันโลหิตสูง
3. ปฏิบัติตามโปรแกรมการปฏิบัติสมาธิแบบพุทธสำหรับการเยียวยาตนเองของผู้ที่มีความดันโลหิตสูงที่ได้ตกลงร่วมกัน โดยให้ความรู้แก่ผู้ป่วยเกี่ยวกับพยาธิสภาพของความดันโลหิตสูง การปฏิบัติสมาธิแบบพุทธ พร้อมทั้งส่งเสริมการปฏิบัติ และติดตามประเมินผล
4. ให้ข้อมูลสะท้อนบทบาทการส่งเสริมการเยียวยาตนเองโดยการ ทำสมาธิแบบพุทธ และให้ข้อคิดเห็นเพื่อปรับปรุง โปรแกรมให้เหมาะสมต่อไป

ในกระบวนการศึกษา ดิฉันต้องขออนุญาตบันทึกเทป จดบันทึกและถ่ายภาพ ระหว่างสัมภาษณ์หรือประชุมกลุ่ม เพื่อประกอบการศึกษา และในขณะที่สัมภาษณ์หรือประชุมกลุ่มถ้าหากว่าคำถามใดที่ทำให้ท่านรู้สึกอึดอัดและไม่ต้องการที่จะบอกเล่าแก่ผู้อื่น ท่านสามารถบอกผู้วิจัยและมีอิสระเต็มที่ที่จะตอบคำถามหรือไม่ก็ได้ สำหรับรายละเอียดของข้อมูลจะถูกเก็บเป็นความลับและใช้เฉพาะการวิจัยนี้เท่านั้น โดยข้อมูลที่ได้นี้จะนำมาให้ท่านพิจารณาและอนุญาตก่อนนำไปใช้ หากท่านมีข้อสงสัย ดิฉันยินดีที่จะให้ความกระจ่างเพิ่มเติม โดยท่านสามารถติดต่อกับดิฉันได้ที่เบอร์มือถือ 086-9407647 หรือเบอร์บ้าน 075- 481242 ท่านมีสิทธิที่จะตอบรับหรือปฏิเสธในการเข้าร่วมโครงการได้ตลอดเวลาตามที่ท่านต้องการ โดยไม่มีผลกระทบต่อการทำงานของท่าน

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ลายมือชื่อผู้วิจัย

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วัน/เดือน/ปี

สำหรับผู้มีส่วนร่วมในการศึกษา

ข้าพเจ้าได้รับการชี้แจงรายละเอียดดังกล่าวข้างต้น ข้าพเจ้าเข้าใจในวัตถุประสงค์ของการศึกษา และทราบว่าข้าพเจ้าต้องปฏิบัติตามแผนที่ได้ตกลงร่วมกัน ต้องให้สัมภาษณ์และต้องตอบแบบสอบถาม ข้าพเจ้ามีความยินดีในการเข้าร่วมโครงการวิจัยในครั้งนี้

.....
ลายมือชื่อผู้เข้าร่วมวิจัย

.....
วัน/เดือน/ปี

The consent forms and associated documents (originally written in Thai) used in the research study are translated to English.

CONSENT FORM (For persons with hypertension)

Development of the Therapeutic Buddhist Meditation Nursing Program
for Self-Healing in Persons with Hypertension

My name is Miss Jamjuree Saeloo. I am studying doctoral degree in nursing at the nursing faculty in the Prince of Songkla University. I am conducting a research study titled “Development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension” The research outcome will be benefited to care the persons with hypertension in decreasing the stress, assisting to control blood pressure in normal level, and preventing other diseases i.e., stroke, heart disease, cardiovascular disease or kidney failure.

This research study needs good coordination in every step of the research. You can participate in this study by;

1. Giving answers related to personnel information, medical history, stress assessment, mindfulness questions as well as giving interview about perception of hypertension and self care to control blood pressure
2. Giving appropriate suggestions or comments in Buddhist meditation Nursing Model for Self-Healing in persons with hypertension
3. Practicing according to the Buddhist meditation program for hypertensive person

4. Giving information for meditation practice, feeling for meditation, factors affecting meditation practice and giving further suggestions to develop appropriate program

In the study process, I would like to ask for your permission to make a tape recording, take a note and take a photograph while making interview or group discussion for the research study. During the interview or group discussion session, you can tell the researcher for any questions that you are not comfortable to answer or any questions that you do not want to let other people know. You have the right to answer or refuse to answer the questions. All collected data and information from you will be kept as confidential and they will be only used for this study. We will give all information to you to review and make your permission before using. If you have any further questions, I am willing to explain you clearly and will provide additional information as necessary. You can contact me through my mobile phone at 086-9407647 or call me at home number 075- 481242. You have the right to participate and withdraw from the study at any time without losing any hypertensive treatment you will get.

.....
Signature of Researcher

.....
Date

I have been explained about the above details. I understand the objectives of the study and I know that I have to practice according to the mutual plan i.e. giving the in-depth interview and answering the questionnaire. I am willing to participate in this study.

.....
Signature of Participant

.....
Date

CONSENT FORM (For a nurse and a village health care volunteer)Development of the Therapeutic Buddhist Meditation Nursing Model
for Self-Healing in Persons with Hypertension

My name is Miss Jamjuree Saeloo. I am studying doctoral degree in nursing at the nursing faculty in the Prince of Songkla University. I am conducting a research study titled “Development of the Therapeutic Buddhist Meditation Nursing Model for Self-Healing in Persons with Hypertension” The research outcome will be benefited to care the persons with hypertension in decreasing the stress, assisting to control blood pressure in normal level, and preventing other diseases i.e., stroke, heart disease, cardiovascular disease or kidney failure.

This research study needs good coordination in every step of the research. You can participate in this study by;

1. Giving interview about the previous nursing care for persons with hypertension
2. Giving appropriate suggestions or comments in Buddhist meditation nursing Model for self-healing in persons with hypertension
3. Practicing according to the Buddhist meditation program for hypertensive person
4. Giving information about the role for enhancing self-healing in persons with hypertension and giving further suggestions to develop appropriate program

In the study process, I would like to ask for your permission to make a tape recording, take a note and take a photograph while making interview or group discussion for the research study. During the interview or group discussion session,

you can tell the researcher for any questions that you are not comfortable to answer or any questions that you do not want to let other people know. You have the right to answer or refuse to answer the questions. All collected data and information from you will be kept as confidential and they will be only used for this study. We will give all information to you to review and make your permission before using. If you have any further questions, I am willing to explain you clearly and will provide additional information as necessary. You can contact me through my mobile phone at 086-9407647 or call me at home number 075- 481242. You have the right to participate and withdraw from the study at any time without losing any hypertensive treatment you will get.

.....
Signature of Researcher

.....
Date

I have been explained about the above details. I understand the objectives of the study and I know that I have to practice according to the mutual plan i.e. giving the in-depth interview and answering the questionnaire. I am willing to participate in this study.

.....
Signature of Participant

.....
Date

9. Have you smoked?

- No Yes but irregular
 Yes and regular How many cigarettes per day?.....

10. Have you drunk alcohol?

- No
 Yes but irregular
 Yes and regular How many drinks per day?....

11. What type of alcohol did you use? You can select more than one choice

- Mekong Whisky
 Beer/Wine

12. Do you have salty eating behavior?

- No Yes but irregular
 Yes and regular at least three times per day

13. Do you have fatty eating behavior?

- No Yes and irregular
 Yes and regular at least three times per day

14. Do you usually exercise?

- No Yes but irregular
 Yes and regular at least three times per week

15. Do you take any antihypertensive drugs

- No Yes

Part II: Thai Stress Test (TST)

The questions in this scale ask you about your feeling in daily life. Please tick as you think most appropriate reflecting your actual behavior.

	Very often	Sometime	Never
1. you feel lonely			
2. you feel unhappy			
3. you feel boring and discouragement to do anything			
4. you feel nervously every time			
5. you feel anxiety every time			
6. you feel sad with no cause			
7. you not concentrate when doing anything			
8. you do not want to do the thing that you used to interested			
9. you do not want to communicate with other person			
10. you feel no will power			
11. you feel hopeless			
12. you feel no self-esteem			
13. you feel proud that you are a perfect or very clever person			
14. you feel proud that you are competent			
15. you feel proud that you are no humbleness			
16. you are happy with your life			
17. you feel that environments are interesting			
18. you feel happy with your success			
19. you feel alert to do anything in daily life			
20. you enjoy to communicate with other person			
21. your thinking and decision are normal			
22. you feel hopeful			
23. you have will power to change yourselves to good way			
24. you feel that your mind is normal			

Part III: Sati level: Freiburg Mindfulness Inventory (FMI)

The purpose of this inventory is to characterize your experience of mindfulness. Please use the last 7 days as the time-frame to consider each item. Provide an answer every four statement as the best you can. Please answer as honestly and spontaneously as possible. There are neither right nor wrong answers, nor good or bad responses. What is important to us is your own personal experience.

		Rarely	Occasionally	Fairly often	Almost always
1	I am open to the experience of the present moment				
2	I sense my body, whether eating, cooking, cleaning or talking				
3	When I notice an absence of mind, I gently return to the experience of here and now				
4	I am able to appreciate myself				
5	I pay attention to what's behind my actions				
6	I see my mistakes and difficulties without judging them				
7	I feel connected to my experience in the here-and-now				
8	I accept unpleasant experience				
9	I am friendly to myself when things go wrong				
10	I watch my feeling without getting lost in them				
11	In difficult situations, I can pause without immediately reacting				
12	I experience moments of inner peace and ease, even when things get hectic and stressful				
13	I am impatient with myself and with others				
14	I am able to smile when I notice how I sometimes make life difficult.				

Appendix C

Interview guideline

1. Interview guideline for exploring situation of persons with hypertension:
 - 1.1 What is the meaning of high blood pressure?
 - 1.2 How do you feel when you know that you have high blood pressure?
 - 1.3 Do you know the cause of high blood pressure?
 - 1.4 What is the cause of high blood pressure?
 - 1.5 How do you care yourselves when you know you have high blood pressure?
 - 1.6 What are the facilitator and barrier for controlling blood pressure?
 - 1.7 Do you stress? What are the causes that make you stress?
 - 1.8 How do you care yourselves when you have stress?
 - 1.9 How do you believe about Buddhist religion?
 - 1.10 How do you practice following to Buddhist religion?
 - 1.11 Do you have Buddhist meditation experience?
 - 1.12 How do you practice?
 - 1.13 How do you feel about Buddhist meditation?
2. Interview guideline for exploring nursing care of persons with hypertension:
 - 2.1 What are the policies that you use for caring persons with hypertension?
 - 2.2 What is the result?
 - 2.3 Have you ever used meditation in nursing care? Why?
 - 2.4 How do you use meditation in nursing care?
 - 2.5 How do you evaluate the result? What is the result?

2.6 What are the facilitator and barrier of using meditation in nursing care?

3. Focus group discussion guideline for developing Tentative Therapeutic Buddhist Meditation Nursing Program for Self-Healing in Persons with hypertension:

3.1 What are activities that should be included in the Therapeutic Buddhist Meditation Nursing Program for Self-Healing in Persons with hypertension?

3.2 What is the appropriate time for learning Buddhist meditation practice?

3.3 How do nurses, the monk, village health care volunteer, and persons with hypertension take role to facilitate Buddhist meditation practice?

3.4 How do we evaluate the practice?

4. Reflective guideline for exploring opinion of participants about program

Using:

4.1 How do you practice Buddhist meditation?

4.2 What are activities that you practice?

4.3 What time do you practice?

4.4 How does frequency that you practice?

4.5 Why do you practice like this?

4.6 How do you feel after you practice Buddhist meditation?

4.7 What are the facilitator and barrier of Buddhist meditation practice?

4.8 How do you resolve the problem when you have barrier of practice?

4.9 What are the results of practice?

4.10 How can we improve your practice?

Appendix D

Buddhist meditation program

Week	Activities	Responsible persons	Evaluation	Persons with hypertension' activities
Week 1 (9-12 a.m.)	<ul style="list-style-type: none"> - Give chanting book, booklet and VCD of moving meditation for self-healing in persons with hypertension - Provide basic knowledge related to Buddhist meditation for self-healing: the Five Aggregates, the Three Characteristics of Existence, the Four Noble Truths, the Law of Cause and Effect, and principle of meditation practice based on <i>satipatthana</i> - Advise self-preparation prior to Buddhist meditation practice - Advise and train meditation practice that composes of bowing, prayer (salutation to the Triple Gems, Homage to the Buddha, morning chanting, contemplation on <i>sankhara</i>, spreading loving kindness to all beings and oneself, and request for five precepts), and <i>anapanasati</i> meditation - Appointment to meet next week - Advise to pray and practice <i>anapanasati</i> meditation at home at least 20 min. per time, 1 time per day - Visit persons with hypertension at home 	<ul style="list-style-type: none"> - Nurse - Monk - Monk - Monk - Nurses and village health care volunteer 	<ul style="list-style-type: none"> - Assessment of variables prior to meditation practice :Blood pressure :Mindfulness level :Stress level 	<ul style="list-style-type: none"> - Use chanting book, booklet and VCD as a guideline of practice - Listen basic knowledge related to Buddhist meditation and self-preparation - Practice follow monk' s advice - Practice at home: pray, <i>anapanasati</i> meditation at least 20 minutes/time/day
Week 2 (9-12 a.m.)	<ul style="list-style-type: none"> - Motivate persons with hypertension to reflect their Buddhist meditation practice at home and facilitating and inhibiting factors of Buddhist meditation practice - Give a sermon - Advise and train meditation practice: bowing, prayer and <i>anapanasati</i> meditation - Advise and train on moving meditation (<i>Kayubkai Sabaichivee Withee Puth</i>) : posture 1st-6th - Appointment to meet next week and advise to pray and practice <i>anapanasati</i> meditation at home at least 20 min. per time, 1 time per day and moving meditation posture 1st-6th 3-5 times/posture/day - Visit persons with hypertension at home 	<ul style="list-style-type: none"> - Monk - Monk - Monk - Nurses and a village health care volunteer 	<ul style="list-style-type: none"> - Assessment of variables prior to meditation practice :Blood pressure :Meditation practice at home and feeling 	<ul style="list-style-type: none"> - Reflect Buddhist meditation practice at home and facilitating and inhibiting factors - Listen a sermon - Practice follow monk, nurses and village health care volunteer' s advice - Practice at home: pray, <i>anapanasati</i> meditation at least 20 minutes/time/day, and moving meditation: posture 1st-6th , 3-5 times/posture/day

Week	Activities	Responsible persons	Evaluation	Persons with hypertension' activities
Week 3 (9-12 a.m.)	<ul style="list-style-type: none"> - Motivate persons with hypertension to reflect their Buddhist meditation practice at home and facilitating and inhibiting factors of Buddhist meditation practice - Give a sermon - Advise and train meditation practice: bowing, prayer, <i>anapanasati</i> meditation, and moving meditation: posture 1st-6th - Advise and train on moving meditation: posture 7th-11th - Appointment to meet next week - Advise to pray and practice <i>anapanasati</i> meditation at home at least 20 min. per time, 1 time per day and moving meditation posture 1st-12th 3-5 times/posture/day - Visit persons with hypertension at home 	<ul style="list-style-type: none"> - Monk - Monk - Nurses and a village health care volunteer 	<ul style="list-style-type: none"> - Assessment of variables prior to meditation practice :Blood pressure :Meditation practice at home and feeling 	<ul style="list-style-type: none"> - Reflect Buddhist meditation practice at home and facilitating and inhibiting factors - Listen a sermon - Practice follow monk, nurses and village health care volunteer' s advice - Practice at home: pray, <i>anapanasati</i> meditation at least 20 minutes/time/day, and moving meditation: posture 1st-11th , 3-5 times/posture/day
Week 4 (9-12 a.m.)	<ul style="list-style-type: none"> - Motivate persons with hypertension to reflect their Buddhist meditation practice at home and facilitating and inhibiting factors of Buddhist meditation practice - Give a sermon - Advise and train on <i>vipassana</i> sitting meditation - Advise to apply praying, <i>anapanasati</i> meditation, moving meditation, and <i>vipassana</i> sitting meditation for suitability and practice at least 30 min. per time, 5-7 time per week - Visit persons with hypertension at home 	<ul style="list-style-type: none"> - Monk - Monk - Monk - Nurses and a village health care volunteer 	<ul style="list-style-type: none"> - Assessment of variables prior to meditation practice :Blood pressure :Meditation practice at home and feeling 	<ul style="list-style-type: none"> - Reflect Buddhist meditation practice at home and facilitating and inhibiting factors - Listen a sermon - Practice follow monk' s advice - Practice at home : Integrate all practice into life style

Appendix E

Buddhist Meditation Practice

***Anapanasati* meditation**

This practice starts by sitting cross-legged with body erect, body relaxing, and naturally breathing. After that, move the attention to the breathing, perceive long breathes while breathing in long, perceive short breathes while breathing in short. When the other thoughts come to mind, meditators observe it, accept it, and return to the breathing again. To help the mind to focus on the breath, meditators may count each breath. When inhalation notes 'one', exhalation notes 'one'; then 'two' 'two'; up to five; restart again at 'one' to 'six', 'one' to 'seven', 'one' to 'eight', 'one' to 'nine', 'one' to 'ten' and restart at 'one' to 'five' again. The other way, when inhalation notes 'Budd', exhalation notes 'Dho.'

Moving meditation

This practice is composed of 11 sitting postures which are shown as follow.

Posture

Figure

Posture 1

Sit on the floor with knees wide apart and ankles attach to the floor, right foot lie ahead, spine straight and the body posture is symmetrical, eyes are viewed at the front and downcast, focus on breathing in and breathing out, breathe slowly and naturally, practice until feel relaxation



Posture 2

- Breathing in deeply, breathing out slowly and bend body, both hands press both knees to attach the floor and elbows are lifted, when forehead attaches the floor, the exhalation is out an end
- Breathing in and life body, both hands press both knees to attach the floor
- Repeat 3-5 times



Posture 3

- Breathing out and lean body to right side, elbow attach the floor, right hand attach at right knee, left hand press at left knee, left arm straight
- Breathing in and move body back to straight, repeat same practice but lean body to left side



- Breathing out and lean body back side, both hand pull both knee to slightly float, turn up face, look at the top view, both arms straight
- Breathing in and move body back to straight
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 4

- Breathing out, turn body and head to the right side, at the same time move the left arm press the right knee, view at the right side
- Breathing in and move body back to straight, at the same time move left arm on left knee, repeat same practice but turn the body, head and right arm to left side



Posture

Figure

Posture 4 (continued)

- Breathing out and turn head to right side until shin place at the same line of right shoulder, view at right side
- Breathing in and move head to straight, repeat same practice but turn to left side



- Breathing out and lean head to right shoulder, view from bottom to the top of left side
- Breathing in and move head to straight, repeat same practice but turn to left side



- Breathing out turn head to back side and view the top side
- Breathing in and move head to straight



- Breathing out and bend head slowly until shin attach the chest
- Breathing in and move head to straight
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 5

- Breathing out and turn body to right side, straight both arms to the front, bend body until both arms attach the floor and bend head
- Breathing in and lift head, view from the bottom to straight
- Breathing out and move body and both arms back, repeat same practice but turn to left side



Posture

Figure

Posture 5 (continued)

- Breathing out and bend body to front side, straight both arms to the front, bend body until both arms attach the floor and bend head until forehead attach the floor
- Breathing in and lift head, view from the bottom to straight
- Breathing out and move back body and both arms
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 6

- Straight both legs to the front and press both hands back side, bend body to back side slightly, view at the front



- Breathing out, cross right leg over left leg, place right foot near left knee, right knee stand, left leg turn to back side, bend body slightly and move right arm attach right leg
- Breathing in and lift head, view from the bottom to straight
- Breathing out and move body and right arm back
- Repeat same practice but cross the left leg over the right leg
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 7

- Breathing in, lift right palm up at xiphoid process
- Breathing out and move right palm back
- Breathing in, lift left palm up at xiphoid process
- Breathing out and move left palm back



Posture

Figure

Posture 7 (continued)

- Breathing in, lift both palms up at xiphoid process, left palm place upside down over right palm
- Breathing out and rotate right palm upside down over left palm
- Breathing in and rotate left palm upside down over right palm



- Breathing in, rotate both hands until both hand erect but not attachment at xiphoid process
- Breathing out, turn down both hands, lift both palms until middle fingers are attachment, move both hands press on both knees
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 8

- Breathing in, lift both palms up at the xiphoid process, the middle finger are attachment
- Breathing out, extend both arms to beside



- Breathing in, move both arms back, lift both palms up at xiphoid process, middle finger attachment



- Breathing out, turn both palms inside- both thumbs near body, lift both arms over the head, turn up both palms, turn up face
- Breathing in, move both hands back, lift both palms up at xiphoid process, middle fingers are attachment
- Breathing out, move both hands press on both knees
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture

Figure

Posture 9

- Breathing in, lift both arms over the head, turn up both palms, middle finger attachment, turn up face, views at finger
- Breathing out, move both arms down at hips level



- Breathing in, lift both palms up at xiphoid process
- Breathing out, rotate both wrists until both hands up, both palms place outside the body, straight both arms to the front



- Breathing in, turn down both hands, rotate both wrists until the middle fingers are attachment, both palms inside the body
- Breathing out, move both arms to back side, turn up face, views at the top



- Breathing in, lift both arms over the head, bring both hands together, not attachment
- Breathing out, move both hands down and press on both knees
- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture 10

- Breathing in, extend both arms to beside
- Breathing out, lean the body to right side, place right palm on the floor, lift left arm over the head, bend the elbow slightly, turn up left palm, view at the right side
- Breathing in, move body back, extend both arms to beside
- Repeat same practice but turn to left side



Posture

Figure

Posture 10 (continued)

- Breathing out, move right arm over the head pass the left shoulder and right palm turn down, at the same time move left arm pass right knee, turn up left palm

- Breathing in, move both palms pass together, left palm turn up, right palm turn down until both hands extend to beside

- Breathing out, move left arm over the head pass the right shoulder and left palm turn down, at the same time move right arm pass left knee, turn up right palm

- Breathing in, move both palms pass together, right palm turn up, left palm turn down until both hands extend to beside

- Breathing out, lift both arms over the head, bring hands together, not attachment, turn up face

- Breathing in, move down both hands at xiphoid process

- Breathing out, move both arms to the back side, lift both arms, thumbs and the middle fingers are attachment, bend body until forehead attach the floor

- Breathing in, move body and arm back, lift both arms over the head, turn up face

- Breathing out, move both arms to the back side, both arms straight, turn up face

- Breathing in, lift both arms over the head, bring both hands together, not attachment, turn up face

- Breathing out, move both hands place on both knees

- Repeat 3-5 times, rotate the feet when begin the new cycle



Posture

Figure

Posture 11

- Breathing in, move both arms over the head, bring both hands together, turn up face,
- Breathing out, move both hands down at the xiphoid process



- Breathing in, move both hands to right axillary
- Breathing out, turn body to right side, both hands place at the same position
- Breathing in, move body back
- Breathing out, move both hands to xiphoid process
- Repeat same practice but turn to left side



- Breathing in, rotate both wrists, fingers point to the chest, move both hands above the head, turn up face, turn up both palms
- Breathing out, move both hands to beside until both palms place at hip



- Breathing in, lift both palms at xiphoid process, middle fingers attach together
- Breathing out, rotate both wrist until both hands bring together, bend head



Posture

Figure

Posture 11 (continued)

- Breathing in, turn up face, rotate both wrists, fingers move down, turn up both palms at the xiphoid process, lift both arms over the head, bring both hands together
- Breathing out, move both hands at the xiphoid process, bend head, move both hands place on both knees
- Repeat 3-5 times, rotate the feet when begin the new cycle



Vipassana meditation

After the concentration is well developed, meditators move the attention to the *Vedana*: comfort, pain, stiffness, hotness, numbness, tightness and stress of the body that occur while doing the sitting meditation. The meditators perceive them as they truly are, with detachment and equanimity, and observe arising, enduring, ceasing of them. The mind would also suffer when the body is painful if the mind is neglected. Know that it hurts when it hurts but the mind is not anxious or being tense. At the early stage of practice, sometimes the mind is quiet and sometimes it is anxious. Know that the mind has *raka*, *doha*, or *moha* when it does and to know that it does not have *raka*, *doha*, or *moha* when it does not. Attention and perceive the state of mind with detachment and observe arising, enduring, ceasing of them. Also, attention and perceive the *Dhamma* condition both the unwholesome action such as vengeance, distraction, annoyance, depression and the wholesome course of action such as *sati*, *viriya* and *piti* that occur with detachment and observe arising, enduring, ceasing of them. Therefore, it is seen that the main principle of contemplation of the body, *feeling*, mind state or *Dhamma* is one with detachment and observation of arising, enduring, ceasing so that a person would truly understand the impermanence, suffering and selflessness by oneself.

Appendix F

Blood pressure level before and after Buddhist meditation practice

Persons with hypertension	BP before practising Buddhist meditation	BP level after learning and practicing Buddhist meditation 4 weeks	BP after regular practising Buddhist meditation	BP after irregular practising Buddhist meditation 6 months
P1	153/93	141/87	135/87 (3 months)	
P2	173/111	163/104*	147/98 (3 months)	
P3	143/74	147/82	-	151/86
P4	151/82	138/88	137/86 (2 months)	
P5	142/79	142/86	135/65 (1 months)	
P6	127/92	133/97	116/84 (2 months)	
P7	162/105	131/80*	128/69 (3 months)	
P8	158/92	134/77	128/79 (3 months)	
P9	140/90	122/67	121/65 (3 months)	
P10	145/70	133/72	-	149/76
P11	180/100	125/78*	-	140/94
P12	168/107	143/93	124/89 (1 months)	

* received additional antihypertensive drugs

Appendix G

Stress level before and after Buddhist meditation practice

Persons with hypertension	Stress level before practising Buddhist meditation	Stress level after regular practising Buddhist meditation 1-3 months	Stress level after irregular practising Buddhist meditation 6 months
P1	Severe stress	Good	
P2	Severe stress	Normal	
P3	Severe stress	-	Mild stress
P4	Severe stress	Normal	
P5	Severe stress	Normal	
P6	Severe stress	Good	
P7	Severe stress	Normal	
P8	Severe stress	Normal	
P9	Severe stress	Normal	
P10	Severe stress	-	Mild stress
P11	Mild stress	-	Normal
P12	Mild stress	Normal	

Appendix H

Mindfulness level before and after Buddhist meditation practice

Participants	Mindfulness level before practising meditation	Mindfulness level after Regular practising Buddhist meditation 1-3 months	Mindfulness level after irregular practising Buddhist meditation 6 months
P1	29	50	-
P2	39	43	-
P3	29	-	32
P4	42	46	-
P5	25	44	-
P6	39	47	-
P7	34	48	-
P8	39	48	-
P9	29	45	-
P10	27	-	33
P11	25	-	30
P12	36	44	-

Appendix I

Blood pressure level after maintaining Buddhist meditation practice 1-3 months

Persons with hypertension	Blood pressure level after maintaining Buddhist meditation practice 1-3 months									
P1	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12		
	138/80	157/95	147/85	140/90	122/74	135/89	130/80	133/87		
P2	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12		
	150/98	154/100	138/83	155/94	119/88	123/90	111/88	123/80		
P4	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	
	129/84	130/80	110/70	138/64	133/71	122/71	116/72	117/75	123/72	
P5	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
	158/62	150/90	120/70	126/63	156/83	169/59	127/78	131/62	115/61	132/77
P6	Month 4	Month 5	Month 6							
	116/84	138/89	117/87							
P7	Month 5	Month 6								
	124/82	108/82								
P8	Month 5	Month 6								
	127/80	130/78								
P9	Month 5	Month 6								
	109/62	109/77								
P12	Month 3	Month 4	Month 5	Month 6						
	150/92	124/89	140/90	135/92						

VITAE

Name Miss Jamjuree Saeloo

Student ID 4910430001

Education Attainment

Degree	Name of Institution	Year of Graduation
Bachelor of Science (Nursing and Midwifery)	Prince of Songkla University	1988
Master of Adult Nursing	Prince of Songkla University	2000

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