Living with Hypertension: An Ethnographic Study of Thai-Melayu Elderly in a Province of Southern Thailand

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Nursing (International Program)

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Thesis Title	Living with Hypertension: An Ethnographic Study of Thai-Melayu Elderly in a Province of Southern Thailand
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I hereby certify that this work has not been accepted in substance for any degree, and is not being currently submitted in candidature for any degree.

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ชื่อหัวข้อวิทยานิพนธ์ การใช้ชีวิตกับโรคความดันโลหิตสูง: การวิจัยเชิงชาติพันธ์วรรณนาของผู้สูงอายุไทยมลายูในจังหวัดหนึ่งทางภาคใต้ของประเทศไทย
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บทคัดย่อ

โรคความดันโลหิตสูงเป็นปัญหาสุขภาพที่สำคัญของผู้สูงอายุไทยและเป็นโรคที่ควบคุมได้น้อย ความเข้าใจในประสบการณ์ตรงตามวิถีชีวิตของผู้สูงอายุไทยมลายูที่เป็นโรคความดันโลหิตสูงจึงมีความจำเป็นต่อการพัฒนากลยุทธ์ในการส่งเสริมสุขภาพ วิธีการวิจัยเชิงชาติพันธุ์วรรณนาเก็บรวบรวมข้อมูลโดยการสัมภาษณ์เชิงลึก การสังเกตอย่างมีส่วนร่วม และการสนทนากลุ่ม ผู้ให้ข้อมูลหลักเป็นผู้สูงอายุไทยมลายูที่เป็นโรคความดันโลหิตสูงจำนวน 11 คน ผู้ให้ข้อมูลทั่วไป 7 คน วิเคราะห์ข้อมูลเชิงคุณภาพ

ผลการวิจัย พบว่า การรับรู้โรคความดันโลหิตสูงของผู้สูงอายุไทยมลายู ขึ้นอยู่กับประสบการณ์ในการรับรู้อาการเจ็บป่วยและวัฒนธรรมความเชื่อใน 3 มิติได้แก่ (1) ความดันโลหิตสูงเป็นอาการเจ็บป่วยธรรมดา (2) ความดันโลหิตสูงเป็นโรคอันตรายก็ต่อเมื่อมีอาการที่รุนแรงให้เห็นชัดเจน (3) สาเหตุของความดันโลหิตสูงเกิดจากเลือดลมไหลเวียนไม่ดี การใช้ชีวิตของผู้สูงอายุไทยมลายูที่เป็นโรคความดันโลหิตสูงมีความเชื่อมโยงกับวิถีการดำเนินชีวิตสังคมวัฒนธรรม ที่หล่อหลอมสืบทอดจนกลายเป็นความคิดความเชื่อค่านิยมทางสังคม และการปฏิบัติ เมื่อมีการเจ็บป่วยผู้สูงอายุก็ปรับเปลี่ยนตนเองเพื่อให้คงไว้ซึ่งการทำหน้าที่ภายใต้บริบทสังคมและวัฒนธรรม ได้แก่ (1) ปฏิบัติและดำเนินชีวิตตามหลักศรัทธาและหลักศาสนาอิสลาม (2) ยึดมั่นประเพณี (3) สร้างสมดุลชีวิตในการงานเพื่อคงไว้ในการเข้าร่วมกิจกรรมทางศาสนาและวัฒนธรรมประเพณี การจัดการสุขภาพของตนเองโดยการผสมผสานทั้งการแพทย์แผนปัจจุบันและการแพทย์พื้นบ้านได้แก่ (1) แสวงหาหนทางในการรักษาให้ดีที่สุดทั้งการแพทย์แผนปัจจุบันและการแพทย์พื้นบ้าน (2) เพิ่มการไหลเวียนของเลือดลมในร่างกาย

การเข้าใจและให้การยอมรับการรับรู้อาการเจ็บป่วยภายใต้วัฒนธรรมความเชื่อของผู้สูงอายุไทยมลายูนับเป็นส่วนสำคัญ ในการส่งเสริมสุขภาพและการให้ความรู้ทางด้านสุขภาพที่ผสมผสานกับวัฒนธรรมความเชื่อ การพัฒนากลยุทธ์ที่เหมาะสมในการจัดการสุขภาพสำหรับผู้สูงอายุไทยมลายูที่เป็นโรคความดันโลหิตสูงในชุมชนไทยมลายู

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ABSTRACT

Hypertension is one of the leading health problems among elderly Thai and it is poorly controlled.Understanding the Thai-Melayu elders who had either directly or indirectly experienced hypertension in their natural setting is essential for designing strategies to promote healthy living.An ethnographic study was conducted using participant observation, in-depth interviews, and focus groups.Data from eleven key and seven general informants was collected and analyzed using thematic analysis.

The finding revealed that the general perception of hypertension of Thai-Melayu elderly focused on symptoms and cultural beliefs. Most elderly people were not concerned about their level of blood pressure as assessed by a medical instrument. Three main themes of hypertension were perceived as:(1)having high blood pressure is a common illness; (2)realizing the danger of hypertension when obvious symptoms occurred; and (3) high blood pressure is from the bad flow of *Leard*(blood) and *Lom* (wind).

The findings indicated that the ways of living with hypertension in Thai-Melayuare incorporated with all aspects of cultural beliefs, values, and

practices.Three main themes exist on the ways of living with hypertension in Thai-Mealyu elderly: (1) following and living with Islamic faith, (2) adherence to traditions (3) balancing work life for conserving religious and cultural practices. They combined modern and folk treatments for managing their hypertension: (1) seeking the best doctors, and modern and folk treatments, (2) increasing the flow of *Leard* and *Lom*.

Understanding hypertension with respect to how Thai-Melayu elders perceived their symptoms based on their cultural beliefs is essential. Health education should be integrated with the cultural perception of hypertension to develop appropriate strategies for the management of hypertension in the Thai-Melayu community.

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CHAPTER 1

INTRODUCTION

This chapter describes the background of the study, the purpose of the study, the research questions, the conceptual framework, definition of terms, and the significance of the research.

Background of the Study

Noncommunicable diseases (NCDs) are the leading cause of death worldwide. Almost two thirds or 36 million people have died due to NCDs. High blood pressure is a major health problem of NCDs and causes 7.5 million deaths, about 12.8% of all deaths. High blood pressure or hypertensionis a major risk factor for cardiovascular disease and stroke (WHO, 2011). In Thailand, hypertension is a major health problem among the elderlybecause of its high prevalence rate and poor control. The National Health Survey of the National Statistical Office in 2007 found that hypertension was the most common chronic disease in elderly Thais at 31.7%. In addition, the trend of hypertension in elderly Thaisis upward with regard to the numbers of hospital inpatients, from 3,511 per 100,000 population per year in 2004 to 7,213 in 2008 (Bureau of Policy and Strategy, 2011). In the southern part of Thailand, hypertension among the older people was at 48.1%, with 59.9% unaware of their blood pressure levels. Of those treated, 14.1% had controlled their blood pressure, but 19.9 % had uncontrolled blood pressure (Porapakkham, Pattaraarchachai, &Aekplakorn, 2008).

Hypertension is closely linked with unhealthy behaviors such as tobacco and alcohol use, physical inactivity, and unhealthy diet (WHO, 2011). Puavilai, et al. (2011) studied the risk factors of hypertension patients, between 40-69 years from Ban Paew District, Samuthsakorn Province, Central Thailand, and found that hypertension disease increased with risk factors of old age, male gender, overweight/obesity, and alcohol consumption.In addition, the Bureau of Health Policy and Strategy (2011) reported that lifestyle risk factors in elderly Thai people showed that 12.6% used tobacco and 3% had excessive alcohol consumption.

Uncontrolled high blood pressure, a key risk factor for cardiovascular disease, and cerebrovascular disease, is a significant public health problem (Kaplan & Victor, 2010; Servello, 1999). In Thailand, cardiovascular and cerebrovascular diseases are the leading cause of death in the elderly. The average number of deaths per 100,000 in the elderly population from those diseases in 2008 was 183 and 113, respectively (Bureau of Health Policy and Strategy, 2009).

There are many problems related to hypertension control in the elderly population. Aging, obesity, lack of exercise, gender, race/ethnicity, access to health care and provider-related issues are some of the many factors that contribute to the poor control of hypertension (Chiong, 2008).In addition, Borzecki, Oliveria, and Berlowitz (2005) reviewed the barriers to hypertension control and identified three factors: patient factor, provider factor, and medical environment factor. The most common patient factors are non-adherence to prescribed hypertension therapies, usually due to a patient's health beliefs and their perception of the benefits of the therapy. The primary provider factor was the fact that providers often did not agree with clinical practice guidelines for hypertension care. For example, it was found that

52 % of primary care physicians would not start therapy unless a patient’s systolic blood pressure was at least 160 mmHg. An additional factor is the medical environment which affects how patients and providers interacted when attempting to manage hypertension. Environmental factors which influenced hypertension control included patient access to health care, the patient-provider relationship, and the practice setting. It was noted that if patients and providers could accept and transcend socio-economical, racial, and cultural differences, care could be optimized. Therefore, hypertension management would be more successful.

Appropriate management of hypertension is very important in order to prevent heart attacks and strokes and to improve health outcomes in individuals who are at high risk of experiencing cardiovascular diseases (WHO, 2002). Strategies for hypertension control in the elderly focus on lifestyle modification and medication control. Lifestyle modification is very important for controlling blood pressure as it focuses on behavior changes, with the goals being to reduce weight, limit alcohol intake, get regular exercise, cease smoking, and restrict sodium intake (Gibson, Fritz, &Kachur, 2009; Ogihara, &Rakuj, 2005; Servello, 1999).

Empirical studies revealed several methods used to manage hypertension. Connell, Wolfe, and McKevitt (2008) reviewed studies of community interventions for improving hypertension control in black adults. The studies are categorized into the main methods of hypertension management:group health education classes, psychosocial counseling aimed specifically to increase understanding and to motivate lifestyle change, active self management-patient commitment to manage risk factors, social support in managing hypertension, individualized screening and cardiovascular disease risk factor reduction. Moreover,

Bosworth, et al. (2009) studied self-management to improve hypertension control. The management focused on improving adherence to the Dietary Approaches to Stop Hypertension (DASH), weight loss, reduced sodium intake, regular moderate intensity physical activity, smoking cessation, and moderation of alcohol intake. In addition, Bosworth et al. (2005) studied nurse administered telephone follow ups for blood pressure control: a patient-tailored multifactor intervention. The study tested the effect of the nurses' interventions. The nurse case manager contacted the intervention groups by telephone every 2 months for 24 months, getting standard information in nine categories: literacy, hypertension knowledge, memory, social support, patient/provider communication, medication refills, missed appointment, health behaviors, and side effects.

The management of hypertension in the elderly is comprehensive but multiple directions need to be followed in different settings. This is because cultural beliefs are closely linked to living with a chronic condition (Andrews, 2012; Helman, 2007; Leininger, 2002). Generally, the management of hypertension interventions focuses on symptom control and behavioral modification based on the providers' perspective. Thus exploring the management of hypertension based on the client's perspective is essential.

Thai-Melayu is a term for ethnic Melayus in Southern Thailand. Most of the ethnic Melayus in Southern Thailand are Muslim with Malay ethnicity. They are different in cultural backgrounds from people in other areas of Thailand. This is because in Satun province, 74.1% of the population is Muslim and 25.8 % Buddhist (Satun Province, 2013). Most of the Thai Muslims in Satun are mixed Thai and ethnic-Malay, and are known as Samsam, and speak Thai. However, there are some

Thai Muslims with ethnic-Malay roots who still speak Melayu daily because of their history and location in relation to Perlis, Malaysia. However, they are more proficient in Thai. They generally adhere to Islam but culturally they are Thai, although Malay influences are co-dominant (Sugunnasil, 2005; Yusuf, 2006).

Thai-Melayu elders follow Islam to guide daily life activity (Yosef, 2008). Five crucial practices as known of the Pillars of Faith are the rules of Muslim lifestyle which relate to an individual's health and humanity. Under the belief that being a human being is a gift from God that should be cherished, illness is then a part of life and a test from God. However, seeking care and treatment is also essential for good health (Wehbe-Alamah, 2008; Yosef, 2008).

Due to limited knowledge of how the Thai-Melayu elderly population views hypertension, a qualitative research could be used. Understanding the view point of Thai-Melayu elderly with hypertension in their natural setting is essential for nurses to design strategies and promote the clients' ability to manage their lives for healthy living. Therefore, an ethnographic study was conducted to gain insights into the cultural perception of care related to hypertension. This information could help nurses in providing better health education by incorporating cultural practices and beliefs into a community based health promotion approach and guiding the practice in identifying, designing, and implementing effective health promotion strategies for Thai-Melayu elders.

Purpose of the Study

The purpose of this study is to explore the way of life of the Thai-Melayu elderlywith hypertension.

Research Questions

1. What are the perceptions of Thai-Melayu elderly with hypertension?
2. What arethe ways of life of Thai-Melayu elderly with hypertension that have influenced their health?
3. How do Thai-Melayu elderly with hypertension manage their health by themselves?

Conceptual Framework

A paradigm, or worldview, is a basic set of beliefs that guide action (Guba, 1990, p.17). Denzin& Lincoln (1994) asserted that a paradigm includes three elements: epistemology, ontology, and methodology. Epistemology concerns the way people understand the world and the relationship between the inquirer and knowledge. Ontology is concerned with the nature of reality. Methodology focuses on how people acquire knowledge about the world. Edwards (2001) stated that epistemology can be considered the core of knowledge and that it consists of three elements. The first element is the problem of establishing a criterion for knowledge. Second is the problem relating to sources of knowledge. The third element involves distinguishing differing types of knowledge. Ontology involves standard problems within the field, such as the following questions: “Does the world exist independently of human thought?” “What are people?” “What is time?” and “What is space?”

In this study, the construct is based on the philosophical underpinning of ethnography, and culture concept. The philosophical underpinning of ethnography

is interpretivist. Schwandt (1994) defined that interpritivist is the naturalistic interpretation of the social sciences to understand the meaning of social phenomena. This thought process is used in social science by methodologists and philosophers. Promoters of interpretivism share the goal of understanding the complex world of live experiences from the point of view of people who live in certain cultural contexts. The researcher must explain the process of meaning construction and clarify what and how meanings are represented in the language and action of social actors. In addition, Creswell (2007) suggested that individuals seek an understanding of the world in which they live and work. They develop subjective meaning from their varied experiences, which leads researchers to look for a complexity of views held by such subjects. Holloway and Wheeler (2010) stated that both the interpretive (or interpretivist) model and descriptive research have their roots in philosophy and the human sciences, particularly in history, philosophy, and anthropology. The methodology centers on the way in which human beings make sense of their subjective reality and on how they attach meaning to it. Social scientists approach people to explore the relationships between their worldviews and their life contexts. Therefore the ethnographic method is not only collecting information from the insider's perspective but also making sense of all data from an etic or external social scientific perspective (Fetterman, 1998). The researcher needs to construct the whole of lived reality and situation-specify meaning (Denzin& Lincoln, 1998; Fetterman, 1998).

The ontology of ethnographic research methods has its origins in the discipline of anthropology, as this field is concerned with cultural groups (Parse, 2001; Spradley, 1980). Such methods are focused on ethnographic cultural patterns. A

theoretical perspective from nursing or another human science discipline may be used as a guide in such a study (Parse, 2001).

Epistemology regarding the nature of ethnographic methods focuses on the exploration of the symbols, rituals, and customs of a particular cultural group (Parse, 2001). Leininger (2001) defined it as a way of discovering, knowing, and confirming people's knowledge about health care, including ways to keep healthy and ways they can become ill or disabled. This involves several general philosophical and research methods to study ideas related to cultural care diversity and universality. The first method requires the researcher to move into a familiar, naturalistic human setting to study human care and related nursing phenomena. The researcher is challenged to enter the (local) world to become an active learner. The researcher must design the study to focus on the people's lifestyles and their patterns relating to the knowing and sharing of ideas regarding caring for humans. This should take place within the local environmental context of the subjects. The second method is the ethno-nursing method, which involves detailed reflection, observations, and descriptions of participant experiences. The data is derived largely from unstructured, open-ended inquiries. The third method involves taking the philosophical position that individuals and cultural groups can make sense out of their world. This is often difficult for professional nurses because of the past emphasis on nurses knowing all about illness and specific diseases. The fourth method requires the researcher to focus on the cultural context of whatever phenomena are being studied.

Fetterman (1998) defined ethnography as the art and science of describing a group or culture from the emic, or insider's perspective. The ethnographer writes about the daily lives of people and the predictable patterns of

human thought which are expressed in people’s behaviors. These researchers are both storytellers and scientists. The ethnographic process starts with the selection of a problem, theory, and research design. Then specific data collection techniques and tools for analysis must be chosen, and a specific writing style must be decided upon.

Cultures are related in the health and illness of human beings because culture is the way of life of all particular groups. There are two components of culture such as a materialist and an ideational perspective or non-materialist view: the materialist perspective focuses on behavior or a pattern of actions, and the ideational perspective or non-material view consists of the ideas, beliefs, and knowledge that characterize a particular group of people (Fetterman, 1998; Leininger, 1994; Leininger, 2002). These factors may be used to guide human thoughts, decisions, and actions of individuals or groups. The elderly Thai-Melayu in southern Thailand have a specific cultural background such as race, ancestry, religion, customs, and language. Therefore, cultural beliefs and the health-managing behaviors of the Thai Melayu elderly with hypertension are dependent on their cultural context; this research will study both the materialist and ideational perspectives of their health-perception and health-managing behaviors.

Definition of Terms

Living with hypertension is the way of life for Thai-Melayu elderlywho live with hypertension in their cultural context. The way of life is the pattern of thoughts and actions in the daily lives of Thai-Melayu elderlythat applies to

their health management in their cultural context. These patterns may be used to guide their thoughts, decisions, and actions of managing their health.

Significance of the Study

The research results will help nurses and health care providers to develop more appropriate health care practices in managing hypertension in the Thai-Melayu cultural context. In addition, with such a culturally sensitive intervention strategy, patients will be more likely to agree to work with providers to change their lifestyles in living with hypertension in order to reduce complications and maintain a healthy life.

CHAPTER 2

LITERATURE REVIEW

The literature review in this chapter is presented as follows: (1) hypertension in the elderly, (2) the management of hypertension in the elderly, (3) psychosocial theories of older adults, (4) culture and health belief systemsin Thailand, (5) Thai-Melayu's culture in southern Thailand, (6) ethnographic methods

Hypertension in Elderly

Noncommunicable diseases (NCDs) are the leading cause of death worldwide. Almost two thirds or 36 million people have died due to NCDs. Most NCDs are closely linked with unhealthy behaviors such as tobacco and alcohol use, physical inactivity, and unhealthy diets. Hypertension is the most significant non-communicable disease in that it is estimated to cause 7.5 million deaths or about 12.8% of all total deaths worldwide. Hypertensionis a major risk factor for cardiovascular disease and stroke (WHO, 2011). The World Health Organization estimated that among older people 60-70 % suffer from hypertension. It is the first of the top five leading causes globally for mortality in the world, and contributes to 13 % of deaths globally (WHO, 2003; WHO, 2009). In addition, 1 in 3 American adults is hypertensive with 2 million new cases diagnosed each year (Nguyen, Dominguez, Nguyen, &Gullapalli, 2010). Similarly, the Nation Health Survey of the National Statistical Office in 2007 found that hypertension had the highest incident of chronic

diseases in elderly Thai at 31.7%. In addition, the trend of hypertension in the elderly Thai is upward in the number of hospital inpatients from 3,511 per 100,000 of the population per year in 2004 to 7,213 in 2008 (Bureau of Policy and Strategy, 2011).

Hypertension is called the silent killer because it is asymptomatic until well advanced (Servellow, 1999). Hypertension is a major risk factor for cardiovascular diseases and cerebrovascular diseases whichare the leading cause of death in the Thai elderly population. The average number of deaths per 100,000 in Thai elderly from CVD and CVA in 2008 was 183 and 113, respectively (Bureau of Policy and Strategy, 2009).

Unhealthy behaviors and aging are major risks factors of hypertension in the elderly. Unhealthy behaviors are related to high blood pressure such as smoking, high cholesterol, being overweight, and having an inactive lifestyle (Chobanian et al., 2003; Servellow, 1999; WHO, 2011). In addition, aging is one of the major risk factors which is related to increased blood pressure (Chiong, 2008; WHO, 2003). According to Kim, Cho, Choi, and Kim (2008) vascular disease of the elderly is related with changes of the large arteries, including diameter, wall thickness, wall stiffness and endothelial function. Changes in blood vessels in the elderly can lead to the development of hypertension and cardiovascular diseases. Puavilai, et al. (2011) studied the risk factors of hypertension patients, between 40-69 years from Ban Paew District, Samuthsakorn Province, Central Thailand, and found that hypertension disease was increased with risk factors of old age, male gender, overweight / obesity, and drinking alcohol.

In 2008, the World Health Organization put into action the Global Strategy for Prevention and Control of Non-communicable Diseases. The Action Plan

is to be implemented for a six year period from 2008-2013. The plan is needed to support and monitor the prevention and control of non-communicable diseases. The plan of strategies is focused on reducing risk factors for non-communicable diseases such as tobacco use, unhealthy diets, physical inactivity, and the harmful use of alcohol. In addition, the strategies promote healthy living and develop standards in the care for chronic disease management.

From the action plan of the Global Strategy for Prevention and Control of Non-communicable Diseases, Thailand has developed a nation health agenda to promote healthy living and to reduce non-communicable diseases (Bureau of Policy and Strategy, 2009).Initially, 'Healthy Thailand' was a strategic approach using guidelines to reduce behavior health risks and major health problems in Thailand. Health promotion is a key strategy for the maintainable health development of individuals, families, communities, and society. Each individual is encouraged to adopt health behaviors such as exercise, healthy eating, and to stop smoking.

Currently, Thailand has developed the Thailand Healthy Lifestyle Strategic Plan, 2011 to 2020 (Bureau of Policy and Strategy, 2011). The aims of this action plan are to reduce the top five chronic diseases in Thailand which are diabetes, hypertension, heart disease, cerebrovascular disease, and cancer. These policies are focused on promoting healthy lifestyles in all age groups. The older persons are catered for under the Thailand Healthy Lifestyles campaign.Therefore, the health care system needs to be examined in regards to cultural knowledge in its values, beliefs, and tradition. These factors have an effect on personal health and can help health-care providers to understand the nature of their patient/client's cultural background. Thus, health-care providers can prepare health promotions and health maintaining behaviors

for living with chronic diseases that are appropriate in the cultural context of their client.

Management of Hypertension in Elderly

The management of hypertension in the elderly is essential. The goals of hypertension management are to decrease the rates of cardiovascular disease, renal failure, stroke, congestive heart failure, and death that result from untreated hypertension. Increased blood pressure levels are related tothe risk of cardiovascular disease (CVD), cerebrovascular disease (CVA), and kidney disease in adults aged 40-70 years, and each increase of SBP 20 mm Hg or DBP 10 mm Hg doubles the risk of CVD (Cobanian et al., 2003). Therefore, the management of hypertension should focus on controlling systolic and diastolic blood pressures (BP) to be less than 140/90 mmHg. In patients with hypertension, diabetes or renal disease, the BP goal is less than 130/80 mmHg (Cobanian et al., 2003). There are two components of hypertension management: pharmacologic therapy and lifestyle modification or non-pharmacological treatment (Cobanian et al., 2003; Ham, Sloane, Warshaw, Bernard & Flaherty, 2007; Servellow, 1999). Pharmacologic therapy should occur when lifestyle modification or non-pharmacological treatment has been established. The decision to treat with medication depends on (1) the severity of high blood pressure, (2) the presence of risk factors, (3) evidence of target organ disease, (4) the existence of other disease conditions, and (5) the benefits already achieved by lifestyle modification (Servellow, 1999).

In 2013, The Eight Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 8) developed a new set of guidelines for the treatment of patients aged 60 or older, with systolic blood pressure ≥ 150 mmHg and or diastolic blood pressure ≥90 mmHg (Mahvan&Mlodinow, 2014). JNC 8 recommended the classes of antihypertensive drugs for most patients including thiazide diuretics, angiotensin-converting enzyme inhibitors, (ACE), angiotensin-receptor blockers (ARBs), calcium channel blockers (CCBs) (Mahvan&Mlodinow, 2014).

Lifestyle modification is an important part of the management of hypertension and include: (1) weight reduction to maintain a normal body weight (BMI, 18.5-24.9); (2) the adoption of Dietary Approaches to Stop Hypertension (DASH) to consume a diet rich in fruits, vegetables, low-fat dairy products; (3) reducing dietary sodium intake to no more than 2,400 mg/day; (4) physical activity to engage in regular aerobic exercise 3 to 4 times a week at least 40 minutes per day; (5) and limiting alcohol consumption to no more than two drinks per day (1 oz or 30 ml ethanol, 24 oz beer, 10 oz wine, 3 oz whisky) in most men and no more than one drink per day for woman (Chobanian et al., 2003; Mahvan&Mlodinow, 2014).

Empirical studies revealed the lifestyle modification intervention methods used to manage hypertension. Connell, Wolfe, and McKevitt (2008) reviewed studies of community interventions for improving hypertension control in black American adults. The studies are categorized into the main methods of intervention:group health education classes, psychosocial counseling aimed specifically to increase understanding and to motivate lifestyle change, active self management-patient commitment to manage risk factors, social support in managing

hypertension, individualized screening and cardiovascular disease risk factor reduction, community-wide risk factor intervention, and strategies to achieve cultural sensitivity.

Moreover, Bosworth et al. (2005) studied nurse administered telephone interventions for blood pressure control: a patient-tailored multifactor intervention. The study tested the effect of a nurse administered patient-tailored intervention for blood pressure control. The nurse case manager contacts intervention groups by telephone every 2 months for 24 months and there is standard information in nine modules: literacy, hypertension knowledge, memory, social support, patient/provider communication, medication refills, missed appointments, health behaviors, and side effects. In addition, Bosworth et al. (2009) studied self-management interventions to improve hypertension control. The interventions focused on improving adherence to the Dietary Approaches to Stop Hypertension (DASH), weight loss, reduced sodium intake, regular moderate intensity physical activity, smoking cessation, and moderate alcohol intake.

Most of non-pharmacological approaches focus on lifestyle modification intervention methods. However, there are alternative methods which are applied to manage hypertension. DeSimone and Crowe (2009) reviewed evidenced based non-pharmacological approaches in the management of hypertension and found that a variety of methods were applied to manage hypertension such as device-guided therapeutic breathing, stress management, yoga, relaxation techniques, and meditation.

McCaffery, Ruknui, Hatthakit, and Kasetsomboon (2005) studied the effect of yoga on hypertensive persons in Thailand and found that the subjects who

practiced the yoga program had significantly decreased blood pressure, heart rate, and body mass index levels. In addition, Toprak and Demir (2007) studied the treatment choices of hypertension patients in Turkey. They found that most of the patients, 40 out of 72 patients (55.6) had BMI values ≥ 25, although they had been told about the importance of managing their disease. When they had a hypertensive event at home only 9.7% of the patients took an antihypertensive drug, 13.8% called their physicians and 66.8% used alternative treatments. The most common traditional methods were eating yogurt with garlic (27.8%) and eating sour foods such as lemon and grapefruit (25%), rest (6.9%), and drinking ayran, which is a Turkish drink made with yogurt and water (5.6%).

Similarly, Jeamjit (2005) studied the use of Eastern wisdom modalities among adult patients with chronic health problems receiving health services at a hospital in Satun province, Thailand. The percentage of subjects suffering from hypertension was 18.2%, muscle pain 16.2%, diabetes mellitus 12.16%, and cancer 16.75%. It was found that all of these adult patients had been using Eastern wisdom to manage their health: herbal medicine at 91.48%, massage at 45.53%, and religious principles and rituals at 45.53%. Alternative methods are used to complement health care practice depending on the cultural context of particular groups.

The most common barrier to hypertension control was a lack of awareness of hypertension therapies because of the client's perception of his or her illness. In regards to the patients who stopped antihypertensive therapy, 46% stopped taking their medicinebecause they believed they were cured (Borzecki, Oliveria, and Berlowitz,2005). This is similar to Sowapak (2006) who studied the factors related to drug adherence among Thai elders with hypertension and found that 66% of the elders

stopped taking their medicine after their symptoms had disappeared because they believed their disease was cured.

Experiential studies have revealed thatpatients' beliefs and perception about hypertension are related to the barriers to hypertension control. Panpakdee, Hanucharurnkul, Sritanyarat, Kompayak, and Tanomsup (2003) study on the self-care process of Thai people with hypertension, found that at the first diagnosis of hypertension, participants perceived that hypertension was curable and, therefore took medications for a short time until their symptoms disappeared. They did not follow medical treatment ranging from six months to five years until complications from hypertension arose. Moreover, Marsell, Wolfe, and McKevitt, (2012) reviewed a qualitative research on a lay perspective on hypertension and drug adherence and found that most participants perceived that their blood pressure improved when symptoms abated and thus stopped taking medicine without consulting their doctor. These findings were consistent across countries and ethnic groups.

In addition, Sowapak (2006) studied factors related to drug adherence among elders with hypertension and found that the elder's perception about the severity of the symptoms and the risk of complications, benefits, and the barriers of drug adherence were significantly related with drug adherence. This is because the view point of the elderly with hypertension focused on their symptoms only.

Samranbua (2011) who studied the life experience of older, rural Thai adults with poorly controlled hypertension in the Northeast of Thailand found that their perception of hypertension was healthy due to asymptomatic conditions. This is because of a lack of perception about hypertension. Some participants were unaware of their blood pressure, and did not change their lifestyle until complications occurred.

For example, Porapakkham, Pataraachachai and Aekplakorn (2008) reported that in southern Thailand, 59.9% of the elderly with hypertension were unaware of their blood pressure levels because of hypertension being an asymptomatic disease. In addition,Kirdphon (2003) who studied accepting and adjusting to the chronicity of hypertension: a grounded theory study in Thai people, found that some informants became aware of their hypertension disease when the symptoms appeared and impacted on their daily life.

Psychosocial Theories of Older Adults

Psychosocial theories aid in understanding a person's adaptation within a culture during the aging process (Grossman & Lange, 2006). These theories have been developed from European perspectives and may be impractical within other cultures. However, the theories are useful for guiding and helping to understand the aging process and adaptation in later life (Touhy, 2014).

Psychological theories of aging describe the process of the mental health, behavior, and feelings of persons throughout the life span. Ericson developed a theory of psychological development in 1963 that influences on social and cultural factors (Eliopoulos, 2014; Touhy, 2014). The Erikson theory clarified eight stages of human development from infancy to old age. During a person's lifetime, modifications in one's lifestyle are confronted. The challenges of old age include understanding the meaning of life, and an enlightening of the individual's ego integrity, and coping with the reality of aging and morality (Eliopoulos, 2014). In addition, Butler and Lewis (1982 as cited in Eliopoulos, 2014) recommended the

development tasks of later life: regulating to an individual's illness, developing a sense of satisfaction for living with in later life, and preparing for death.

Sociological theories of older adults focus on changing roles and relationships in middle and later life. The norms of society affect how the older adult's roles and relationships are viewed. Most sociological theories were developed during the era of the sixties and seventies (Eliopoulos, 2014; Touhy& Jett, 2014).

Firstly,the activity theory stated that the elderly people have to continue a middle-aged lifestyle, rejecting with the existences of old age as long as possible. This theory suggests ways of maintaining activity in the presence of multiple losses associated with the aging process, including substituting intellectual activities for physical activities when physical capacity is reduced, replacing the work role with other roles when retirement occurs, and establishing new friendships when old ones are lost. Declining health, loss of roles, reduced income, decreased circle of friends, and other barriers to maintaining an active life are to be resisted and overcome instead of being accepted. The theory has some merit. Activity is generally assumed to be more desirable than inactivity because it facilitates physical, mental, and social well-being.

Secondly, the continuity theory states that personal and basic patterns of behavior are unchanged as the individual ages. Patterns developed over a lifetime will determine whether individuals remain engaged and active or become disengaged and inactive.

Thirdly, the subculture theory suggests that older groups have particular norms, beliefs, expectations, habits, and issues that separate them from the rest of society (Rose, 1965 as cited in Eliopoulos, 2014). This society is reposed

toward negative attitudes regarding the pattern of subculture. The elderly people within this subculture are comfortable and accepted among their own age group. This theory supports social reform and empowerment for all older populations; they have rights and must be appreciated

Finally, the age stratification theory, developed in 1970, stated that similar age groups have similar experiences, beliefs, attitudes, and life transitions which offer them a characteristic of history. New generations are continually being produced with the birth of new individuals. Therefore, the aging population interacts dynamically with society and has its own unique influence.

In summary, psychosocial theories are useful in understanding the aging process and the adaptation of persons in their old age. These theories are related to the life experiences of older adults in all aspects.

Culture and Health Belief Systems in Thailand

Culture is the complex whole that refers to the lifestyle of a particular group of people. It includes knowledge, belief, art, law, morals, custom, and other capabilities acquired by a human as a member of society. The culture, knowledge of values, beliefs, and life ways of particular groups, can be learned, shared, and transmitted. There are two components of culture, namely a materialist perspective and an ideational perspective (non-materialist view): the materialist perspective focuses on the behavior or pattern of actions, and the ideational perspective (non-materialist) consists of the ideas, beliefs, and knowledge that distinguish a particular group of people (Fetterman, 1998; Leininger, 1994; Leininger, 2002). In addition,

Helman (2007) defined that culture is a set of guidelines (both explicit and implicit) that individuals inherit (come into) as members of a particular society which tell them how to view the world, how to experience it emotionally, and how to act with other people, to supernatural forces or gods and to the natural environment. In addition, culture can be seen as an inherited lens through which the individual perceives and understands the world that she or he inhabits and learns how to live within it.

Cultural knowledge plays a part in a person's health, meaning values, beliefs, and traditions; this influences the health behaviors of elderly people. These factors manifest in both healthy and unhealthy behaviors and can play a central role in the levels of health in a cultural context (WHO, 2003). There are two levels of cultural knowledge, explicit and tacit or implicit knowledge. Explicit knowledge is a past of what we know which can be communicated with relative ease. Tacit knowledge is outside our awareness such as how close to stand to others, how to arrange furniture, and when to touch others (Spradley, 1980).

Cultural beliefs influence human behaviors of particular groups. Cultural belief systems depend on the transmission of values, beliefs, attitudes, and behaviors of culture groups (Ray, 2010). Andrews (2012) stated that cultural belief systems are created from the shared experiences of particular groups in society and are expressed symbolically. The symbols are applied to decry and explain the cultural meaning of life's events. A metaphor is used to express the symbolism to connect to another. The metaphors apply to decry and explain life's events as a group of worldviews or general perspectives. In addition, Andrews (2012) revealed that the perspectives causation of health and illness are based on cultural beliefs or worldviews of individuals or particular groups. There are three major paradigms of a

health belief system or worldview: (1) the magico-religious paradigm: The world is dominated by the supernatural. The human being, in health and illness, is dependent on the actions of God, or the gods, or supernatural forces for good or evil; (2) the scientific paradigm is the most modern in that life is controlled by physical and biochemical processes; (3) the holistic health paradigm represents the natural balancing or harmony of and between humans and the larger universe.

Cultural groups have healing systems to manage their health. These are the sciences, arts and techniques that are used by any cultural group to manage their health (Andrews, 2012). There are three groups of healing systems: self-care, professional care systems, and the folk healing system (Andrews, 2012; Leininger, 2002). Self-care is the primary healing system of people that has been passed on from generation to generation. Secondly, professional care systems refer to the formality of learning and perceiving etic knowledge and practice care by professionals such as nurses, physicians, and physical therapists. They learn and transmit professional care, health, illness, and wellness in professional institutions. Lastly, the folk healing system or generic care or indigenous care is the emic folk knowledge and skills that is their history. Leininger (2002) defined that both professional care and folk or generic care are different in the viewpoint of etic (outsider's view) and emic (insider's view). Professional care focuses on a scientific orientation that is cure, diagnosis, and treatments. These approaches rely on biophysical and emotional factors that need to be assessed and treated. In contrast, generic care focuses on humanity orientation which has a holistic approach and relies on traditional and familiar folk caring and healing.

All cultural groups have health practices based on their culture. Culture is related to health practices and can be explained by a number of reasons (Leininger, 2002). The first reason is that culture reflects shared values, ideals, and meaning which guide human thoughts, decisions, and actions. Cultural values usually transcend individual values which are influenced by groups and symbols. For example, in the Muslim culture women are required to be covered from head to ankles. They must wear loose fitting clothes and a head covering called a *hijab*.

The second reason: cultures manifest (readily recognized) and have implicit (covert and ideal) rules of behavior and expectations. Manifested cultural norms can be expressions such as greeting another person by a handshake. The implicit and ideal values are usually covert rules that are difficult to see or understand. However, they have important influences on decisions and actions such as to accept or reject medications.

The third reason, human cultures are reflected by material items and non-materialism. The material items or symbols refer to artifacts, objects, dress, and meaning in a culture. In the United States, music and drinking Coke or Pepsi are associated symbols of teenagers, whereas, in Thailand, wearing uniforms are associated with symbols of students. Non-materialism is the expression of beliefs and ideas that there are good or bad spirits to guide people in their life, including guiding their health behavior.

The fourth reason is a culture has traditional ceremonial practices such as religious rituals, food feasts, and other activities. Thailand has many traditional ceremonial practices that are related to health practices. For example,

Songkrancelebration days include rituals performed by Thai people to show respect to older people.

The fifth, cultures have their local or emic (insider's) views and knowledge about their culture. Emic views are important for health-care providers to understand meaningful health practices. Emic ideas and beliefs are often viewed as secrets. These ideas are opened with the health-care provider when they have been established as coming from the cultural groups.

The sixth reason is that all human cultures have some intercultural variations between and within cultures. Cultural variation is a significant concept to examine when studying individuals and different cultures. For, example, Thai, Muslim and Buddhist people in southern Thailand show cultural variations in their daily life regarding food choices, communication, dress, and responses to health practices, illness, and death.

Cultures are related to health and illness in the health-managing behaviors of particular groups. Cultures influence human thoughts, decisions, and actions of individuals or groups. Health practices are part of a pattern of actions of individuals or groups that depend on their culture for living.

In Thailand, health is defined by the Nation Health Act as the stage of the human being which is perfect in physical, mental, intellectual and social aspects, all of which are in holistic balance. Whereas, in different cultures the meaning of health is defined by people of all cultures (Bureau of Policy and Strategy, 2007). The health system is the whole of a human being that is related in health to all of the dimensions of cultural groups.

Thailand has its own system of Thai traditional medicine that is a holistic health paradigm and focuses on the natural balancing or harmony of and between humans and the larger universe. Chokevivat and Chuthaputti (2005) defined Thai traditional medicine (TTM) as the medical processes dealing with the examination, diagnosis, therapy, treatment, or prevention of diseases, or promotion and rehabilitation of the health of humans or animals, midwifery, Thai massage, as well as the preparation, production of Thai traditional medicines and the making of devices and instruments for medical purposes. All of these are based on the knowledge or textbooks that have been passed on and developed from generation to generation.

The human body in Thai Traditional Medicine (TTM) is composed of four elements (‘*tard*’ in the Thai language): earth, water, wind and fire (Chokevivat&Chuthaputti, 2005; Chompol, 1998; Thai Traditional Medicine foundation, 1992).Theearth or *Pataweetard*composts of the internal and external organs of the human body: nails, hair, skin, teeth, bone, tendons, ligaments, bone marrow, heart, lungs, kidneys, liver etc. The water or *Arepotard* is a component of the water fluid in the body: blood, mucus, bile, urine, tears etc. The wind or *Vayotard*is an energy field of the human body that can flow internally and be exchanged in the external organs. The fire or *Tashowtard*is the power of heat to keep the human body warm.

Chokevivat and Chuthaputti2005, stated that if the four elements of the body are in balance, it will be healthy. In contrast, if imbalances in these elements occur a person will become ill. Moreover, the imbalance in the four internal elements and illness can also be due to an imbalance in the four external elements as well.

Human illness can be caused by the following factors: (1) supernatural power such as an ancestor's soul, a powerful spirit of the forest, evil spirits, punishment from a heavenly spirit of the variety who behave badly; (2) the power of nature such as an imbalance in the four elements of the body, imbalance of heat and cold, and the imbalance of the body's equilibrium; (3) the power of the universe such as positive and negative influences from the sun, the moon and the stars on human health.

In addition, in TTM, human health is also influenced by: (1) an imbalance in the four basic elements of the body and the effect of external elements or the environment can affect human health; (2) different seasons can affect human health; (3) age, during different periods of life, people are more prone to get ill from the influence of different elements; (4) the geographical location of where one's life is dictated by the weather and the environment, it can play a role in affecting one's health; (5)time, astrologically, the sun, the moon and the stars continuously move, thereby influencing human life and health differently during different times of the day; (6) inappropriate behaviors such as eating habits, imbalanced postures, exposure to extreme weather or polluted air, being deprived of food, water or sleep, delayed urination or defecation, overwork, over-exercise, or excessive sexual activity, extreme exhilaration, extreme anger, and lack of calmness.

Folk medicine is a part of the healing systems in rural areas in Thailand. The folk healing systems have been continued by the oral transmission of beliefs and practices from one generation to the next to manage health and illness for people within the cultural community (Development of Traditional Foundation, 2007). The folk healers or traditional healers, indigenous, or generic healers are important in health systems in some rural areas in Thailand. This is because the folk

healers know the socio-cultural background of the people, and are highly respected and experienced in their work, and have the strength of traditional beliefs. The folk healers are still found in many groups of Thai society in a number of rural areas (Thailand Institute of Scientific and Technological Research, http//www. tistr. or.th).

Firstly, regarding the training of the Local Doctor (MorMuang), male traditional outsiders have to be accepted by a master and then pass an initiation ceremony before being accepted into a specific traditional medicine area. Secondly, the Herbalist (The MorYa) covers the whole disease spectrum and formulates scripts based upon herbs and other natural substances as a part of their traditional medicine. Third, the Bone Blower (The MorPao) specializes in wounds or broken bones. The methods of treatments used include manipulating the bones and applying splints and blowing on the affected area. Fourthly, the Spiritual Healer (The MorSuang) achieves a series of ceremonies and incantations to call on the spiritual essence of the client and to connect with his guides for support. Fifthly, the Astrologers (Mor Cao Baan) are part of the female healer tradition. They are traditional medicine specialists of a particular illness. Finally, the Shaman (Mor Pi) is the village connection with the spirit world. They use specific ceremonies in the spirit world for the client. The folk healers still use specific methods for their clients in different cultural groups.

In southern Thailand there are various groups of folk healers. Folk healers in Thai-Melayu are like those in Malay known as Bomoh (Razali, 2009). Sombat, Piriyanupong, and Artnarong (2004) studied Muslim wisdom for health care practices among Thai Muslims in rural areas in southern Thailand and found that there were five groups of folk healers: herbalist, spiritualist, bone setter, masseur, and local midwives. They come from in different backgrounds and have been trained by

the previous generation. Razali (2009) stated the general belief held by folk healers is that illnesses are caused by physical factors, supernatural factors, and predispositions. Physical factors compose of certain foods, heat and cold, microorganisms, physical trauma, brain impairment, and wind. Supernatural factors causing illnesses of people are affected by evil spirits, witchcraft, and black magic. Predispositions include the loss of vital inner strength, severe stress, and immorality. However, there are few studies about the folk healers of Thai-Melayu in southern Thailand

Thai -Melayu Culture in Southern Thailand

History and Ethnic Groups in Southern Thailand

The southern part of Thailand is a multicultural area because of its history. Phongphaibun (2004) clarified southern ethnic and human resource structures by historical archeological evidence. It was found that the pre-historic people of Southeast Asia consisted of two races: Southern Mongoloid and Australo-Melanesian (Australoid). They continued mixing for thousands of years and by the 5th Buddhist century or about 2000 years ago, the Mongoloid race among the people of the South predominated. The south of Thailand was an important transportation point where several Homo sapien races mixed under different environmental conditions.

There were three groups of pre-historic people in the South of Thailand which were the Thai-Kadai group of Southern Thai people who speak Thai, the Malayo-Polynesian group of Malay-speaking people and sea Gypsies, and the Austro-Asiatic group of Negritos or Sakai (Rittanon, 2009; Phongphaibun, 2004). Moreover, Phongphaibun (2004) clarified that the ethnological structure of Southern people

become more dynamic when they came into contact with people and races of other lands, languages, and cultures during the 5th -8th Buddhist centuries. The migration of different groups from other lands such as Aryan Indians (Caucasoid), Dravidians and Tamil (Australoid), and Chinese (Northern Mongoloid), Sri Lankans or Sinhalese (Australoid), and Mediterraneans (Caucasoid) influenced the cultural aspects in southern Thailand. Islam came to the lower South in the 19th Buddhist century, the number of Muslims and the Islamic culture made up a new structure of this area as well as spreading to other parts of the region (Phongphaibun, 2004).

Today most of the population in the far South of Thailand is Muslim. The populations of Pattani, Yala, and Narathiwat provinces are 80% Muslim. In Satunprovince, Muslims comprise 74.1% and Buddhists 25.8% of the population (Satun Province, 2013). There are three characteristics of Muslims in Thailand, as defined by history and location. The first is the ethically Malay Muslims who speak Malay and live in the provinces of Pattani, Yala, and Narathiwat; they make up about 80% of the total Thai Muslim population of five to seven million. The second characteristic is the integrated, ethnic Malay but Thai speaking Muslims who live in the upper south provinces of Satun, Songkhla, NakornsiThamarat, Phuket, Krabi, and Phangnga. The third is the multi-ethnic Thai-speaking integrated Muslims in the central Thai provinces of Bangkok and Ayutthaya, and in the North and Northeast of Thailand (Yusuf, 2006). According to Chyun, Amend, Langerman, and Melkus (2003), they defined that ethnicity refers to a large group of people with common behaviors or traits, while race is based on characteristics like skin color and geographic origin. Each culture and subculture has its own health traditions that guide what people do to maintain their health.

Thai-Melayu is a term of ethnic Melayus in Thailand. They are groups of people who share common distinctive characteristics such as race, ancestry, nationality, language, religion, food preferences, literature, and music and have a common history (McEwen, &Pullis, 2009). The majority of Thai-Melayu is concentrated in the Southern provinces of Narathiwat, Pattani, Yala, Songkhla, and Satun (Sugunnasil, 2005). Most of the Muslims have some Malay ethnicity. They have different cultural backgrounds from people in other areas of Thailand. For example, the Thai-Melayu people who are of Malay ethnicity still use the Melayu language to communicate in daily life.Sugunnasil (2005) clarified that Thai-Melayu in Narathiwat,Pattani, and Yala, were different from anywhere else in Thailand. This relates in a variety of ways: (1) the continued common use of the language among the people in these provinces, (2) geographical contiguity with the northern Malay states of Kadah, Perak, and Kelantan in Malaysia, (3) the availability of religious literature in Malay and its constant source of supply from Malaysia and Indonesia, (4) the high concentration of religious schools, (5) the scholars from Islamic countries who support studying in Malaysia, Indonesia, the Middle East, and even the Indian subcontinent. In contrast, the ethnic Malays or Thai-Melayu in Satun are more proficient in Thai compared to the Malays from the other states, and their dialects have strong affinities to those of Perlis. People of mixed Thai and Malay ancestry are known as Samsam. They are generally adherents to Islam but culturally Thai, although Malay influences are co-dominant.

Thai-Melayu Culture

Most of the Thai-Melayu in southern Thailand are Islamic. They have a special cultural background relating to race, ancestry, religion, and language. Yosef(2008) stated that Islam is a way of life to guide Muslimin daily life activity.Cultural values and Muslims' lifestyle occur from religious beliefs, and relate to cultural values in many ways: (1) Modesty is crucial for all Muslims, especially, Muslim women who should cover their hair and their bodies. The traditional dress for Muslim women involves wearing loose clothing and wearing a head scarf or *Jilbab* on their head (Wehbe-Alamah, 2008); (2) Muslims follow a dietary code called *halal.* The *halal* code requires that meat be slaughtered in certain way. Eating beef, lamb, fish, and other types of meat is allowed but pork, pork products, the blood of dead animals, and the consumption of all intoxicants are prohibited. Alcohol-based medications are also prohibited.(Athar,1999; Wehbe-Alamah, 2008); (3) Ramadan is the month of fasting, praying and reading the Quran. Each evening, family and friends meet at sunset to break the fast together. Some persons are exempt from fasting such as children, menstruating and lactating women, travelers, and sick people; (4) death is the transition from the earthly form of existence to the next that is the part of the journey to meet God. (Athar, 1999; Sheikh, 1998 as cited in Lawrence, &Rozmus, 2001). The dying patients may wish to face toward Mecca and family and friends will recite the Quran (Lawrence, &Rozmus, 2001).

Thereare five crucial practices in Islam contained in the Pillars of Faith (Andrews, 2012; Leininger, 2002). The Pillars of Faith are the rulesfor the way of life

for Muslimswhich are related also to the health of the human being. Athar (1999) revealed the relationship between the Pillars of Faith and the health of persons.

The first Pillar of Faith is a belief in one God which means also the belief that health as a gift from God. Illness and suffering and are part of life and a test from Allah, and death is a journey to meet God (Yosef, 2008). Muslims need to manage their health because they do it to please their God. They must understand what God prohibits them from doing. There are a variety of acts that God prohibits which are beneficial for health: (1) the blood and meat of dead animals can be full of germs and other harmful elements such as antibodies; (2) pork has high cholesterol levels and salt and also contains worms; (3) over the long term alcohol damages all organs including the liver, stomach, endocrine glands, heart and brain.

The second Pillar of Faith is praying five times per day. This practice has benefits for physical and mental health. Muslims must wash all exposed areas of the body before praying such as hands, feet, face, mouth, and nostrils. These practices are of benefit in preventing the spread of infection. In addition, the aspect of prayer is the recitation of the Quran. The effect of sound echoing and the meaning have a healing effect on the body and mind which reduces the heart rate, blood pressure, rate of respiration, and also involves all muscles and joints.

The third Pillar of Faith is giving to the needy (zakat). Muslims should give 2.5% of their saved wealth to poor people. This practice results in persons who give regularly to charity to be more peaceful people. Peacefulness of the mind can help a person recover from an illness.

The fourth Pillar of Faith is fasting during the month of the holy Ramadan. Fasting produces physiological change in the body, gives rest to different

organs, and improves adaptability. It decrees cholesterol, blood pressure, blood sugar, and also limits unhealthy food, drinking a lot of coffee and smoking. Moreover, this practice is believed to produce peace and harmony in the mind.

The fifth Pillar of Faith is making a pilgrimage to Mecca at least once during one's life time (Hajj). This Pillar of Faith is a requirement for all able men and women. It increases one's physical patience because they need to take part in long walks under the heat of the sun.

Muslims believe that a human being is a gift from God and that they should be cared for. Illness is a part of life and a test from God. However, they have to seek care and treatment (Wehbe-Alamah, 2008; Yosef, 2008).They also believe that God is the ultimate healer and that an illness is God's will. The body is a gift from God and should be cared for (Wehbe-Alamah, 2008).

The Melayu ways of life in southern Thailand influence the health of persons living with hypertension and is dependent on their perceiving and practicing in the Pillars of Faith. The Pillars of Faith and promoting items from the Quran help the followers have healthy lives, and decrease the risk factors that are the cause of hypertension and chronic diseases.

Ethnographic Methods

Ethnography is the art and science of one method of qualitative researchers to describe, learn, and understand the patterns of behavior of individuals and groups of people within a particular culture that is seen from the emic or insider's perspective. (Fetterman, 1998; Roper &Shapira, 2000; Spradley, 1980). The goal of

ethnography is to understand the way of life from the native point of view which means learning from people. Ethnographers determine what the people know and believe, and what they do. There are two main conceptualizations of culture: behavioral/ materialist conceptualizationand cognitiveconceptualization. The behavioral/ materialist perspective is the culture observations of a group's patterns of behavior, what they produce, and their way of life. The cognitive conceptualization consists of ideas, beliefs, and knowledge (Fetterman, 1998; Spradley& McCurdy, 1972 as cited in Roper &Shapira, 2000).

There are several methods of ethnography. Robertson and Boyle (1984) clarified that the epistemology upon which an ethnography is based on is determined by the researcher: (1) emic epistemology, the researcher will use a methodology which seeks to explain how the informants construct reality in its own terms; (2) etic epistemology, the researcher will use his or her own theoretical guideline to interpret and explain an informant's behaviour; (3) and emic/etic, the researcher uses both etic and emic epistemologies. In addition, Speziale and Carpenter (2011) defined four types of ethnography: (1) classical or traditional ethnography consists of both a description of behavior and demonstrates why and under what circumstances the behavior took place. This method requires considerable time in the field, constantly observing, and making sense of the behaviors; (2) systematic ethnography defines the structure of culture, rather than to describe a people and their social interaction, emotions, and materials; (3) interpretive or hermeneutic ethnography is to discover the meaning of observed social interactions. The researchers are interested in studying the culture through the analysis of inferences and implications found in behavior; (4) critical ethnography is distinguished from

conventional approaches that focus on problem issues. The researcher and informants work together to create a culture schema.

In interpretive ethnography, the researcher will use emic and etic epistemologies. Fetterman (1998) stated that the ethnographer writes about the routine daily lives of people and predictable patterns of human thought which are related to behavior. The researcher is both storyteller and scientist. The role of the ethnographer is studying real-life situations of people in their natural setting. The researcher uses participant observation to observe what is happening, and then asks members about what was seen and done, the examiner gains a deep understanding of practices and beliefs of the particular group of people. The research uses both perspectives from the insider of the participant and the outsider of the researcher to analyze the data that provides deeper insight which is the product of the research study (Roper &Shapira, 2000).

There are four steps of ethnography (Fetterman, 1998): (1) the selection of a problem or topic of interest. It can guide the research design including the budget, and the tools to conduct the research; (2) the selection of the theory to guide the research study that is dependent on the appropriateness to conduct the data collection in the field; (3) the research design or outline which helps the researcher to build knowledge and understanding in the cultural context. This design takes the form of a research proposal that includes background information, historical information and a literature search, specific aims, rational, methods, the significance of the study, time, and budget. Fieldwork is a significant factor in research design namely, exploration in a natural setting. The research begins with a survey period to study basic information such as the native language, the relationship of people, census

information, historical data, and the basic structure and function of the culture under the topic of the study. The most important element of fieldwork is being in a natural setting to observe, to ask questions, and to write down what is seen and heard. The researchers must cross-check, compare, and triangulate the information before it can form a foundation to build a knowledge base. The decision to leave the field is based on several criteria. However, the best reason to leave the field is the belief that enough data has been gathered to describe the culture; (4) the formal analysis begins by simultaneously collecting the data from the fieldwork that can be tested by the researcher to help in understanding specific relationships and status symbols.

Fetterman (1998) stated that cultural interpretation involves the ability to describe what the researcher has heard and seen within the framework of the social group's view of reality. The cultural interpretation rests on a foundation of carefully collected ethnographic data by both ethnographic methods and techniques. It is based on several concepts such as a holistic perspective, contextualization, and emic, etic, and nonjudgmental views of reality.

(1) Holistic perspective can help the researcher gain a comprehensive and complete picture of a social group that includes the group's history, religion, politics, economy, and environment.

(2) Contextualizing data involves setting observations into a larger perspective.

(3) Emic perspective is the insider's or native's perspective of reality that is instrumental to understanding and correctly describing the situation and behaviors. Native perception can help the researcher understand why members of the social group do what they do.

(4) Etic perspective is the external, social scientific perspective on reality. The researcher begins by collecting data from an emic perspective and then tries to make sense of what she or he has collected in terms of both the native's view and their own scientific analysis.

(5) Nonjudgmental orientation requires the researcher to examine the personal valuation of any given cultural practice. Maintaining a nonjudgmental orientation is similar to examining disbelief while one watches a movie or a play or reads a book. The researcher must try to view another culture without making value judgment about different practices.

(6) Intercultural and intra-cultural diversity are important for the study of a group of people. Intercultural diversity is the difference between two cultures, and intra-cultural diversity is the differences between subcultures within a culture. Intercultural diversity is easy to see as it includes political, religious, economic, kinship, and ecological systems. In contrast, intra-cultural diversity is subliminal, manifesting as subcultures of people living as a minority in a community, but still having an impact on the community. Thus, the researcher needs to see and share the intra-cultural diversity that can give a bigger picture of the whole.

(7) Structure and function can guide the researcher in a social organization. Structure refers to the social structure or pattern of the group such as the kinship or political structure. Function refers to the social relation between members of the group. Most groups have an identifiable internal structure, an established set of social relationships that help regulate behavior.

(8) Symbols and rituals which are part of daily life and that can express the meaning of feelings and thoughts. Symbols are often part of a ritual. Symbols and

rituals can help researchers make sense of their observations to classify and categorize behavior.

Understanding the culture is essential for nurses who are the key persons of the health system. Ethnography is a qualitative method that can help nurses to understand the way of life of an individual, and cultural groups, in a natural setting. In southern Thailand there are Malay ethnicities that have different cultural backgrounds from other areas. Hypertension is still a health problem that needs to be examined regarding the health perception and health maintenance of the different Malay ethnic groups to help manage their health.

Methods and Techniques of Ethnography.

There are various methods and techniques of ethnography such as fieldwork, participant observation, interviews, data analysis, and trustworthiness.

Fieldwork.

Fieldwork is working with the informants in their natural setting and is a very important part of ethnography research (Fetterman, 1998; Holloway &Wheeller, 2010). Fetterman (1998) defined that there are two types of fieldwork. The first type is working with people for a long time in their natural setting. The researcher must conduct the research in the cultural context to see people and their behavior specified all real-world reasons and limitations. The second is understanding the world that is being studied in its question and complexity. The commencement of

work in the field is very important for the researcher therefore, researchers need a facilitator to introduce and open the doors within the community. The facilitator should have some credibility with the group. The researchers will benefit from a good beginning if they are introduced by the right person. This can improve the quality of the data collected in the fieldwork.

Participant Observation.

Participant observation is the method of ethnography for working with a particular group of people in the fieldwork. Fetterman (1998) defined that participant observation is the engagement in a culture in which the researcher lives and works in the community for six months to one year or learning the language and seeing patterns of behavior overtime. It can help the researcher analyze the basic beliefs, fears, hopes, and expectations of the group of people under study. Participant observation begins with the basic question followed by exploring the content of the results. Moreover, Spradley (1980) identified nine major dimensions of cultural situations in study settings: (1) space, the physical place or places; (2) actors refer to the people involved, (3) activities, a set of related acts that people do; (4) objects, the physical things that are present; (5) acts, single actions that people do; (6) events, a set of related activities that people carry out; (7) time, the chronological sequencing that takes place; (8) goals, the things that people are trying to accomplish; and (9) feelings, the emotions felt and expressed by the people.

Roper and Shapira (2000) defined that participant observation is central to ethnography which is the collection of data by participating in the daily life

of a group in their natural setting. Germain (1979 as cited in Roper &Shapira, 2000) listed seven dimensions of ethnographic participant observation: (1) the researcher must spend enough time in the setting to learn about the people, behaviors, and event and be accepted as a member of the group; (2) the researcher resides on site. The research question needs to be answered in the appropriate setting; (3) the researcher will explore the social circumstances that can complete the whole picture of the setting; (4) the researcher and participants have different cultural backgrounds such as language, religion, and race. Lack of knowledge about these may benefit the study because the researcher is not fully aware of the cultural backgrounds of the participants in the study; (5) the researcher conducts the research in the setting as closely as possible to the objective of the study; (6) the researcher must examine the validation of data and interpretation of the data. The researcher can check the interpretation with the participants in the study; (7) the researcher must be attentive to bias. The researcher needs to be open minded, have a tolerant attitude and listen attentively to the statements of the group members, and explain the expectations and information to interact with the group.

Interviews.

The interviews are the most important data gathering technique. Interviews help explain and put into a larger context the things that the ethnographer sees and experiences (Fetterman, 1998). According to Spradley (1979), successfully interviewing informants depends on a cluster of interpersonal skills. These include asking the right questions, listening instead of talking, taking a passive rather than an

assertive role, expressing verbal interest in the other party, and showing interest through eye contact and other nonverbal means.

There are several types of interviews including formal structured, semi-structured, informal, and retrospective interviews (Fetterman, 1998). Firstly, formal structured and semistructured interviews are verbal approximations of a questionnaire with explicit research goals. A formal interview must be related to the research question and purpose of the study that is the data of the study which is coded for interpretation in the study (Roper &Shapira, 2000). The research can use a structured interview at any time in the study, for example, a list of questions about general background. After that, the researcher asks comprehensive questions from the insider's view of the participants. Secondly, informal interviews are the most ordinary in ethnographic work. It is an implicit agenda of the study which uses informal approaches to determine the categories of meaning in the culture under study. Finally, retrospective interviews can be structured, semi-structured, or informal. The ethnographer applies retrospective interviews to reconstruct the past asking information to recall personal historical information of the participants' worldviews.

Thus, the ethnographic interview is a series of friendly conversations and includes three components (Spradley, 1979).The first is explicit purpose in that the researcher needs to clear the place where to go. The researcher takes control of the talking, directing it to the aim of the study which leads to learning the cultural knowledge of the informant. The second is explanation. The researcher must explain the study to the informant from the beginning until the last interviews. These include project explanations, recoding explanations, native language explanation, interview explanations, and question explanation. The research is an instrument for determining

another person's culture. Therefore, the researcher needs to explain the methods of collecting data to informants as well as how the methods are used. The third component is ethnographic questions. These include three types of questions: (1) descriptive questions are the easiest to ask and are used in all interviews, (2) structured questions enable the researcher to discover information about domains, the basic units in an informant's cultural knowledge, (3) contrast questions benefit the researcher to confirm the meaning of information by the several terms that are used in the native language.

Data analysis.

Data analysis is the systematic process of the qualitative data that is continuing from the beginning in the pre-fieldwork stage to the end of writing the report. Data analysis is organizing the data into patterns, categories, descriptive units, and looking for relationships between and from them (Brewer, 2000; Fetterman, 1998; Hammerley& Atkinson, 1994; Spredley, 1980). Data analysis consists of three components (Miles &Huberman, 1994): (1) data reduction is selecting and condensing the information in the field work. The researcher must summarize the data by coding, finding themes, clustering categories, and writing stories; (2) data display is searching to see a reducing set of data as a root of thinking about its meanings. Data display may include structure summaries, diagrams, and matrices with text; (3) conclusion, drawing meaning, and verification involves the research in interpretation. Drawing meanings are created from displayed data by comparing and contrasting patterns and themes, clustering, use of metaphors to confirmatory

approaches such as triangulation, looking for negative cases, following up surprises, and checking results with respondents. This step is called data transformation in that the information is condensed, clustered, sorted, and linked over time.

Trustworthiness

Trustworthiness will be tested by using the four naturalistic analogs to the conventional criteria of internal and external validity and objectivity: credibility, transferability, dependability, and conformability (Lincoln &Guba, 1985): The first credibility concerns the degree of trust which is established between the researcher and the informants. It concerns how accurate, believable, and credible the information they provide about their experiences and knowledge of phenomena is (Lininger, 2001; Ryan-Nicholls & Constance, 2009). There are two ways to bolster credibility: (1) by working with people for a long time in their natural setting, a researcher can conduct research on the native environment by seeing people and their behaviors firsthand, (2) by understanding the world and its limitations, a researcher can use a variety of methods and techniques to ensure the honesty of the data (Fetterman, 1998; Lininger, 2001); The second transferability refers to the question of whether or not particular findings from the study can be transferred to another similar context (Lininger, 2001). During data collection, the researcher will maintain a reflective diary to record assumptions and personal insights which might have an effect on the data; the third dependability is concerned with the stability of data, and is used as a measure by outside parties such as consulting with other experts as a way to audit the results of the study (Guba& Lincoln, 1981, as cited in Ryan-Nicholls & Constance, 2009); finally, confirmability is the standard of neutrality by which the research is judged. It

refers to the findings themselves, not to the objectives or the subjective views of the researcher (Ryan-Nicholls & Constance, 2009).

Summary

Hypertension is a non-communicable disease which is a global health problem in the elderly.Cardiovascular disease and cerebrovascular accidents are associated with hypertension which is the leading cause of death in the elderly. There are many factors related to hypertension such as smoking, high cholesterol, obesity, and inactive lifestyles. Changing one's lifestyle is the heart of managing hypertension. The key success of the management of hypertension in the elderly is dependent on many factors such as, provider factors, patient factors, and cultural factors. This is because a person's health is affected by their cultural knowledge which is values, beliefs, and traditional. These factors are influenced in health-perceiving and health-managing behaviors in the elderly. Nurses are the key persons of a health care system who play an important role to promote healthy lifestyles for the elderly with hypertension. Generally, management of hypertension intervention focuses on pharmacologic therapy and lifestyle modification that is based on the providers' perspective. However, uncontrolled hypertension is a major problem in a health care system. Therefore, the health care system needs to be examined in regards to cultural knowledge in its values, beliefs, and tradition. These factors have an effect on personal health and can help nurses to understand the nature of their patient/client's cultural background. Thus, the nurses can prepare health promoting and health managing changes for the elderly with hypertension that are appropriate in the cultural context of their client.

CHAPTER 3

METHODOLOGY

This chapter describes the methodology used for this study. It presents the research designs and methods, and is organized into the following sections: research designs, study setting and context, gaining entry to fieldwork, pilot study, informants, data collection, instruments, data analysis, trustworthiness, and ethical considerations.

Research Designs

This study used interpretive ethnography to describe and analyze the patterns of thoughts and behaviors of the Thai-Melayu elderly who have been diagnosed as having hypertension in Satun province, southern Thailand. The research process allowed for multiple interpretations of reality and alternative interpretations of the data throughout the study. It sought to conceptualize and describe the native's point of view from an emic, or insider's perspective and make sense of the data from an etic perspective (Fertterman, 1998).

Study Setting and Context

This study took place in a rural village in Satun province for six months, from January to June, 2012. All of the people of this village are ethnically Malay Muslims and they still speak the Melayu language in daily life. However, they can speak the Thai language to communicate with others.

Satun Province is one of the four Thai provinces which has a Muslim majority. Seventy-four point one percent of the population are Muslim and 25.8% are Buddhist (Satun Province, 2013). Most Thai Muslims in Satun are mixed Thai and ethnic-Malay, and are known as Samsam, and speak Thai. However, there are some Thai Muslims with ethnic-Malay roots who still speak Melayu daily because of history and location in relation to Perlis, Malaysia. The language of Thai-MelayuSatun is distinctly different from Pattani Malay and is much closer to the Kedah dialect of Malay, with a significant admixture of Thai influences. They are more proficient in Thai and generally adhere to Islam but culturally they are Thai, although Malay influences are co-dominant (Sugunnasil, 2005; Yusuf, 2006).

Satun previously belonged to the Kedah Sultanate, which had a strong relationship with both Ayutthaya and Siam under the Chakri dynasty, its Malay Muslims commonly intermarried with Thai Buddhists without serious religious hesitation. This custom has created a distinct social group known as *Samsam*, meaning a mixed person. (Rittanon, 2009; Sugunnasil, 2005).

Unlike the other Muslim majority provinces in Thailand, Satun does not have a history of political confrontation with the central power in Bangkok or of tension with the Buddhist population which makes up the majority of Thailand. Thai-Melayu Muslims in Satun are substantially assimilated and rarely sympathize with the separatist movement, in contrast to the Thai-Melayu Muslims in Pattani, Narathiwat, and Yala provinces.

Gain Entry to Fieldwork

Before collecting the data the researcher entered the village to make contact with a facilitator, the head of primary health care. She was a gate keeper for the researcher to contact and become familiar with the informants who fit with the criteria of the study. The gate keeper helped the researcher to introduce the role of the researcher who was a PhD student, and the research study which is a part of the Doctoral of Nursing Program. The researcher explained the objectives of the research proposal and the benefits of the study to the elderly people with hypertension. Moreover, the researcher sought to gain the trust of the elderly by visiting their homes and participating with the informants and participating in community activities. Every day, the researcher visited the homes of the informants and used participant observation on daily life in their families and community activities.

Pilot Study

The researcher conducted a pilot study by working with people in a rural village in Satun Province from August to September, 2011. The researcher practiced multiple methods to collect and analyze the data such as interviews, participant observations, and field notes. There were four aims of the pilot study.

Initially, contact with the head of primary health care was necessary. Following that the researcher needed to have contact with the informants by conducting home visits until the researcher was accepted by the informants in their own setting. Secondly, the researcher aimed to study general information, the history

of the culture, the native language, the kinship ties, the structure and function of the culture under study. Finally, the researcher needed to try out the interview guidelines and practice analyzing the data. The result of the pilot study helped the researcher to learn more about the methods and techniques for working with people in their natural setting.

Informants

Informants were selected from the Thai-Melayu community where the most appropriate informants were the ethnic group of the Thai-Melayu in southern Thailand which fits with the aim of the study. All of them were living in the village in which they were born. Snowball sampling was used to continue selecting informants which depended on the information from the informants. The researcher conducted research on two groups of informants consisting of 11 key informants and 7 general informants. The key informants were Thai-Melayu elderly with hypertension who have been diagnosed as having hypertension for at least one year, and living in the same area in the village so they could participate together. General informants were the people who took care of or supported the Thai-Melayu elderly with hypertension. The researcher collected the information until saturation. The number of informants in this study was decided by the information examination (Lincoln &Guba, 1985).

Data CollectionMethods

Fieldwork

Fieldwork was the essential part of this study. Before working in the field the researcher contacted with an elderly village chief and the head of primary health care. They helped the researcher to introduce the purpose of this study to the informants. After that, the researcher went to stay in a village for six months from January to June, 2012. The researcher worked with the informants in their natural setting, participating, observing, and interviewing them over prolonged periods of time. Collecting and analyzing the data were conducted while the researcher was staying in the village.

Participant observation

Participant observation is a central strategy in ethnography, as it allows for data collection from participants in their natural setting. The researcher must be immersed in the culture and must live and work in the community for six months, learning the language and seeing patterns of behavior which occur over time. This method helped the researcher to understand the basic beliefs, fears, hopes, and expectations of the people under study (Fetterman,1998)

In this study, the researcher lived in the village for six months in order to learn, see, and understand the cultural beliefs and behaviors of the elderly Thai-Melayu with hypertension so as to gain an understanding of how they applied these beliefs and behaviors to manage their health. Fetterman methods (1998) were used to guide the participant observation in this study.

In the early stage, the researcher used the general observations to ensure a wide-angle view of events. It involved the collection of general information about the participants. This information provided a broad picture of the participants and their communities' geography and resources. The observations provided an overview of the participants' personal information and the events which occur in the study's setting. After that, the researcher sought out experiences and events that came to attention.

In the next stage, the researcher conducted focusing observations concerning the following key events which were related to the research questions. The researcher conducted focusing observations on the daily life of the key informants by home visits, observing the health care service for people with hypertension in the primary care unit, and the health practices for people with hypertension within their culture.

The researcher used member check during and after having finished the participant observations day-to-day to check the results of the cultural meaning from the responses of the members of the groups. It helped the researcher to understand more about the culture.

Interviews

The interviews are the most important data gathering technique. Interviews help explain and put into a larger context the things that the ethnographer sees and experiences (Fetterman, 1998).

In the first stage, the researcher attempted to become part of the village and visited the homes of the participants to better understand the community

environment and how the people spend their time. Then the researcher did a survey containing questions that helped in defining the boundaries of the study and in making the best use of resources. This aided in the creation of a basic map of the environment and the development of a method for how to proceed with the research.

In the second stage, the researcher used formal and informal in-depth interviews. The formal interviews were used to ask about the general backgrounds of the informants: education level, occupation, income, health status, and risk factors. In contrast, informal in-depth interviews were used to ask specific questions in order to further explore established categories of meaning. These questions were focused on the aims of this study by using the interview guide. Moreover, the researcher used interviews to reconstruct the past, asking participants to recall personal historical information about their worldviews.

There was a day-to-day review of all the information collected and an informal approach was used to discover the categories of meaning in the culture. Open-ended questions were used for the participants to interpret their culture. Examples of such categories include what people think and how one participant's perceptions compare within their groups. In addition, close-ended questions were used to confirm the categories of meaning in the culture comparing with another's perceptions.

Field Notes

Field notes were used as the significant elements of ethnographic study. These notes consist of the primary data from interviews and daily observation. The researcher had to use field notes in the early stage of analysis during data

collection which contains the raw data necessary for later and more complicated analysis (Fetterman, 1998).

In this study the field notes were designed to write everything from the fieldwork that the researcher could see, hear, and do. In addition, the researcher used thick description and verbatim quotations to interpret a cultural scene or the events in the situation. The thick description is a written record of what the researcher has heard and seen from the insider's views of reality in the cultural groups. The researcher needed to describe the cultural context of each movement, the relationship between individuals that each act suggests, and the context surroundings. Therefore, thick description integrated the cultural meaning from the insider's views of reality and the researcher's analysis. In addition, the researcher used verbatim quotations to infer the worldview from the informants to describe the cultural meaning.

Instruments

The researcher was a human instrument that conducted the study using multiple methods: interviews and participant observations. The other instruments consisted of personal information forms, interview guides, observation guides, forms for taking field notes, and a tape recorder.

The Researcher

In qualitative research, the researcher is part of the study. The researcher is an observer, interviewer, and interpreter of several aspects of the subject

under inquiry (Speziale& Carpenter, 2011). In this study, the researcher served as an instrument to collect the data in the field. In the pilot study the researcher learntas well ashad practice in collecting and analyzing the data from the fieldwork. The result of the pilot study helped the researcher to learn more about the methods and techniques for working with people in their natural setting.

Personal Information Forms

The personal information forms were designed to collect information on the background and health behaviors of the participants. The personal information forms are composed of age, gender, address, education level, occupation, weight, height, blood pressure, length of time living with hypertension, underlying diseases , and risk factors (Appendix A).

Interview Guides

In this study, the researcher used an interview guide when conducting formal interviews which were focused on the perceptions and health maintaining behaviors of elderly Thai-Melayu with hypertension. The interview guide was modified after the researcher had tried out the individual interviews in the pilot study (Appendix B).

Observation Guides

The researcher used observation guides that were related to the following research question: “How do elderly Thai-Melayu with hypertension manage their health?” The researcher conducted focusing observations on the daily life of the key informants by home visits, observing the health care service for people with hypertension in a primary care unit, and the health practice of the key informants within their culture. The researcher recorded observation data relating to the physical place or places, actors, activities, objectives, acts, events, time, goals, and feelings. (Appendix C)

Forms for Taking Field Notes

The researcher used forms for taking field notes in order to record research activities. These forms were focused on the observation of events and on the study participants, giving the researcher a tool by which to record what the researcher could observe, see, hear, and think (Appendix D).

Tape Recorder

A tape recorder was used to record information when the researcher interviewed participants during data collection. It helped the researcher to avoid missing any pertinent information.

Data Analysis

In this study, the Miles and Huberman (1994) method was used as the data analysis guide to interpret the culture. The researcher began analyzing the data from the beginning of the study until the end.

Data management was used during and after collecting the data each day. The researcher had to write-up the field notes from the initial version of the participant observations and interviews. The researcher used thick description and verbatim quotations to interpret a cultural scene or the events in the situation. Comparing and contrasting information sources from participant observations, interviews, and informants sharing information were created to test the quality of the information. The researcher checked the results of the cultural meaning from the responses of the members of the groups. In regards to taking items from participant observations, the participants were asked about what an item represents in their culture.

The information from the field notes was used for index coding. Data reduction was used for index coding. Codes were categories which gave meaning to specific words or phrases of text. The researcher read and reread the information collected from the interviews with that which was collected from the observation of the participants by looking for similar ideas and behavior. After that, the researcher created the categories by comparing and contrasting the index coding. These were the themes of the patterns of daily life in the setting that emerged from the research.

Data display was used to seek relationships between the group categories together. Matrices were used to display retrieved information from the

index coding which linked the categories. The researcher compared and contrasted the emerging categories and reduced them to themes and tried to find regularities; there were patterns of thought and behavior to identify.

Trustworthiness

Trustworthiness was tested by using the four naturalistic analogs: credibility, transferability, dependability, and conformability (Lincoln &Guba, 1985).

Credibility

Credibility concerns the degree of trust which is established between the researcher and the informants (Lincoln &Guba, 1985). The researcher has worked with people for a long time in their natural setting, and used a variety of methods and techniques to guarantee the honesty of the data (Fetterman, 1998; Leininger, 2001).

In this study the researcher spent an extensive six months in Ban Kuan in order to learn the culture, observe participants, and build trust with the participants. Participant observation and interviews were designed as data collecting methods to confirm the trustworthiness of the data.

The researcher verified the researcher's observations and interpretations with the participants in order to enhance credibility. The researcher checked the information during and after having finished the participant observations day-to-day from the responses of the members of the groups. Comparing and contrasting the information between the researcher's interviews and observations

were conducted to test the quality of the information so as to gain the most complete understanding.

Transferability

Transferability refers to the question of whether or not particular findings from the study can be transferred to another similar context (Leininger, 2001). During data collection, the researcher wrote the field notes to record the initial information from the researcher's interviews and observations. The researcher provided thick descriptions to better enable others to determine whether the findings can be transferred. In addition, close-ended questions were used to confirm the categories of meaning in the culture comparing with another's perceptions.

Dependability

Dependability was concerned with the stability of data, and was used as a measure by outside parties (Guba& Lincoln, 1981). During the interpretation of the data, the researcher consulted with an advisor as a way to audit the results of the study, such as the data, findings, and interpretations.

Confirmability

Confirmability is the standard of neutrality by which the research was judged. It refers to the findings themselves, not to the objective or the subjective

views of the researcher (Ryan-Nicholls & Constance, 2009). In this study, the researcher strived to make the study as confirmable as possible. The researcher used methods consistent with the interview guidelines, the observation guidelines, and the appropriateness of analysis process.

Ethical Considerations

Throughout the study, the researcher worked to protect the human rights of the participants. Research only started after getting approval from the Institutional Research Board of the Faculty of Nursing, Prince of Songkla University, Thailand. The researcher informed the participants about the study's purpose, her plan for gathering data, and the possible benefits of the study. They were informed about their freedom to choose whether or not to participate in the study. Before starting the interviews, verbal or written agreement was acquired from the participants. The participants were assured that their identities would be kept anonymous and that the data would be used only for the purpose of the study. The raw data was kept secret. Participant permission was obtained before the researcher recorded interviews or took field notes. During the interviews, participants had the right to ask any questions, the right to refuse to answer the researcher's questions, or could stop the interview at any time. The participants were informed that the results of the study would be published in national or international journals.

Summary

This study used interpretive ethnography to examine the perceptions and health management of eleven elderly Thai-Melayu who have been diagnosed as having hypertension. The research took place in the rural village of Satun province in Southern Thailand. Data collection method used two types of the fieldwork methods to conduct this study: (1) working with people for a long time in their natural setting; (2) the researcher used both participant observation and interviews as data collection methods. Data analysis began from the start of the study until the end of the study. The researcher analyzed the data by comparing, contrasting, and creating categories between the information of interviews and observations. From the data analysis the themes of the patterns of daily life within the setting emerged from the research.

CHAPTER 4

FINDINGS AND DISCUSSION

The results were divided into two sections, (1) the characteristics of the key informants and their relatives and (2) the research consequences and discussion, including the context of the target community, the social role of the Thai-Melayu elderly, the perception of hypertension, ways of living with hypertension, and the management of hypertension in Thai-Melayu elderly. These findingsare presented in the conversation of the key informants and general informants using aliases. Furthermore, the observed information was also involved.

Characteristics of Informants

The informants consisted of eleven key and seven general informants. The key informants were Thai-Melayu elderly people who had been diagnosed with hypertension for at least one year. Most informants were female, aged 60-69 years old. All of them were illiterate and had sufficient income to live. Seven of the informants had complications of hypertension disease, cardiovascular, and cerebrovascular diseases. Smoking and inactivity were risk factors for them (Table 1).

The general contributors consisted of two men and 5 women. Two of them were aged between 25-35 years old, three were aged between 45–60 years old and one was over 80 years old. Three of the informants were folk healers who had worked in the village for more than 10 years. These folk healers included a chiropractor, a traditional ritual healer and a healer who was using the blood drainage

method. Two health care providers were from the Health Promotion Hospital and had worked in this area for more than 10 years and two family members of elderly people with hypertension were also involved.

Table1. *Demographics of key informants*

Characteristics	Informants (n = 11)
Age	
60-69	6
70-79	5
Gender	
Female	7
Male	4
Education level	
Illiteracy	11
Occupation	
Rubber tapping	8
Rice Farmer	1
Business	2
Income	
Sufficient	10
Insufficient	1
BMI	
18.5-23.4	6
23.5-28.4	4
28.5-34.9	1
Classification of blood pressure	
Stage I hypertension (Systolic 140-159 Diastolic 90-99)	8
Stage II hypertension (Systolic > 160 Diastolic 100)	3

Table1.(Continued)

Characteristics	Informants (n = 11)
Length of time for living with hypertension	
4 years	5
5 years	3
2 years	2
8 years	1
Underlying disease	
Cardiovascular disease	4
Cerebrovascular disease	3
None	4
Risk factors	
No exercise	9
Smoking	4

Informant 1

She is a widow female aged 66 years old, medium height, generous, helpful and cheerful. Her husband died 10 years ago. She is a shopkeeper and a rubber tapper. She could earn money on her own. Every morning she rides a motorbike to her rubber tree field (about five acres wide) in the village for tapping the rubber trees. The rubber tree field was far from her house (about three kilometers). After she finished tapping rubber, she would open her shop all day. The goods in her shop included Thai and Malaysian goods. Every two weeks, her son would drive her to the Thai-Malaysian border local market to buy goods for her shop.

She has five children, (two sons and three daughters). Four of them are married. Only the youngest daughter was single and lives with her. However, her married sons and daughters still came to visit her. They always brought some food

and gave her money. In particular, her second son who had opened a shop at Chalung market, three kilometers away, came to visit her every day. When she was ill, her son would take her to see the doctor. Her sister and family lived next to her house. Her sister's husband was a Malaysian and he mostly stayed in Malaysia and come home sometimes as he had to look after his parents in Malaysia.

In regards to her personal characteristics, she was accepted by the people in the community. She was a volunteer teacher teaching religion and Arabic for children and women. She opened a room in her house and set it up as a classroom. Her teaching began at 1 p.m. and ended at 8 p.m. Her students attended class during this period. She was happy to teach and never felt tired because she believed she got merit.

Every Monday afternoon she always learned Islamic religion at the Islamic center in Satun province. Most attendants were older women coming from several villages. They all had close relationships. When their families had traditional ceremonies, such as a wedding, merit making and circumcision rites, they always invited their friends from this center. For this year, she told the researcher that there are many traditional rites being celebrated in the community with her neighbors. She thought these are the villager's responsibility. The food that they prepare for their ceremonies is normally bittersweet and greasy, for example beef curry, chicken curry, fish curry and also beverages (*e.g*. tea, coffee and sweet drinks).

Previously, she was healthy but four years ago she found out that she had hypertension after she went to have her blood pressure taken at the Health Promotion Hospital. She continuously received treatment but did not pay more attention to her disease due to feeling healthy and working as usual.

Two months ago, she experienced numbness in her left arm and leg. She could not go to tap rubber liquid as usual. She felt anxious and feared that she could not go to work and the symptom might progress to a serious condition. She asked her son to take her to see an expert physician who has great experience in curing numbness and paralysis symptoms in Satun province (following the neighbor's recommendation). The physician gave her treatment and referred her to do physical therapy once a week at the Satun hospital.

She took the medicines from a clinic to cure her severe numbness and stopped taking the medicines from the hospital. However, she usually went to the hospital to check her blood pressure as per her follow-up schedule. Consequently her blood pressure was maintained between 160/90-170/100 mmHg. She told the researcher that she not only took her medicine but also used a hot stone to compress on the numb areas and bathed with hot water. She did these activities every morning after her shower. Then she exercised by walking from her home to the foothill (about six kilometers). She felt that her numbness had decreased.

Informant 2

She is a widow of 74 years old. She was open and affable. Her husband died four years ago with renal failure. When having a conversation with her, she always told the interlocutor about her husband. She has four children; one son and three daughters. Three of them were married.

She lived with her youngest daughter who worked for the Satun municipality. Moreover, her second daughter also lived in a twin town house near her

house. She had three grandchildren in pre-school. Her son-in-law had opened a garage in front of her house.

She was a rubber tapper, but her children have taken on the responsibility to work in her field. She stayed home and cooked for her children and grandchildren. Her third daughter who lived in the other village was a dressmaker. In the day time, her third daughter would come to sew clothes at her house. When her neighbors had traditional ceremonies she would help them. In particular, she always came to help her close neighbors when they had a traditional ceremony by preparing traditional food and having meals with them after the ceremony.

On Thursday and Saturday, she would go to study Islamic religion and Arabic with an Islamic teacher at a Mosque in Khuandon district, Satun province. On these days, a bus picked her up from her home at 8 a.m. and returned at 2 p.m. She said that she was happy to study Islam with other elderly people from several villages. The study helped her to understand and practice the religion. These practices also made her mind peaceful. At the same time, she also taught her children and grandchildren to do reasonable things.

She has had hypertension for four years. Initially, she knew this after she went to the Health Promotion Hospital for a blood pressure check-up. The hospital referred her to see a doctor at the general hospital. When she worked hard she had symptoms, such as headache and blurred vision. These symptoms decreased after she had taken her medicine. She was informed about self-care from a health care provider. In addition, she went to see the doctor every two months. Consequently, she could keep her blood pressure in the range of 150 – 160/90 mmHg. She then went to see the doctor every four months.

Informant 3

He is a married older man aged 70 years old of medium size and always looked stressed. He always smoked cigarettes made from tobacco leaves when he was asked about his illness and self-care. He lived in a house with his wife of the same age. His grandchildren built a house next to his house and visited him all the time. He has three children, one son and two daughters. All of them were married and had moved out to work. They are rubber tappers working in Sadao district, Songkhla province.

His family was so poor. He does not have a rubber plantation. He was employed as a rubber tapper working on rubber plantations in other provinces with his wife and his children. Four years ago, he could not work because of fatigue and weakness. He came back home and stayed with his wife. He could not earn an income anymore. He then received the compensation for elderly people which was paid by the government. The overall compensation he received was only 1,400 baht per month. His children also gave him money, but it was not enough. Due to the long distance, his children only occasionally came back home to visit him.

He always went to the Mosque nearby to pray three times per day: morning, lunch and evening. After he prayed, he would sit at the pavilion in front of the Mosque talking with his friends and neighbors. He always went to visit his brother who lived near the Mosque. He would usually attend his neighbor's traditional ceremonies.

He has had hypertension for five years and did not constantly receive treatment at Satun hospital. He only went to get his medicine when he had a headache. When his symptoms disappeared, he would stop taking the medicine. One

year ago, he had a hemiplegic migraine and numbness of both arms and legs. However, he could still walk everywhere by himself. Due to these symptoms, he went to see a doctor and got medicines to take at home. After taking the medicines, he had dysarthria and numbness in both hands and legs. He decided to stop taking the medicines because of the remaining symptoms. He thought that although the doctors gave many kinds of medicines they were ineffective and then he decided to buy his own medicine from a pharmacy. His headache was cured when he took the medicine to relieve the pain. However, his blood pressure level was very high (180-200/ 110 mmHg) but he was not interested in reducing it. He said that he only wanted to reduce his symptoms, particularly the dysarthria and numbness in both arms and legs. He did not mind about his blood pressure level, even though the health-care provider visited him and suggested that he have a follow-up visit at the hospital.

Informant 4

She is a married Thai female aged 60 years old. She is obese and weighs 95 kilograms. She is a smiling, bright and talkative person. Her husband was an Islamic priest in the village. She has five children (four daughters and one son). Four of them are married, only the youngest son was single at the time. The three married daughters had moved out, and only the fourth daughter still lived with her.

Informant 4 was a trader opening her shop in the village.Most goods in her shop were household appliances and snacks. Her house was widely opened. There was a bamboo chair for her customers to take a rest. She and her family usually went to sell goods in the local market from 6 a.m. to 12 p.m. four days per week. The weather there was very hot. She always had a bottle of a sweet drink, such as ice tea

or lemonade to drink during the times she was at the market. She liked sweets. Her husband drove her to the market and then he went to a mixed orchard where he grew coconut trees, banana trees and rubber trees.

She was always invited by her neighbors in the village and also her friends from other villages to attend traditional ceremonies. She told the researcher that she sometimes had two or three traditional ceremonies to attend per day. She thought not only of food but also helping her neighbors to arrange the ceremonies. She thought the culture should be preserved.

She was diagnosed with hypertension two years ago. Initially, she discovered that she had high blood pressure when she went to see a doctor about a headache. However, the doctor did not tell her the level of her blood pressure and suggested that she reduce her weight and start exercise. He gave her medicine to relieve the headache. She stopped attending the follow-up appointments at the clinic when she felt better. Ten days ago last week, she had a hemiplegic migraine and numbness in right arm and leg.

She could not walk. Her husband and children took her to see a doctor at the hospital in Satun. The doctor told her that she had high blood pressure, high cholesterol and was overweight (115 kilograms). The doctor suggested that she exercise by walking, follow a controlled diet and start taking the medicine. She still could not walk or work as usual. That made her anxious and scared. She tried to exercise by walking every morning and decreased her eating as the doctor suggested. Consequently, her weight dropped to 95 kilograms and her blood pressure level ranged between 170-180/100 mmHg.

Informant 5

He is a married man aged 67 years old. He is fat and smokes cigarettes of tobacco leaves. He was open and communicative. He lives with his wife, daughter, son-in-law, and three grandchildren. He is a rubber tapper with seven acres of rubber plantation. Every day he wakes up at 3 a.m. and goes to tap rubber, he then finishes his work at 5 a.m. When he has free time, he always went to clean-up the mosque which is near his house. He always helped in the merit ceremonies at the mosque and also helped his neighbors when they had traditional ceremonies. He thought this is the responsibility of all people to show hospitality for the community. He had the duty to cut meat for cooking in the ceremonies.

He has had hypertension for two years. Initially, he found out from a doctor. One day he collapsed while he was sweeping the floor in front of the mosque. His children took him to see a doctor at the hospital. He received medication and had continuously attended the follow-up visits at the hypertension clinic. He also drank beach mulberry juice and ate the boiled leaves with chili paste, following a neighbor's advice. His neighbors had told him that eating beach mulberry could help him to decrease his blood pressure level.

He took medicine inconsistently and he decided to stop when the headache disappeared. He told the researcher that he felt good and could work as normal, and so he stopped his medication. He thought that the disease was cured and he had no need to take any medicines. Consequently, his blood pressure level high ranges from 160 – 170/100 mmHg.

Informant 6

He is a married Thai male aged 60 years old. He has smoked cigarettes made from tobacco leaves for 20 years. He was shy and had a big family. His wife is a housewife and cleans their home, cooks and cares for their grandchildren. He has two sons and a daughter-in-law who live with him. He has a rubber plantation and enough money for expenses. Every day he wakes up at 1 a.m. to work and his son helps him. He finishes at 5 a.m. then he comes home to pray, has breakfast and sleeps. In the afternoon, he goes to pray and then drinks tea with his friends until the evening.

He was diagnosed with hypertension 10 years ago at a Health Promotion Hospital. He continuously took hypertension drugs for two years then he decided to get treatment from an unlicensed physician selling medicine in villages. He did this following his neighbor's advice. He felt better and could work as usual. After that he stopped taking medicine for four years. One month ago, he went to a hospital to take his blood pressure level following the health-care provider's request. His systolic blood pressure was very high level (230 mmHg). The next day he went to see a doctor in a hospital. His blood pressure level was higher than the previous day (250 mmHg). The doctor referred him to get the treatment at Satun Hospital. He was admitted to the hospital for one night. His blood pressure ranged from 165–185/110 mmHg.

Therefore, he took hypertension drugs and also received hypertension treatment from a folk healer by draining blood from his head. He believed that the bad blood caused headaches. Draining out the bad blood can decrease the headaches. He

has undergone this treatment once a year for the last five years. He told the researcher that hehad seen people using this method since he was young.

Informant 7

He is a married man aged 70 years old. He was very tall and thin and also gentle and quiet. He lived with his wife who was aged 60 years old. His wife had hypertension and was continuously treated at a Health Promotion Hospital. He has a granddaughter studying in high school. He has two daughters. His youngest daughter is a rubber tapper working in another village. She would visit him when she got away from work. In the past, he was employed as a rubber tapper and a rice farmer. However, four years ago he could not work anymore because of fatigue.

He has had hypertension for five years. Initially, he found out from a doctor at a clinic. He had fatigue, palpitations and was unable to work. The doctor told him that he had hypertension with heart disease. He continuously received treatment for one year and paid between 300 to 400 baht per week for it. He could not earn money to pay for his treatment so the doctor referred him to a hospital. The first year he got sick, he lost weight and became very thin. He weighed only 48 kilograms at that time but then his weight increased to 60 kilograms and his blood pressure level was about 160/100 mmHg.

He told the researcher that he always went to see the doctor and took his medicine punctually. His granddaughter had taken him to the hospital. He also said that he did everything according to the doctor's instructions, such as stopping smoking, reducing his intake of fatty food and eating less. In the past he had smoked 10 cigarettes per day over 20 years. Consequently his fatigue decreased.

Informant 8

She is a married woman aged 60 years. She is kind and friendly. Her family is big. She lives with her husband, her daughter's family and her son's family. She has four grandchildren. Her elder daughter usually cooked for everybody in the family. They all had meals together. She is employed as a rubber tapper and works in Sadao district, Songkhla Province. Her husband, the youngest son and daughter- in-law help her to harvest the rubber fluid. She goes to bed in the early evening and wakes up at 9 p.m. to go and tap rubber. She finishes her work at 1 a.m. and then sleeps. At 8 a.m. she harvests rubber fluid until 10 a.m. After having lunch, she sleeps until 6 p.m. She stops work and comes home every Friday. Her daughter and her husband work at a rubber plantation near their home and took care of their home.

Every Friday her family returned home to pray at the mosque in the village. Her husband told the researcher that the man is the key person to pray and practice following the religion. These practices could help everybody in the family go to the next life.

When her neighbor had a traditional ceremony, all her family members would stop working and go to help with the neighbor's ceremony until it was finished.

In addition, when her family had a ceremony, such as traditional baby's hair shaving ceremony and a new baby cradle ceremony, lots of neighbors also came to help her.

She has had hypertension for four years. She knew it when she had a severe headache and vomiting. She went to a hospital with her daughter. The doctor told her that she had a high systolic blood pressure level (200 mmHg). She was admitted to hospital for one night. She always went to see the doctor following the appointments. Two years ago, while rubber tapping, she had a heart attack. Her daughter took her to a hospital. The doctor told her that she had heart disease and gave her sublingual tablets to use when she had symptoms. She usually had the symptoms after waking up or after a long walk. When she took the medicine, her symptoms disappeared and she could work normally. Consequently, her blood pressure level was at 160/100 mmHg.

Informant 9

She is a married woman aged 62 years old, fat, very emotional and cheerful. She has a big family. She lives with her daughters and son. She has three children, two daughters and one son. Two of them are married and the youngest son is single. Her older daughter moved out to stay with her own family in a new house. Her second daughter, son-in-law and grandchildren still stay with her. Her husband is a rubber tapper and works while she runs a grocery shop and looks after her grandchildren.

Her family had financial stability: properties such as rubber plantation fields and a grocery shop. Even though her children had their own families, they still

stayed with her, except for her eldest daughter. During the day she would help her daughter look after her young grand- children. Her husband who has no congenital disease could work as a rubber tapper and earn money. When he finished his work, he would help his wife in the grocery shop and looked after their grandchildren. All her family members gave precedence to traditional ceremonies in their village and other villages nearby. They always helped particularly with the neighbors' ceremonies. They thought this help was their responsibility.

She had hypertension four years ago. She found out when she went to see a doctor at the clinic for a headache. The doctor told her that she had hypertension and gave her medicine to take at home. After that she always went to a Health Promotion Hospital to have her blood pressure measured. She also went to a clinic in Hat Yai and a Yala hospital; however she still had high blood pressure. She got advice to change her behavior from a health provider in a Health Promotion Hospital. She followed the advice and reduced her intake of fatty foods, and exercises everyday by cycling. Consequently, her blood pressure decreased to 110–130/60–80 mmHg.

Informant 10

She is a married Thai woman aged 74 years old, thin, humpback, cheerful, kind and talkative. Her husband was an inodorous healer who had the respect from people in this village and others. She has eight children: six sons and two daughters. All of them are married. She also has 30 grandchildren. Her husband built houses for six of their sons in the area near her house. Her house was in the middle of

her sons' houses. Her children and grandchildren always visit each other. Her daughter is married and moved out to stay with her husband.

She is a good wife and is proud of her husband who is aged 80 years old. She had the duty of preparing betel nut and caring for those who came to see her husband.

She always complied with her husband. Other people in the village respected him, particularly because he built houses for all his children, except his daughter who lived in her husband's house.

Her children would come to clean her house and cook for her and her husband every day. They had never missed their duties. She had to look after her grandchildren during the day when their mother went to work. During vacations her grandchildren always came to play at her house. In her free time, she would weave mats to use in her house and sold them sometimes when somebody wanted to buy them. The price was approximately 200–300 baht each.

Her older son was a religious leader at the mosque in the south of the village. This mosque is near her house. All people who lived around her house were her relatives and they visited each other all the time. In the traditional religious ceremonies everybody would come to help, making traditional food and having meals together at the mosque after they finished the ceremony.

She told the researcher that since she had aged she felt discomfort when travelling. She could not go to the neighbors' ceremonies as frequently as before. However, one important ceremony that she could not miss was the annual merit ceremony to praise Allah at the mosque near her house.

She had hypertension five years ago and knew it when her children took her to a hospital due to headaches and vomiting. The doctor told her that she had hypertension. She has continued having treatment at a Health Promotion Hospital. Consequently, her blood pressure level was in the range of 140-150/90 mmHg.

Informant 11

She is a married Thai woman aged 74 years old, and is cheerful and talkative. She lives with her husband and the youngest son, aged 27 years old. He has a speech disability (Gibber) but he could work, such as tapping rubber fluid and also cooking food for family members. Her husband is a rubber tapper. When her husband finishes his work, he would go out to see his friends at a local coffee shop in the village. He usually went there in the afternoon and was back home in the evening. She has four children; three daughters and one son. Her daughters are married and moved out to live in other villages. However, they visited her for occasional ceremonies, particularly *"Hari RayaAidilfitri*". Previously, she was a rubber tapper. She did not have a rubber plantation field. At present, she works at home, as a housewife, and grows vegetables in the area around her house.

Every day her neighbors would come to talk with her. They usually sit on a bamboo litter in front of her house. In the weekend she went to study Islam with an Islamic teacher in the village. She has faith in doing good deeds by making her mind clear, giving to other people and she had no argument with other people. She believed that when she passed away she will have merit without sins following her to the next life.

When her neighbors and friends from other villages had traditional ceremonies such as a wedding ceremony or merit ceremony, she thought that all villagers had a duty to attend, and help and share a meal in the ceremony. This is normal traditional practice in that people are continuously helping each other.

She had a history of hypertension for four years. Initially, she knew it when she went to see the doctor with severe chest pain. The doctor told her that she had hypertension, a high cholesterol level and heart disease. She was admitted to the hospital for several days. She thought she had severe symptoms and could not work as usual. She had fatigue and felt weak. After being admitted to the hospital, she tried to change her eating behaviors by eating more vegetables, such as vegetable soup, vegetables with chili sauce and boiled vegetables instead of fatty foods, following the health-care provider advice. Consequently, she now has better health without severe symptoms. She goes to see the doctor every three months and her blood pressure level ranges between 140–160/90 mmHg.

Community Context

The study area is a small village in Satun Province, southern Thailand where Thai Muslims have lived from before BE 2356. The village is far from Satun town (about 10 kilometers). Approximately 1,400 people live in this village and all of them are Muslim. There are approximately 253 families with 176 elderly people. Sixty-three hypertension patients were reported by the Health Promotion Hospital in 2012. Melayu is used in the community, but they also can speak the local Thai dialect and formal Thai.

Figure 1. Plain foothillsgeography

Community geography

The village area is in the foothills. Most areas are farms and orchards with abundant water throughout the year. However, flooding sometimes happens in the rainy season, but for a short period of time. The villagers mostly built one storey houses or home platforms which are traditional wooden houses. The people built houses close to their relatives. The front and back of the house was built wide for preparing the traditional cultural ceremonies and traditional rites, such as a wedding ceremony, praying to God, salving hair ceremony and welcoming a newborn ceremony. These parts of the house are also used to welcome neighbors. There is a big mosque in the centre of village and small mosques in the north and south, respectively. These mosques are important for the villagers; men go to pray every day. On Friday, men in the village must go to pray at the mosque, while women pray at home. Moreover, the mosque is also used for religious ceremonies, wedding

ceremonies and other traditional merit ceremonies. The Islamic religious teachers would use this place to teach Islamic religion for the villagers without charging.

Figure2. Hair salving and welcoming a new born ceremony

There is a wide concrete road passing through the village. There also is a road connecting to the Thai-Malaysia border at Wungprajun Gate. This gate is approximately 15 kilometers from the village. There is a local market between the Thai and Malaysian border area where people can enter without a visa. The front of the village has a main road passing through Hat Yai district. A big petroleum station is near the main road.

The villagers are mostly rice farmers, orchard employees and tradesman. Most working men and women in the village work as rubber tappers in other villages and return home between March and April.

Figure 3. A rubber plantation

This community has a primary school and a religious school. Most parents in this community want their children to have a high level of education so they would have a good opportunity for employment. All men and women in the community can speak Thai.

Community Health Care Systems

The health-care behavior of the people in this community is a combination of two patterns, namely a modern health system and a folk healing system. The modern health system is the National Health Service system for all people in Thailand and it is a formal health system in the community. The Health Promotion Hospital is a primary care center of the community health system. The professionals in the community health systems are nurses, physicians, public health officials, health volunteers, and so on. All of them play important roles to promote healthy lifestyles for preventing the health risks of hypertension disease.

There were seven health care providers working in the Health Promotion Hospital. These included one doctor who comes once a week, one health administrator, three nurses, one dental public health-care provider and one academician on public health and two public health officers. These also included the public health volunteers who worked in the areasurroundingthe community.

The folk healing system is a part of the health system in the community to care for and cure the physical and mental illnesses of people by the use of traditional practices. Folk care is informal and is based on the local wisdom and cultural practices. These methods have been passed on from generation to generation use within the community's health practices.

"The folk healing of the elders with hypertension emphasizes curing the causes and symptoms shown based on their beliefs and traditional treatments. It includes traditional care and folk treatments from healers such as relieving the congestion of blood circulation by massaging, draining, making compresses, and avoiding some foods that are prohibited." (Field note, 18/5/2012)

The folk healers have played important roles in part of the health care system within this community. They use the traditional methods combining physical cure with psychosocial support to care for the patient. There is a variety of folk healers in the community: folk midwife, folk masseuse, and folk healer. They promote health based on*Leard* (blood) and *Lom* (wind) within the human body. Bad *Leard* and *Lom* are the causes of illness. The symptoms of bad *Leard* and *Lom* are vertigo, headaches, dizziness, and fatigue. Eating the wrong foods, body temperature and the environment are the causes for irregular *Leard*and *Lom.*

The folk midwife cares for mothers and children during prenatal, delivery, and postpartum periods. Currently, they encourage mothers to give birth at the hospital when modern medicine is important in the process. The folk midwife advised mothers to avoid eating the wrong foods in the postpartum period whichcan have an effect on *Leard* and *Lom*over a long period of time until old age. As one informant said:

"…Eating wrong foods in the postpartum period affect long term that may present asymptomatic the first time but in later life causes many problem of illness. I ate everything when I had a child therefore, I had an illness." (K11)

The folk masseuse is an old man or woman in the community who uses manual therapy. The massage can reduce pain, headaches, muscle pain and also promote blood circulation or good *Leard* and *Lom* in the body. The folk masseuse said:

"In the past, I didn't know about hypertension disease. When someone had vertigo or fatigue I think that they had obstructive Leard and Lom. Massage can cure these illnesses" (G3)

The folk healer uses blood drainage which is a manual treatment of blood drainage from the head. Bad *Leard* (blood) and *Lom*(wind)in the body are the causes of illness, therefore, blood drainage was the method of treatment to release pain, especially headaches. TheFolk Healer said:

"Because bad Leard (blood) is obstructed in the veins, treatment is needed to drain the bad Leard (blood) in head once a year. I believe that the blood that is not good is the cause of headaches."(G2)

*Figure 4.*Folk healers'treatment in the community

The Way of Life and Social Roles of the Thai-Melayu Elderly

Thai-Melayu elderly people were very kind, cheerful and friendly. Religion plays an important role; the restricted behavior of Islam has resulted in elderly people receiving respect from all people in the community. They have to learn the core of religion to have clear knowledge about the religion and the principle of Islam. At the same time, they also taught their children and grandchildren to know and undergo correct practices about the Islamic religion. These elderly people were head leaders to disseminate good practices for the family and community.

Elderly people live in their extended family. They are the key persons of family membership. Their families are big because the married daughters and sons lived with them. One house included several families. The elderly people are major consultants for their family members and look after their children until they move out

to have their own family. Even though their children moved out from home they all maintained good relationships with their parents. Some of them decided to build their new houses near their parents' houses. The houses are not fenced, so the residents can easily visit each other. There is a balcony or a large forecourt in every house which is used for meeting family members and relatives when they are free from work and this area is also a playground for children. Duringthe vacations, the elderly people look after their grandchildren. Most parents of these grandchildren work as rubber tappers, while some work in town.

Figure 5. An elderly woman taking care of children

All of the descendants live with their extended families or the areas around them if they split up. This leads to possible opportunities for them to continuously help each other, resulting in creating a strong kinship within the community. The descendants, therefore, have a close relationship with their original families. All members of the extended family have a close bond with one another'. Based on the culture and tradition they have learned from their ancestors, all family members know the roles they have to play for their families and the community. This

has been cultivated into a way of life within the community. It can be seen that the members of this community still communicate in Melayu and devote themselves to do good things based on Islamic principles which focus on public benefits.

"All elderly people lived in extended families with close relationships. They were the head of big families and counselors for all family members. The family members respected and looked after their parents." (Field note, 2/5/2012)

Family members in the Thai-Melayu community had to respect and look after their parents when they got old.

...When I got sick my granddaughter took me to see a doctor at a private clinic...I used to tap rubber trees and worked in rice farming but I stopped working four years ago. I lean on my sons and my daughters...." (K7)

The elderly people played an important role as the leader of religious and traditional ceremonies in the community which have been inherited over time. These traditional ceremonies were conducted by families and the community all throughout the year depending on the time period. For example, a circumcision ceremony was regularly conducted during the vacation time, between March and April every year. Praise to God or to the prophet would be arranged in February. The wedding ceremony or the family's religious ceremony would be conducted in the down time period of rubber tree tapping in February to April every year. The hair shaving rites and the newborn welcoming ceremony would be done in the seven days after a baby has been born. Fastingduring Ramadan month and Hari-Raya-Aidilfitri day (Islamic New Year) would be conducted in the twelfth month of the Islamic calendar. The elderly males were always invited to be a leader of the ceremonies, except for the newborn welcoming ceremony which elderly females lead. In addition,

the elderly females were invited to be leaders of the cookingfor traditional ceremonies. The main menu in traditional ceremonies includes foods such as curry (local food of Satun province), fish curry, and *KrueSa*' chili paste with fried coconut. In the ceremonies, many people would come to help.

Having a meal together in the traditional ceremonies is called*Nury* eating. The people must eat the traditional foods, which have been prepared by the host and volunteers, together. These foods have been prepared to serve the neighbors and people who come from other villages. The host and neighbors must be the key persons to run the process of the ceremony until it finishes.

Support from the neighbors and the community in traditional ceremonies is the commitment of all community members. This is a social duty which everybody in the community must do in order to preserve their unique Thai-Malaysian traditions. Socialization is a major duty of people in the community to continue their lifestyle for the future generations including their thoughts, beliefs and practices. These lifestyles are integrated into the culture and traditions of the families and community.

All the community's traditional ceremonies have a connection with the beliefs and religion of the people. The uniqueness of the community has createda happy society. The people who had enough income would be a leader in relaying traditional ceremonies and were also generous to the poor people attending their ceremony. This performance showed the cooperation of the people in the community. The people would donate money or give things depending on their financial status. The people who had no money would give their hands and time to help in the ceremony.

"Following the observation, praying for God the elder men were the leaders of the ceremony. This also involved approximately 50 people in the community who attend. They all would join this ceremony with their smiling faces due to their merit. All families in the community participated in the ceremony. They cooked foods and ate their foods together after the ceremony had finished. All the people knew their duty without having to take orders from the leader and they all had pure smiling face and happiness."(Field note,3/2/2012)

Figure 6. Elderly male leaders in the religious traditional ceremony

*Figure 7.*The village women are cooking food

The elderly people had important roles to establish social network participation by using religious faith to bring happiness to the community. The promotion of traditional ceremonies in the community and other areas around would help to stimulate the awareness and the responsibility of the people. At the same time, the cooperation, help and support in the traditional ceremonies from individuals and the community was inherited and remained unique to Thai-Melayu culture. These traditions include the language, dress, local foods and community traditional cultures.

The elderly Thai-Melayu people would strictly follow the religion and were exemplary role models for people in the community. The elderly people were respected and were accepted by people in the community. Meanwhile, they continuously studied religion and passed this to people without feeling tired. Their reward was the happiness caused by doing good deeds for other people. This consequence will also influence the next world where all humans must go through and receive the rewards for things which they did in the past. Doing good deeds will be rewarded, while doing evil deeds or doing nothing that benefits the public will not be rewarded. This faith sticks in people's minds to create the power of love and harmony. For example;

"Regarding the observation of religious learning among elderly people, the learning was conducted in the hall in the community. The learning appointment was on Monday and Wednesday in the afternoon. Attendants were predominately female. An Islamic teacher taught them and he was accepted from all attendants. The classroom was in a big hall containing a table and a chair for the teacher. The attendants sat on the floor. There were approximately 40 attendants per class. The attendants came from several villages. All attendants knew each other and

had close relationships. The greeting signal when they met each other was touching hands. They all informed news, particularly traditional ceremonies, from the village and their neighbors to their friends in the classroom. In the class, everybody intend to learn and they also used the text of Arabic language their learning. The teacher explained the details and gave examples. Everybody was interested in the lessons and had inquiries when they did not understand."(Field note, 12/3/2012)

"Learning religion made me happy. I used what I had gotten from learning religion to teach my children and grandchildren. I suggested that they do the good things but if they did not hurry up to do these, I could not help them. The bad deeds should be ignored."(K2)

Perceptions of Hypertension among Thai-Melayu Elderly People

The finding of perception of hypertension among Thai-Melayu elderly peopleis the first of the research objectives. The perception of hypertension in Thai-Melayu elderly focused on their symptoms and cultural beliefs. Most elderly people did not pay much attention to their level of blood pressure which was evaluated from a medical device. These perceptions are divided in three themes; (1) having high blood pressure is a common illness, (2) realizing the danger of hypertension when obvious symptoms occurred, and (3) high blood pressure is from bad flow of *Leard* (blood) and *Lom* (wind).

1. Having high blood pressure is a common illness.

Most of the key informants who had asymptomatic hypertension, or temporary symptoms perceived that hypertension is a common illness, and could be easily cured. Having high blood pressure is the leading cause of their symptoms: headache, and vomiting. These common symptoms lead them to see a doctor or health-care provider at the primary health care unit in their community. Even though they were diagnosed with hypertension, they still believed that hypertension is an ordinary illness and is not a disease. This illness could be cured. After the symptoms disappeared, they could stop taking their medication because all their symptoms were cured. As an informant said below:

"Hypertension is a common illness. The high blood pressure causes a severe headache. I had to take medicines and then symptoms disappeared. Consequently, I can do my daily activities as usual. Doctor always told me that I am ill but I did not feel ill. If I am ill, I should have some symptoms but I do not. I stop taking both herbal remedies and medicines when I do not have a headache. I also ignore the doctor's appointment because I think I am completely cured" (K 5)

Normally, key informants did not pay any attention to their level of blood pressure which was evaluated from a medical device. When they detected that they had high blood pressure with headaches, they knew that the symptoms were mild symptoms and could be easily cured.

"I went to see a doctor with a headache 2 years ago. The doctor told me that I had high blood pressure, and I did worry about its level. I only took medicines to release the headache. When I felt better, I stopped attending the follow-

up at the clinic. I thought that I had mild symptoms. I did not follow the doctor's advice because I thought I am well. I could normally go to sell goods."(K4)

In the same way, one general informant who was a caregiver of the elderly perceived that hypertension was not dangerous because it can be cured by medicines.

"Hypertension is not a serious disease when compared with another disease. It does not matter if I have hypertension because there are medicines to cure it. Unlike the cancer, it is very dangerous, cannot be cured and causes more suffering."(G4)

Two elderly informants who had short-term symptoms with headaches went to get medicine following the doctor's appointment. However, they did not take the medicine as prescribed. They recognized that they are healthy, and that their symptoms will finally disappear. They would take medicine only when they had severe symptoms.

"I am not sick, I don't have any symptoms, but a doctor tells me that I was suffering from hypertension. I think I do not have this illness because I am still strong. I do not fear or worry about it. I go to see the doctor following his appointment. When he asked about the medicines, I tell him that I took the medicines on time following his prescription. If I told him the truth that I sometimes had stopped taking medicines when I was well, I fear that the doctor will scold me." (K5)

Another key informant added that he did not know that he had hypertension until he was diagnosed. However, he did not worry about it because he had no symptoms and was able to work. The elderly people with hypertension did not care about their health. One informant said:

"I know that I have hypertension after I my blood pressure was measured by a village health-volunteer. I had never known it before because I did not have anything wrong with my health. I can normally work. At last, the health care provider came to measure my blood pressure at the Mosque. He told me that I have very high blood pressure and must go to the hospital... However, I felt well and was not sick as they had worried .....I have not taken medicines for 3-4 years because I think that I am fine and do not suffer from hypertension" (K6)

Following the elderly people's perception of hypertension, they understood that hypertension was curable. It did not matter if they had hypertension or not, they did not mind due to having medicine to cure it.

2. Realizing the danger of hypertension when obvious symptoms occurred

The perception of hypertension in Thai-Melayu elderly people depended on the clinical symptoms and the severity of the symptoms. They thought that when the symptoms did not impact on their usual work that meant they were fine. If they could not go to work this showed that they were in danger.Some example opinions from the elderly people are shown below.

"....When I had numbness and could not walk as usual I felt that I had a severe illness. I feared it would be serious as my friend, who had hypertension and suddenly died at midnight in his house."(K1)

Three informants who were diagnosed with hypertension with clinical symptoms such as headaches, and dizziness did not worry about caring for themselves

until the symptoms got worse and complications developed. One informant described:

"... Two years ago I went to see a doctor with a headache and the doctor told me that I had hypertension... Ten days ago, I had hemiplegic and numbness in my right arm and leg. I was unable to go for a walk. I got hurt from it and this has impacted on my daily life. When I had this severe symptom, I knew that I had to change my life such as taking medicine, and following the doctor's advice ..." (K4).

Five of the key informants had hypertension with a severe chronic illness such as chest pain, numbness, weakness, and fatigue. The complications of hypertension impacted on their usual activities. Consequently, they began to accept that they had to take care of their health and follow the doctor's advice.

"I was firstly diagnosed with hypertension 3 years ago. I was to admitted to the Intensive Care Unit in Satun Hospital because I had severe chest pain and weakness. My son picked me up and took me to the hospital. I was seriously sick and had to lie on the bed for a long time. A doctor told me that I had hypertension with heart disease." (K11)

Another informant realized that he was severely sick when he had fatigue, palpitations and was unable to work. It was confirmed when he went to see a doctor at a private clinic and was diagnosed with hypertension with complications.

"I got severely sick one year ago, I had fatigue and palpitations resulting in work disability. My weight had dropped and I was very thin. I weighed 48 kilograms. My granddaughter took me to a doctor at a private clinic. The doctor told me that I had hypertension with heart disease. I had got treatment at a clinic for 4

times but I was not better I had got treatment at the clinic for 1 year. The palpitations were better, however the doctor told me that I still had hypertension and needed to see the doctor following the appointment."(K7)

3. High blood pressure is from bad flow of *Leard* (blood) and *Lom* (wind).

The informants' perceptions regarding the causes of hypertension and illness are based on cultural backgrounds which have been inherited by their family and the community. All of the key informants who have had hypertension suffering from headaches, dizziness, and numbness believed that the bad blood flow (*Leard* [blood] and *Lom* [wind]) are the causes of the illness.

"I had irregular Leard and Lom when I was sick. I thought that high blood pressure is related to obstructions of Lerd and "Lom" (wind). When my blood pressure was increased, I felt "Lom" (wind) in my head resulting in dizziness and weakness." (K8)

All key informants believed that bad *Leard* and*Lom* were the cause of their illness. If the body had bad*Leard* and *Lom*, blood pressure will be high followed by numbness, headaches, fatigue, dizziness, and numbness.

"….For me, I think hypertension is caused by bad blood (Leard) and Lom which flew through my head. I felt headaches and neck pain." (K 11)

Two key informants had numbness in their arms and legs. They believed that the flow of *Leard*and *Lom* was obstructed in several parts of their body such as the arms and legs.

"Normally, Leard and Lom are elements of the human body that always flow in the body. Whenever, the body has a bad flow of Leard and Lom it would be obstructed in several parts of the body . I had numbness and weakness because Leard and Lom were obstructed in my left arm and leg."(K1)

Most of the key informants believed that two factors affect the flow of*Leard* and *Lom* including eating poisonous foods and having a hot or cold body, and environmental temperatures.

Eating poisonous foods affects the body and could result in short and long term symptoms. Some people were healthy at a young age but were sick in their old age. As one informant said:

"...This consequence is caused by eating poisonous foods in the postpartum period. The poisonous foods for the postpartum period were shellfish, zucchini, mushrooms and jackfruit. Someone died while eating shellfish. The people in the postpartum period should stop eating these poisonous foods for 3 months. The symptoms could be prolonged. They may present asymptomatic at first and then manifest in ill-health." (K 11)

Eating unhealthy foods affected*Leard* and Lom and caused illnesses such as headaches, pain, and palpitations. Informants said:

"….The dizziness symptoms caused by Lom sometimes disappeared but it came back when I ate unhealthy foods. I observed that when I ate meat, I had palpitations." (K8)

"….Eating fatty foods, durian, shrimp and squid also make me have a headache and pain near the occipital bone at night…" (K5)

Two key informants believed that both hot and cold body temperatures and the environment affected the flow of *Leard* and *Lom*and resulted in their illness. Increasing the heat of the body causes headaches while increasing cold and bad weather causes numbness in the hands and legs. As one informant said:

"When I had high blood pressure, I felt hot and had a severe dizzy head at the occipital area. I felt discomfort and it felt like my chest was burning." (K1)

The elderly people believed that a hot temperature inside the body exposed toa cold temperature outside body is a cause of illness. As one informant said;

"I believe that I had dizziness because of the high temperature in my head. I felt better when I was surrounded by a cold temperature." (K4)

Two folk healers' also mentioned that hypertension is a new disease that has appeared in the community twenty year ago as a result of western medicine. They believed that the obstruction of *Leard*and *Lom* causes illness headaches, and dizziness. As a folk healer said:

"In the past, I didn't know about hypertension, I know diseases that are related to Leard (blood) and Lom(wind). If Leard and Lom of the human body are obstructed that person will be sick." (G3)

One folk healer added,

Bad blood obstruction is the cause of high blood pressure and headaches and dizziness. Therefore, most people always come to see me for releasing this cause."(G2)

The imbalance of the human body is based on world views on the causes of illness as experienced by elderlyThai-Melayu people. These world views guide their health management as they try to balance those causes through some of the traditional care and health practices within their cultures.

Ways of Living with Hypertension in Thai-Melayu Elderly

The ways of living with hypertension in Thai-Melayu elderly is in accordance to their way of life and socio-cultural factors which are incorporated with all aspects in cultural values and practices: following and living with Islamic faith, adherence to traditions, andbalancing work life for conserving religious and cultural practices

1. Following and living with Islamic faith.

Islamic faith is thebase to the core values and cultural beliefs for all Thai-Melayu elderly people that guide the pattern of thought and lifestyles in these people. The Islamic faith is closely linked to and is manifested in Thai-Melayu elderly people’s health perceptions and their hypertension management. The illness is a part of their life condition as is strictly following Islamic faith: belief in one God, and making merit to have a happy life in this world and the next world

1.1 Belief in one God.

Belief in one God is a part of the Pillars of Faith of Islam and relates to the perspectives and health management of Thai-Melayu elderly. They believed that their life-spans in this world are defined by the Prophet Muhammad. However, when they get sick, they have to ask for treatment from God and maintain their health as identified in Islamic practices. One informant explained:

When my life-span is due to cease, Allah will let me pass away. Allah has already defined my life. Anyway, I had to seek treatments. When getting sick, I have to be treated. If Allah needed me to die, it is ok. It is similar for every person. Our lives have already been defined. If it is not my due date, I would survive. If yes, even a little sick, Allah has to take us Muslim people away. Allah has already defined that. Anyway, if we were sick, we have to seek any treatments. We have to take care of ourselves. If we discover the fitting medicines, we could recover or get well again. If there are no appropriate drugs or one that do not match with us, we wouldn't get well. (K3)

In the same way, informants had to manage their health because they did it to please their God. They believed that finding ways to cure illnesses are their duty while the outcome depended on God's will. As informants in a focus group suggested:

"It is sufficient to get a cure when you are sick, but do not worry about the results of the cure. In Islam, all happenings have been determined by God. Finding the best cure is our duty, while the result depends on God."(Focus group, 30/6/2012)

One of the elderly who was the traditional healer of the village also confirmed that each disease/illness is already defined as to what treatments could make it better. Whether patients could find or not also depended on Allah's wishes. One participant revealed:

"Allah has created medicines for every disease. We just ask Allah in order to find the ingredients to produce them. We also read Al-Quran because the knowledge of medicines and treatments is in some parts of Al-Quran" (G1)

As already mentioned above, Muslims have to take care and manage their health because they did it to please God. Having good health encourages them to follow religious practices. However, some activitiesare prohibited such as exercising in public places, particularly among the elderly people in Melayu culture and, especially so for women, who are encouraged to stay at home. Thus, most elderly people did not know about the importance of exercising until they got information from health-care providers.

Most informants did not attend exercise classes or engage in exercise on their own, because it is not the way of life for them. They thought that exercise was derived from another culture. Exercising was practice by new generations who had an education.

"The Melayu that exercise are not following the way things are done in their culture. The old Melayu think television is a media of the modern culture. According to a principle of their Islamic faith, exercising in a public place or going outside without a necessary reason is not a correct thing to do. Some Melayu do not know what real Islam is. They know only their traditional culture. If something is not

found in old Melayu culture but is found in Thai culture they think it is not theirs. They also think exercise is an activity which is from another culture." (G4)

One health care team tried to promote aerobic dance exercise in the Health Promotion Hospital but had to close down because it did not fit with Thai-Melayu cultures.

"An aerobic dance club used to be established at the sanatorium but it is closed down now. Villagers think that it is not appropriate to dance in a public place. Toh Imam, a man who is a leader of the Islamic community, also does not allow women to dance in a public place because it is an incorrect action of their doctrine and culture. According to their doctrine, it is better for women to avoid going out of their houses but it is not wrong to go outside for a necessary reason such as exercise. Allah tells his creatures to find the way to treat them when they are sick." (G6)

All informants tried to learn and apply exercise in their daily life to manage their health and illness when they perceived its benefits. If the doctor advised exercise for health, they could do it at an appropriate time, place and with appropriate dress.

"Six of the key informants who have had severe symptoms such as numbness, and weakness always got up early in the morning to pray. After that they went for a walk and cycled for exercise for about one hour per day. This is because they had to follow the doctor's advice for their health. After they managed their illness by exercise, they got better (Field note, 7/3/ 2012)

1.2 Making merit to have a happy life in this world and the after world.

The belief ofThai-Melayu elderly people ofthe next life has influenced their cultural values and practices.. They followed Islamic principles and religion to get a happy life in the next world which is an eternal world. They also follow the Islamic religion because it is part of their culture and guides their everyday life. If Muslims faithfully follow Islam they will be rewarded in the afterlife. To go there, they must practice by doing good deeds and avoiding evil deeds. At the same time, they would learn and relay the doctrine to their children and grandchildren to live in the correct way.

"The good deeds which people did will affect them in the eternal world of the afterlife. They believed that by doing good deeds they would receive good things in return, and that by doing bad deeds they would receive bad things in return. They also believed that evil people could not be reborn and fell into hell after they passed away. Then people must do the good deeds, fast, pray and learn religion to prepare them for the next world. Learning religion is a part of doing good deeds that should be inherited by the next generation. They also said that whatever good or bad we did no one knew, except Allah." (Focus group, 30/6/2012)

All informants believed that everybody will be called to account on Judgment Day. An individual who has done enough good deeds will be in paradise eternally. Therefore, keeping good health is important because the highest purpose of the elderly people is to do good deeds for mankind. Only by having good health, they can do good things for other people. The elderly people have activities similar to the other people in the community in that they have to pray five times a day. They have to

learn the Islamic doctrine and pass this knowledge to their descendants and other people in the community.

"Whatever people do in this world will affect them on the judgment day. Good deeds will lead them to paradise, while bad deeds will lead them to hell. So we have to do good things, such as praying, fasting learning about religious doctrine and so on. We have to learn about religious doctrine in order to follow the doctrine correctly and pass on the knowledge to our descendants. Certainly, Allah knows whatever we do." (Focus group, 30/6/2012)

Making merit is an essential part of religious beliefs and practices in the daily life of the Thai-Melayu elderly. They believed that making merit could help them to have a happy life in this world and a better life in the next world. When the informants' symptoms became severe and impacted on their daily lives and work, they made merit to prepare for going to a better life in the afterworld. There are many ways in making merit for the elderly such as learning, teaching, and practicing religion, and mutually helping neighbors and with community activities.

1.2.1 Learning, teaching and practicing religion.

All informants would strictly obey the religious principles and were exemplary role models for people in the community. They were respected and accepted from the people in the community. Meanwhile, they continuously studied religion. The reward was the happiness in their minds caused by the good deeds done for other people. This consequence will also influence good things in the next world

where all humans must go through and receive the rewards for what they did in the past.

"...Islamic people must do good deeds, fast, pray and learn religion to prepare them for the next world. Religious studies are a part of doing good deeds that should be passed on to the next generation..." (Field note, 12 /3/2012)

Because of the religious beliefs in Islam the elderly strictly followed their religious doctrine. All of them tried to maintain their health to follow the Islamic doctrine, learning, teaching, and practicing religion.

"All of the key informants still adhered to religious practices by participating with community members. Even though, some informants had stopped working they still tried to continue learning and practicing in religion." (Field note,2/5/2012)

One informant had hypertension and felt weak, but she tried to attended religious classes at the mosque every week. Learning religion made her happy. In addition, she taught religion to her children. She said:

"Learning religion makes me happy. I use what I had learnt from religion to teach my children and grandchildren. I suggest to them to do the good things but if they did not hurry up to do these, I could not help them. The bad deeds should be ignored."(K2)

One elderly key informant was a volunteer religious teacher for women and children. She opened a room in her house as a classroom and taught her students from 1 p.m. to 8 p.m. Old women and children went to study al-Quranwith her all this time. She was very happy and believed that she got merit. She said:

"….Women and children in this village come to learn about al-Quran at my home every day. Even though I cannot do my usual work, I can teach. It makes me proud." (K1)

One elderly man had severe numbness and weakness in his left leg but he still did not stop religious practices. This practice can promote good health for him.

"Although, I had numbness and weakness in my left leg 4 years ago but I go to pray at the Mosque every day. When I walked to prayer I felt better... " (K,3)

1.2.2Mutually helping neighbors and with community activities.

Religious beliefs seem to be a life navigator of Thai-Melayu people. Their minds relyon their religious beliefs and this makes all of them together develop their life-styles and community cultures. This power is a significant influence that inspires family and community members to be aware of the well-being of contributing to their societies where all of them are supported or "help each other's societies". The following situation describes how this power facilitates to the contribution of the particular societies:

"On Maulid day, a praying ceremony for Prophet Muhammad birthday that is arranged annually, all community members were very happy to join in. The power of faith in their prophet led them together to go to the mosque. All the people there have enjoyed cooking several foods since the early afternoon. As they knew, every neighborhood in the village has a duty to help each other in cooking their own food as they could. They did that for cerebrating after the ceremony have been

done. After praying in the evening, women were still busy with preparing foods at the back of the mosque whereas men were at the front to be the leaders for the ceremony. The area had been separated with certainty. All members there prayed for their prophet together. They asked for peace for their community. After the ceremony was finished, they were happy having dinner together." (Field note, 14/2/2012)

Helping each other in community activities was normal practice in making merit for all people in the community. Making merit by helping and participating in the community activities is the duty of all families and community members to help each other in the ceremonies. They accomplish these duties based on their capacities. That is, they will give their neighbors money, materials, equipment, as well as helping them to cook traditional foods and cleaning as they can.

"My neighbors helped me, so I had to help them. Particularly, the neighbors who lived in the same area, we had to help. Even in another village, I had to join in. Joining in "Nury" is enjoyable for me. I could meet my relatives. I could help them, especially I could make merit with them."(K4)

All elderly people were invited to attend with the leaders in all of the traditional activities of the community. These practices were connected to religious beliefs and practices, the social role and responsibility of all elderly people.

"For all the community ceremonies the people joined to pray to God. The elderly men were invited to be the leaders to do the ceremonies while the women were invited to be the head cooks for local foods. All members respected the elderly on participating in these ceremonies. They had smiley faces and happiness" (Field note, 3/4/2012)

Most families in the community hosted a festival for making merit. The host is responsible for preparing the main meal and for providing snacks for the festival. The hosts invite all the neighbors in the same neighborhood and nearby villages to participate in making merit. The neighbors usually give money to the host for making merit together. However, poor people cannot give money to the host but they can provide payment in kind by being of assistance.

"I had to accept every invitation of my neighbors. If I attended in a friend's festival they would help in my family's festival too. I had a meal at every festival and paid some money to make merit with them."(K7)

When persons living in the communities become sick, it is the duty of all members to visit and give them both money and support materials until the end of their lives.

"…When I knew our members were getting seriously ill, it was the duties of all of us to visit them. Also, when visiting them, we had to give them support materials. Even if the patients could not eat; we should provide for their relatives. Sometimes, we might give them money too." (K1)

2. Adherence to traditions.

The traditional practices were an essential part of the lifeways for all informants. They had important roles in traditional practices to attend and to pass on the traditional practices to all the people in the community. The traditional practices create a happy community. All informants had to strictly adhere to traditional

practices to conserve Melayu identity by committingto the ceremonies of the community, and engaging in food festivals.

2.1 Commitment in community ceremonies.

Attending the community ceremonieswas a social commitment for all the members in the community. This commitment is a social norm and part of the traditional life for all people in the Thai-Melayu community. All of them had to strictly follow this commitment for living together in happiness.

"When the festivals of the neighbors took place, all community members had to help. Although we had to do our work, rubber tapping or working in the rice field, we first had to stop that to help them. Helping our neighbors or completing the work of our community was the duty of all community members. We had followed this since the time of our ancestors. It was the turn of each other to help for that." (K, 10)

Most of the descendants are likely to rely on their ancestral occupations, while some might chose another job in other areas. However, they still often return to visit their former families. In particular, when the families or the community have festivals, they return and give the elders/their parents money, food and other supplies. When the festivals take place, all relatives have to come back to visit their parents and relatives. It is the time for meeting, and joining in meals together. They also help each other to complete the festivals.

"They helped us, so we have to help them too. Particularly, our neighbors, we have to help. We have to help them anytime. ...Joining Nury(community

festivals) made me happy. I could meet my relatives. I could help them and also made merit together."(K4)

The elderly people had to attend festivities during the banquet season and throughout the year. This is because they had to be the leader of traditional ceremonies. The elderly men were invited to be a leader of religious practices while women were requested to cook local foods. Therefore, attending the traditional ceremonies and festivals of the community is a duty for all.

"Every neighborhood in the village has a duty to help each other in cooking their own food as they could...The elderly women were still busy with preparing foods at the back of the mosque whereas men were at the front to be the leaders for the ceremony. All members there prayed for their prophet together. They asked for peace for their community. After the ceremony was finished, they were happy having dinner together."(Field note, 14/2/2012)

People in the neighborhood joined together in the community ceremonies Women helped to prepare food and cook while men prepared the tables, chairs, and tents for the party. They had to leave work and could not return until their friend's festival was finished.

"Most people in the village always stop their personal work in order to help their neighbors in family festivals. Women helped to prepare raw materials and cook. Men organized a location and also prepared raw materials. Old men were the religious leaders for every ceremony while the women were the head cooks." (Field note, 3/2/2012)

Figure 8. Participating in cooking traditional foods

2.2 Engaging in food festivals.

Engaging in food festivals was an important part of all traditional practices in Thai-Melayu culture. Having a meal together for special events or banquets are the annual activities of Thai-Melayu communities. This is called *Nury* eating. Every family alternates to be the host or co-host for some of the banquets. These include the Prophet's birthday, wedding ceremonies, Hari Raya day, which is the banquet to celebrate a new born, circumcision, and a funeral banquet.

There are several favorite foods that are specific to the village, and include beef, chicken, and fish curry. The main ingredient in these dishes is coconut milk. Another dish, which is provided at a banquet, is vegetables and chili sauce. Some desserts and sweet drinks, such as tea and coffee, are also found at the banquet too. It is not good manners to refuse a meal at the banquet. So, all guests must eat whatever is served by the host.

"Following the observation, there were several foods that were provided at a banquet. There is always a head cook who is usually a woman who knows about the local recipes. These foods were specific to the village, beef, chicken, and fish curry. The main ingredient in these dishes is coconut milk. Some desserts and sweet drinks, such as tea and coffee, are also found at the banquet too. All guests must eat whatever is served by the host" (Field note, 14/2/2012)

The informants had to strictly engage in the food festivals to conserve the traditional practices and Melayu identity. They knew that they had to follow medical advice to avoid eating unhealthy foods, however, by engaging in food festivals it is notpossible to follow healthy eating.Informants commenting on the obligation to participate said:

"…I have to have many foods at every banquet because I don't know what to eat. Everything is very fatty. I always have a headache after a meal because of high blood pressure" (K5)

Figure 9. Sweet and Oily foods in everyday life

The preference for sweet and oily foods dominates the locals' taste. Everyone is required to eat on a regular basis, both in everyday life and at the traditional festivals. These are the eating habits of people in the community, and although some kinds of food should be limited for people with hypertension, this often is not the case. An informant commenting on the obligation to participate said:

"I like beef but don't like fish, so I always choose a beef dish at every banquet" (K1)

Eating together enables the enjoyment of the family and the community. Everyone sits in a circle on the floor for dining, and all foods are put in the middle. All of the participants use their fingers for eating. A spoon is provided forthe food which is used for serving. They enjoy eating and talking together. It is the duty of all people to work together on the festivals of their community. One informant commenting on the obligation to participate said:

"Everything seems more delicious when we eat together. So we may eat too much. It is very pleasurable to help a host prepare a banquet. We work together, talk together, and eat together. We eat everything the host serves for us" (K4)

Figure 10. Sweet tea

3. Balancing work life for conserving religious and cultural practices.

The key informants balanced their work life and cultural activities in everyday life based on their perception of the severity of their symptoms. The culture is guided by cultural values, beliefs, and health practices for all people in the Melayu community. Illness is a part of life for people in their cultural context. When the elderly got sick they tried to manage their health and balance work life by maintaining religious practices, and playing a social role in cultural activities. This is because conserving religious and cultural practices is the core of the cultural values and practices in Thai-Melayu community.

3.1 Following a normal life if able to work.

Generally, the key informants still had occupations and income in everyday life. Most of them usually work at rubber tapping and rice farming. If they had temporary symptoms of hypertension, they usually worked and spent life as normal.

Three key informants had temporary symptoms however they still worked and spent their normal lives participating in social practices. They suffered from clinical symptoms such as headache, and vertigo but working could help them to forget about their illness and feel comfortable. One informant said:

"... I forget my headache when I go to work. I feel more comfortable when I sweat..." (K5)

One key womaninformant got illness with fatigue, and continued taking medicines until her symptoms did not show. She could go to work as usual and got better when she worked.

"...I could go to work for tapping rubber trees when the symptoms disappeared. I felt better when I spend more energy to work..." (K8)

Most of the key informants had high blood pressure with temporary symptoms such as headache, dizziness, and vertigo. They only took medicines to reduce these symptoms. After they got better they spent their normal life working as usual. They did not follow the medical advice to continue treatment and change their lifestyle. As one informant said:

"… I can do my activities as usual…I stop taking medicines when I did not have a headache. I also did not follow the doctor's advice such as avoiding unhealthy foods.…" (K5,).

3.2 Stop working but maintain participation in social roles and cultural activities.

Generally, the elders who are healthy still continue their occupations that have been passed down from their ancestors such as gardening, farming, bartering in order to earn enough money for their families. If they are affected by disease or illness, they stop working and they pass this duty on to another person in their family to take over. However, these elders still play a significant role; they work as consultants for their children. Sometimes, they still have to make decisions about any important issues for them. Also, it is the duty of the elders to nurture and groom the members of their families to be good people who are faithful in following the religion, traditions and culture of the community. All of the descendants have to respect their elders who are the most senior of the family. When the family elders get sick the direct descendents and other offspring who live nearby the elders have to take turns to take care of the cooking, cleaning, and caring of them, especially taking them to see doctors.

"Normally, the elders who are healthy still continue their work in order to earn money for their families. When they have to cease their work due to the influences of illness or diseases such as dyspnea, fatigue, it is the duty of the family

members who are assigned to run the business of the families like gardening, farming, and bartering.'' (Field note, 21/2/2012)

The key informants stopped routine workat the rubber plantations, and farms when they perceived severe illness. However, they still helped and participated in social and cultural activities. They were the leaders of traditional and religion practices within the community. For reciprocal duties, all members in the community have to give them respect and obedience.

"I stopped working six months ago because my arms and my legs have been numb. Nowadays, my revenue comes from my little rambling trade and from teaching religion to the children and women in the community."(K1)

Three key informants did not work as usual when they got severely sick. They stopped working in their usual occupations. They started to take care of their children and help other people in the community. They were attentive to teaching and taking care of their children. Meanwhile, it is the responsibility of their children who live in the same area to take care of their parents both in terms of arranging for their daily living and their health, especially seeing doctors.

"I was thin and tired easily when I was sick. I used to tap rubber trees and worked in rice farming but I stop working 4 years ago. I lean on my sons and my daughters and spend my free time meeting and helping my neighbors in all traditional practices." (K7)

My sons and my daughters always give me some money as well. If I was sick they took me to see a doctor."(K1)

Most informants were unable to work as usual and because of the severity of their symptoms they stopped routine working to do various hobbies and make merit by participating with friends in traditional practices, and volunteering for religious practices in their community.

"All informants worked as farmers and traders. If they were unable to work as usual, they enjoyed doing many hobbies such as learning and teaching religious doctrines, weaving mats from local materials, cleaning the Mosque and participating in community activities." (Field note, 20/3/2012)

Although the elderly try to avoid working hard, they are still aware of helping and participating in community activities. This leads the elderly to attempt to manage their health as much as possible. They need to maintain their self-esteem for community functions as they should because they have to be leaders in both their religion and community. That is, elderly men play an important role in their religious activities, whereas the women focus on cooking traditional foods as identified in their cultures.

"Most informants who were unable to work as usual still had to participate in all community ceremonies. For example, they participated in a wedding ceremony. The elderly and other community members had prepared traditional foods. They then joined in the religious ceremony for this activity that was arranged after their evening pray at the mosque.... The elderly were religious leaders, and the community men members joined in the ceremony..... During these three days, the members had to leave their work to work for their neighbors." (Field note, 3/3/2012)

Management of Hypertension in Thai-Melayu Elderly

The management of hypertension in the Thai-Melayu elderly depended on their perception and cultural beliefs. All the key informants recognized the causes of illness from ancient beliefs which is associated with traditional medicine which is relayed from generation to generation. The viewpoints of the hypertension elders were based on bad *Leard* and*Lom*which are the causes of high blood pressure and illness. These world views guide their health management as they try to balance these causes through some of the traditional care and health practices within their cultures: seeking the best doctors, seeking both modern and folk treatments and increasing the flow of *Leard and Lom*.

1. Seeking the best doctors and modern and folk treatments.

When the elderly people had uncured symptoms and the symptoms affected their work, they would search for the best doctors, and modern and folk treatments. There are three ways for seeking the best treatment,shopping around for a medicalexpert,taking medicines to reduce the symptoms, and performing rituals with folk healers.

1.1 Shopping around for the medical experts.

All the key informants shared information with friends to find effective medicines from medical experts from their neighbors and other friends from other

communities. They searched for expert doctors who could cure the illnesses which were similar to what they had. They also believed that having treatment for severe symptoms in a private clinic was better than in a government hospital. They thought that the clinic gave them high quality medicines and they could recover faster in that way.

I sometimes went to see a doctor at a clinic in Songkhla province. When I came back home, my neighbor suggested that I go to see a doctor in a clinic in Trang province. He told me that many people had recovered. I made a decision to see the doctor at Trang. After I took his medicines, I felt better. Nowadays, I have taken medicines from private clinics and the hospital…" (K4)

Participating in their neighbors' ceremonies allowed the elderly to liaise about treatments. The elders with hypertension, therefore, received medical information and learned how to care for themselves from their neighbors who have had the same conditions. This influenced their perceptions and health management. It led them to make their decisions on their health care regarding both modern and traditional treatments. As the information shows:

"Whenever somebody suggested to me any good doctors, I would go to see them such as a clinic in Satun province and Hat Yai district in Songkhla province. I also went to get treatments from folk healers…….." (K9)

However, their friends' advice could have negative effects because they thought that other medications were better than primary care medication. In this case, the informant ignored to take medicine from the primary care unit but took medical treatment from a salesman. One key informant stated:

"The first time I was treated for hypertension in a primary care unit. But two years ago I stop taking the medicine from the primary care unit. I received a suggestion from my friend that there is somebody in the community who sells good drugs."(K 6)

Two key informants changed from primary care to a private clinic by themselves when they got severely sick. The most common way to seek information on treatments was to share information with friends. When they had a common illness they would go to see doctors in the primary care unit which was near to their homes. If they had a severe illness they would go to see a medical expert in the private clinic.

"When I was very sick, I went to see the expert doctor in a private clinic. I thought that the doctor in the clinic treated me with more effective medicine when compared to the doctor's treatment at the Health station. I felt better after taking the medicines from the clinic. I stopped taking the medicines that I received from the Health station while I was taking the medicines from the clinic until I felt better. I would start to take the medicines from Health station again when I finished the medicines from the private clinic. I do not mind if I die but I will take good care of my health." (K1)

One key informant had hypertension for five years and received treatment at Satun Hospital. One year ago, he had a hemiplegic migraine and numbness of both arms and legs. Due to these symptoms, he went to see a medical expert in a private clinic and got medicines to take at home. However, his symptoms did not get better. He believed that these medicines were ineffective and then he decided to change treatments and buy the medicines from a pharmacy.

"I took medicine from the hospital when I had a headache. A doctor told me that I have had high blood pressure. I had hemiplegic and numbness in both arms and legs one year ago. I went to see a doctor in a private clinic because I thought that the doctor had good drugs to treat my symptoms. After I took these medicines I did not get better. Therefore, I changed to buy the medicines from a pharmacy and I got better" (K3)

1.2 Taking medicines to reduce the symptoms until they disappear.

Because elderly people's perception of hypertension depends on their clinical symptoms, they went to see a doctor to decrease their symptoms until they had disappeared. They perceived that high blood pressure is a common illness and could be easily cured. Therefore, they only took medicines when they had clinical symptoms such as headache, and dizziness. According to this perception, the elders stopped taking their medicines when their symptoms disappeared. They understood that they were healthy and did not follow the doctor's advice. As one participant said:

"….The high blood pressure causes a severe headache. I had to take medicines and then symptoms disappeared. Consequently, I can do my daily activities as usual….. I stop taking medicines when I do not have a headache. I also ignore the doctor's appointment because I think I am completely cured."(K 5)

One participant was first diagnosed with hypertension two years ago, and she went to see a doctor in a private clinic about her headache. The doctor advised her about healthy lifestyles; reducing weight, exercising, and eating healthy

foods. She took the medicine until she got better. She stopped attending the follow-up appointments at the clinic and did not follow the doctor's advice.

" …., I only took medicines to release the headache. When I felt better, I stopped attending the follow-up at the clinic. I thought that I had mild symptoms. I did not follow the doctor's advice because I thought I am well, I do not need to exercise or reduce eating unhealthy food. There is no reason to do this and I do not know why I should do exercise and reduce my intake of unhealthy food. I could normally go to sell goods."(K4)

This study indicated that the key informants, diagnosed with hypertension with common clinical symptoms, only took medicines until the symptoms disappeared. They did not continue to take medicine and follow medical advice. This led them to later develop complications from the disease. These complications include cardiovascular and cerebrovascular diseases which have influenced their daily activities. They could not work as usual due to these complications.

1.3 Performing the ritual method with folk healers for healing the suffering.

Performing rituals with folk healers is a part of the traditional care for people in the community health practices which is based on their cultural beliefs. Most people believed an illness was a punishment from a supernatural power, and could not be cured by modern medicine,therefore, they would have to have treatment from a traditional doctor. At the same time they may still treat their symptoms

usingmodern medicine. These methods can help people to decrease their physical and mental suffering. If traditional doctors and health care teams could work together it would be more beneficial for community health care.

. *"Two of the key informants had a headache and chest pain at night, they believed that these symptoms were a punishment from a supernatural power. They had to be treated by folk healers in their community. However, they also treated their hypertension with modern medicine. (Field note, 15/3/2012)"*

In addition, four of the key informants believed that some illnesses occur because people have done something wrong or different from what their ancestors did so they are punished by spirits which dwell in their village. In addition, the illness is seen as a result of black magic. A man who is affected by black magic will have a headache, stomachache, convulse, groan and be uncommunicative. One participant suggested that modern medicine cannot treat these symptoms but traditional doctors can.

"My husband had hypertension and was treated by the doctor in Satun Hospital. When he came back home he had a headache because some termites bit him. A doctor at a hospital could not help him recover from the pain but a traditional doctor could." (K2)

One general participant acknowledged that folk healers still play an important role in the community as they are able to treat illnesses which occur as a result of supernatural powers. Folk healers perform a ritual involving a gift exchange and consultation with religious sources. A patient must give a traditional doctor a dish of betel nuts and betel leaves and some money. After the traditional doctor receives

the dish, he asks about the symptoms and looks at the dish while he reads Al-Quran in order to ask God for a way to treat the illness. An folk healer of elderly people said:

"A modern doctor uses a radiation machine while a traditional doctor uses betel leaves and betel nuts. I am a traditional doctor and, not different from a modern doctor, I can guess about pus, abscess and tumor which appear inside the body. For me, betel leaves and betel nuts have their owner. They were created. All trees were created. So, I must ask their owner before using them. Besides, I have to learn about the way to use betel leaves and betel nuts in treating people. The lesson is available in the Melayu language only." (G1)

One general participant who was the traditional healer of the village also said that each disease/illness is already defined as to what treatments could make it better. Whether patients could find it or not also depended on Allah's wishes. One participant revealed:

"Allah has created medicines for every disease. We just ask Allah in order to find the ingredients to produce them. We also read Al-Quran because the knowledge of medicines and treatments is in some parts of Al-Quran" (G1,)

Figure 11. Folk healers' treatment

The origin of the folk healers lies in the inter-generational transfer of knowledge from their ancestors. Contemporary folk healers, while being disciples of the old folk healers, also align their practice with modern medicine by suggesting that they also have the ability to diagnose and treat disease.

The folk healers and their treatment are part of the cultural beliefs and health practices in Thai-Melayu community. The cultural beliefs are passed down from generation to generation. Their beliefs about the causes of illness are based on personal experiences and their observations of family and community. Although, all of the key informants believed the causes of high blood pressure were related to the imbalance of *Leard* (blood) and *Lom*(wind) in the body. Some of them also believed that some illnesses are causedby supernatural powers. These beliefs guide their perceptions and health practices that strongly link to the curesfrom traditional doctors.

2. Increasing flow of *Leard*(blood) and *Lom* (wind).

The health management of elderly people is associated with the perception of the causes of their illness which follows traditional beliefs. Regarding the cause of illness, they believed that the major cause of illness is related to the obstruction of blood circulation and their health management will be also be used to resolve this problem. There are varioushealth management methods such as the drainage of bad blood from the body, Thai traditional massage using hot compresses and baths to balance the *Leard*, *Lom*, and body temperature, soaking the body with herbs to reduce some symptoms, such as headaches, and dizziness, and avoiding unhealthy foods as advised by doctors.

2.1 Drainage of bad blood from the body.

Some elderly people who have hypertension went for treatment from the folk healers in their community. The method of treatment was blood drainage by vacuum cupping. Blood drainage by vacuum cupping is an ancient method which treats headache and numbness by getting rid of blocked blood so it normalizes blood circulation. Patients have to fast before the treatment. It usually takes place at the time of the waning moon. The traditional doctor asks for God's help by reading Al-Quran. Folk healers said:

"Blood flow obstruction is the cause of hypertension and headache. Blood drainage by using vacuum cupping can decrease the obstructive blood circulation and reduce the headache. This method uses a blade to cut on the head skin and put a cup to drain the blood. This is bad blood from the body." (G2)

"Hypertension is caused by bad blood obstruction. The treatment should be a cure for bad blood obstruction in the blood vessels. Some people who had a main blood vessel break down should drain the blood once a year. Using a cow horn draw the skin until it is swelling and then using a blade cut on the skin. Cut only on the area of skin swelling and again using a cow horn draw the blood. The cow horn would be placed to cover the cut wound and draw the blood out. It is concentrated black blood. This is bad blood from our body." (G2)

Some elderly people who had headaches from hypertension used the folk healer's method of blood drainage for releasing their pain. One participant said:

"I knew the method of blood drainage by folk healers from the oldest people in this community and I experienced it when my 21 year old son had a

headache. He went to be treated by the folk healers using blood drainage from his head. After this treatment he was cured."(K6)

"At the beginning of blood drainage method, the folk healer will read 'Al-Quran' before the treatment. There are four steps of blood drainage: the folk healer will measure the diameter of skin head where the method will be done by using a bottlenose. Then he will shave the hair as a circle shape in the same size of the bottlenose at an area where the blood will be drained; the bottle is turned over at the drainage area and then a piece of paper is burnt and put inside the bottle for few minutes until the scalp is swollen; the swollen scalp is slit with a razor; and the wound is covered with the bottle again. Then, a piece of paper is again burnt and put in the bottle. Three tablespoons of blood will be drained from the wound. Previously, the folk healer who did this method was in Moo 4, but he has now passed away. Hence, the folk healer who can do this method is in Moo 5, Ban Kuan." (K6)

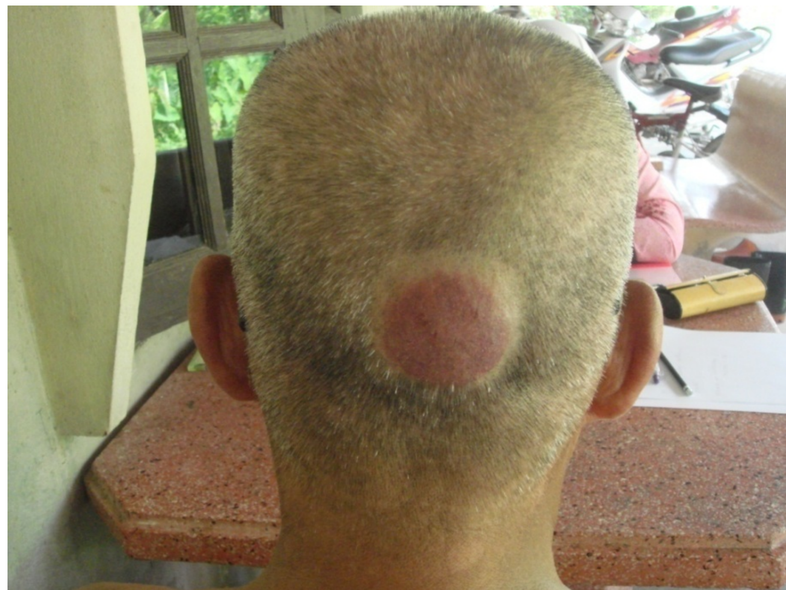

Figure 12.Removing blood from head by folk healers

2.2 Using Thai Massage with hot compress and bath to balance the Leard, Lom, and body temperature.

Massage can be used to treat the symptoms of numbness and the abnormality of blood circulation. Masseurs do not request a fee for their service, but the patients always gave them some money or gifts. If somebody suffers from numbness of the arms and legs, they would go to be treated by folk massage. One participant said:

"I was treated for 3 days by a folk healer when I had numb legs. The massage folk healer tested my legs and told me that it was an imbalance of blood circulation "Leard" and "Lom" in my body. After receiving the treatment, I felt good." (K 4,)

"The first time when I went to see a massage folk healer, the healer compared my legs and told me that there was an imbalance of temperature (hot and cold) in my legs. He massaged me for 3 days by using a balm. He also treated the ligaments making them better." (K4)

Figure 13. Massage by folk healers

The appreciation of the participants for the folk treatments depended on their beliefs. They thought that their illnesses are based on the imbalance of blood circulation. These beliefs and folk methods are part of the local wisdom that is passed down from generation to generation.

Thai-Melayu elderly used heat-therapeutic methods because of their traditional beliefs. For instance, they believe that heat-therapeutic methods promote *Leard* and *Lom* or blood circulation. They used hot baths and compresses with hot stones every morning and evening. One participant said:

"I bathe with hot water and massage with hot stones every morning. It is an ancient method to treat numb symptoms. I remained by the fire after parturition, I felt comfortable when I bathed with hot water in which hot stones were placed. Blocked blood was eliminated and "Leard and Lom" could flow well." (K1)

Figure 14. The stone used for massage

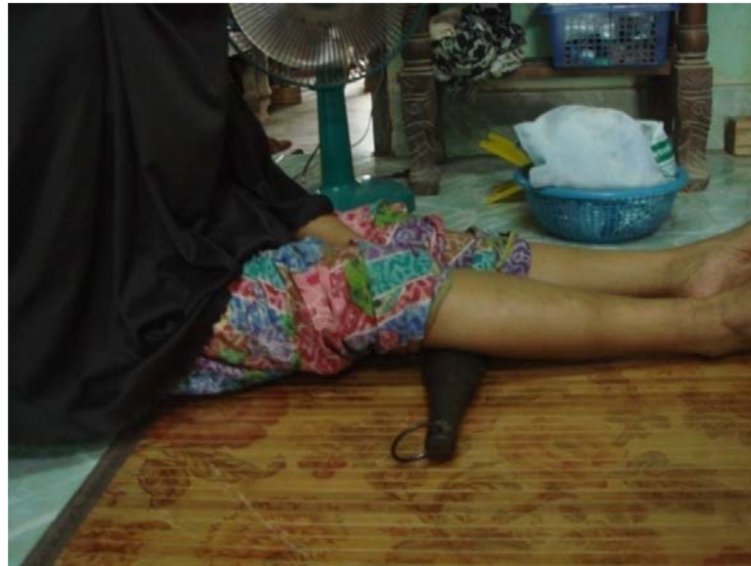

*Figure 15.*Hot compress with stone

2.3 Soaking with herbs reduces some symptoms, headaches, and dizziness.

Soaking and pouring water on the head are methods that are used to decrease headaches because the elderly people believe that an increase of heat in the head is the cause of their illness. These methods entail herbal leaves such as star goose berry leaves and tamarind soaked in water. The other method is pouring the water into a bucket which has a rubber tube at its bottom and then letting the water drop onto the head. Both methods can decrease the heat in the head. One participant said:

"Elderly people always squeeze some kinds of leaves such as star gooseberry leaves, basil leaves, tamarind leaves and betel leaves by hand into a bowl of water and anoint their heads with the water when they are dizzy. The water is called "Ya-Ram". Sometimes, they put the water in a bucket which has a rubber tube at the bottom. Then, they lie under the bucket and let the water drop onto their heads

via the rubber tube. An increase of temperature in the head causes headaches and dizzy symptoms. On the other hand, water can relieve a headache and dizzy symptoms by decreasing the temperature." (K 4)

2.4 Avoiding unhealthy foods as advised by doctors.

The informants believed eating incorrect foods affected *Leard and Lom* of the body and caused illness. In addition, the medical advice about hypertension management was influenced by perceiving and changing the diet of the informants. If the informants recognized the dangers of hypertension, they changed their diet by avoiding eating unhealthy foods. As informants said:

"I was severely sick on Hari Raya day, 4 years ago. I thought that this day I ate a lot of meat that affected the flow of Leard and Lom in the body. After that, I had a headache, vertigo, and vomiting and I went to see a doctor. Nowadays, I do not eat the wrong foods which are the root cause of the bad flow of Leard and Lom. These foods are also prohibited by the doctors such as meat or fish curry with coconut milk" (K8)

"…I know that some kinds of food associated with Leard and Lom that I had to reduce these foods, meat, and fatty foods. At present, I can control my blood pressure..." (K9)

Changing the eating behaviors of the elderly people with hypertension depended on their symptoms and the health education they had received about hypertension management. They began to take care of their health when the

symptoms become severe. They followed the doctor's advice and learned from their direct experiences. As one informant said:

"... I strictly followed the doctor's advice because the disease impacted on my daily life. I had to manage myself to reduce the effects of severe symptoms, avoiding unhealthy food, taking medicines... After, I changed my everyday life, I got better. The disease did not threaten me." (K11)

Receiving information from health providers about hypertension influenced theperception of the participants on following medical advice and changing their behavior. All of the participants wanted to know how to manage their health to heal their suffering. Therefore, receiving appropriate health education was necessary to promote their behavior change. They knew that if they did not change their lifestyle they could not control their symptoms. As informants said:

"...I cannot lower my blood pressure by only taking medicines until I got advice from a nurse in the primary health care about diet. I know that some kinds of food were associated with Leard and Lom and that I had to reduce these foods, such as meat, and fatty foods. At present, I can control my blood pressure." (K9)

All informants sought the best treatment and balanced working life and maintaining social activities to manage their health. They combined modern and traditional medicine to take care of their health. They shared the information with friends to find and see medical experts. Moreover, following traditional medicines is based on the informants' belief that the cause of illness comes from *Leard* (blood) and*Lom* (wind) in the body. Therefore, these treatments aim to promote the balance of the body and improve any problems.

They also maintained social activities by participating in cultural practices, making merit, and helping people in the community. This is culturally valued by all elderly people in the Melayu community. If they were sick they had to manage their health to maintain religious and traditional practices.

Summary of Findings

The informants' perception of hypertension is that it is a common illness and the danger of hypertension can be recognized when obvious symptoms occurred. The bad flow of *Leard*and *Lom* (blood circulation) are the causes of high blood pressure. Three main themes exist in the ways of living with hypertension such as following and living with Islamic faith, adhering to traditions, and balancing work life for conserving religious and cultural practices. The informants managed their health by a combination of treatments ofmodern medicine and folk care: seeking the best doctors, using modern and folk treatments, and increasing the flow of *Leard* and *Lom*.

Living with hypertension in Thai-Melayu elderly arose from religious beliefs that are closely linked to cultural beliefs and practices and manifest in people's health perceptions and their hypertension management.For example, engaging in food festivals and eating unhealthy foods is problematic in changing the behaviors of these people. The participants face a dilemma because on the one hand they feel a responsibility to be involved in the celebrations and involvement means eating unhealthy food, but on the other hand they are aware of the health risks. An overall summary of the findings are presented in figure 16.

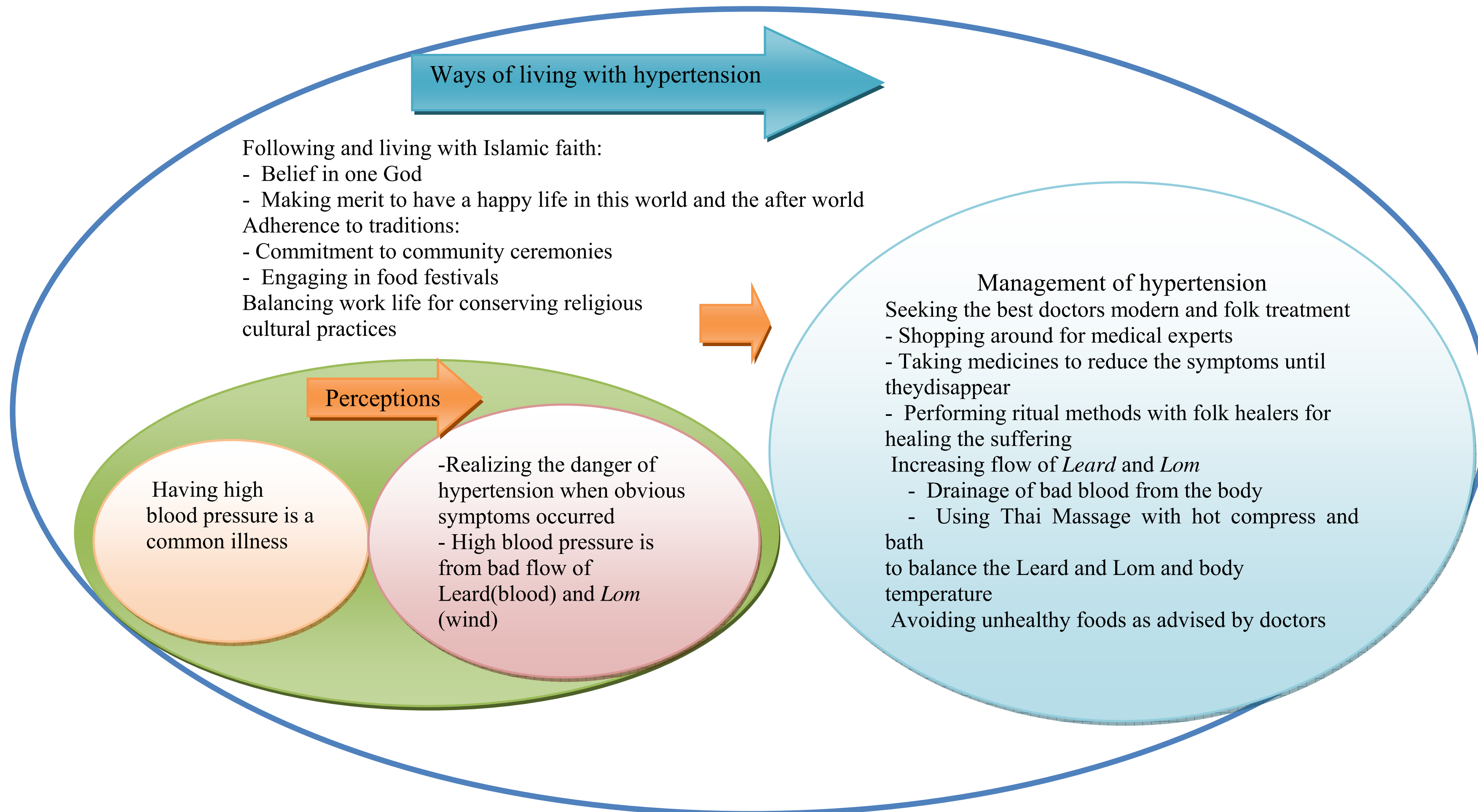

*Figure 16.*Living with hypertension in Thai-Melayu elderly

Discussion

The discussion is derived from the data collected from eleven of the Thai-Melayu elderly with hypertension who were the key informants, and the associated seven general informants including the folk healers, nurses in the Health Promotion Hospital, and family members. The study was conducted in a province in southern Thailand where all people are Muslim and of Melayu ethnicity. The findings of this study are discussed in the perception, ways of living with hypertension, and the management of hypertension in the Thai-Melayu elderly.

Perception of Hypertension among Thai-Melayu Elderly

Having high blood pressure is a common illness.

The cultural beliefs of the informants about health and illness being caused by the body's imbalance of *Leard* (blood) and *Lom* (wind) were related to the elderlypopulation's perception. They perceived that the body's imbalance made them ill with hypertension which has several symptoms: headache, fatigue, and so on. However, as long as the elders do not have any symptoms or impermanent symptoms, they had a common illness that could be cured completely. This finding has congruence with Thai Traditional Medicine (TTM) which reveals that the human body is composed of four elements such as earth, water, wind and fire. When the four elements of the body are in balance, it will be healthy. In contrast, if imbalances in these elements occur a person will become ill. Moreover, the imbalance in the four

internal elements and illness can also be due to an imbalance in the external environment (Chokevivat&Chuthaputti, 2005).

Based on the cultural beliefs mentioned above, the elders' perception of their hypertension focused on the symptoms. They perceived they were healthy when the symptoms disappeared. If they had temporary symptoms of hypertension, they perceived that it was a common illness. For this reason, the elderly perceived that hypertension can be cured completely. This perception leads the elderly people to avoid treating the disease. According to this perception, the elders may ignore a doctor's appointment, stop taking medicine and not change their health-care behaviors. This can lead them to develop complications from the disease. These complications included cardiovascular and/or cerebrovascular diseases which have an influence on their daily activities. For example, they could not work as usual due to these complications.

Some informants had been diagnosed with hypertension with asymptomatic symptoms,therefore they did not pay attention to their blood pressure levels. Hypertension is an asymptomatic symptom until complications arise and it is called the silent killer (Jairath, 1999). In addition, several decades ago, hypertension was unknown in the community. People have only learned about it when modern medicine developed and became widely used in this era. The elderly in the study have limited information because they could not read Thai books. The health information is provided by health care provider teams and their neighbors. Hence, the perceptions of elderly people who have hypertension are correlated to personal belief and traditional culture passed down from past generations. This result is consistent with Larsen (2009) who defended that the terms disease and illness are different. Disease is focused on changing of the pathology and physiology function. In contrast, illness is a

human experience of symptoms and suffering, and refers to the perception of, living with, and responding to the disease by individuals and their families. A previous study on the experience of older, rural Thai adults with poorly controlled hypertension found that they were unaware of their blood pressure levels and perceived hypertension as a symptomless condition (Samranbua, 2011).

This result is consistent with Samranbua (2011) who studied the life experiences of older, rural Thai adults with poorly controlled hypertension in the Northeast of Thailand and found that their perception of hypertension was that they were healthy due to asymptomatic conditions. This is because of a lack of perception of hypertension. Some participants were unaware of their blood pressure levels, and did not change their lifestyle until complications occurred. For example, Porapakkham, Pataraachachai and Aekplakorn (2008) reported that in southern Thailand, 59.9% of elderly persons with hypertension were unaware of their blood pressure levels because of its asymptomatic disease. In addition, Borzecki, Oliveria, and Berlowitz (2005) revealed that the most common factors of hypertension control was non-adherence to prescribed hypertension therapies because of the client's perception of his or her illness.

Thus, the informant's perspective of hypertension disease and its treatments lead to inappropriate hypertension management. These issues should be considered for the development of health education and consultation approaches to be suitable for different cultural contexts. Such education could provide better understanding of a person's condition, so that the elderly people would understand the medical treatments and combine them with their cultural beliefs.

Realizing the danger of hypertension when obvious symptoms occur.

Because the informants' perceptions depended on their individual experiences of the symptoms and the belief in the cause of illness from the body's imbalance, the absence of symptoms meant that the informants did not believe the medical diagnosis of hypertension which was confirmed by a doctor. Lack of understanding about the hypertension prevention resulted in non-compliance with medical advice and a lack of motivation to change their lifestyles. Over time, as the disease had progressed and complications and symptoms of hypertension had appeared, the participants acknowledged that they needed some medical assistance to manage their conditions.

Seven of the informants realized the danger of hypertension when the symptoms appeared with complications such as cardiovascular and cerebrovascular disease. Hypertension disease is asymptomatic until complications develop with chronic illness (Jairath, 1999). Because increased blood pressure relates to the risk of cardiovascular(CVD), cerebrovascular disease (CVA), and kidney disease in adults aged 40-70 years, each increase of SBP 20 mm Hg or DBP 10 mm Hg doubles the risk of CVD (Cobanian et al., 2003). This result is congruent with Touhy (2014) who stated that a chronic illness may have episodic exacerbations for a long time, therefore most people with chronic illness always continue to work and perform their usual daily life early in their disease. The findings in this study were similar to those of Kirdphon (2003) who studied accepting and adjusting to the chronicity of hypertension: a grounded theory study in Thai people. The researcher found that some informants became aware of their hypertension disease when the symptoms appeared and impacted on their daily life.

This finding indicated that social and cultural factors influenced an elder's health perceptions. They accepted and realized their illness when the symptoms affected their work and social activities. The inability to work made them anxious and made them consider the dangers of this disease. The worst symptoms are the trigger points to change their perception about their illness because these symptoms resulted in work disability for them which have affected their roles in the family and the community. The roles for the family and the community are very important in terms of their human value. They want to be an exemplary person who preserves and passes on the culture in their community such as being the leaders of religious traditional culture. For this reason, most informants have tried to manage their health so they can still participatein social activities. The finding of this study is congruent with the continuity theory which states that personal and basic behavior stays unchanged as the individual ages. Patterns developed over a lifetime will determine whether individuals remain engaged and active or become disengaged and inactive (Touhy,2014)

High blood pressure is from bad flow of *Leard* (blood) and *Lom* (wind).

Most of the elders with hypertension believed that the signs/symptoms they faced everyday occurred from the imbalance of their blood circulation. This caused them to experience discomfort such as headaches, fatigue, numbness, or even hemi-paralysis. The imbalance caused them to have hypertension. However, as long as the elders do not have any symptom or their signs/symptoms could be treated, they still thought that they just had a common illness. They felt they were not sick although doctors told them that they had hypertension. They were concerned about their illness

only when they had obvious symptoms; and their symptoms would not improve and caused them to stop their work. Their traditional perspective holds sway over their health management.

The informants' world views about the cause of hypertension depended on their cultural beliefs which were inherited from previous generations. Although, medical models play an important role in the health care service in Thailand, most Thai-Melayu elderly people still followed their cultural beliefs. They believed that high blood pressure is associated with *Leard*(blood) and *Lom*(wind). There were many risk factors related to*Leard* and *Lom* such as eating unhealthy foods, hot and cold body temperatures and environmental factors. This finding is consistent with the Humoral Theory or hot-cold theory which is the basic lay belief about health and illness in Latin America and the Islamic world, and is also an element of Ayurvedic traditional medicine in India.(Helman, 2007). This theory has roots in Eastern medicine including Chinese traditional medicine, Indian Ayurveda and Thai Traditional Medicine that has been incorporated with Indian Ayurveda medicine from India. These traditional medicine principles were employed to maintain a balance inthe four major vital elements: earth, water, wind, and fire. The imbalance of these vital elements influences the causes of illness (Chuengsatiansup, 2010; Chumpol, 1998; Helman, 2007).

The findings indicated that cultural beliefs regarding health and illness in Thai-Melayu culture follow the Thai traditional medicine principles from ancient times. Thus, because Satun previously belonged to the Kedah Sultanate, which had a strong relationship with both Ayutthaya and Siam under the Chakri dynasty, its Malay Muslims commonly intermarried with Thai Buddhists without serious religious hesitation (Rittanon, 2009; Sugunnasil, 2005).

In the past, traditional medicines were used as a way of life for all people in Thailand. After 1828, Western medicine came in and started to replace traditional medicine and began to play a significant role in Thailand's health care system, including curative and preventive care of communicable diseases. However, traditional medicines were still widely used in everyday life (Bureau of Policy and Strategy, 2009, Chumpol, 1998).

Thai traditional medicine(TTM)is based on the belief that the human body is composed of four elements ('*tard*' in the Thai language): earth, water, wind and fire. Human health is related to the body's imbalance of the four elements ('*tard*' in the Thai language): earth, water, wind and fire and inappropriate behaviors such as poor eating habits, postureimbalances, and exposure to extreme weather(Chokevivat&Chuthaputti, 2005). When the four elements of the body are in balance, it will be healthy. In contrast, if imbalances in these elements occur, a person will become ill. Moreover, the imbalance of the four internal elements and illness can also be due to an imbalance in the four external elements as well (Chokevivat&Chuthaputti, 2005, Chumpol, 1998; Thai Traditional Medicine Foundation, 1992). This finding is congruent with Viriyabubpa (2013) who studied the folk-healers for *LomAmmapart* (stroke) in southern Thailand, and found that the participants viewed *LomAmmapart* (stroke) as an illness of wind obstruction that led to paralysis. The risk factors are exposure to cold weather and consuming unhealthy foods.

Ways of Living with Hypertension in Thai- Melayu Elderly

Following and living with Islamic faith.

The finding indicated that Islamic faith guided the informants' lifestyle which they have inherited from previous generations. The informants believed in one God and doing good things in this world for a better life in the next world. They also believed that managing health was a duty to serve God as well as following religious practices. The Islamic faith is the highest valuable asset of life in the Thai-Melayu elderly and it encourages the spiritual-well being in the elderly.Thai-Melayu continuously study and practice religion to adopt a pragmatic approach to life. Meanwhile, the elderly had to inherit the doctrines of religion by teaching their children in the community. Although, they had a chronic illness they have also been featured in compliance with strict religious doctrine to serve God. In order to receive mercy from God they can find a way to heal, if not it is considered to be the will of God and to accept their condition**.** The findings are congruent with the value of health in Islam, which is based on the belief that God will provide a cure if it is the will of God. On the Day of Judgment, God will ask what they did with their bodies and their health (Rassool, 2000; Yosef, 2008).

The findings showed that making merit is one element of the life-styles of the elders. They believed that making merit when they are alive in the temporary world would lead them to have good lives in the future world that is based on the judgment of human behaviors. The persons who have appropriate behaviors will have happiness forever, whereas others who have behaved badly will perpetually go to hell. These beliefs influence the elders in how they copewith living with their chronic

conditions. They made an effort to do good things to get merit. They focused on strictly following the principle of their religion such as completing prayer (La-mad) five times a day, fasting during Ramadan, helping each other based on their abilities. Moreover, it is the duty of the elders to transfer the religious principles to their descendants even when they are sick in order to have good lives in the future world. These findings concur with the faith principle in Islam (Mahama, 2008) that indicated that Muslim have to have faith in their lives after their death and on the Day of the Judgment. They have to be more concerned about their future world where their lives are enduring sustainability. The significant doctrine is after death, a human-being will recover again in the future world for God's judgment. It determines the behaviors of a human-being. The persons who did good deeds will go to heaven, while those who did bad deeds will go to hell. Everyone has behavior histories, both good and bad ones and these will be presented before God for the final judgment. God will fairly consider the person's actions and the persons who did the good deeds or good merit will gain rewardsin heaven, whereas those who behaved badly things will be punished by being sent to hell.

This study is consistent with the developmental theories of Ericson (1963 as cited in Eliopoulos, 2014) who clarified that development tasks are part of adults continued growth during their lifetime that are confronted and modification by life experiences. The challenges of old age involvehaving an understandingin the meaning of life that enlightens the individual's ego integrity and being able to cope with the reality of aging and morality (Eliopoulos, 2014). In addition, Butler and Lewis (1982 as cited in Eliopoulos, 2014) recommended the development tasks of later life are: regulating to an individual's illness, developing a sense of satisfaction for living withinone's setting, and preparing for death.

Adherence to traditions.

This study indicated that ways of living with hypertension in Thai-Melayu elderly are related to social and cultural practices. The elderly people played a significant role in passing cultural heritage to their children in the community. Social commitment was a sense of responsibility and a core value for all elderly people in the community for conserving religious and cultural practices. They were committed to living and helping together for the happiness of their society and passed these cultural heritages onto their children in the community. They have a high social status and are a role model of the community. They are both consultants and managers in traditional ceremonies and religious and traditional practices. They had to attend cultural activities because it is a responsibility for all elderly people. The way that informants perceived the severity of their illness and how they responded to any changes was to find the best way to maintain their health for maintaining their social roles and duties within their community. This finding indicated that socialization is important to the elderly people's physical and psychological well-being and does not reduce with age. The elderly continued to engage in social activities for maintaining their social status in the community (Eliopoulos, 2014).

Because of a strong kinship and social networks providing support to the elderly with hypertension, they were respected and accepted by the members in their community. This is because the elderly had important roles in the community asalready mentioned above. The social and cultural factors were supported by social well-being, promoting self-esteem, and the spiritual well-being of the elderly with

hypertension. When they had chronic illness associated with hypertension they tried to maintain harmony fortheir roles in social activities.

This study is consistent with the stratification theory (1970 as cited in Eliopoulos, 2014) that states that similar age groups have similar experiences, beliefs, and life transitions. In addition, Leininger (2002) revealed that all cultural groups have traditional ceremonial practices such as religious rituals, food festivals, and other activities. Consequently, all informants had to strictly follow traditional practices to conserve Melayu identity such as religion, local foods, and kinships. They had important roles in traditional practices. They inherited traditional practices for all people in the community. These traditional practices created a happy community. Therefore, when the elderly people got sick, they had to follow medical advice. However, some of these health practices were difficult to change such as healthy eating.

The obligation to attend banquets and eat the local foods (sweet and fatty) may be problematic for some informants who are on restricted diets. The issues identified related to variability in the quality of the food and the challenge of avoiding unhealthy options. Having a meal together for special events or banquets are annual activities of many Thai-Melayu communities. This is called *Nury* eating and every family alternates to be the host or co-host for some of the banquets. These include the Prophet's birthday, wedding ceremonies, Hari Raya day, circumcision, and a funeral banquet.

Balancing working life for conserving religious and cultural practices.

Most informants were old, aged 60-69 years and still continued to work in their occupations that have been passed on from their parents. They also had an important role and status to be the leader of their extended family as well as being leadersof traditional ceremonies in the community as outlined above. When the informants were sick with high blood pressure they went to see the doctor for treating their illness. If the symptoms did not show, irrespective of health providers confirmingthat they hada diagnosis of hypertension, they still followed similar life activities as they had done before. They would not worry about their health until the symptoms appeared. Lack of understanding about the hypertension prevention resulted in non-compliance with medical advice and lack of motivation to change their lifestyles. Over time, as the disease progressed to complications and the symptoms of hypertension appeared, the participants acknowledged that they needed some medical assistance to manage their conditions.

This result is consistent withPanpakdee, Hanucharurnkul, Sritanyarat, Kompayak, and Tanomsup (2003) study on the self-care process in Thai people with hypertension which found that at the first of diagnosis of hypertension, the participants perceived that their hypertension was curable and took medications for a short time until their symptoms disappeared. They did not follow medical treatment ranging from six months to five years until they experienced the complications of hypertension. Moreover, Marsell, Wolfe, and McKevitt, (2012) reviewed a qualitative research on a lay perspective of hypertension and drug adherence and found that most participants perceived that their blood pressure improved when symptoms abated and

thus stopped taking their medicine without consulting their doctor. These findings were consistent across countries and ethnic groups.

In addition, Sowapak (2006) studied factors related to drug adherence among elders with hypertension and found that the elder's perception about the severity of symptoms and the risk of complication, benefits, and the barriers of drug adherence were significantly related with drug adherence. This is because the view point of the elderly with hypertension was focused on their symptoms.

Management of Hypertension in Thai-Melayu Elderly

Seeking the best doctors, modern and folk treatments.

This finding indicated thatthe management of hypertension in Thai-Melayu elderly is based on their symptoms and socio-cultural factors. The socio-cultural factors are created from the shared experience with a particular group in society such as values, beliefs, attitudes and behavior (Andrews, 2012; Ray, 2010). All of the informants were Muslim. The cultural values of Muslim people stem from religious beliefs (Yosef, 2008). They believe that a human being is a gift from God and that they should care for the human being. On the Day of Judgment, God will ask what they did with their bodies and their health.Illness is part of life and a test from God. However, God is the ultimate healer(Wehbe-Alamah, 2008; Rassool, 2000; Yosef, 2008).

Based on cultural beliefs, God has already defined the treatments for all disease and illness. Whether patients could find it or not depends on God. Therefore, all informants tried to find the best doctors to manage their health. They sought for the modern medical experts at private clinics when they realized the severity of their symptoms because they perceived that the private clinic was better than a clinic in the government hospital. The findings are congruent with Nabolsi and Carson (2011) who studied spiritual, illness and personal responsibility: the experience of Jordanian Muslim men with coronary artery disease and found that seeking medical treatment did not conflict with the beliefs in fate. The religious beliefs allowed the informants to appreciate their illness, suffering and dying are part of life and a test from God. This guided them to agree and manage their illness by seeking the best treatment by shopping around for the medical experts, taking medicines to reduce the symptoms until they disappeared, and performing rituals with folk healers for healing their suffering.

However, making decisions for seeking health services depend on the perception of the individual's symptoms and socio-cultural factors. All informants began searching for the best treatment to cure their disease and had good management of their health due to the fear of symptoms becoming worse. This is because the physical illness has affected the elderly person's work and his or her daily activities. This also affected their families and community activities in which the elderly people were important persons as leaders of religion and traditional cultural ceremonies. These roles are very important and have high spiritual values. Their illnesses made the sufferers consider the importance of treatment and health care. When they are well, they can perform their duty for their families and community. Therefore, if they were sick they had to maintain their health to achieve their life-ways. They need to be

completely recovered from their illness. Having the best cure for an illness is the duty of everybody (Wehbe-Alamah, 2008; Yosef, 2008). Healing the disease helps the elders to continue performing and following their religiousduties as God taught.

Even though the elders had different perceptions about hypertension, most of them had adopted modern treatments that were available both in the area and from other health service units such as community hospitals, provincial hospitals, and specialist clinics. They interchanged health information with their neighbors and health care providers, as well as applying modern treatments together with the traditional treatments they were familiar with as part of their health management. The folk healers of the community would help the elders to manage their health by combining modern and traditional treatments. This was an important factor that facilitated them to holistically manage their health within the contexts of the health care community.

"Informants integrated cultural and modern health practices to manage their health. In general, the elderly received the screening test results of hypertension at their home by health volunteers, and community Nurses from Health Promotion Hospital in the community. If they had high blood pressure they were referred to the hypertension clinic that is opened on Thursday at 8.30 am -16.30 pm. In the same way the folk healers were older people who lived in the community. There were various methods of folk healer's treatments such as massage, blood drainage, and performing rituals. The informants used these methods incorporated with modern medicine and they could see the folk healers at any time" (Field note, 15/3/2012)

There were many methods of hypertension treatment based in modern or folk medicine. However, modern medicine was the first choice of managing health for all informants. Modern medicines were accepted as innovative and effective treatments for diseases.

The Health Promotion Hospital has opened and taken a place in the community. Health-care providers and health volunteers have a close relationship with the people in the community, and screening and promoting health for elderly people. However, making a decision to seek health services depended on the perception of the individual's symptomsIf they perceived they had a common illness they went to see the health care providers in the health promotion hospital in their village.

It is important to note that sharing information with friends in social activities was an important resource for the informants to make a decision about their health management, in regards to both modern and traditional treatments. Because of their social commitment, it was a responsibility for the people in the community that influenced an interchange of health information with their neighbors. The elderly with hypertension received the health information fromthe experiences of their friends who had the same conditions.

Although, all informants sought the best treatments for care for themselves, most informants only took medication to treat their illness until the symptoms disappeared. After the symptoms had disappeared, they would stop taking medications as they believed the disease was gone. When the complications of hypertension emerged, complications which are related to cerebrovascular and cardiovascular systems, the elders began to realize that these are serious signs affecting their work abilities. They would return to care for themselves. This is

because the informant's perception of hypertension is common illness, and can be easily cured as mentioned above. This finding is consistent with Borzecki, Oliveria and Berlowitz (2005) who reviewed the barriers of hypertension control and found that of the patients who stopped antihypertensive therapy, 46% stopped taking medicinebecause they believed they were cured.Sowapak (2006) studied the factors related to drug adherence among Thai elders with hypertension and found that 66 % of elders stopped taking medicine after their symptoms had disappeared because they believed the disease was cured.

The finding indicated that not recovering from the illness was a turning point for changing the behaviors of elderly people with hypertension, having had the chronic symptoms such as headaches, fatigue, chest pain, and numbness which could affect their daily lives. For example, the negative symptoms have a greater impact on work, and participation in the community and religious activities. The patients also were anxious that their symptoms might get worse and they were not able to do their usual activities. Consequently, they began to accept that they had to take care of their health, they had to continue to take medicine, avoid eating unhealthy foods, and walk for exercise They followed the doctor's advice, learned from the direct experiences and shared their experiences with other people. There were exchanges of knowledge between elderly people and their neighbors about the best treatments for their illness.

However, unchanged eating behaviors were also linked to the obligation to participate in traditional celebrations that involve eating sweet and fatty foods for all the informants. Although, they perceived that these foods should be limited for people with hypertension, however, it is very difficult to avoid them because of one's responsibility to participate in traditional celebrations within their cultural community. This result is consistent with Aree, Tanphaichitr, Suttharangsri,

and Kavanagh (2004) who found that the eating behavior of elderly persons with hypertlipidemia in Northern Thailand was influenced by the environmental factors of each society and its culture. They learned about traditional food preparation and eating behaviors from their parents. To date, contemporary knowledge of the effects of diet may be changing some personal habits, but not the ceremonial traditions of the communities.

Some informants integrated modern medicine and performing ritual methods with spiritual healers to reduce physical and mental discomfort. The spiritual healers lived in the Thai-Melayu’s community. All of the spiritual healers were trained by one generation to the next generation. They performed ritual methods to treat the physical and mental illnessesof the elderly with hypertension but they could not treat high blood pressure. This is because of the cultural beliefs that some illnessesare a punishment from a supernatural power, and modern medicine cannot cure these types of illnesses. The methods of the spiritual healers are related to the magico-religious paradigm, in that illness is initiated by a supernatural power.This is consistent with Andraws (2012) who stated that the major paradigms of health belief systems are composed of (1) magico-religious paradigm, the human being in health and illness is dependent on the actions of God, or the gods, or supernatural powers, (2) science paradigm is modern medicine, life is controlled by physical and biochemical processes (3) holistic health paradigm which is focused on harmony of life.

Increasing the flow of *Leard* and *Lom*.

Based on the cultural beliefs mentioned above, the bad blood flow (*Leard*) and *Lom* (wind) were the cause of illness of hypertension. Therefore,the informants tried to manage their health by increasing the flow of *Leard* and *Lom*in their body. They incorporated treatments of self-care with traditional methods and folk medicines to manage their health. These methods included the drainage of bad blood in the body, massaging with a hot compress and a bath to balance the *Leard, Lom* and body temperature, as well as soaking with herbs to reduce some symptoms such as headaches, and dizziness. All these methods focused on increasing the flow of *Leard* and *Lom* and reducing the causes of their illness that are related to their cultural beliefs. This finding is congruent with the Humoral Theory that is related to Eastern medicine including Chinese traditional medicine, Indian Ayurveda and Thai Traditional Medicine that has been incorporated with Indian Ayurveda medicine from India (Chuengsatiansup, 2010; Chumpol, 2005). These traditional medicine principles are employed to maintain a balance of the four major vital elements: earth, water, wind, and fire. The imbalance of the vital elements influences the causes of illness (Chokevivat&Chuthaputti, 2005; Thai Traditional Medicine Foundation, 1992).

This study indicated that most informants used traditional methods and folk care to reduce their physical symptoms and to increase the flow of *Leard* and *Lom* in their body. The traditional methods were individual experiences that have been passed from generation to generation to take care of family members. These methods used hot and cold to reduce the physical discomfort from the body's imbalance such as numbness, pain and so on. The elderly believed that exposuretohot or cold wasthe cause of their body's imbalance and illness. Therefore, they had to

manage the root causes of their illness by using hot and cold to promote the body's balance.

In addition, folk healers used ancient methods that focused on balancing the *Leard* and *Lom* in the body: massage and blood drainage by vacuum. Massage was used to increase *Leard*and*Lom*in the body while blood drainage by vacuum was employed to reduce*Leard*(blood) obstruction. These methods are a holistic health paradigm focusing on balancing *Leard* and *Lom* in the body that is congruent with Andrews, (2012) who revealed that the holistic health paradigm seeks to maintain a sense of balance or harmony in life. The holistic health paradigm has existed in many cultures in the world such as Native American, Indian and Asian cultures. The essence of health and healing is the quality of wholeness that is associated with healthy functioning and well-being. Metaphors are used in this paradigm such as yin and yang in Chinese medicine. The yin or female force refers to the negative pole, encompassing darkness, cold, and emptiness. The yang or male force is distinguished by fullness, light, and warmth. An imbalance of yin-yang causes illness. Moreover, the hot and cold theory of disease is a common metaphor of health and illness in the holistic health paradigm. This is an ancient Greek concept of the four body humors such as yellow bile, black bile, phlegm, and blood which are balanced in healthy people. Disease conditions are also classified as either hot or cold. Imbalance or disharmony causes internal damage and changes the physiological functions of the body.

According to Suwankhong, Liamputtong, and Rumbold (2011), in southern Thailand most patients suffering from a stroke or paralysis treat their symptoms with a healer's massage. In addition, Viriyabubpa (2013) studied folk healers who worked on stroke sufferers in southern Thailand and found that the folk healers viewed a stroke (*LomAmapart*) as an illness of the obstruction of the wind element in the body. The folk treatments comprised of ancient massage for reducing the wind obstruction and increasing the flow of the wind in the body which are the leading causes of a stroke.

In summary, in the management of hypertension of the informants,a pattern of thought and the actionsthat need to be established have to be based on the cultureof the individuals and the groups (Fetterman, 1998; Leininger, 1994; Leininger, 2002). Socio-cultural factors influenced the management of hypertension in Thai-Melayu elderly. The body's imbalance is the cause of illness associated withhigh blood pressure. The informants managed their health by focusing on increasing *Leard*and *Lom*using three groups of healing systems: self-care, professional care, and folk care or generic care. This finding is consistent with Andrews (2012) who stated that self-care is the primary healing system of people that has been passed on from generation to generation. Secondly, professional care systems refer to the formality of learning and perceiving etic knowledge and practice care by professionals such as nurses, physicians, and physical therapists. Health care professionals learn and transmit professional care, health, illness, and wellness in professional institutions. In contrast, the folk care or generic care or indigenous care is the emic folk knowledge and skills that is part of a group's history. Leininger (2002) defined that both professional care and folk or generic care are different in the viewpoint of etic (outsider's view) and emic (insider's view). The professional care

systems are focused on a scientific orientation that is cure, diagnosis, and treatments. These approaches depend on biophysical and emotional factors that need to be assessed and treated. In contrast, folk care focuses on humanity orientation which has a holistic approach. These approaches rely on cultural beliefs and practices.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This chapter presents the conclusions of the study. Recommendations for nursing practice, education, further research, and policy implications are addressed.

Conclusions

The finding of this study was supported by the philosophy underpinning of ethnographyas the art and science of describing a group or culture from the emic, or insider's perspective (Fetterman, 1998). This is because the way of life and social role of the Melayus Thai elderly which arise from religious beliefs are closely linked to cultural beliefs and manifest in people's health perceptions and their hypertension management. The result of this study indicated that socio-cultural factors are related to the health and illness of human beings because culture is the way of life of all particular groups. There are two components of culture such as a materialist and an ideational perspective or non-materialist perspective: materialists focus on the behavior or the pattern of actions, and the ideational perspective or non-material consists of the ideas, beliefs, and knowledge that characterize a particular group of people (Fetterman, 1998; Leininger, 1994; Leininger, 2002).

Fieldwork was the essential part of this study. The researcher worked with the informants in their natural setting, participating, observing, focusing group,

and interviewing the informants over a prolonged period of 6 months. There were 11 key informants of the elderly with hypertension and 7 general informants.Collecting and analyzing the data was conducted while the researcher was staying in the field. These findings are concluded below:

The informants' perception of their illness focused on their cultural beliefs and individual experience of the symptoms.They perceived that having high blood pressure is a common illness. Because of the cultural beliefs illness is caused by the body's imbalance. The informants perceived that having an illness with high blood pressure, headache, fatigue, and so on was caused from the body's imbalance of *Leard* (blood) and *Lom* (wind). Following these beliefs and perceptions, the elderly view that hypertension can be cured and it is not a chronic disease. These perceptions lead them to stop medical treatment and not change their behavior. They took medicines only when they had clinical symptoms and when they had developed complications of hypertension disease.

The informants perceived the dangers of hypertension when obvious symptoms occurred with complications, and cardiovascular and cerebrovascular diseases that impacted on their daily lives and usual work. The chronic symptoms consist of numbness; chest pain, fatigue, and muscle weakness resulting inbeing unable to work as usual. The worst symptoms that were experienced by the informants did change their perception about their illness of hypertension because these symptoms resultedin disability whichaffected their roles and social status in the community. The elderly people had an important role in their families and community such as religious and traditional leaders. The elderly people were respected by all members in the community. Therefore, they had to maintain their health to practice in

their life-ways. They are both consultants and managers in traditional and religious practices, and had to attend cultural activities.

The ways of living with hypertension in Thai- Melayu elderly are composed of following and living according to the Islamic faith, adherence to traditions, and balancing work life for conserving religious and cultural practices. These ways were the core values of the cultural practices of all Thai-Melayu people in the community. The cultural values guide the pattern of thought and health behaviors in the daily lives of the people in the community.

The informants managed their health based on their cultural beliefs and practices by various methods: seeking the best doctors, seeking both modern and folk treatments, and increasing the flow of *Leard* and *Lom*. They incorporated modern, folk, and traditional methods to manage their health focusing on the balancing of *Leard* (blood) and *Lom* (wind) in the body. In addition, they find balancing work life for conserving religious and cultural practices. The elderly people had an important role in their families and community such as being a religious and traditional leader. They restrict behavior in religion and traditional practices. The elderly people were respected by all members in the community. Therefore, they had to maintain their health to follow their lifestyle.

Recommendations

The findings of this study revealed that the way of life of the Melayu elderly influenced their health perceptions and management of hypertension. In addition, local traditions such as food rituals, restrictions on exercising in public places impacted upon the ability of the participants to comply with medical advice to

improve their health. The findings from this study have considerable implications for nursing practice, nursing education, future study, andpolicy implications.

Nursing practice

The finding indicated that the cultural factors had an influence on the health perception and the management of hypertension of Thai-Melayu elderly. Therefore, the development of community health education programs and promotion programs are necessary for hypertensive patients and all people in the Melayu community because health and cultural issues are interactive. Nurses and health care teams need to understand the cultural beliefs and values of the community.

Understanding the cultural factors of the Thai-Melayu elderly is a key success factor for nurses in designing strategies to promote healthy living for the elderly with hypertension and all members of the community. Working together and coordinating with significant others in the community such as religious leaders, folk healers, and community leadersis necessary. These influential leaders must endorse the knowledge of the risk factors that influence members in the community and plan to change the unhealthy behaviors and promote community health for all people in their community.

The findings show that the informants perceived their illness depending on their cultural beliefs and the individual's experience of his or her symptoms. For example, they perceived that hypertension is a common illness and can be easily cured and that the bad flow of *Leard* and *Lom* were the cause of high blood pressure. They only took action when symptoms become severe with the

complication of other related diseases. This is a major health problem of hypertension management in Thai-Melayu elderly with hypertension.

For this reason, for the appropriate management of hypertension it is necessary to integrate the perspective and the cultural beliefs on hypertension of all elderly people and key members in the community. The appropriate management of hypertension must be based on the cultural beliefs of Thai-Melayu elderly with hypertension in regards to the imbalance of *Leard* (blood) and *Lom* (wind) which are the cause of the illness. Therefore, appropriate health promotion and health education programs about hypertension and its complications need to integrate modern medicine and the cultural health beliefs ofThai-Melayuelderly. Initially, developing a community health education program encourages healthy behaviors for all people in the community. Preventing and stopping the complications of hypertension disease are essential in the prepathogenesisstage of hypertension disease. This program has to incorporate modern medicine and cultural beliefs about the causes of an illness with hypertension from the body's imbalance. Promoting *Leard* and *Lom* in the body can stop the causes of the chronic illness and the risk factors of hypertension disease by eating right, avoiding unhealthy foods, and participating in appropriate exercise.Meanwhile, the management of hypertension should focus on effective screening to identify those persons who are high risk of developing hypertension, early treatments, teaching and counseling families and the community about the causes of hypertension which fit with the cultural health beliefs of "how is hypertension related to*Leard* and *Lom* and how to reduce the progression of complications and related diseases within the severity of the symptoms".

Nursing education

Nurse leaders and educators need to understand the whole of the health belief systems which is influenced by one's own culture.This understanding can be used to implement appropriate hypertension management for persons with hypertension within their cultural context, especially in developing a program and training professional nurses and health care teams to be culturally competentin working with Thai-Melayu people. This would be essential for preventing, and managing hypertension to reduce complications. This program should provide knowledge about Thai-Melayu culture and health beliefs related to the body's imbalance from *Leard* and *Lom*, Melayu language, and socio-cultural factors influencing hypertension management such as strong kinship network, social commitment, belief in God and belief in the next life.

Future research

The findings of this study can provide for nurses and health care teams an understanding in the cultural beliefs and social factors that influence the management of hypertension in Thai-Melayu elderly. Therefore, participatory action research to develop healthy community programs and health care services for managing and preventing hypertension disease and its complications should be appropriate to the culture which may be useful in a specific method for individuals, families, and community. Health and social issues are interactive. Nurses need to consider the culture, values, and resources of the client, the family, and the socio-cultural factors.

Policy implications

The important focus of the government policy should encourage health promotion strategies for elderly people integrating both modern and cultural health beliefs of Thai-Melayu culture into the national health system which is appropriate in their culture: (1) develop social networks for elderly people, (2) develop health care centers that include the elderly as it will enhance the health promotion to incorporate the family, friends, religious leaders, folk care and medical care within the community, and (3) develop health education programs to enhance the health management of hypertension disease within the cultural health beliefs of Thai-Melayu cultureby promoting *Leard*and *Lom* in the body to stop the root causes of illness with hypertension.

Limitations

In this study, the key informants were selected from the Thai-Melayu elderly population who have been diagnosed as having hypertension for at least one year. Selecting the key informants from medical diagnosis may be considered as a limitation of this study because some elderly do not treat their hypertension with modern medicine.

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APPENDICES

APPENDIX A

Personal Information Form

1. Age……………..years old
2. Gender: ( ) 1. Female ( ) 2. Male
3. Address………………………………………………………………………
4. Phone number……………………………………………………………
5. Educational level ( ) Primary School ( ) Junior High School

   ( ) Senior High School ( ) University/College ( ) Other (specify)…………
6. Recent occupation or main activity ………………………………………….
7. Average monthly income…………………………………
8. Number of family members………… …………
9. Role and Status in the family…………………………
10. Weight………….Kgs
11. Height…….........cms
12. Body Mass Index…………………….
13. Blood pressure……………mmHg.
14. Length of time living with hypertension………….
15. Underlying diseases……………………………………
16. Current treatments ……………………………………………………
17. Risk factors

   - Smoking ( ) No smoking ( ) Smoking…………. / day
   - Alcohol ( ) No drinking ( ) Drink alcohol……../ day
   - Exercise ( ) No exercise ( ) Sometimes ( ) Exercise…………

APPENDIX B

Interview Guide

The researcher will use the interview guide in interviews. This focuses on the ways of life, and health managing behaviors of Thai-Melayu elderly with hypertension. However, the researcher will conduct more in-depth interviews when needed to explore the information with the participants.

What are the ways of life of Thai-Melayu elderly with hypertension that influence their health?

1. How would you describe your health conditions now?
2. What or who has influenced your current health conditions?
3. What will be the consequences of your current health conditions?

   How do Thai-Melayu elderly with hypertension manage their health?
4. What do you do to manage your health each day? How and from whom did you learn ways to manage your health?
5. What or who helps you to manage your health?
6. What or who inhibits you in managing your health?
7. Who do you get to assist you in managing your health? What were your reasons for getting them involved?
8. What have they done to help you in managing your health?
9. How could the care methods used by those people be explained by your cultural beliefs?

APPENDIX C

Observation Guide

The researcher will use an observation guide that is related to the following research questions: “How do Thai-Melayu elderly with hypertension manage their health?” The researcher will conduct focusing observations on the daily life of the key informants by home visits and observing the health practice of the key informants within their culture. The researcher will record the observed data relating to the physical place, actors, activities, events, time, goals, and feelings.

Date/ Time…………………………………………………………………………..

Place…………………………………………………………………………….....

Actors/ Feelings…………………………………………………………………

Objectives……………………………………………………………………….....

Goals……………………………………………………………………………....

Event / Activities	Reflection on the participants observed by the researcher

APPENDIX D

Form for Taking Field Notes

Date/ Time……………………………………………………………………………………..

Place…………………………………………………………………………………………...

Event Observation (only observed)	Reflection on the observed event by the researcher. (Ask questions about what the researcher is seeing, consider ways of interpreting the event).

APPENDIX E

Informed Consent Form for the Informants

Dear Informants

My name is WilaiUdompittayason. I am a doctoral student of the Faculty of Nursing, Prince of Songkla University. I am interested in the way of life and the life styles of the elderly Thai-Melayu with hypertensionin Southern Thailand.

The purpose of this study is to interpret the cultural beliefs and health-managing behaviors of the elderly Thai-Melayu in Southern Thailand. The results of this study can be useful to develop more appropriate health practices in managing hypertension in the Thai-Melayu culture. I will ask questions about general information and your thoughts, your way of life and your health management behaviors in daily life. I will stay in Ban Kaun village for six mouths. I would like to participate in your daily life and share the results of activities. Interviews will be tape recorded with your permission. I may also take notes. After I analyze the interview, I will contact you to check the results of the information from what I have gathered in that it is in agreementwith you.

Your participation in this study is voluntary. There are no risks to participate in this study. Your personal information will not be revealed. You may choose not to answer some questions and may withdraw from this study at any time without any loss of benefits. Only the group data will be reported and used for the purpose of this study. Your signature on this form will indicate that you understand your consent to participate in this study.

Signature:……………………Name: ………………Date…………………….

(If you have any questions, you can call WilaiUdompittayason, 081-0928367)

APPENDIX F

Informed Consent Form for the Informants (Thai)

ข้าพเจ้า นางวิไล อุดมพิทยาสรรพ์เป็นนักศึกษาปริญญาเอก คณะพยาบาลศาสตร์ มหาวิทยาลัยสงขลานครินทร์ มีความสนใจศึกษาเกี่ยวกับ การใช้ชีวิตอยู่กับโรคความดันโลหิตสูงของผู้สูงอายุไทยมลายูในภาคใต้ของไทย

วัตถุประสงค์ของการวิจัย เพื่อศึกษาวิถีชีวิต ความคิดความเชื่อ และการจัดการสุขภาพของผู้สูงอายุไทยมลายู ในบริบททางวัฒนธรรมของชาวไทยมลายูในภาคใต้ของไทย ผลการวิจัยในครั้งนี้สามารถนำไปใช้ในการพัฒนาระบบการดูแลสุขภาพ ที่เหมาะสมและสอดคล้องกับวิถีชีวิตและวัฒนธรรมของผู้สูงอายุไทยมลายูต่อไปการวิจัยครั้งนี้นักวิจัยจะมาพักอาศัยอยู่ในพื้นที่ บ้านควน เป็นระยะเวลา 6 เดือน ถามคำถามเกี่ยวกับข้อมูลทั่วไปของท่าน ความคิด ความเชื่อในการดำเนินชีวิตตามวิถีวัฒนธรรม และการดูแลสุขภาพของท่าน นักวิจัยขออนุญาตมีส่วนร่วมในการทำกิจกรรมต่างๆ ร่วมกับท่านที่เข้าร่วมโครงการวิจัย และบุคคลที่เกี่ยวข้องในการสนับสนุนและดูแลผู้สูงอายุที่เป็นความดันโลหิตสูง ผู้วิจัยขออนุญาตบันทึกเสียงขณะสัมภาษณ์ จดบันทึกเหตุการณ์จากการสังเกต และการเข้าร่วมกิจกรรม ข้อมูลที่ได้จากท่านจะมีการให้ท่าน ตรวจสอบความถูกต้องของข้อมูลโดยการตรวจสอบซ้ำจากท่าน เพื่อนำไปสู่การวิเคราะห์และรายผลการวิจัยต่อไป

การเข้าร่วมวิจัยในครั้งเป็นความสมัครใจของท่าน ท่านจะไม่มีความเสี่ยงใดๆ ในการเข้าร่วมในการวิจัยในครั้งนี้ ข้อมูลของท่านจะไม่มีการเปิดเผย ท่านสามารถเลือกตอบคำถามหรือไม่ตอบก็ได้ ท่านสามารถถอนตัวออกจากวิจัยได้ตลอดเวลา โดยไม่มีข้อผูกมัดหรือผลใดๆ ตามมา ข้อมูลที่ได้จากการวิจัยจะมีการนำเสนอเพื่อตอบวัตถุประสงค์ของการวิจัยและนำไปพัฒนาระบบการดูแลสุขภาพของผู้สูงอายุที่เป็นความดันโลหิตสูงต่อไป

ท่านจะลงนามในเอกสารเมื่อเข้าใจคำชี้แจงดังกล่าวแล้วและยินยอมเข้าร่วมโครงการวิจัย

ลายเซ็น...

ชื่อ..

วัน............เดือน.............ปี..................

หากท่านมีข้อสงสัย คำถามสามารถติดต่อ นักวิจัย คือ นางวิไล อุดมพิทยาสรรพ์081-09228367

APPENDIXG

Example of data analysis

Concepts (Theme)	Sub-theme	Descriptors
1. Perception of hypertension among Thai Melayu elderly people 1.1 Having high blood pressure is a common illness	-	*"Hypertension is a common illness. The high blood pressure causes a severe headache. I had to take medicines and then symptoms disappeared. Consequently, I can do my daily activities as usual. Doctor always told me that I am ill but I did not feel ill. If I am ill, I should have symptoms but I do not. I stopped taking both herbal remedies and medicines when I do not have a headache. I also ignore the doctor's appointment because I think I completely cured." (K 5, 22/2/ 2)* *"Hypertension is not a serious disease when compared with another disease. It does not matter if I have hypertension because there are medicines to cure it. Unlike cancer, it is very dangerous, not curable and causes more suffering."(G4, 9/5/12)* *."I am not sick, I don't have any symptoms, but a doctor tells me that I was suffering from hypertension. I think I do not have this illness because I am still strong. I do not fear or worry about it. I go to see the doctor following his appointment. When he asked about the medicines, I tell him that I take medicines on time following his prescription. If I tell him the truth that I sometimes had stopped taking the medicines when I was well,I fear that the doctor will scold me." (K 5, 22/2/12)* *"I know that I have hypertension after I had my blood pressure measured by a village health-volunteer. I had never known it before because I did not have anything wrong with my health. I can work normally..*

Concepts (Theme)	Sub-theme	Descriptors
1.2 Realizing a danger of hypertension when obvious symptoms occurred	-	*At last, the health care provider came to measure blood pressure at the Mosque. He told me that I have very high blood pressure and must go to the hospital... I have not taken medicines for 3-4 years because I think that I am fine and do not suffer from hypertension as they had worry (K 6, 15/3/12)* *"….When I had numbness and could not walk as usual, I felt that I had a severe illness. I fear it would be serious as my friend, who had hypertension and suddenly died at midnight in his house." (K1, 27/ 3/12)* *"… I had a headache 2 years ago and I went to see a doctor with the headache and the doctor told me that I had hypertension. Ten days ago, I had hemiplegic and numbness on right arm and leg. I was unable to go for a walk. I got hurt from it and this impacted on my daily life. When I had this severe symptom, I knew that I had to change my life such as taking medicine, and following the doctor's advice …." (K4, 5/ 4/12)* *"I was firstly diagnosed with hypertension 3 years ago. I was admitted to the Intensive Care Unit in Satun Hospital because I had severe chest pain and weakness. My son picked me up and took me to the hospital. I was seriously sick and had to lie on a bed for along time. A doctor told me that I had hypertension with heart disease. After I got treatment I felt better. I do not want to get the severe illness again. (K11, 6/8/11)"* *"I got severely sick one year ago, I had fatigue and palpitations resulting in work disability. My weight had dropped and I was very thin. My weight was 48 kilograms. My granddaughter brought me to a doctor at a private clinic. The doctor told me that I had hypertension with heart disease. I got*

Concepts (Theme)	Sub-theme	Descriptors
1.3 High blood pressure is from bad flow of "*Leard*" (blood) and *Lom*" (wind).	-	*treatment at the clinic for 4 times but I was not better I had got treatments at the clinic for 1 year. The palpitation was better, however the doctor told that I still had hypertension and needed to see the doctor following the appointment (K7,15/3/12")* *"I had irregular Leard and Lom when I was sick. I thought that high blood pressure is related to an obstruction of Lerd and "Lom" (wind). When my blood pressure was increased, I felt "Lom" (wind) in my head resulting in dizziness and weakness." (K8, 1/2/12)* *"….For me, I think hypertension is caused by the bad blood (Leard) and Lom which flew through my head. I had a headache and neck pain (K 11, 10/4/12)"* *"Normally, Leard and Lom are elements of the human body that always flow in the body. Whenever, the body has a bad Leard and Lom it would be obstructed in several parts of the body . I had numbness and weakness because Leard and Lom are obstructed in my left arm and leg." (K1, 29/5/12)* *"...This consequence is caused by eating the poisonous foods in the postpartum period. The poisonous foods for postpartum period are shellfish, zucchini mushrooms and jackfruit. Someone died while eating shellfish. The people in the postpartum period should stop eating these poisonous foods for 3 months. The symptoms could be prolonged. They may present asymptomatic at first and manifest in ill-health." (K 11, 10/4/12)* *"….The dizziness symptoms caused by Lom sometimes disappeared but it returned when I ate unhealthy foods. I observed that when I ate meat, I had palpitations." (K8,*

Concepts (Theme)	Sub-theme	Descriptors
		1/2/12) *"When I had high blood pressure, I felt hot and had a heavy dizzy head at the occipital area. I felt discomfort and felt like my chest was burning." (K1, 15/2/12)* *"I believe that I had dizziness because of the high temperature in my head. I felt better when I could get in a place that had a cooler temperature" (K4, 29/3/12)* *"In the past, I didn't know about hypertension, but I know about diseases that are related to Leard (blood) and Lom(wind). If Leard and Lom of the human body are obstructed it will cause illness." (G3, 10 /5/12)* *Bad blood obstruction is the cause of high blood pressure and headaches and dizziness. Therefore, most people always come to see me for releasing these causes." (G2, 19/5/12*
2.Ways of living with hypertension 2.1 Following and living with Islamic faith	2.1.1 Belief in one God 2.1.2 Making merit to have ahappy life in this world and the after world	*"When my life-span is due, Allah will let me pass away. Allah has already defined my life. Anyway, I had to seek treatment. When getting sick, I have to be treated. If Allah needed me to die, it is ok. It is similar in every person. Our lives have already been defined. If it is not my due date, I would survive. If yes, even if suffering with a bit sickness, Allah has to take us Muslim people away. Allah has already defined that. Anyway, if we are sick, we have to seek any treatment. We have to take care of ourselves. If we discover the fitting medicines, we could recover or get well again. If there are no appropriate drugs or drugs that do not match with us, we can n't recover or get well again.* (K3)

Concepts (Theme)	Sub-theme	Descriptors
	-Learning, teaching and practicing religion	*"…Islamic people must do good deeds, fast, pray and learn religion to prepare them self for the next world. Learning religious studies is a part of good deeds that should be inherited by the next generation…" (Field note, 12/3/2012)*
	- Providing mutual helpfrom neighbors andthe community's activities	*"…I was going to learn religion in advance for many years. I also knew all the attendants. The attendants who always had attended class included the attendants are from 'Khoksai village', 'Chalungvillange' and 'Kuanvillage', respectively. Being a missionary has helped me to have peacefulness in my mind." (K1, 13/3/12* *"On Maulid day, a praying ceremony for Prophet Muhammad's birthday that is arranged annually, all community members are very happy to join in. A great faith power in their prophet leads them together to go to the mosque. All the people there enjoy cooking several foods from the early afternoon. As they know, every neighbor in the village has a duty to help each other in cooking their own food. They do that for cerebrating after the ceremony has been done. After praying in the evening, women are still busy with preparing foods at the back of the mosque whereas men are at the front to be the leaders for the ceremony. The area has been separated with certainty. All members there pray for their prophet together. They ask for peace for their community. After the ceremony is finished, they are happy having dinner together." (Field note, 14/2/2012)*

Concepts (Theme)	Sub-theme	Descriptors
2.2 Adherence to traditions	2.2.1 Commitment in community's ceremonies	*... "My neighbors helped me, so I had to help them. Particularly, the neighbors who lived in the same area, we had to help. Even another village, I had to join in. Joining in "Nury" made it enjoyable. I could meet my relatives. I could help them, especially I could make merit with them." (K4, 5/4/12)*
	2.2.2 Engaging in food festival	*"Following the observation, there were several foods that were provided at a banquet. There is always a head cook who is usually a woman who knows about the local recipes. These foods are specific to the village, beef, chicken, and fish curry. The main ingredient in these dishes is coconut milk. Some desserts and sweet drinks, such as tea and coffee, are also found at the banquet too. All guests must eat whatever is served by the host" (Field note, 14 /2/2012)*
2.3 Balancing work life for conserving religious and cultural practices	2.2.1 Following normal life if able to work	*."...I forget my headache when I go to work, I feel more comfortable when I sweat...(K5)* *"...I could go to work for tapping rubber trees when the symptoms disappeared. I felt better when I spend more energy to work..." (K8)*
	2.2.2 Stop working but maintaining participating in the social roles and cultural activities	*"I was thin and tired easily when I was sick. I used to tap rubber trees and work in rice farming but I stopped working 4 year ago. I lean on my sons and my daughters and spend my free time with meeting and helping my neighbors in all traditional practices" (K7,15/3/12)* *"I have stopped working for almost six months because my arms and my legs have been numb. Nowadays, my revenue comes from my little rambling trade and teaching religion to children and women in the community. My sons and my daughters always give me some money as well. If I am sick they take me to see a doctor''* *(K1, 15/2 /12)*

Concepts (Theme)	Sub-theme	Descriptors
		"The elderly and community members participated in a wedding ceremony together. They had joined this ceremony for three days. During the first day, the elderly and other community members had prepared traditional foods. They then joined in the religious ceremony for this activity that was arranged after their evening prayer at the mosque…. The elderly were religious leaders, and community men members who joined in the ceremony….. All participants then had dinner together at around 8:30pm… …During these three days, the members had to leave their job to work for their neighbors." *(field note, 5/2/2012)*
3. Management of hypertension 3.1 Seeking the best doctors, modern and folk treatments	3.1.1 Shopping around for the medical experts	*"I sometimes went to see a doctor at a clinic in Songkhla province. When I came back home, my neighbor suggested I go to see a doctor in a clinic at Trang province. He told me that many people had recovered. I made a decision to see a doctor at Trang. After I took his medicines, I felt better. Nowadays, I have taken medicines from a private clinic and hospital…" (K4, 4/4/12)* *"Wherever somebody suggested to me about good doctors, I would go to see them such as a clinic in Satun province and Hat Yai district in Songkhla province. I also went to get treatments from folk healers…" (K9,3/5/12)* *"When I was very sick, I asked my friends about an expert doctor and went to see the doctor in a private clinic. I thought that the doctor in the clinic treated me with more effective medicine when compared with the doctor's treatment at primary health care. I felt better after taking medicines from the clinic. (K1, 27/3/12)*

Concepts (Theme)	Sub-theme	Descriptors
	3.2.2 Taking medicines to reduce the symptoms until they disappear	*"… I stopped taking medicines that I had received from the Health station while I was taking medicines from a clinic until I felt better. I would start to take the medicines from the Health station again when I finished the medicines from the private clinic. I do not mind if I die but I will take good care of my health." (K1, 27/3/12)* *"I took medicine from the hospital when I had a headache. A doctor told me that I had high blood pressure. I had hemiplegic and numbness in both arms and legs one year ago. I went to see a doctor in a private clinic because I thought that the doctor had good drugs to treat my symptoms. After, I took these medicines I did not get better. Therefore, I changed to buy the medicines from a pharmacy and I got better (K3, 10/ 4/12)* *"The first time I was treated for hypertension in a primary care unit. But two years ago I stopped taking the medicine from the primary care unit. I received a suggestion from my friend that there is somebody in the community who sells good drugs. (K 6,15/3/12)"* *"….The high blood pressure causes a severe headache. I had to take medicines and then the symptoms disappeared. Consequently, I can do my daily activities as usual….. I stop taking medicines when I do not have a headache. I also ignore the doctor's appointment because I think I am completely cured" (K 5, 22/2/ 2)* *"…., I only took medicines to release the headache. When I felt better, I stopped attending the follow-up at the clinic. I thought that I had mild symptoms. I did not follow the doctor's advice because I thought I am well, do not need to exercises and do*

Concepts (Theme)	Sub-theme	Descriptors
		not need to reduce unhealthy food. There is no reason to do this and I do not know why I should exercise and reduce unhealthy food. I could normally go and sell goods. *(K4, 5/ 4/12).*
	2.2.3 Performing ritual methods with folk healers for healing the suffering of symptoms	*"Two of the key informants had a headache and chest pain at night, they believed that these symptoms were a punishment from a supernatural power. They had to be treated by folk healers in their community. However, they also have treated hypertension with modern medicine (Field note, 13 /2/12)"* *"My husband had hypertension and was treated by the doctor in Satun Hospital. When he came back home he had a headache because some termites had bit him. A doctor at a hospital could not help him recover from the pain but a traditional doctor could do it"* *(K 2, 27/3/12)* *"A modern doctor uses a radiation machine while a traditional doctor uses betel leaves and betel nuts. I am a traditional doctor and not different from a modern doctor, I can guess about pus, abscesses and tumors which appear inside the body. For me, betel leaves and betel nuts have their creator They were created as All all trees were created. So, I must ask their before using them. Besides, I have to learn about the way to use betel leaves and betel nuts in treating people. The lesson is available in the Melayu language only (G 1, 15/3/12)"* *"Allah has created medicines for every disease. We just ask Allah in order to find the ingredients to produce them. We also read the Al-Quran because the knowledge of medicines and treatments is in some parts of the Al-Quran" (G1,15/3/12*

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3.2 Increasing flow of *Leard* and *Lom*	3.2.1 Drainage of the bad blood from the body	*"Blood flow obstruction is the cause of hypertension and headaches. Blood drainage by using vacuum cupping can decrease the obstructive blood circulation and reduce the headaches. This method uses a blade to cut on the head skin and put a cup to drain the blood. This is bad blood from the body." (G 2,19/5/12)* *"Hypertension is caused by bad blood obstruction. The treatment should cure bad blood obstructions in the blood vessels. Some people who have had a main blood vessel break down should drain the blood once a year. Using a cow horn draw the skin until it is swelling and then using a blade to cut on the skin. Cut only on the swelling area on the skin and again using a cow horn draw the blood. The cow horn should be placed to cover the cut wound and draw the blood out. It is a concentrated black blood. This is bad blood from our body." (G2,19/5/12)* *"I knew the method of blood drainage from the folk healers from the oldest people in this community and I experienced it when my 21 year old son had headaches. He went to be treated by the folk healers using blood drainage from his head. After this treatment he was cured (K6, 15/3/12)"*
	3.2.2 Using Thai Massage with hot compress and bath to balance the Leard, Lom, and body temperature	*"I was treated by a folk healer when I had numb arms and legs. The massage folk healer told me that it was imbalance of blood circulation "Leard" and "Lom" in my body. After receiving the treatment, I felt good." (K1,10/5/12)*

Concepts (Theme)	Sub-theme	Descriptors
		"The first time when I went to see a massage folk healer, the healer compared my legs and told me that there was imbalance temperature (hot and cold) in my legs. He massaged me for 3 days by using a balm. He also treated the ligaments making them better." (K4,29/3/12)
	3.2.3 Soaking with herbs reduces some symptoms, headaches, and dizziness	*"I bathe with hot water and massage with a hot stone every morning. It is an ancient method to treat numb symptoms. I remained by the fire after parturition, I felt comfortable when I bathed with hot water in which the hot stone was placed. Blocked blood was eliminated and "Leard and Lom" could flow well" (K1,4/4/12)* *"Elderly people always squeeze some kinds of leaves such as star gooseberry leaves, basil leaves, tamarind leaves and betel leaves by hands into a bowl of water and anoint their heads with the water when they are dizzy. The water is called "Ya-Ram". Sometimes, they put the water in a bucket which has a rubber tube at the bottom. Then, they lie under the bucket and let the water drop onto their heads via the rubber tube. An increase of temperature in the head causes headaches and dizzy symptoms. On the other hand, water can relieve a headache and dizzy symptoms by decreasing the temperature" (K 4, 4/4/12)*
	3.2.4 Avoiding unhealthy foods as advised by doctors	*"I could not control my blood pressure by making it lower by taking only medicines until I got advice from a nurse in the primary health care about the exercises and proper diets. I have started exercises and reducing fatty foods. At present, I can control my blood pressure." (K9, 3/5/12)* *"…. I always have to see the doctor in follow up appointments. In addition, I strictly followed the doctor's advice*

Concepts (Theme)	Sub-theme	Descriptors
		because the disease impacted on my daily life. I had to manage myself to reduce the effects of the severe symptoms, avoiding unhealthy food, take medicine, and pray for peace of mind. After, I changed my everyday life, I got better. The disease did not threaten me. "(K11, 6/8/11). *"I was severely sick on Hari Raya day, 4 years ago. This day I ate a lot of meat. After that, I had a headache, vertigo, and vomiting and I went to see a doctor. I was sick because I ate the wrong foods that affected Lom (wind) in my body. Nowadays, I do not eat the wrong foods such as meat or fish curry with coconut milk" (K8,11/2/12)* *"I was firstly diagnosed with hypertension 4 years ago. Last year, I was dizzy and palpitated. I was absent from work. I got treatment at a clinic for 4 times but I was not better. The doctor told me that I also have heart disease. I had gotten treatments at the clinic for 1 year. The palpitation was better; however the doctor told me that I still had hypertension and needed to see the doctor following the appointment. I cannot eat foods which are not allowed by the doctor, particularly salty foods. In addition, my weight increased to 60 kg."* *(K7,15/3/12)*