



**Folk Healers for *Lom Ammapart* (Stroke) in Southern Thailand:
An Ethnographic Study**

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บทคัดย่อ

โรคหลอดเลือดสมอง เป็นที่รู้จักกันทางการแพทย์พื้นบ้าน ไทยว่าโรคลมอัมพาต ผู้ป่วยโรคลมอัมพาต ส่วนหนึ่งเลือกที่จะใช้บริการการรักษาของหมอฟันบ้านเนื่องจาก มีความเชื่อมั่นในประสิทธิผลการรักษา การวิจัยเชิงชาติพันธุ์วรรณนามีวัตถุประสงค์เพื่อศึกษาความเชื่อ และวัฒนธรรมที่มีอิทธิพลต่อวิถีการปฏิบัติของหมอฟันบ้านในการรักษา, แนวคิดที่เกี่ยวข้องกับการแพทย์พื้นบ้านไทย และรูปแบบในการรักษา, กระบวนการรักษ ของการแพทย์พื้นบ้านในการรักษาผู้ป่วยโรคลมอัมพาต, ผลการรักษา, และบทบาทของพยาบาลในการประสานความร่วมมือในการให้บริการทางการแพทย์พื้นบ้านไทย ผู้ให้ข้อมูลหลักคือหมอฟันบ้านจำนวน 0 คน ซึ่งมีประสบการณ์การรักษาโรคลมอัมพาตมากกว่า 10 ปี และผู้ให้ข้อมูลทั่วไปคือผู้ป่วยโรคลมอัมพาต 8 คน ญาติผู้ดูแลผู้ป่วย 5 คน สมาชิกในครอบครัวของหมอฟันบ้าน 5 คน เพื่อนบ้านของหมอฟันบ้าน 4 คน พยาบาลจากโรงพยาบาล 3 คน และพยาบาลจากศูนย์สุขภาพชุมชน 4 คน โดยใช้รูปแบบการวิจัยและการวิเคราะห์ข้อมูลตามแนวคิดของ Spradley เก็บข้อมูลโดยการสัมภาษณ์แบบเจาะลึก ร่วมกับการสังเกตแบบมีส่วนร่วม

ผลการศึกษาพบว่า การแพทย์พื้นบ้าน ไทย ได้รับอิทธิพลความเชื่ออย่างลึกซึ้งซึ่งจากศาสนา พุทธ ศาสนาพราหมณ์ และความเชื่อในสิ่งเหนือธรรมชาติ โดยเฉพาะเรื่องเกี่ยวกับครุหมอ ความเชื่อเหล่านี้มีอิทธิพลต่อความคิดและการปฏิบัติของหมอฟันบ้านทั้งในการดำรงชีวิตประจำวันและ

การให้การรักษาผู้ป่วย หมอพื้นบ้านอธิบายถึงโรคลมอัมพาตว่าเป็นโรคที่เกิดจากการติดขัดในการไหลเวียนของธาตุลม และเส้น ปัจฉัยเสียดึงที่จะทำให้เกิดโรคลมอัมพาตก็คือการเผชิญกับอากาศเย็น และการมีพฤติกรรมที่ไม่ถูกต้อง วิธีการรักษาแบบการแพทย์พื้นบ้านประกอบด้วย การนวดแบบจับเส้น, การให้ยาสมุนไพร, การประกอบพิธีกรรม, และการให้คำแนะนำในการปฏิบัติตนของผู้ป่วย การจับเส้นเป็นเทคนิคสำคัญของการนวดเพื่อรักษาโรคนี้โดย ไล่ลมไปตามแนวเส้นจากส่วนบนลงสู่ส่วนล่างของร่างกาย สมุนไพรที่ใช้ในการรักษาส่วนใหญ่มีรสร้อนเพื่อขับลมในเส้นและในลำไส้ รวมทั้งขับพิษจากร่างกายออกทางระบบขับถ่าย ส่วนการประกอบพิธีกรรมถือเป็นการรักษาทางจิตวิญญาณ ผลการรักษาประเมิน โดยการรับรู้ของหมอพื้นบ้านและผู้ป่วยที่เข้ารับการรักษา ซึ่งมุ่งไปที่การฟื้นฟูทางร่างกาย พยาบาลจากศูนย์สุขภาพชุมชนมักจะมีทัศนคติทางบวกและทำงานใกล้ชิดกับหมอพื้นบ้านมากกว่าพยาบาลจากโรงพยาบาล พยาบาลมีแนวคิดที่ผู้ป่วยควรรับการรักษาทางการแพทย์พื้นบ้านในช่วงที่เป็นระยะฟื้นฟูเพื่อลดความทุพพลภาพของผู้ป่วย และควรมีหน่วยงานที่ประสานความร่วมมือกับหมอพื้นบ้านในการดูแลรักษาผู้ป่วยเหล่านี้

ความรู้ที่ได้รับจากการวิจัยครั้งนี้จะช่วยให้ผู้เกี่ยวข้องเกิดความเข้าใจในวิธีการปฏิบัติของหมอพื้นบ้านที่ได้รับอิทธิพล จากความเชื่อและวัฒนธรรมซึ่งจะส่งผลต่อการ บูรณาการการแพทย์พื้นบ้านเข้ากับการบริการทางการแพทย์แผนปัจจุบันอย่างเหมาะสมเพื่อตอบสนองความต้องการของผู้ป่วยโรคลมอัมพาต

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ABSTRACT

Stroke was known as *Lom Ammapart* under the concept of TFM. Many Thai *Lom Ammapart* patients relied on folk healer services because of their confidence in the efficiency of treatment particularly TFM (Thai Folk Medicine) therapies. This ethnographic study explored the beliefs and cultures influencing the practices of the folk healers in treating *Lom Ammapart* patients, concepts related to TFM and modalities used in treating *Lom Ammapart* patients, the folk treatment process in treating *Lom Ammapart* patients, the health outcomes of using TFM, and the involvement of nurses in TFM services. The key informants included ten folk healers who had more than ten years of experiences in treating *Lom Ammapart* patients and associate informants including eight *Lom Ammapart* patients, five family carers of *Lom Ammapart* patients, five family members of the folk healers, four neighbors of the folk healers, three nurses in hospitals, and four nurses in health promotion hospitals. Spradley's ethnographic methods using in-depth interviews and participant observations were conducted and analyzed.

The findings revealed that TFM is influenced by its' deep-rooted belief of Buddhism, Brahmanism, and supernatural powers especially *Kru Mhor* (ancient teacher). These beliefs have influenced the thinking and practice of folk healers both

in daily life and the pattern of healing. *Lom Ammapart* was described by the healers as a paralysis caused by the disruption of the wind element and bodylines. Exposure to cold weather and misbehaviors were the risk factors that might cause *Lom Ammapart*. The healing method of *Lom Ammapart* was based on folk medicine consisting of *Jub Sen* massage, herbal medicine, performing rituals, and giving advice to patients for practice. *Jub Sen* was a major massage technique in treating this illness by expelling the wind in the bodylines from the upper to the lower part of the body. Herbs used in treating *Lom Ammapart* were mainly hot to expel the wind in the bodylines and intestinal system. Their properties were also to eliminate the toxicity from the body to the excretory system. The ritual was performed as the spiritual healing. The health outcomes were explained by the perceptions of the folk healers and the patients that were focused on the physical improvement. Nurses in health promotion hospitals had more positive attitudes and work closely with the folk treatment than the nurses in hospitals. The nurses had the viewpoint that the patients should have the folk treatment only in the rehabilitation stage to reduce the disability of *Lom Ammapart* patients. There should be an institute to collaborate with folk healers in treating patients.

The knowledge regarding Thai folk medicine in treating *Lom Ammapart* patients will help individuals to understand the health practice of folk healers based on the beliefs and culture and to integrate with modern health care services to support the patient's needs.

CONTENTS

	Page
ABSTRACT (Thai)	(5)
ABSTRACT (English)	(7)
ACKNOWLEDGEMENTS	(9)
CONTENTS	(11)
LIST OF TABLES	(14)
LIST OF FIGURES	(15)
CHAPTER	
1. INTRODUCTION.....	1
Background of the Study.....	1
Objectives of Research.....	7
Research Questions.....	7
Significance of the Study.....	8
Conceptual Framework.....	8
Definition of Terms.....	12
2. LITERATURE REVIEW.....	13
Historical Background of TTM and TFM.....	13
Health Care System.....	16
Thai Folk Medical System.....	18
Concept and Theory related to TFM.....	26
Factors Influencing Health Practice of Thai Folk Healers.....	44
Characteristic of <i>Lom Ammapart</i>	56
Modalities of TFM related to <i>Lom Ammapart</i> Patients	65

CONTENTS (Continued)

	Page
CHAPTER	
Nursing Role related to TFM.....	70
Ethnographic Methodology.....	71
3. METHODOLOGY.....	75
Research Design.....	75
Study Setting and Context.....	75
Informants.....	81
Research Tools.....	82
The Study Process.....	85
Data Analysis.....	90
Reporting Findings.....	93
Establishing Trustworthiness.....	93
Ethical Consideration.....	95
4. FINDINGS AND DISCUSSION.....	96
The Informants.....	96
Healing Centers of the Folk Healers.....	104
Becoming a Folk Healer.....	106
The Concepts of the Folk Healers in Treating <i>Lom Ammapart</i>	117
Knowledge and Experiential Treatments for <i>Lom Ammapart</i>	
Patients	132

CONTENTS (Continued)

	Page
CHAPTER	
The Treatment Outcomes.....	168
Belief in Buddhism, Supernatural Powers, and Brahmanism were Influencing the Practice of Folk Healers.....	174
The Involvement of Nurses in TFM Services.....	189
Summary of Findings.....	194
Discussion.....	198
5. CONCLUSIONS AND RECOMMENDATIONS.....	217
Conclusions.....	217
Recommendations.....	218
REFERENCES.....	221
APPENDIXES.....	235
A. Demographic Information Form (Key informant and <i>Lom Ammapart</i> patient)	236
B. Interview Guide.....	237
C. Observation Guide.....	242
D. Field Notes Taking Form.....	242
E. Example of domain analysis.....	243
F. Example of taxonomic analysis and componential analysis	244
G. Thai Folk Glossary.....	245
H. Vitae.....	250

LIST OF TABLES

	Page
TABLE	
1. Demographic Characteristic of Key Informants.....	98
2. Demographic Characteristic of Associate Informants....	101

LIST OF FIGURES

FIGURE	Page
1 The human bodylines.....	36
2-11 The ten major bodylines.....	39-43
12 Map of Songkhla province.....	76
13 The method of <i>Jub Sen</i> massage.....	138
14 The bamboo pulley machine.....	148
15 Massage with the arch of the fingers.....	149
16 The crowd of patients in <i>Wai Kru</i> Ceremony.....	172
17 Diagram of the connection of all findings.....	197

CHAPTER 1

INTRODUCTION

This chapter has the categories as follows: the background and significance of the problem, the objectives of research, the research questions, the significance of the study, the conceptual framework, and the definition of terms.

Background and Significance of the Problem

Thai Folk Medicine (TFM) refers to non-conventional therapies in a health care system which has developed based on local culture, traditional knowledge, beliefs, and practices of ordinary Thai people characterized as a traditional medicine originated and used by the people of a local community. The treatment methods of TFM by folk healers may vary, depending on the types of folk healers, their skills, and culture. In the national survey of Thai folk healers by the Department for Development of Thai Traditional and Alternative Medicine (DDTTAM) cooperating with The Office of Provincial Public Health, about 3,520 from a total number of 27,760 folk healers live in the Southern Thailand (The Protection and Promotion of Thai Traditional Medicine Wisdom, 2006).

Currently, folk healers still play an important role for the health and well-being of the Thai people, especially in local communities (Sirichai & Nhoothong, 2001). Previous surveys had shown that 30-65% of the population in each community had used the services of folk healers (Wichaiyo, 2003; Pongpetchdit, & Thawalyawatanasakul, 2003; Hmuadthog & Sreerhing, 2006), while approximately 25.43% of all babies born in three provinces of southern Thailand; Pattani, Yala and

Narathiwat; are delivered by traditional birth attendants (Theeraworn, 2003). This indicates that the use of folk medicine in southern Thailand remains popular.

TFM was developed by the DDTTAM for Thais which emphasizes on helping people in terms of promotion, prevention, treatment, and rehabilitation of health problems. It is aimed to generate knowledge, curricula, study processes, standards of health care service, herbal products, and laws to develop professionals who can serve and produce standard services and products (Chokevivat, 2003). Choice of treatments and health services are therefore, available for chronic illness particularly for strokes.

A stroke is one such disease which is highly prevalent worldwide. It is the second leading cause of mortality in the world, ranking behind heart disease (WHO, 2008). In southern Thailand, stroke is also a leading cause of death and long term disability with a prevalence rate of 299.2 and a mortality rate of 23.0 in 100,000 of the Thai population (Bureau of Health Policy and Strategy, 2011). About two-thirds of people who have experienced a first stroke suffered from an ischemic stroke. 27% of them became largely dependent on others for daily activities (Khampolsiri, Pothiban, Sucamvang, & Panuthai, 2006). An ethnographic study of stroke treatment in southern Thailand found that stroke patients have a few reasons to seek other resources to relieve their illness (Hatthakit, 1999). Firstly, stroke is a chronic disease which is ignored by modern medical practitioners because they usually pay more attention to developing high technological instruments for the treatment of acute diseases. Secondly, there were a limited number of hospital beds and rehabilitation services to care for stroke patients. When stroke patients are considered to be stable in their condition, then they are discharged for recovery at home. In addition, one of the major obstacles for treatment in stroke units at hospitals is the imbalance between the

resources and the large number of patients. Thirdly, modern medical services available did not meet all the demands of patients in either quantity or quality, especially in rural areas. Therefore, some patients turn to other services that were easy to access, less expensive, safer, and more in accordance with their beliefs (Hatthakit, 1999). In addition, modern medicine serves only acute stroke cases, so patients with moderate to severe strokes have a priority to be admitted to stroke units whereas chronic stroke patients have to take only a homecare program and remain in need of more rehabilitation (Suwannawelar, Eusattasak, Phanthumchinda, Piravej, & Locharoenkul, 2007). For achieving effective treatment, stroke patients turn to TFM as one of their choices.

From the literature reviews, stroke is known as *Lom Ammapart* in TFM concept (Paetsart Sonkhrao textbook: conservative version, 1992; Keowngarm, 1995; Chansongkhoa, 2002). Thailand has a long history of utilizing folk medicine to treat *Lom Ammapart*, but it lacks recording and developing in a systematic way. Currently, many *Lom Ammapart* patients still use folk healer services because they trust in the efficiency of treatment (Suwankhong, Liamputtong, & Rumbold, 2011). Regarding a 2004 survey by the Thai Traditional Medicine Institute, there were a number of patients who were treated by masseur folk healers. *Lom Ammapart* was one of the five most common diseases when patients come to receive treatment (Chaiprasitthikul, 2004). Moreover, TFM was the major source of treatment for *Lom Ammapart* patients after being discharged from hospital (Hatthakit, 1999). Knowledge and beliefs incorporating Thai massage, polyherbal formulations, and spiritual therapies are the methods that the folk healer uses for treating *Lom Ammapart* patients. However, treatment methods of folk healers vary in different

regions affected by a culture. For example, *Yam Khang* and *Tok Sen* methods are used in Lanna Traditional Medicine in the northern region; Hot Iron Tread is the method of Thai folk healers in the Central region; and so on.

Several qualitative studies have shown the evidence that TFM therapies can be beneficial for the management of *Lom Ammapart*. For example, the methods of pressure, pinch, or temporarily pressing on blood vessels, nerves, ligaments, and tendons can improve their functioning and arrangement by eliminating and preventing obstructive circulation (Keowngarm, 1995; Chinwanitcharoen, Thiyaworanunt, Lithisorntanoo, & Thongsangworn, 2002; Chansongkhoa, 2002). The study related to a folk healer in Phattalung province showed that the illness of six *Lom Ammapart* patients who were treated by using massage improved. Patients could perform daily routines like walking, speaking, eating, after they were treated by massaging with herbal oil for 2-3 hours a time (Nhootim, Sitthikraipong, Pukanadd, & Thangsukleuthai, 2007). In the study by Hatthakit (1999), it also showed the similar finding that two of five patients were better from the illness of *Lom Ammapart*. Both of them were discharged from hospital and had a lot of improvement in terms of movement and motor power. Some patients perceived that TFM provides a slow progress but can heal the illness completely with no recurrences. In another study related to the treatment process of TFM, it was found that some *Lom Ammapart* patients chose folk treatment rather than modern medicine. They viewed folk medicine as more efficient than modern medicine in treating *Lom Ammapart*. Another study related to health seeking behavior in Patthani also showed that the *Lom Ammapart* patients who received continual massage and herbal medicine improved rapidly within two weeks (Rakdee, 2003).

Under the belief that *Lom Ammapart* is a wind disease, thus some herbs used for *Lom Ammapart* must be hot or spicy. For example, garlic (*Allium sativum* L.) and red onion (*Eleutherine americana* (Aubl.) Merr. ex K. Heyne) are used for purging poison from blood and lymphatic system; cardamom (*Amomum krevanh* Pierre ex Gagnep.) and pepper (*Piper nigrum* L.) are used for dissolving clotted blood and evacuating slime from the intestinal system, blood vessels, and lymphatic system by excreting it in feces; cloves (*Syzygium aromaticum* (L.) Merr. & L.M. Perry) and ginger (*Zingiber officinale* Roscoe) are used for expelling and spreading wind in the blood vessels and the body lines, increasing blood circulation, and activating current nerves. In addition, there are three other groups of herbs which are used for treating *Lom Ammapart* by nourishing the body lines, such as derris (*Derris scandens* Benth.), nourishing the four elements and strengthening the body such as parsley (*Coriandrum sativum* L.), and nourishing the heart such as *Dok chan* (*Myristica fragrans* Houtt.) (Itharat, Singchangchai, Subcharoen, Rattanasuwan, & Srisajjadharm, 1997). So, there is an increasing trend to adopt folk medical methods in *Lom Ammapart* care with an emphasis on both physical and spiritual treatments.

Southern Thailand is a peninsula with long coastlines on either side. Thus, the southern Thai folk wisdom has variety of history, culture, beliefs, and traditions due to people connecting easily to outside trade and religions. Therefore, this wisdom has not only originated from the context of native southern Thais, but from other countries as well (The Division of Thai Indigenous Medicine, 2003). Although TFM shares its origin with TTM, it is set apart by a number of different beliefs and cultures at the local community level. From the literature review, it was found that southern Thai folk healers may have a different belief and culture from those in other regions. Since

the value of southern Thai folk wisdom exists, the culture of *Lom Ammapart* healing practice is therefore of interest in this study. Currently, there are a few research studies about the advantage of TFM and TTM treatment on *Lom Ammapart*, but there is no research study related to the beliefs and cultures in southern TFM that influence the practice of folk healers in treating this illness. Hence, in this study, the ethnography was employed. There are popular folk healers in the southern region that play important roles in *Lom Ammapart* cases. So, this study aimed at collecting and exploring their unrecorded knowledge, experience, and practice. The concepts, theories and culture that influence the practice of folk healers were clarified to help nurses and health care professionals to have a better understanding to integrate TFM in treating *Lom Ammapart*. The knowledge can be used to guide TFM services in the community; for medical and public health education; and for planning to develop the health of the population in southern Thailand. In addition, people would acknowledge it as an alternative way for resolving health problems apart from modern medicine. Finally, this knowledge can contribute to nursing knowledge to promote the nurses' role in practicing in the community by collaborating with folk healers to enhance efficiency and reduce complications in treating and caring for *Lom Ammapart* patients.

Objectives of Research

The main objective of the study is to describe the medical cultures of southern Thai Folk Medicine in treating *Lom Ammapart* patients. The following objectives were explored.

1. To explore the folk healers' experiences, concepts and modalities used in treating *Lom Ammapart* patients.
2. To explore the treatment outcomes of using TFM in *Lom Ammapart* patients.
3. To explain the beliefs and cultures influencing the practice of folk healers.
4. To explain the viewpoint and involvement of nurses in TFM services.

Research Questions

1. What are the folk healers' experiences, concepts and modalities used in treating *Lom Ammapart* patients?
2. What are the treatment outcomes of using TFM in *Lom Ammapart* patients?
3. What are beliefs and cultures that influence the practice of Thai folk healers?
4. What are nurses' viewpoints and involvement in TFM services?

Significance of the Study

The findings in this study can be used to increase the understanding of Thai folk medicine in treating *Lom Ammapart* and to develop more appropriate health care services to support the primary health care system. In addition, it can facilitate the nurses' role in caring for a *Lom Ammapart* patient by (1) understanding the cultural meanings and the practice of folk healers in treating patients; (2) providing a consultation to the patients and their family when they need to select alternative medicine; (3) collaborating with folk healers for integrating both folk and modern medicine in treating patients safely.

Conceptual Framework

The framework for this study was based on the principles of ethnographic study, Buddhism, and TTM theory. This study also determines other factors which influence the attitude and practice of folk healers on *Lom Ammapart* patients.

The main concept of ethnographic study is the work of describing a culture to understand another way of life from the native point of view. Culture is a broad ethnographic concept that is generally defined in terms of a social context of observable patterns of behaviors, or in terms of cognition (Fetterman, 1989). According to the term of cognition, culture composes of the ideas, thoughts, beliefs, and knowledge that characterize a particular group of people. Also, Spradley (1979) defined culture as the acquired knowledge that individuals use to interpret experiences and generate social behavior. The researcher had a picture of the human's view to the world from the perspective of ideas, cognitive maps, beliefs, and knowledge (Spradley, 1979). From these points of view, the essential core of ethnography is the

meaning of actions and events to the people living within the culture. In this study, the researcher learnt about the deep conception of knowledge of folk healers on treating patients. The cultural approach of folk healers as an active person, who assesses, negotiates and adjusts a patient's health within a cultural context, including the impacts of socio-cultural factors like beliefs, culture, traditions, economics, education, religion, social factors, and health policy were the main focus in this study.

The paradigm of this study has been developed from constructivism because it is the primary philosophy of ethnography (Patton, 2002). According to the ontology of constructivism, there are multiple realities which are intangible, based local, specific in culture, and dependent on the individual. It means that the realities are decorated by the value of society, politics, culture, economy, tribe, and gender. All of these lead to the different viewpoints of an individual to the same thing. Also, constructivist sees the truths as the dynamic reality. So, the realities are not constant but can be changed by the thoughts of people who construct meanings from their experiences. These realities also can be changed when the social context changes (Lincoln & Guba, 1985). The method of this study is guided by social constructivism which provides the theoretical concepts to understand the multiple meanings of reality that humans give to the events or phenomena. Social constructivism is a sociological theory that acknowledges the effects of the social environment, culture, and religion on how people construct their realities about their world and develop their social phenomena in particular social contexts. A major focus of social constructivism is to uncover the ways in which individuals and groups participate in the creation of their perceived social reality (Lincoln & Guba, 1985). The social constructivist believes that the socio environment influences the practices of folk healers. If the meanings,

experiences and their practices are influenced by many factors which are called socio-cultural factors, these factors need to be considered in this study.

Symbolic interactionism refers to a theory which focuses on the meaning of phenomena to people in their natural setting. It believes that there are multiple realities or meanings which are constructed through the interaction among people and people and the environment. So, experience and social phenomena must be understood from the perspective of the role of the actor in the situation (Atkinson, Coffey, Delamont, Lofland, & Lofland, 2007). The interactions happen through the meaning, language, and thought. This theory holds the aspect of human behavior in that humans always act toward people and things according to the meanings that they have given to those people or things. Humans identify meaning in speech acts with others. The thought modifies each individual's interpretation of symbols (Holloway & Wheeler, 2002). Thus, the meanings can be elicited and refined through interaction between folk healers and the other. So, in order to explore in-depth, the researcher needs to observe what are the interactions, artifacts, or something that have meaning events in the phenomenon to study.

Normally, Thai folk medical concepts adhere to the principles of Buddhism and natural things in the environment that agree with the harmony of body, mind and spirit to survive with holistic health in a natural way (Subcharoen, 2001). In the principles of Buddhism, life is made up of body and mind or five aggregates. All parts of these five aggregates are interdependent and are unable to exist alone. When Buddha talks about life, he does not only refer to one part but always refers to all of them, for example he will talk about body and mind together as *nama-rupa*. *Nama* is mind, namely: *vedana*, *sanna*, *sankhara*, and *vinnana* whereas *rupa* is body

(Suthiyano, 2000). This principle of Buddhism is closer to the meaning of health and diseases in the holistic perspective which embrace both physical and mental health. When a person is physically sick, it is therefore, necessary to look at his or her mental health as well because whatever happens to the body can unavoidably affect the mind. So, by using Buddhism as a background on TFM treatment, folk healers always look after their patients by considering these two parts, body and mind, to be in balance. For example, a folk healer will use massage and herbs for treating body illness; also he will use a ritual for supporting mind illness (Chansongkhoa, 2002).

Buddhism believes that diseases are caused by four body elements imbalance. The four body elements in TTM theory coincide with the Tripitaka in the principle of the Three Characteristics of Existence that lives, or the four body elements, are constantly changing; that there is suffering; and that there is no real essence, soul, or self (Payutto, 1999). The Thai traditional theories are also influenced by Ayurveda of India (Chokevivat, 2003). Some parts of it influence the practice of TFM. So, this study will use the theories of TTM for guiding the research. Many Thai traditional scriptures also state that illness occurs from the four elemental imbalances resulting from diet, climate, social offences, life activities, astrological and imperceptible forces, spiritual action, and witchcraft and sorcery (Subcharoen, 2001). So, when folk healers treat patients they will use various methods and herbs for adjusting not only one element but also all elements to bring about balance.

Definition of Terms

Thai Folk Medicine: It is defined as a traditional medicine originated and used by people in southern Thailand which includes traditional knowledge, attitude, beliefs, cultures, roles, rites, norms, signs, techniques and processes. Each folk society may synthesize wisdom by itself or receive it from the outside community. It is holistic health care which emphasizes the promotion, prevention, treatment, and rehabilitation of human health. The prominent folk medicines of southern Thailand are *Norha Long Kru* (a medium possessed ceremony in southern Thailand to communicate with spirits) and *Mhor Beeb* or *Mhor Nuad* (masseur) wisdom.

Folk healer: Folk healer is defined as the expert who holds an extensive knowledge of treating *Lom Ammapart* patients within the community in accordance with their context of particular society, beliefs, cultures and environment. The practices of folk healers are also influenced by their beliefs, culture, traditions, economic, education, religion, social, and government health policies. The treatment methods are various depending on the types of folk healer, their skills, and culture in that society.

Stroke patient: Stroke patient is defined as a person who has cerebrovascular disease and has received treatment from the folk healer. In TFM, stroke is called *Lom Ammapart*. Stroke patients may be local people in the same community of the folk healer or person from outside the community such as the same province, other provinces, or foreign countries. This patient may have any phase of stroke and may have received treatment from modern medicine before seeing the folk healer.

CHAPTER 2

LITERATURE REVIEW

This study specifically focuses on Thai folk medicine in southern Thailand for treating *Lom Ammapart* patients. Consequently, the literature reviewed includes the historical background of TTM and TFM, health care system, concept and theory related to TFM, factors influencing the health care practice of TFM, Thai folk medical treatment for *Lom Ammapart* patients, the nursing role related to TFM, and ethnographic methodology.

The Historical Background of TTM and TFM

Thai folk medicine has existed in all communities of Thailand. It has been developed and influenced by the ecological and cultural system of its community which makes TFM of one local community different from TFM of another. The origin of TFM is still not clear on the evidence base due to its lack of verification. The most reasonable evidence shows that TFM is rooted in Indian Ayurveda in having similar contents and by the influence of Brahmanism on the belief of rituals and supernatural power. The foundation of the philosophy, theory, and concept is possibly influenced by Buddhism such as *rupa* (the four elements) and the belief of natural power (Chokevivat, 2003). In addition, Traditional Chinese Medicine (TCM) has also had a small influence on TFM since the Ayutthaya period (Kasekowitz, 1993; Chumpol, 1998). Furthermore, some parts of TFM are also influenced by Traditional Thai Medicine (TTM) such as the theory of the four elements and *Dhatu chao ruan* (personal dominant element).

TTM is the traditional medicine of Thailand, but TFM is the traditional medicine of a local community. The TFM of each community is not stable due to the blending of various cultures from different areas, so it always changes according to the period of time and its components. Therefore, it is difficult to separate the confinement of TFM from TTM because there are medical systems that have a close relationship to its theory, concept, beliefs, and attitude. For understanding clearly about the boundary of TTM and TFM, there is a comparison to show the difference between them (Sukhothai Thammathirat textbook: unit 6-10, 2004). TFM is used by people confined in a local community or indigenous people or people who have similar beliefs. TTM usually is used by people widely in various areas because it is the traditional medicine of the nation. TFM practitioners usually transfer knowledge to the followers one by one. The follower learns to practice from the real situation by following folk healers as they treat patients. Meanwhile, TTM has a clear content and systemic course for studying in the classroom. Also, it has the criteria for assessing the results of learning. In TFM, the cause of a disease correlates to a primary belief of a local community such as ghosts, spirits, angels, the supernatural etc. but in TTM there is a clear theory to explain the cause of a disease. TFM practitioners use simpler techniques to treat patients than TTM practitioners. TFM practitioners usually use herbs which can be found easily in the local community or nearby, whereas TTM practitioners use more herbs from foreign countries. TFM uses plenty of magic and ceremony but TTM uses a ceremony only in some situations such as *Wai Kru* (paying respect to teachers) ceremony (Sukhothai Thammathirat textbook: unit 6-10, 2004).

Thailand has a long history of TTM and TFM that began around the twelfth to sixteenth century before the Sukhothai period. The evidence shows that Thai people

had been using herbal medicine for treating disease and illness. In the period of Khmer Kingdom, the seventh King Chaivoraman constructed 102 hospitals called Arogaya Sala to serve the people of his Kingdom. In the Sukhothai period (1238-1377), a stone inscription of Phor Khun Ramkamhang recorded that there was a large herbal garden constructed to serve the people for taking herbal medicine to treat their illnesses. During the Ayutthaya period (1350-1767), there were a number of pharmacies or drug stores for the public and the royal dispensary in the royal palace. During the reign of the Great King Narai (1656-1688), there was a record of providing a pharmaceutical system for the population. Also, there was the gathering of the herbal recipes in a textbook of King Narai's medicines or Tamra Phra Osod Phra Narai. During Kings Rama 1, 2, and 3 of Rattanakosin period, the TTM scriptures and herbal medicines recipes were gathered and inscribed on marble tablets and the walls of Wat Po and Wat Raja Oros. The principle of Thai massage and *ruesi dud ton* (Hermit body stretch exercise) were also inscribed on the marble tablets. After King Rama 3's reign, the missionaries introduced modern medicine to Thailand which gradually influenced Thai people. During the early stages, both TTM and modern medicine were taught and provided for. Later, with the abandonment of TTM in the medical schools it went into decline (Chokevivat, 2005).

After the Alma-Ata declaration of WHO related to support its member countries for using herbal medicine in primary health care programs, the revival of TTM started in 1978. The Ministry of Public Health of Thailand accepted the policy by promoting the use of herbal medicine since the Fourth Health Development Plan (1977-1981). In 1993, The Institute of Thai Traditional Medicine (ITTM) was established as a division level under the Department of Medical Services to do

activities for developing traditional medicine. In 2002, the Department for Development of Thai Traditional and Alternative Medicine (DTAM) was established as a new department under the Ministry of Public Health (MOPH), comprising of the Institute of Thai Traditional Medicine, Division of Alternative Medicine, and the Office of the Secretary (Chokevivat, 2005). Nowadays, TFM is the unit under the regulation of the Division of Thai Indigenous Medicine, the Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health. Its vision emphasizes the development of TFM for enhancing the potential of self dependency and the participation of the community in healthcare. This clearly shows the intention and commitment of the Thai government to promote TFM as another means of healthcare for Thai people. Today, the Ministry of Public Health supports the development of TFM in an aim to provide Thai people with an alternative of both traditional and western forms of medicine (Subcharoen, 1999).

Health Care System

The health care system is one social institution that has an influence on the relationship of some groups of people. The health care system is composed of practitioners and patients which is constructed from society and its culture as a gathering of the beliefs and behaviors of people in that society. Kleinman's model demonstrates that the health care system is a cultural system. In every society, the health care system generally consists of three overlapping sectors: popular, folk, and professional (Kleinman, 1980).

Firstly, the popular sector includes lay or everyday practices of health acquired practices from family, social networks, and the community. Being the largest part of

the health care system, the popular sector provides the initial diagnosis and often this is where the major part of an illness is treated. Home health care may involve dietary changes and special foods, traditional herbs and medicines, cupping and massage, religious practices, and biomedical interventions.

Secondly, the folk sector or the traditional health care sector consists of the non-professional or non-organized health care sector. This sector includes a wide range of practices with blurring boundaries between the sacred and the secular. Some folk theories and practices are closely related to professional sources, but most are related to popular sources. Practitioners in the folk sector may include folk healers, charismatic healers, herbalists, and masseurs. Typical practices carried out in this sector of health care include herbalism, shamanism, ritual practices, manipulative treatments, and special systems of exercise and exorcism (Sangkaew, 2002).

Thirdly, the professional sector includes the organized healing professional modern scientific medicine. This sector provides officially sanctioned health concepts and practices. In western societies, biomedicine has gained professional dominance over other health care approaches. However, the term professional sector has generated some controversy as some traditional healers may also be considered as professionals. For example, in Thailand, Thai traditional practitioners can be arranged in this sector because they obtain licenses and can practice by legality. Also, in some cultures, this professional sector may include the professionalized folk medical system.

However, patients often can access more than one sector or all sectors in any period of an illness episode. Nevertheless, the boundaries between the three sectors are not always clear. For example, the popular sector may employ some of the healing

practices carried out by the folk sector; Traditional Thai Medicine is considered as part of the professional health sector in Thailand, but in Western societies, it may be considered as a folk form of medicine. The selection of the source of help thus depends on an individual's knowledge of what is available, their comfort with those sources, and their actual availability (Ohtsuka, 2005).

Thai Folk Medical System

The folk medical system is a socio-cultural system consisting of folk and popular or family health care domains which have their own health care knowledge and practices in curing and health maintenance (Kleinman, 1980). Thai folk medical health care is the process of treatment by using the experiences of a community that has discovery, development, trial and error, accumulation, and transference from ancestors over a long period of time. When time passes, the wisdom is proved by itself to be knowledge which has clarity of the fact because if any wisdom is inefficient it will be abandoned and if any wisdom is found advantageous it will be used continuously (Chumpol, 1998). By the characteristic of local specific, there are the various forms and methods of TFM, so it is difficult to make it to be one medical system. There are different levels, experts, and techniques and means to use in curing by TFM. Moreover, it is the knowledge that is particularly specific more than medical theory or medical knowledge. It is the study of the cause of a disease especially in each person which emphasizes the dimension of holistic health that stresses on physical, mental, social aspects, and the environment. It is local wisdom which harmonizes on the lifestyle of people in the community.

The Thai folk medical system has 4 important structures: the beliefs related to the cause of an illness; the treatment methods; the folk healer and classification; details of the service users (The Institute of Thai Traditional Medicine, 2004).

(1) The beliefs related to cause of illness.

TFM is based on two main causes of illness: a supernatural power and natural power. The beliefs of the cause of illness are mentioned further under the heading of “Factors influencing the health practice of Thai folk healers” (page 44).

(2) The treatment methods

There are various forms of treatment methods of folk healers that differ from each local area. This is due to the type of environment, ecology, beliefs of the cause of disease, and the kind of folk healers. However, the folk medicine treatment method can be divided by principle forms into five groups (Sukhothai Thammathirat textbook, 2004). Firstly, the group that uses only herbal medicine made from one herb to more or following a herbal recipe. Secondly, the group that uses herbal medicine with special techniques such as massage, hot compression, *Yam Khang* (set foot with hot herbs on the patient’s body), etc. Thirdly, the group that uses incantations and sacred items such as a magician’s knife, a white string to keep off evil spirits, or the other sacred items combined with the belief to treat an illness. Fourthly, the group that uses the ritual of *Dham Bun* (making merit) and *Sadoa khroa* (getting rid of bad luck) by performing some parts with the monks in the temple. Fifthly, the group that uses the ritual of *Song Jhao Khao Phee* (medium possessed to communicate with a spirit) for treating or for consulting the oracles related to illnesses such as *Mhor Lam Phee Fha* (the ritual in northeastern Thailand); *Norha Long Kru* (the ritual in southern Thailand); etc.

Most treatment processes of folk healers usually include the ritual and the belief of a supernatural power to be a part of the diagnosis and treatment. However, all of the folk healers have similar treatment processes consisting of five steps (Kulsomboon & Adthasit, 2007). In the first step, the ritual of *Tang Kan Kaow* or *Tang Khai* (paying respect to teachers) is the tradition for relying on the power and kindness of the teacher to help their treatment to be successful. Also, it is done for enhancing the confidence of the healers and patients. In the second step, the ritual of *Yor Kru* (worshipping the teachers) composes of *Khan Ha* (five attributes of the corporeal being), such as 5 pairs of white flowers, 5 pieces of candle, joss sticks, areca nuts and betel leaves, cigarettes, and money of 6-24 Thai baht depending on the kind of folk healers (Nokkeow, 2006). In the third step, a folk healer diagnoses a patient by taking his or her history and examining the pulse and the body of the patient, at the same time the patient's family can participate in this step. In the fourth step, the folk healer treats the patient by following the process such as using massage, herbal medicine, witchcraft etc. In the last step, the ritual of *Plong Khan* (laying down of money for compensation) is the tradition to compensate the teacher of the folk healer. When patients recover from a disease, they will place on the shrine dedicated to the teacher 5 pairs of white flowers, 5 pieces of candle, a simple skirt made of 1 sheet, and to the folk healer, money.

(3) Folk healer and classification

Folk healers treat patients by using their particular knowledge according to the thoughts, ecology, and the folk belief system of the local community. They always use various methods of folk treatment to treat patients (Kulsomboon & Adthasit, 2007). They are the person who is accepted, respected, and relied on by patients and

people. Most folk healers are male. The main occupation of the majority is not folk healer but can be an agriculturist, farmer, shopkeeper, employee, etc. Almost all of them do not have a formal license for therapeutic treatment. They have varied kinds of motivation for wanting to be folk healers such as their ancestor was a folk healer, they have had experience in treating themselves or their relatives, they are interested to learn this subject, and they are motivated by a supernatural power and sacred power (Kulsomboon & Adthasit, 2007).

Accordingly, it is difficult to separate the exact type of folk healer because they have different forms of treatment influenced by the beliefs and culture of each local community. The Division of Thai Indigenous Medicine (2003) has classified folk healers into five types, namely the magic healer, herbalist or old-style healer, masseurs, traditional birth attendant, and others. However, there are many studies that have tried to classify the folk healer. For example, there are several types of folk healers as follows (Bhasin, 2007). Specialists in home remedies are elders who do not consider themselves healers, but suggest and give plant remedies in the case of illness. Herbal specialists are the one who treat people with the help of herbs available in the vicinity. They learn the secrets of the trade from their fathers or other experts in the field. Ritual specialists and spiritual healers are the ones who treat with divination and therapeutic cult rituals. The therapeutic rituals as practiced by ritual experts and lay persons tend to focus on symbolically encouraging and assisting the putatively natural course of the sickness or on transferring it away from the patient's body, rather than on treatment or cure in a specific sense. Magico-religious healers are the ones who treat an illness believed to be caused by supernatural forces. They exorcise evil spirits and suggest preventive measures against the attack of evil spirits. If using the criteria

of the cause of illness, the folk healer can be divided into two types (The Institute of Thai Traditional Medicine, 2004): the folk healer who treats illnesses that are caused by supernatural powers, such as *Mhor Soo Khwan* (spirits healer), *Mhor Dharma* (moral principle healer), and *Mhor Lam Phee Pha* (northeastern-style healer communicating with ghosts). Also, the folk healer treats illnesses that are caused by natural power, such as the Herbalist, Masseur, and Bone Healer etc.

(4) Detail of clients: the service users

Normally, traditional medical therapies are used by some patients with chronic disease such as a neurological disorder, diabetes mellitus, and stroke (Golomb, Hune, MacGregor, & deVeber, 2003). According to the study in the population of Northeastern Thailand, it was revealed that they still use several kinds of folk healers for their illness especially in chronic patients (Krairach, 2003).

Most patients recognize the differences in the focus of conventional doctors and folk healers. They value that the folk healers always focus on the whole person. This value on wholeness may result from the cultural traditions that have been incorporated in folk healers' lives from their native community. These patients expect to be treated as individuals rather than as a collection of symptoms (Sirichai & Nhoothong, 2001).

From the study related to Thai folk medical users, the researcher found that most patients who seek treatments from folk healers are the poor to the middle class of a society. Usually they have a lower level of education, such as primary school level, and a varied span of age and occupation. Most patients are the neighbors of folk healers that live in the same community or nearby. If a folk healer is a famous

practitioner, his or her patients might come from far away such as other provinces, other regions, and even other countries (Nokkeow, 2006).

The factors that induce people still to receive treatment from folk healers can be divided into five issues (Kulsomboon & Adthasit, 2007): 1) people's beliefs related to the cause of a disease. For example, some groups of people believe that if they are sick due to a blood circulation problem, bone problem, or chronic disease they will select treatment from a folk healer. On the other hand, if their sickness is an acute disease such as an infectious disease, or emergency case such as gunshot wound, they will select to have treatment from a modern medical practitioner (Sirichai & Nhoothong, 2001). 2) People have confidence and faith in renowned folk healers. 3) People are introduced by their family or relatives who have experienced the treatment of the folk healer. 4) TFM treatment is convenient, easy to access, of little expense, and belongs to the same culture as them. 5) The incapability and unsatisfactory treatment to recover from a disease by modern medicine is one factor that influences patients to seek TFM. Moreover, the trend of use is also found in the group of persons that are interested in health promotion in accompany with the finding that poor health is a key factor in the decision to use complementary therapies (Chirunthorn, Singpaiboonporn, Kamkwaew, Phudpad, & Uuisui, 2006).

Thai Folk Medicine in Southern Thailand

The geography of southern Thailand consists of 2 coasts on both sides of region which have ports for contact with the other countries. Thus, the southern Thai folk wisdom has a variety of history, culture, beliefs, and traditions due to people having easy access to foreigners for trade and religion. Therefore, traditional wisdom

has not only been sourced from the context of native southern Thai people (The Division of Thai Indigenous Medicine, 2003). There are six groups that divide the structure of southern Thai folk wisdom as described in the following: (1) wisdom originating directly from rural people; (2) wisdom originating from Buddhism, Brahmanism, and Islamism; (3) wisdom received from Chinese immigrants especially in the philosophy of Confucianism and Taoism; (4) wisdom received from Westerners who travelled for commerce and to establish colonies in Southeast Asia; (5) wisdom received from the Javanese and Malaysians that appear prominent in the lower region of southern Thailand; and (6) wisdom inherited from the city state that has been transferred by education and the government (Pongpaiboon, 2002). Hence, southern Thailand is considered of consisting of many racial groups, culture, and wisdom of knowledge. Now, the dominant difference in the ethnic groups is Thai, Muslim, and Chinese.

Although southern Thailand has various forms of culture due to the geography and migration of people, native people still conserve prominent southern Thai wisdom such as the ceremony of *Norha Long Kru* (a medium possessed to communicate with spirits), the beliefs related to ancestor ghosts that still look after descendants to have happiness; *Mhor Ngoo* (snake venom healer) wisdom, the curative wisdom for the patient who have been bitten by a venomous snake; *Mhor Beeb* or *Mhor Nuad* (Masseur) wisdom, the curative wisdom for the patient who has muscular problems by using massage (Sukhothai Thammathirat textbook, 2004). In contrast, Sirichai and Nhoothong (2001) has classified the prominent curative wisdom of southern Thai folk healers into five types namely; herbalist-an expert of using local herbs; bone healer-an expert of treating bone problems; traditional birth attendant-an expert of caring for

women in pregnancy; black magic healer-an expert of treating illness by using incantations, lustral water and spells to cure several illnesses; and *Mhor Ngoo* as mentioned previously.

Normally, most southern Thai people still respect *Kru Mhor* (dead ancestors who have been teachers). They also have a ceremony and the practice to show this respect. They believe that the people, who have any generation as *Norha* (folk performing art of southern Thailand), must inherit the *Long Kru* (medium possessed ceremony) by inviting the ancestor ghost who has been *Norha* to communicate with its descendant because they believe that for three years the dead person will come back to enter the body of the descendant to be *Kru Mhor* for caring for his or her family member to be happy (Nokkeow, 2006). If any descendant does not respect *Kru Mhor*, for example, says defamations, does not make votive offerings; or does not propitiate a sacrifice, they will get a sickness called *Kru Mhor Yang* (possessed by dead ancestors) that cannot be cured by any method except by forgiving or performing *Long Kru* ceremony (Rakdee, 2003).

Thai folk massage is the knowledge and art of using wisdom for relying on the self dependence of a community. It has various techniques that are different in each area. Southern Thai folk massage also has a particular character different from other regions but it has the same principle and objective as the others such as to relieve pain, fatigue, or any problem of the muscles, tendons, and nerves; to enhance the work of blood circulation and the nervous system; to solve the cause of the problem (Chansongkhoa, 2002). A Southern Thai folk masseur is usually called *Mhor Beeb*, *Mhor Nuad*, or *Mhor Jubsen* (Hatthakit, 1999). They use knowledge related to body lines and tendons to treat any problems. They believe that a disease or symptom is

related to a problem of the body lines and tendons and will be painful in that area and in other areas of the same lines because these lines are closed which causes an obstruction of *Watha* (wind element). The masseur's goal is to loosen the lines for pushing through blood and wind which is obstructed in the cavity of the lines (Sukhothai Thammathirat textbook, 2004). The parts of a healer's body used for massage are the hands, feet, elbows, and knees by the methods of pressing, kneading, bending, pulling, rolling, and catching. Most *Mhor Beeb* believe the story of *Kru Mhor*, who is the owner of knowledge, so before a treatment they will worship *Kru Mhor*; such as lighting joss sticks and candles; providing flowers, areca, and betel; saying or thinking in their mind; etc.; to recall them for giving the knowledge to treat patients (Nhootim, Sitthikraipong, Pukanadd, & Thangsukleuthai, 2007).

The number of Black magic healers is less than the other types of healers because they can be found in particular areas that have people who believe in this practice. Normally, black magic healers have treated illnesses that are caused by magical power such as occultism, a supernatural power, under a curse, the haunting of a ghost etc. But due to the treatment of the black magic healers they will name the power of a sacred being, like the God or *Kru Mhor*, so this makes the appeal of their capability to increase to get the attention of other patients who are disappointed in the treatment of modern medicine (Sirichai & Nhoothong, 2001).

Concept and Theory related to TFM

TFM has the concept and theory in the following categories: (1) Buddhism; (2) Brahmanism; (3) Thai traditional medicine.

1. Buddhism

The philosophy of Buddhism is strongly embedded in the way of life of Thai people in beliefs, cultures, customs, and traditions. TFM has been involved with health and illness of Thai people for a long time. The Thai folk medical concepts also rely on the principles of Buddhism. An important principle in Buddhism is that life is made up of the body and mind or *panca-khandha* (five aggregates): *rupa* (material form); *vedana* (feeling or sensation); *sanna* (perception); *sankhara* (mental formations, predispositions, or volitional impulse); and *vinnana* (consciousness) (Chuaprapaisilp, 2006). According to TTM theory, it is believed that new life must be created by a father and mother that have the character of absolute man and woman. The new life is composed of *panca-khandha* (The Institute of Thai Traditional Medicine, 2004). Then, *panca-khandha* is the concept of Buddhism that is related to TTM theory.

Buddhism considers all existences in the form of integrated factors. All of the materials are not stable and can be separated into segments or elements (Payutto, 1999). In Buddhism, it is believed that diseases are not only caused by germs but also are caused by four body elements. The four body elements in TTM theory coincide with the Tripitaka that Buddha said about elements for reminding humans to determine the body on the principle of *trilakkhana* (the Three Characteristics of Existence): *anicca* (impermanence and unstable), *dukkha* (suffering), and *anatta* (selflessness). He means that lives, or the four body elements, are constantly changing; suffering; and no real essence, soul, or self (Payutto, 1999). When folk healers treat patients, they always think of the elemental principles. So, they will use various methods and herbs for adjusting not only one element but also all elements to

be in balance to improve an illness such as using various herbs for adjusting the balance of the four body elements (Subcharoen, 2001).

The disease of the mind is a very important issue in Buddhism because in the five aggregates, four of them refer to the mind. The meaning of mental disease in terms of Buddhism involves most kinds of sufferings in *ariyasacca* (The Four Noble Truths). The Buddha declared that this world is full of suffering; that actual existence includes birth, decrepitude, sickness and death. The path leading people to reach the ending of all *magga* (suffering) is referred to the Noble Eightfold path or the Middle Path (Rodgers & Yen, 2002). By practicing the Middle Path, basic causes of mental diseases such as ignorance, craving, clinging are gradually decreased. It is a way to prevent all diseases and to contribute to individual well-being. Wisdom can be promoted by folk healers providing health education to facilitate correct thinking, and then clients have to assume the responsibility for correct behavior. The provision of support and supervision by folk healers (Virtue) can be important in the client's establishing and maintaining the health behavior as habit (Concentration) (Paonil & Sringernyuang, 2002). Wisdom, virtue, and concentration can develop the mind and direct the individual on the path leading to the pause of suffering to reduce stress, anxiety, and torture. It is due to the very close relationship between the mind and body, although this way of practice focuses on the recovery from internal sufferings or mind diseases, it is useful for the body as well (Chuaprapaisilp, 2006).

The Buddha had explained *dukkhasamudaya* (the cause of diseases) in the concept of Buddhism. In the principle of Dependent Origination, there are three components of the causes of suffering: *avijja* (ignorance), *tanha* (craving), and *upadana* (clinging) (Payutto, 1999). Every aspect of human life is conditioned by a

prior state of being. Usually, health problems or suffering results from ignorance which has passion to be a factor for making humans to be unaware of the nature of real life. Therefore, it will make them think on the way of clinging and assuming (Tongprateep, Pitagsavaragon, & Panasakulkarn, 2001). The correct understanding of the nature of life will guide folk healers to proper health practices leading to healthy of population.

In the Buddhist view according to TFM view, causes of diseases are not only from detectable etiologies, but also from karmas. Some illness cannot be cured no matter by which methods. Buddhism considers them as karmic diseases that are caused by the evil deeds of the patient from previous times (Khongthai, 1997). Illness will show as an imbalance of *panca-khandha* due to the changes in accordance with the law of karma (Tongprateep, Pitagsavaragon, & Panasakulkarn, 2001). When people are sick, it is necessary that they are treated both physically and spiritually to delay or reduce the impact of bad karma on them. The treatments can as well help prolong the patient's life until all the bad karma is repaid. Then, the patient will return to his or her normal condition again. The belief about karma helps to pacify the status of the patient's mind so they can calmly accept the condition and not accuse others for his or her own sickness. If nothing is improved despite all kinds of treatment they receive, patients can accept the sickness as it is in peace. By this way, they will be better prepared for death and can hope to have a better life after they die (Paonil & Sringernyuang, 2002).

Health and illness of humans are conditions under the natural laws: *trilakkhana*, dependent origination, and law of karma that causes happening, changing, and disintegrating. As long as life goes forward, it has the risk of illness.

So, folk healers who are doing a service related to health and illness of people always understand these laws of nature. They will treat patients to be consistent to their problem and the natural environment (Tongprateep, Pitagsavaragon, & Panasakulkarn, 2001). For example, when folk healers treat patients they will try to find a cause of the disease by emphasizing the holistic state, at the same time they will consider the factor of the environment that may also be a cause of this illness. The practice of the folk healer should follow the principles of Buddhism in natural law such as *trilakkhana*. Folk healers should help patients to accept the law of *trilakkhana* of their life such as impermanence and unstableness. The folk healer should help the patient to understand that every life depends on the principle of *ariyasacca*. No one can avoid the four truths. This change that occurs, no one can change it. When it happens, we should leave it to go on and it will pass away.

In conclusion, the Thai folk medical concept involves Buddhism and natural things in the environment that come up with the harmony of body, mind and spirit to survive with holistic health (Subcharoen, 2001). The concepts of the natural way are a framework of thought and action for the person who understands and accepts the basic beliefs. This recognition of reality will form the perspectives and the ways of practices related to health and illness for that person. It means that these basic principles could develop health beliefs and the health care system of a community (Paonil & Sringernyuang, 2002).

2. Brahmanism

TFM is also based on the principle of Brahmanism like the beliefs and rituals which are always seen in the treatment process of Thai folk healers in several communities. The influence of Brahmanism results from Indian civilizations. It was

spread by the caste of Brahman from India who are the priests performing religious rites to connect to the divinity for protecting people from danger. They moved into the Malay Peninsula in southern Thailand about a thousand years ago. These towns have adopted the beliefs and the worships of Brahmanism to blend with original beliefs (The Institute for Southern Thai Studies, 1997).

Brahmanism is the background of Ayurvedic medicine in which some concepts are a primary foundation of TFM such as the beliefs of supernatural power like God, the sacredness, and the rites (Chokevivat, 2003). These beliefs have influenced the paradigm and the way of practice in TFM. Brahmanism is an early form of Hinduism which developed its worship and philosophy from the Vedas. Brahmanism believes in theism which is the belief related to the God who has the greatest power to possess the world and destine the possibility of it. The Vedas is the scripture which codifies the religious knowledge and the holy things such as begging prayers, praising prayers, and the worship. To proceed in the way of life, Brahmans emphasize ritual performing because they believe that it will please the God (Dokbuar, 2002). So, he will destine humans to be happy and have their wishes fulfilled. The rites of Brahmanism always include a sacrifice such as cooked food, water, milk, rice grain, flowers, meat, or poultry. The Brahmanism belief of supernatural power influences the practices of both Buddhist and some Muslim folk healers in the treatment process. For example, one of Muslim folk healers in Yala province uses magic spells which are not from the Qur'an while assisting in childbirth. Also, after childbirth, she performs the ceremony of *Wai Kru* which has the sacrifice to worship the sacred (Sirichai & Nhoothong, 2001). This process is similar to the ritual of Brahmanism.

Currently, the influence of Brahmanism still remains in Thai folk medical beliefs as the rites such as *Bai-Sri Soo Khwan* (blessing ceremony). *Khwan* is the belief in Brahmanism which believes that everything is composed of it such as rice, animals, flowers, etc. Brahmanism also believes that life is composed of *Khwan* (soul). It stays in the body of humans when they are alive for fully supporting them to be healthy. It is the medium between the body and mind which leads to create the unit of life. If the body is harmed it will also influence the mind and *Khwan*. The ceremony of *Bai-Sri Soo Khwan* is provided for people to be healthy and have good relationships among themselves, their family, and the community (Thai Encyclopedia for Juveniles: issue 20, 1997).

The beliefs of Buddhism and Brahmanism have integrated into TFM in a non-conflicting way. The folk healers have arranged the practice by classifying the importance and duty of themselves such as performing *Bai-Sri Soo Khwan* by *Mhor Khwan* (soul healer), worshipping to *Phee* (ghost) by *Mhor Lam Phee Fa* (northeastern-style healer communicating with ghost), offerings to Buddha by general folk healers.

3. Thai Traditional Medicine

The dynamic of the body element is important as well as the mental and spiritual elements. If the body does not have a mind, it cannot survive. Likewise, if any body element changes, it also affects the mind. There are two theories related to TFM influenced by TTM as following: (1) the four body elements; and (2) the bodylines.

(1) *The four body elements*

In Buddhism, it is believed that all of the materials are not stable and can be separated into segments or elements (Payutto, 1999). The basic principle of TTM is the knowledge of the four body elements or *Dhatu* namely earth, water, wind and fire. These four body elements are (Subcharoen, 2001):

- 1) The earth: refers to any part of body that is solid, tangible and non-liquid such as hair, nail, internal organs etc.
- 2) The water: refers to the fluid composition of the body and tangible such as blood, mucus, urine, bile, tears etc.
- 3) The wind: refers to any entity that is light and movable and cannot touch. It circulates throughout the body and through the body lines such as through the tendons, ligaments, nerves and blood vessels.
- 4) The fire: refers to something that burns the consumed food into energy similar to metabolism. It helps warm and gives energy to the body.

The four body elements should be in a balanced condition that will make the healthy body. The earth element depends on the water element to be refreshed and be flexible. Also, it depends on wind element for keeping shape and for stimulating movement. It depends on fire element for taking energy and saving life. The water element depends on earth element for holding it inside the source and to not undergo evaporation. Also, it depends on the wind element for blowing it throughout the body organ. The wind element depends on the water and earth elements for staying and for bringing energy into various areas. The earth element will control the wind element to move in an appropriate way. The fire element will warm and depend on the earth element for burning energy. It also depends on the water element for burning

appropriately. When the fire element can make the wind element move throughout the body, the wind element also can make the fire element increase to burn. In conclusion, the four body elements depend on each other to work in human body. To maintain body function none of these elements can be lacking (Deewiset, Konngam, Manosilp, Keawsonthaya, & Phaikhan, 2001).

When the four body elements are in equilibrium, it will be healthy. In contrast, if an imbalance in any of these elements occurs such as an excess, a deficit, or disability, the human will become ill (Sukhothai Thammathirat textbook, 2005). An excess of the body elements refers to the body functioning more than normal known as hyper-function. For example, a muscle is the earth element, so the spasm of a muscle is the result of the earth hyper-function. A deficit of the earth element refers to a less than the normal function or hypo-function such as muscular weakness. Disability of the earth element refers that to a lack of functions or dysfunction such as paralysis (Paetsart Sonkhrao textbook: developed version, 2000). For adjusting the body element to balance a condition, there are three principle taste qualities as a major taste of herbal medicine to adjust the fire element (cool taste), the wind element (hot taste), and the water element (delicate taste). Moreover, there are nine tastes as a minor taste of herbal medicine to heal various body elements such as astringent, sweet, intoxicated, bitter, creamy, aromatic, sour, spicy, and salty (Subcharoen, 2001).

(2) The bodyline

The bodylines can be compared to the path of energy power which is the belief of eastern Asian. It is believed that the body has special paths of energy power which have a certain pattern of circulation of this power. This path is still not be proven by any scientific method in how it is existent in the human body. TTM also has a concept

of the paths of energy power that are called the bodylines. If there is any bodyline defective or obstructive, the circulation of the energy power may not be easy. Then, the organs supplied by these bodylines may have problems because there is not enough energy power flowing to support them. If the bodylines path can be modified to be clear as usual, the energy power also can flow freely throughout the body, and then the illness will be relieved (The Foundation of Developing Traditional Thai Medicine, 2003). Massage is a way to stimulate the flowing of energy power in the bodylines, to prevent bodyline obstructions, and to remove the obstructive matter out of the bodylines (Tangtrongchit, 2004).

The definition of bodylines

By reviewing the relevant literatures, they were found that the definition of bodylines in the concepts of TTM could be divided into two groups as follows:

- (1) The bodylines are tendons, blood vessels, and nerves.

In ancient TTM textbooks, the bodyline was always referred to a tendon which was mentioned in terms of “*Naharu*”. It was similar to the “Rokanitan Kamchan 11th scripture” of the Lord Vichayathibodi and of the Lord Chanthaburi, the bodyline was identified as a tendon that was mentioned as “the bodyline is referred to something that is connected into the net web throughout the human body. It is a white string that has a hole inside to let the wind and blood flowing through (the Lord Vichayathibodi, n.d)” and “the bodylines are referred to a tendon that is an earth element which looks like a white string (the Lord Chanthaburi, n.d)”. Currently, most TTM textbooks also cite the information found in these ancient textbook that the bodyline was described as a tendon. For example, the texts in the TTM textbook of the Bureau of Sanatorium and Art of Healing stated the following sentence, “the great teacher of TTM, Shevaka

Komarabhacca, had clarified that there is the wind in the human body and there are tendons connected throughout the body into a network approximately 72,000 lines (the bodylines)” (figure 1).

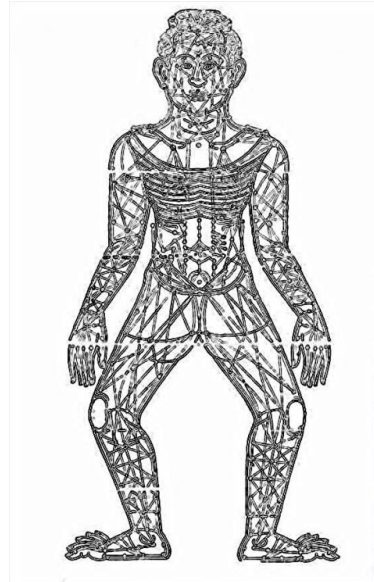


Figure 1: The human bodylines (source: <http://www.healthbe1st.com>)

These bodylines consist of 10 main lines or known as “The ten major bodylines” that has a role to control the function of all bodylines (Thai medicine volume 3, n.d). This is congruent with the textbook of “Lines, Spots and Illnesses” in which the authors said “the ancient people believed that the bodylines are a tendon that is white string with a hole inside lining throughout the human body for flowing of blood and wind element (Subcharoen, 1997). In addition, there are some revised Thai traditional textbooks that may be influenced by the western medicine concepts. They had tried to compare the bodylines to blood vessels and nerves to make it easier to understand for the newer generation. For example, *Sen Sumana*, which is a bodyline in the central body, had been compared to the heart and nervous system that control the vital functions in the human body. When it is defective, it will cause neurological disorders and cardiovascular disease that is similar to the explanation about CVA in

western medicine (Paetsart Sonkhrao textbook: developed version, 2000). It is congruent with the traditional medical textbook that mentioned that *Sen Sumana* is the bodyline at the lower pole of the heart. It is a line in the middle of chest 1 inch above the epigastric region. This bodyline is the path for blood circulation from the heart along the arteries to the lower part of the body (Thai Medicine volume 2, n.d).

(2) The bodylines are not tendons, blood vessels, and nerves.

This group has a different viewpoint that the bodylines cannot be compared to blood vessels or nerves because they are a different system. In the study of Ryan et al. (2003), it supported that the bodyline was the energy line. It is invisible and might be not a path of blood or lymph vessels. Similarly, another study stated that the bodyline was unlikely to be blood vessels or tendons because if it was compared to human anatomy, the path of bodylines did not correlate with the path of blood vessels or tendons. In pressing at the beginning point of the ten major lines around the navel, the researcher found that it will cause the sensation running according with the direction indicated in the textbook. This is possible that the path of the bodylines is the direction of sensation caused by pressing at each point. Structures within the body that can cause sensation could be nerves, periosteum, fascia, muscle, or artery walls (Health and Development Foundation, 2007).

In summary, from all above information, it cannot be concluded that the bodylines are just tendons, blood vessels, or nerves. However, there may be a harmonious working of all these components. These bodylines are referred to the channel connected throughout the body for the flowing wind element to nourish and strengthen the body in balancing and health as usual.

The ten major bodylines

The ten major bodylines are the path of the flowing wind element that is the energy power to nourish the body to function normally. In the theory of the ten major bodylines, there are 3 components (Health and Development Foundation, 2007).

- (1) **The bodylines:** consist of the major bodylines and the branch bodylines which have an exact path of lines.
- (2) **The wind element:** it is the energy power that runs along the bodylines. If the wind does not flow as usual, it will cause illness.
- (3) **The spots:** it is the position on the body that correlates with the bodylines. When pressing at an exact point, there will be a sensational current of the wind running along the bodylines.

Therefore, the path of the major bodylines should mean the path of the wind power running within the body that can be realized when pressing at any spots related to that major bodyline. These paths have a certain direction and are arranged in an orderly manner (Health and Development Foundation, 2007).

In ancient traditional textbooks, it was believed that there are only 10 major bodylines to control the entire bodylines which total 72,000 (Thai Medicine volume 3, n.d). The ten major bodylines are very important for Thai massage which is used in treating patients. If there is any problem in these bodylines it will cause symptoms and various wind illnesses. There also will be different diagnosis and massage techniques depending on each kind of illness and symptom (Subcharoen et al., 1997). The various names are used to refer to the ten major bodylines as follows (figure 2-11, source: <http://www.healthbe1st.com>).

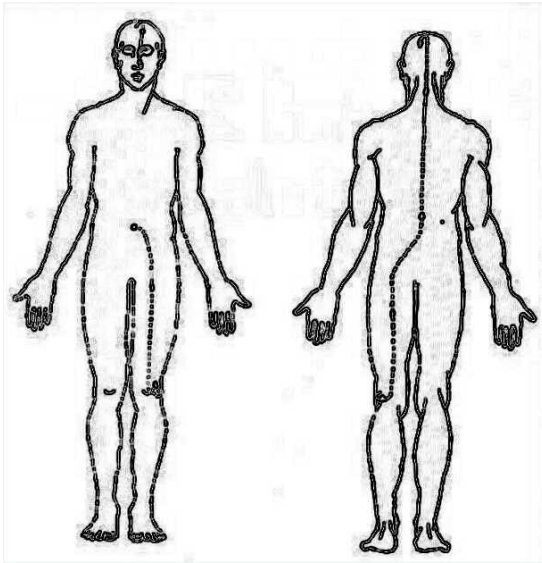


Figure 2: The bodyline of *Itha*

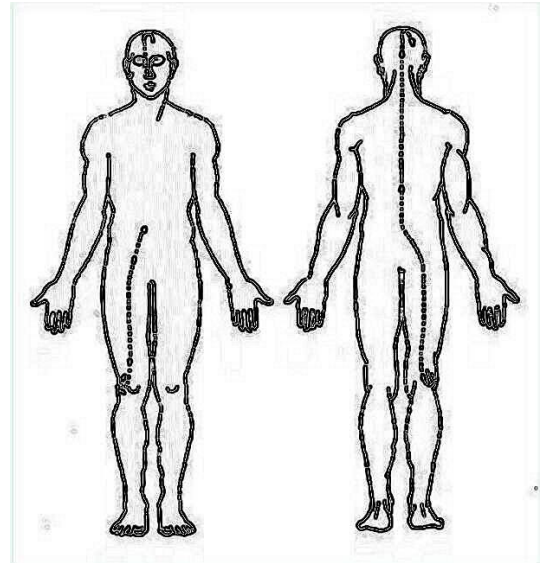


Figure 3: The bodyline of *Pingkala*

1. ***Itha***: this bodyline (figure 2) starts running at the center of the abdomen below the navel 1-2 inches, across the left thigh to the knee, then running back to the back thigh and up along the left of spinal column to the neck and head. Then, it turns to the left of the nose tip.

2. ***Pingkala***: this bodyline (figure 3) starts running at the center of the abdomen below the navel 1-2 inches, across the right thigh to the knee, then running back to the back thigh and up along the right of spinal column to the neck and head. Then, it turns to the right of the nose tip.

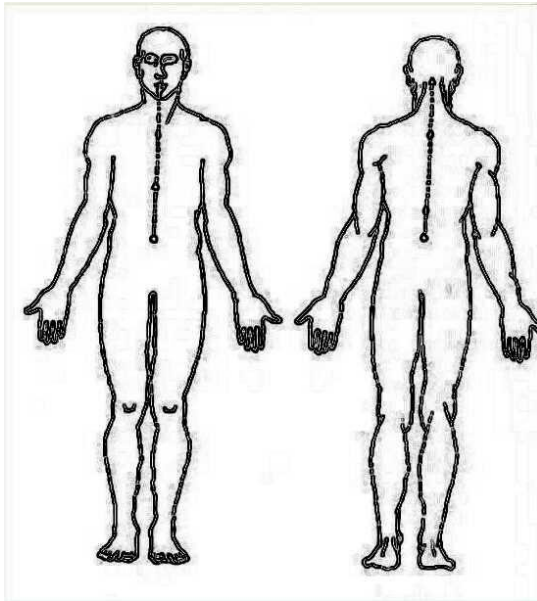


Figure 4: The bodyline of *Sumana*

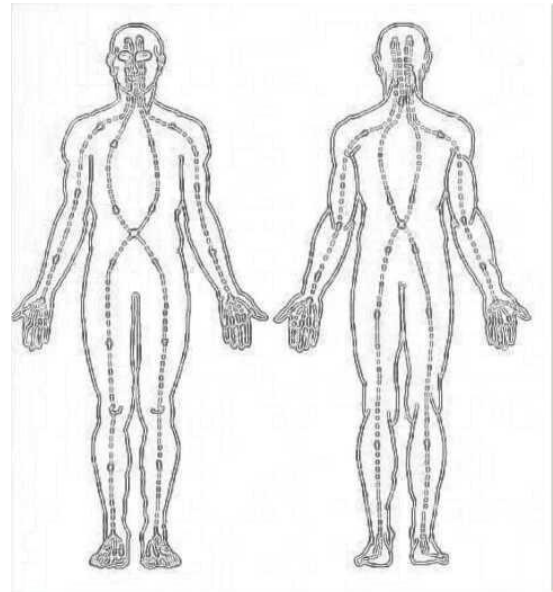


Figure 5: The bodyline of *Kalathari*

3. ***Sumana***: this bodyline (figure 4) starts running at the center of the abdomen above the navel 2 inches, and up to the chest, neck and ending at the base of the tongue.

4. ***Kalathari***: this bodyline (figure 5) starts running at the center of the abdomen and then branches out to 4 lines, 2 lines start at the point 1 inch above the navel and running to both sides of the breasts to pass through two hands and then break up to each finger. Another 2 lines start at the point 1 inch below the navel and running to both legs, both ankles, and then break up to each finger.

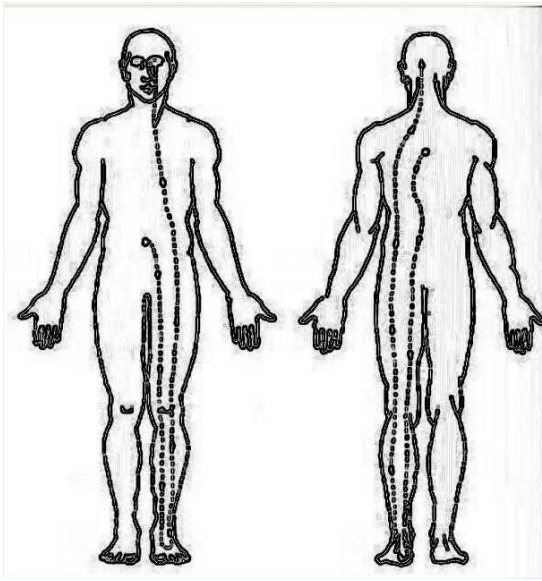


Figure 6: The bodyline of *Sahasarangsi*

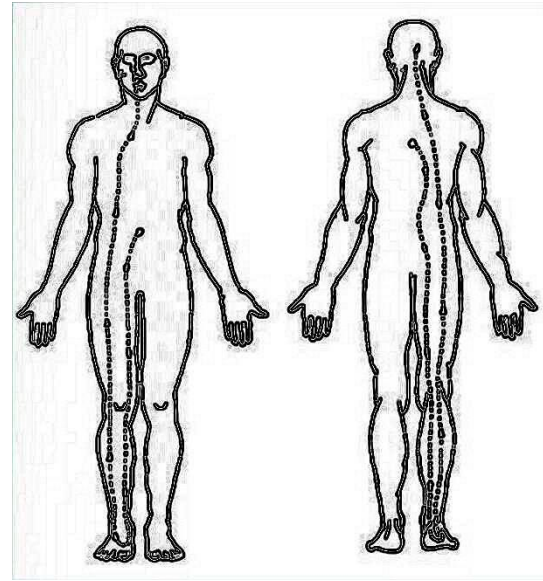


Figure 7: The bodyline of *Thawari*

5. ***Sahasarangsi***: this bodyline (figure 6) starts running at the center of the abdomen from the navel 3 inches to the left, then running to inner left leg, to the foot, to the base of the finger, and then turns back to the left shin, and running to the left breasts to pass through left clavicle, to the jaw, and ending under the left eye.

6. ***Thawari***: this bodyline (figure 7) starts running at the center of the abdomen from the navel 3 inches to the right, then running to the inner right leg, to the foot, to the bases of the five fingers, and then turns back to the right shin, and running to the right breasts to pass through right clavicle, to the jaw, and ending under the right eye.

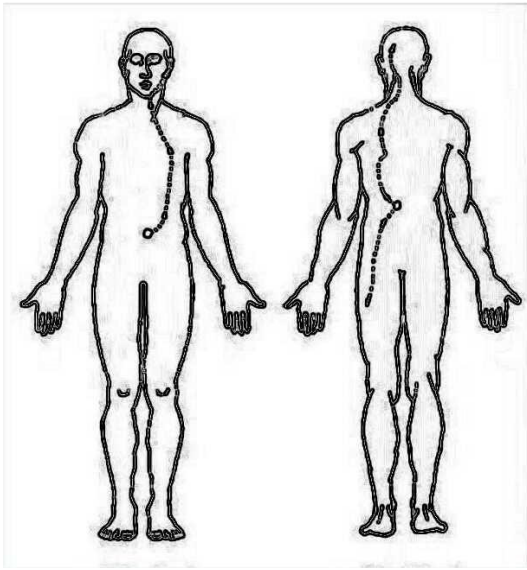


Figure 8: The bodyline of *Chantapusang*

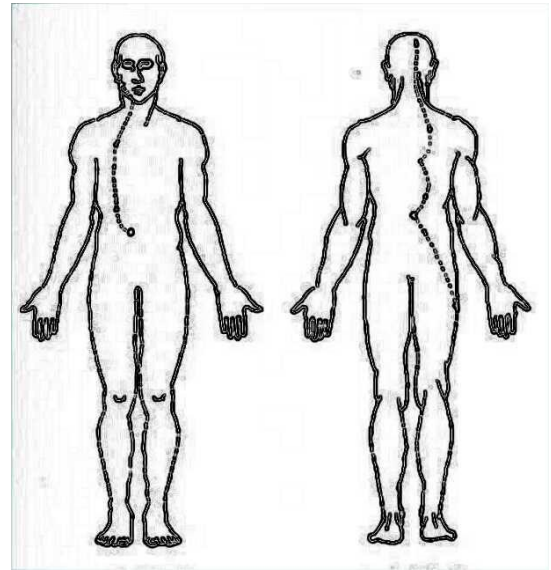


Figure 9: The bodyline of *Rucham*

7. *Chantapusang*: this bodyline (figure 8) starts running at the center of the abdomen from the navel 4 inches to the left, then running to the left breast to pass through the left clavicle, to the jaw, and ending at the left ear.

8. *Rucham*: this bodyline (figure 9) starts running at the center of the abdomen from the navel 4 inches to the right, then running to the right breast to pass through the right clavicle, to the jaw, and ending at the right ear.

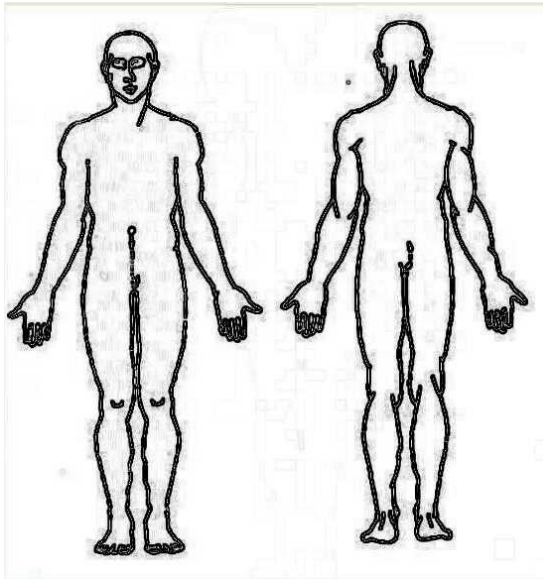


Figure 10: The bodyline of *Sukumang*

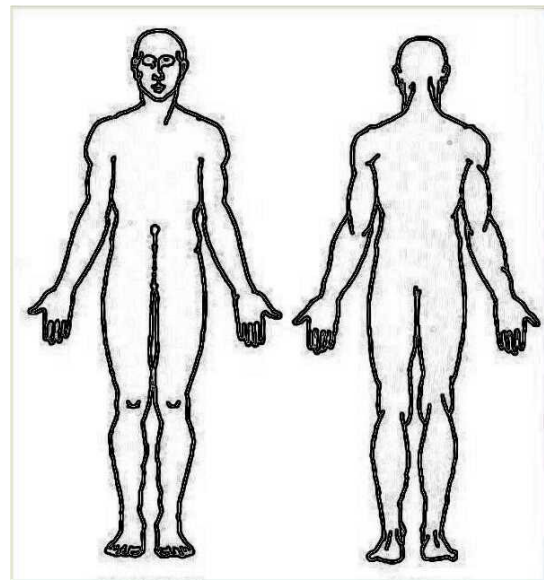


Figure 11: The bodyline of *Sikkini*

9. *Sukumang*: This bodyline (figure 10) starts running at the center of the abdomen 3 inches below the navel, and ending at the anus.

10. *Sikkini*: This bodyline (figure 11) starts running at the center of the abdomen 3 inches below the navel, and ending at the urinary organ.

In addition, the bodylines in Thai traditional medical textbooks have some similarities with the bodylines of Ayurvedic medicine of India and Traditional Chinese Medicine. In the textbooks of Yoga of India and Qi Gong of China, they also have three paths of energy power: Itha, Pingkala, and Sumana which are important to enhance internal energy and also have the starting point at the central abdomen. Thus, TTM, TCM, and Ayurvedic have agreed that the area within the abdomen is an accumulative power and the sources of life power that is important to make people healthy (The Foundation of Developing Traditional Thai Medicine, 2003). In considering the path of bodylines, it is also similar to the acupuncture points of TCM

but the importance of each point and the way to stimulate these points may be different (The Foundation of Developing Traditional Thai Medicine, 2003).

Factors Influencing Health Practice of Thai Folk Healers

Illness is the phenomenon of socio-cultural factors which are the main important factors influencing the beliefs of Thai folk healers that further influences their health practices. The socio-cultural factors are beliefs, culture and traditions, society, religion, health policy, economy, and education and training.

1. Beliefs

Belief refers to the acceptance of an explanation of a situation or phenomenon that people have perception and learning together in a society. These beliefs are transferred continuously from the past until it becomes a pattern of social culture. However, the beliefs can change in accordance with evolution and the development of that society. The beliefs are importance to society owing to the construction of social groups, social regulations, and rituals and tradition (Nicholas, Norma, & Arthur, 2002).

As above-mentioned, TFM hold two main causes of illness: supernatural power and natural power. So, these beliefs will be a guideline which folk healers use to deal with illnesses by using different ways of treatment methods. The belief of a supernatural power can be divided by the cause of illness into 6 categories as following (Sukhothai Thammathirat textbook, 2004):

1) Illnesses caused by the effect of spirits

Phee (ghost) is the spirit or the dead person who has not taken birth. There are both good and bad *Phee* such as *Phee Poo Ya* (grandfather and grandmother spirit),

Phee Ban (household spirit), *Phee Pa* (spirit living in the forest), etc (Thai Encyclopedia for Juvenile: issue 20, 1997). Thai people believe that the surrounding environment has an unseen power which can give merit and demerit to a person. If the one has a violent, aggressive, or troubled performance that makes *Phee* angry, he/she will receive punishment by illness or death. Rites can solve unusual situations such as curing disease, supporting the mind, relieving anxiety, enhancing patient confidence, and loosening family and community problems (Kulsomboon & Adthasit, 2007).

2) Illnesses caused by witchcraft and black magic

Thai people believe that some diseases or illnesses occur by witchcraft and black magic. This is a dreadful belief because it can result in sickness or death and the effects cannot be solved or loosened by the other methods except those from an expert black magician who performs a ceremony to bring magical objects out of the body of the patient.

3) Illnesses caused by *khwan*

Khwan means the spirit or life energy that lives in the human body. *Khwan* helps the human body to grow up and be strong. It has to stay with the human body to fully support the body to be healthy. However, *khwan* can be attacked or replaced by mysterious powers from the exterior body that can make it leave the body. Thus, this situation will cause the human body to lack energy to proceed with life resulting in illness or death. *Khwan* is the belief that blends the belief of Buddhism and Brahmanism (Kulsomboon & Adthasit, 2007).

4) Illnesses caused by fate or misfortune

Occasionally, Thai people believe that illnesses are caused by the fate to be down on luck or misfortune. It is associated with the time one is born corresponding

to the star system in the cosmic-solar system which influences the fate of a human. It is believed that if a person who has an unlucky fate exists during a time of misfortune, this person will be open to supernatural powers that can bring him or her illness. Also, it is believed that the one who has a break down in his or her fate has the unfortunate opportunity to become ill and eventually die (Krairach, 2003).

5) Illnesses caused by transgressing customs and traditions

By tradition, some groups of Thai people call the transgression of customs and traditions, which society has set up a criterion for people to practice, as *Phit Pee*. They believe that if anyone performs *Phit Pee*, it will cause damage both to life and assets. The damage of life includes causing health problem or illness (Kulsomboon & Adthasit, 2007). This kind of belief is still followed by various groups of Thai hill tribes

6) Illnesses caused by geographic location

Some groups of Thai people believe that if they select to build their dwelling or parts of their dwelling in a bad geographic location, it will cause many problems to the dweller, especially in the way of health and illness problems. The principle of geographic location includes the direction of sleep, the direction of sacred settlement such as the shrine of the household god etc.

In the belief of natural power, the cause of illness can also be divided into 6 categories as following (Sukhothai Thammathirat textbook, 2004):

1) Illnesses caused by four elemental imbalances

Folk healers believe that illness can be caused by four elemental imbalances. When any elements alter, hypo-function; hyper-function; or dysfunction, this will cause illness (Taoprasert, 1999). The concept of the four elements places an emphasis

on the integrated care of the body before removing the symptoms. It must be balanced and appropriate to age, gender, and other conditions which are different in each person (Subcharoen, 2001).

2) Illnesses caused by a changing climate

Weather conditions or climate can affect humans directly and indirectly to have sickness. The changing weather or seasons has an influence on body adjustment. When the body cannot adjust its condition to go along with this change, or when the climate suddenly changes, this will result in humans having sickness.

3) Illnesses caused by consuming unwholesome food

Having food inappropriately with *Dhatu-Chao-ruan* (personal dominant element) is the one of important causes of illness. Consuming some foods that are believed to be *slang* food (unwholesome food) dependant on each age or health situation will cause a greater opportunity for more severe forms of illness to develop.

4) Illnesses caused by germs

Occasionally, Thai people believe that illnesses are caused by the body receiving germs through breathing; eating or drinking; sleeping; and various at risk behaviors, such as *Khang* germ of Lanna traditional medicine; *Krapan Lha* of children; etc.

5) Illnesses caused by occupation

Working hard each day, especially in rural areas where most people are agriculturists, will cause illnesses related to muscular problems. It is one group of diseases associated with strenuous and sometimes repetitive body movements over a long period of time.

6) Illnesses caused by accidents

Accidents can be held to be the cause of illness or health problems of TFM, such as broken bones; becoming crippled; paralysis; etc.

The knowledge regarding Thai folk beliefs of health and illness will help anyone who is involved in this system to understand the health practice of folk healers which result from these beliefs (Chuengsatiansap, 2003). For example, if they believe that the illness is caused by whatever cause, the treatment method will be practiced according to that belief to eliminate the cause for relieving the illness.

2. Culture and traditions

Culture refers to an individual's ways of living and social interactions built by a social group of human beings, created by learned patterns of behaviors, beliefs, and values (Hashizume, 1998). Each society always has complex types and complex methods of TFM treatment because of the continuing effect of cultures from other societies. Human wisdom has different ways to solve health problems because every person has different experiences, social values, and beliefs related to health and illness.

The beliefs have a relationship to rituals and traditions especially the beliefs of supernatural powers such as ghosts; fortune and presage; etc. Rituals are important to construct the sacredness, faith, and confidence of people. Over a long period of time ritual practicing is hand down from generation to generation until the ritual becomes a custom and then further develops into a tradition of a community (Taoprasert, Koichusakul, & Mhuagkul, 2001). By following rituals and tradition, which reflect the blending of various beliefs that are concealed by them, this process changes the

intangibles into tangibles that are practiced by most people for gaining mental advantage and controlling behavior.

Tradition is the belief of a social level that inherits from ancestors to next generation as conventional and standard practice. It is directly influenced by society and culture to inherit concepts to social members. This belief seems to have no exact reasoning, but from deep consideration and analysis, the concealed meaning and valuation can be seen (Brun & Schumacher, 1987). The influence of the belief of supernatural powers has some folk healers following *Wai chao thee* (the ceremony of showing respect to the guardian spirits). It is the way to repay kindness that the guardian spirits protect the patients to be safe from disease and illness. They usually arrange *Wai chao thee* at 9.00-12.00 pm either on a Tuesday or Saturday of the fourth, sixth, or ninth month, once a year. There are twelve items needed for the ceremony such as chicken, alcohol, joss sticks and candles, areca and betel, rice and curry, glutinous rice, etc (Nokkeow, 2006). Before starting treatment, some folk healers will ask the date of birth of the patient to find out whether the patient have *khroa* (unfortunate) or are a victim of black magic. If the patient is a victim of one of these situations the folk healer will perform *Sadoa khroa* (the ceremony to get rid of bad luck) to rectify the influence of black magic before they can treat the patient. They believe that if the patient does not get rid of it he or she will not recover from his or her illness (Keowngarm, 1995)

3. Society

The knowledge that is acquired and developed over a long period of time becomes a different pattern; norm; custom; and culture reflecting the perception and attitude of humans to illness in different forms. It relates to experience and

environmental surroundings including the social context. Thus, folk medical health care does not separate patients from their community, but it considers the social structure and environment of the patients such as social culture, beliefs, and religion (Srijareonjira, 2003). The wisdom in the folk medical health care system can be arranged in a social network that comprises of the social relationships of the patients. It includes the relationships of family members, relatives, neighbors, friends, etc. When people have a sickness, the social network plays an important role to manage the patient's sickness and helps to determine the process of the selection of resources, diagnosis, and treatment (Krairach, 2003).

Folk medical wisdom also reflects social values. The diagnosis about the cause of sickness is based not only on the unbalanced relationship between the patients and nature and super natural powers, but also on problems in their relationship with others in the society. For example, one could become sick because of his or her misbehavior, something that deviates from the societal norms (Somboonna, 1998). So, folk healers must have a role to help these patients to solve misbehavior problems such as worshipping sacred ones. In conclusion, when researchers need to study folk medicine wisdom they have to try to understand not only the treatment process or knowledge of the recipes but also they have to understand all important factors in that community.

4. Religion

Religion is one important factor to set health conditions. It provides a lot of information to prohibit or promote personal performance, such as prohibiting alcohol drinking; or promoting vegetarianism practice. So, some prohibition and promotion will have an effect on the health of the religious followers. The different religious philosophies will affect a practitioner to have a different format or concepts of

practice. When determining through the methods of the treatment of folk healers on interviewing, diagnosis, an explanation related cause of a disease, technique, and an explanation related to the result of treatment, some of these are influenced by the beliefs of religion. Most folk healers believe that many illnesses happen due to supernatural powers, so the result of this belief initiates the rituals such as begging or bringing a supernatural power to treat the patients (Paonil & Sringeriyuang, 2002). For example, a belief related to the Buddha and ghosts is rooted in the belief that if a ghost is the cause of an illness, Buddha can always help to remedy that illness. So, folk healers have to pray for the sacred power of the Buddha; or cover an image of Buddha with gold leaves, etc.

Usually, Thai Buddhist folk healers treat patient by considering two parts: physical and mental health, which is the concept of Buddhism, so the process of treatment is always conducted for balancing these two parts. For treating the physical part folk healers use various methods depending on the kinds of and symptoms of the patients such as using herbal recipes; massage; hot compression; hot bath. Also, for treating the mental part, folk healers use a blend of rituals and incantations to enhance the willpower of patients, such as giving holy water as a blessing; doing meditation; praying or worshipping; teacher worshipping; saying a magic formula before making medicine or before massage; making a pilgrimage; etc (Nokkeow, 2006). In addition, Buddhism has influenced the behavior and ethics of folk healers. Buddhist folk healers always hold on to Buddhism for practice following morals and ethics by themselves because they believe that Thai folk knowledge is subject to give both merit and demerit. If folk healers do not keep the commandments of the Buddha, it

will affect the potency of their prestige and power, and the efficiency of their herbal recipes including the sacredness of incantations (Paonil & Sringernyuang, 2002).

5. Health policy

Health policies are usually adjusted following the stipulation of the economic, social, political, technological, and health problems of people (Srisangnam, 1994). They have important role to set the behavior and expression of the way of human life. Normally, the government declares a health policy for solving the health problems of the population which will affect the pattern of health behavior and the practices of folk healers.

In 1978 The World Health Organization (WHO) in Alma-Ata set a health policy that was the starting point for the Thai health system to turn back to TFM and herbs (The Division of Thai Indigenous Medicine, 2003). Thailand's Ministry of Public Health responded to WHO's policy by promoting the use of traditional medicine as stated in the Fourth (1977-1981) National Economic and Social Development Plans. Now, in the Tenth Plan (2007-2011), the policy's content follows the Ninth plan as a vision of "people-centered approach and the philosophy of sufficient economy" to "sufficient health system" (Chokevivat, 2005). It emphasizes the quality of the health system that is based on wisdom and learning for a unanimous and concerned society. It has adopted sufficient economy philosophy into practices by promoting the use of Thai wisdom and self reliance in health development. It also includes the holistic concept of physical, mental, social and spiritual health. The effective health system will bring about health promotion, disease prevention, treatment, and rehabilitation by the simple way of Thai folk wisdom (Bureau of Policy and Strategy, 2007).

TFM is more interesting now than the past because there is a division level of unit to support TFM revival but it is still only the starting point. The main caring unit of TFM development is the government under the control of modern medical practitioners that is directing the development of TFM into research to emphasize studies to measure, to understand and explain TFM. Most researches try to separate the material and knowledge from the context of the healers and the people that have beliefs related to their social and physical environment (Chuengsatiarsap, 2003). Moreover, there are some other obstacles in bringing traditional medicine services to the public which include (The Institute of Thai Traditional Medicine, 2002): traditional medicine policies are inconsistent; lack of support on the part of policymakers for traditional medicine; lack of acceptance of the validity of traditional medicine on the part of medical doctors and public health professionals; lack of qualifications of traditional practitioners, the general public's failure to recognize traditional healers' abilities; traditional clinics are not standardized; lack of research on traditional medicine procedures and drugs; the health care system's focus on imported chemical drugs.

6. Economy

Current social economical change has caused many foreigners to become interested in TFM because it uses natural methods and resources that help people to save cost and generates fewer complications. This situation also helps to drive Thai people to revive TFM which gives a chance to folk healers to have more of a curing role. However, from the influences of social and economical changes, the return of folk healers has deemed it necessary to change the pattern of the role (Suwannawetch, Sringsoenyuan, & Utthasit, 1992). Firstly, most of them have changed their service

from social welfare and support to remuneration. They cannot resist the trend of using money by bestowing a favor for treatment, so it has become necessary to change this pattern to become a systematic treatment of health care service. Their patients must pay a similar cost for treatment as in the western medical system (Sangpunha, & Suriyachaiya, 2004). Secondly, in social economical changes and the power of modern medicine, some new generations of people do not believe in the effective treatment of folk healers which causes them to adapt their role in many ways. For example, folk healers still have an important role to treat patients of chronic non-incapacitating dysfunction, but some of them adapt themselves by accepting methods and equipment of western medicine for enhancing the confidence of their patients such as using a stethoscope, thermometer etc. (Kulsomboon & Adthasit, 2007).

7. Education and training

From the past until present, Thai folk healers will pass on folk wisdom to a person in the same family, an interested person, or in the temple to a monk. Usually, folk wisdom learners are both of everyday people or monks who need to learn the knowledge from the expert folk healer (Krairach, 2003). If there are no such persons, the folk healer must consider that people who receive knowledge should be nice virtuous person. The disciple might be the person who searches for the reputable and expert folk healer teacher. They have to inhabit the teacher's house for learning and receiving a learned profession meanwhile they have to administer to the teacher by doing business, housework, or anything else the teacher instructs. A case study of Por Yaijarnkane Larwong, who lives in Khon Kaen province, had to follow this at his teacher's house because he wanted to learn the method from an expert folk healer to treat adenoids for his aunt (Pornsiripong, Usuparata, & Subcharoen, 1996). In

contrast, some folk healers need to learn TFM because they receive inspiration from their dreams, or are told by a ghost, or mysterious destiny, etc. Normally, this group of folk healers becomes healers over a shorter period of time than the previous group because they do not need time to practice. Mostly, their treatment skill comes from something that has a mysterious power to help them to practice. Also, they have an obvious treatment format different from the other groups such as using rituals, black magic, wizardry, etc. (Suwannawetch, Sringsoenyuan, & Utthasit, 1992). The way of learning is a tradition of training by the teacher as: one to one style; the content quantity is up to the disciple's need; no time limit on learning and will be up to their learning capacity; learning at the teacher's house; no cost of learning except the cost of respect to the teacher. It is a traditional style of learning that does not have an exact system of education.

The education and training of folk healers are taken from many sources; such as textbooks, ancestors, teachers, omniscience, and an institute. The length of education and training time is varied from 1 year to more than 40 years (Kulsomboon & Adthasit, 2007). Few of the folk healers, less than eight percent, have studied or learned from traditional medical schools or training institutes (Itharat et al., 2002). The compensation for the folk healers is not enough for them to maintain their lives, so most of them are part time folk healers. They have to use a lot of their time to do work, thus they have less time to acquire more knowledge or to practice seriously. Other folk healers exchange their knowledge and techniques together so as to apply this new knowledge in their treatment (Kulsomboon & Adthasit, 2007).

Thai Folk Medical Treatment for *Lom Ammapart* Patients

The World Health Organization reported that 15 million people suffer with strokes worldwide per year. From all of these, one third die and another third are permanently disabled. In developed countries, the incidence of stroke is declining largely due to efforts to lower blood pressure and reduce smoking. However, the overall rate of having a stroke remains high due to the aging of the population (WHO, 2007). In Thailand, a stroke is a major leading cause of death and disability with a high prevalence rate. As mentioned previously, the use of modern medicine is not enough to reduce this health problem. Evidence from several studies found that TFM also is an effective choice to use for treating stroke or *Lom Ammapart* patients (Keowngarm, 1995; Chinwanitcharoen, Thiyaworanunt, Lithisornthanoo, & Thongsangworn, 2002; Chansongkhoa, 2002; Sombat, Piriyanupong, & Arjnarong, 2003).

TFM Treatment for *Lom Ammapart* Patients is started by describing the characteristics of *Lom Ammapart*, followed by Cause of *Lom Ammapart*, Symptoms of *Lom Ammapart*, Investigation, Modalities of TFM related to *Lom Ammapart* patients, and *Lom Ammapart* treatment process.

Characteristics of *Lom Ammapart*

Wind element is defined as one of the four elements. It is movable but invisible. It is the body power to move other elements. If a wind comparison is made in modern medicine, wind may refer to the circulatory system, nervous system, and the movement of the lungs and stomach. When the wind cannot function as normal, it

can cause diseases and symptoms that are called the wind illnesses (Sukhothai Thammathirat textbook, 2005).

In Chawadarn scripture, the wind illness has been mentioned as caused by an abnormality of the blood and the wind element. It may cause human death because it is a disease that usually cannot be detected by a doctor. This disease is caused by inappropriate eating habits that make the symptoms related to the penalty of food consumption due to eating more than needed, eating a lot of meat, etc. Another cause of this illness is being exposed to extreme cold or hot weather. Both of these causes a turbulent flow or flow in the wrong direction of the two winds that usually flow normally (*Athokama Watha* is the wind flowing down to the lower part of the body and *Utthangkama Watha* is the wind flowing up to the upper part of the body). The abnormality may cause *Athokama Watha* flowing up to the head and *Utthangkama Watha* flowing down to the toes that make the blood becoming frothy and eventually heated. These conditions cause abnormalities in the human body and cause two unusual winds at the lower part of the body. Both winds are called *Lom Ammapleuk* and *Lom Ammapart* which flow from the ends of the toes to the upper part of body and cause the symptoms of *Lom Ammapart* in the body (Thai Medicine volume 2, n.d).

Some treatises have been mentioned in that *Lom Ammapleuk* and *Lom Ammapart* are caused by deforming *Sen Ussadakart*, *Sen Sumana*, and *Sen Ammapleuk*. *Sen Ussadakart* refers to the bodyline located under the pharynx down to the left about 1 inch, correlating with the aorta which is the path to pump blood from the heart to the arteries of the upper part of the body. *Sen Sumana* refers to the bodyline located at the middle part of the chest 1 inch above the xiphoid process. This

bodyline correlates with the aorta of the lower part of the heart which is the path to pump blood from the heart to the arteries of the lower part of the body. If both bodylines are disabled, the disruption causes obstructive blood circulation. It will cause a deformed heart and further cause toxic wind (Thai Medicine volume 2, n.d). Because of these situations, the heart will not have enough energy to pump blood to the upper part of the body especially into the brain, and then the symptoms of a *Lom Ammapart* will occur (Sukhothai Thammathirat textbook, 2005). However, when considering the symptoms caused by the toxic wind, it is found that both disrupted bodylines may cause symptoms such as drowsiness, nausea, jaw stiffness, and then unconsciousness (Thai medicine volume 2, n.d). These symptoms are similar to the symptoms of a CVA.

Sen Ammapleuk and *Sen Ammapart* are the bodylines that connect from the *Sen Sumana*. Then, *Sen Ammapleuk* connects to the left leg while *Sen Ammapart* connects to the right leg as if following the path of the blood circulation in the body (Sangpunha & Suriyachaiya, 2004). They support the blood circulation from *Sen Sumana* to forward through the organs in the lower part of the body. A disabled *Sen Ammapleuk* is caused by the tendon of this bodyline which is stiff or tight causing the bodyline to curve up. If it is too stiff or tight when the blood flows in this bodyline it will be obstructed and will not flow to other areas. The blood will become more toxic and will cause the symptoms of *Lom Ammapart* (Thai Medicine volume 2, n.d).

However, when considering all the information, the researcher concludes that *Lom Ammapart* is defined due to the wind illness that is caused by inappropriate eating habits or being exposed to extreme cold or hot weather. These causes will cause the disorders of both body winds, *Athokama Watha* and *Utthangkama Watha*

which will flow in the wrong direction. This situation then may affect the fire element because in the Chawadarn scripture, it is mentioned that the wind disorders cause the blood to become frothy and eventually heat as fire. It also may affect the water and earth elements because it is mentioned that there are 32 symptoms causing disorders. This may mean the disorders of 12 kinds of water element and 20 kinds of earth element. Since there is no textbook mentioning clearly about the sequence related to the four element disorders when a human has an illnesses, then this study can conclude only that and must be further researched in order to obtain more precise information.

In addition, from previously mentioned, there are unusual winds, *Lom Ammapleuk* and *Lom Ammapart*, caused at the lower part of the body. Both of winds are known to cause the symptoms of this illness. It is likely that, when *Athokama Watha* and *Utthangkama Watha* flow in the wrong direction, it will affect disorders of fire, water, and earth elements. If the four elements are imbalanced, it will cause *Lom Ammapart*. However, the physiological mechanism of how it happens currently has not been studied. *Lom Ammapleuk* and *Lom Ammapart* are the abnormal wind which flows from the toes up to the head which may flow through the area where the *Sen Ussadakart*, *Sen Sumana*, and *Sen Ammapleuk* are located. This makes these three kinds of bodylines cause disability due to the turbulent flow of *Lom Ammapleuk* and *Lom Ammapart* that lack energy to nourish these three bodylines. When the three bodylines are abnormal, it will result in atrophy of these bodylines and causes a disability of the wind to circulate the blood to flow through the blood vessels. It results in the turbulent flow of blood as mentioned previously that the wind will blow the blood into a bubble form. When this situation occurs for a while, it may cause

more toxicity of the blood. If this toxic blood flows back to the heart, it may lead to a deformed heart that will further cause toxic wind. This condition may cause the heart to be disabled in pumping blood to the brain.

From reviewing many TTM textbooks, it was found that the symptoms of *Lom Ammapart* are similar to the symptoms mentioned in stroke patients. In Rakanithan scriptures of TTM, it is mentioned that when *Athokama Watha* and *Utthangkama Watha* flow in the wrong direction, it will cause the symptoms of *Lom Ammapart*. If *Utthangkama Watha* (the wind flowing up to the upper part of the body) is in disorder, it will cause restlessness, swaying of hands and feet, nervousness, and often yawning and burping. On the other hand, if *Athokama Watha* (the wind flowing down to the lower part of the body) is in disorder, it will cause the symptoms such as unable to raise hands and feet, having pains and aches in every joint, and an overall feeling of painfulness. In Chawadarn scripture, the symptoms of *Lom Ammapart* are mentioned as causing an immovable hand and foot (Paetsart Sonkhrao textbook: developed version, 2000). Additionally, in Abhai San Tah scriptures, it is written as poem form that if *Lom Ammapart* attacks patients would have symptoms such as unconsciousness and attacks only one side of the body. In Sukhothai Thammathirat textbook, wind illness mentions the symptoms such as pain with lumps and stiffness, swollen, fainting, dizziness, flatulence, etc (Sukhothai Thammathirat textbook, 2005). Therefore, *Lom Ammapart* can be compared to a stroke because the cause and symptoms are similar.

In conclusion, a stroke in the definition of TTM is a wind illness due to the symptoms related to the imbalance of the wind element. In addition, as mentioned previously, the wind is light and moveable and can flow throughout the body by

passing through the bodylines. When the wind is abnormal, it may flow in the wrong direction or cause an obstruction. As a result, there is a blockage of the blood vessels which will occur after having this condition for a while (Paetsart Sonkhrao textbook: developed version, 2000).

When the wind element in the body cannot function normally, illness and conditions related to the wind illness would occur. Therefore, *Lom Ammapart* can be defined as the wind illness because it results from the wrong direction of flowing upper and lower wind in the bodylines (Sukhothai Thammathirat textbook, 2005).

According to statistics, it has been found that most stroke patients have an onset of stroke in old age. In Samudhathan scripture, a person who is more than 30 years old is considered in the group of old age or in the final period of life. If the person in this kind of group is sick he or she usually has a wind illness (Thai Medicine volume 1, n.d). The lower age of a person defined in this group as old age may be due to the fact that in the past medical technology was lower than the present time. Standards of living have also improved dramatically compared to the past, for example, better levels of sanitation, better understanding of how some diseases are caused. Therefore, people in the past had shorter lives because most of them died with diseases.

The differences between Lom Ammapleuk/Lom Ammapart

There are many definitions for classifying the differences between *Lom Ammapleuk* and *Lom Ammapart* as follows:

In Thai traditional medicine textbooks, it is mentioned that if the blood vessels are constricted or blocked temporarily for 2-3 minutes, then they loosen and the blood can flow again to support the brain, and the patients may have impermanent paralysis. They will recover within 24 hours. This illness is called *Ammapleuk*. On the contrary,

if the blood vessels are constricted or blocked for more than 8 minutes, the function of the brain is lost and the extremities cannot function properly therefore, the patients cannot recover back to their former functioning self. This illness is called *Ammapart* (Thai Medicine volume 3, n.d).

In the Thai Traditional Medicine Dictionary of the Faculty of Pharmaceutical Science, Mahidol University, *Lom Ammapleuk* refers to one kind of wind element which causes the failure of movement of the extremities without bone dislocation, whereas *Lom Ammapart* refers to another kind of wind element which causes the failure of movement of the extremities with shoulder dislocation (Boonyaprapatsorn et al., 1992).

In the journal of Herbs for Health, it was mentioned that *Lom Ammapleuk* is the condition that the patients can move their body parts of the problem areas, whereas in *Lom Ammapart* the patients cannot move them at all. The patients of *Lom Ammapleuk* still have partial sensation which is opposite to the patients of *Lom Ammapart*. The feelings on pressing the tendons of *Lom Ammapleuk* patients feel as if there are knots in the muscles. They also are different from the tendons of *Lom Ammapart* patients because they are lean and flat along the muscles that are difficult to activate by massage (The Editorial Department, 2007).

Cause of *Lom Ammapart*

In Chawadarn scripture, *Lom Ammapart* is called the wind disease because it has some problems related to wind element imbalance (Paetsart Sonkhrao textbook: conservative version, 1992). Normally, the wind element's properties are light and movable. It can circulate throughout the body by the bodylines. When the wind

element is abnormal, it will have movement in an improper direction or have immovability. Therefore, the obstructive of blood will occur after this situation has occurred over a period of time.

In order to explain the cause of stroke by TTM, it is necessary to mention the correlation between the theory of *Dhatu* (elements) and disease. Because TTM have not a name for a stroke it has to be linked by the most similar characteristics of condition and symptoms. According to Samutdhan scripture, the cause of a *Lom Ammapart* may be related to *Dhatu* imbalance of fire, wind, and water element that problem will further affect as earth element upset (*Muttakea Muttalungkung* (the brain), and *Naharu* (tendon)) (Paetsart Sonkhrau textbook: developed version, 2000). The abnormality of Three Samutdhans (*Pitta*, *Wata*, *Semha*) will be the cause of this illness by the following: (1) *Pitta yhon* (fire element hypo-function); (2) *Wata pikarn* (wind element dysfunction); and (3) *Semha kamroeb* (water element hyper-function).

If considering the result of Three Samutdhans in TFM, there are some similar issues as in western medicine as follows: (1) the result of *Pitta yhon* impacts on the wind element because the fire element cannot blow it to move in the body, (2) the result of *Wata pikarn* make it not able to push blood to circulate throughout the body especially to remote organs such as the brain, and (3) the result of *Semha kamroeb* will increase the concentration of blood constituents which leads to the blood becoming sticky and eventually lowering blood circulation.

Symptoms of *Lom Ammapart*

There are two types of paralysis symptoms patients exhibit as follows (Subcharoen, 1997): The first type of paralysis is a rigid type: when the healers

examine the heels of their patients they will find that the heel of the same side of the problem is shorter than the other side. There is also muscular rigidity and spasms (Subcharoen, 1997; Chaiprasitthikul, 2004). It is very difficult to recover from this type. The second type of paralysis is a soft type: when the healers examine the heels of their patients they will find that the heel of the same side of problem is longer than the other side but there is no muscular rigidity or spasms. This type is easy to recover from.

The normal symptoms of these paralyzes are immovable or hard to move in effected areas such as facial palsy which has eyes spasms, squint eyed, wry mouthed, unclear speech; left body paralysis patients cannot move or feel pain on the left side of their body. Every type of paralysis has bone displacement or bone looseness out of its socket. *Lom Ammapart* patients often have swelling at the tip of their hand and foot on the same side of the problem area (Subcharoen, 1997).

Investigation of *Lom Ammapart*

Normally, folk healers have three steps to perform a physical examination (Sangpunha, & Suriyachaiya, 2004). Firstly, they examine the physical body by observing the patient's characteristics such as balancing, speaking, and movement. They then examine the pulse of the hand and foot to investigate the wind from the head to the toes. Some methods propose that they test the walking capability of the patient by lifting the leg of the effected side as if the leg is in an erect standing position with the knee up. Then, they order the patient to straighten his or her leg by his or her self. If patient can do this, it means he or she can walk (Subcharoen, 1997). Secondly, the healers compare the foot of the patient and test for muscle strength.

Thirdly, the healers examine the shoulder to test how it falls. If the shoulder falls for 1 inch, it means the patient has the opportunity to recover back to normal but can not be able to work for some time. If it falls for 2 inches, it means the patient cannot do any activity for a long while. Also, if it falls for more than 3 inches, it means the patient cannot move it at all.

Modalities of TFM related to *Lom Ammapart* Patients

The theories and concepts of prevention, diagnosis, treatment and improvement of illness in traditional medicine rely on a holistic approach towards the sickness. The disturbances are treated on the physical, emotional, mental, spiritual and environmental levels simultaneously. As a result, most systems of traditional medicine may use traditional therapies or herbal medicines along with certain behavioral rules promoting healthy diets and habits (Chokevivat, 2003).

Folk healers have methods to treat *Lom Ammapart* patients by using massage and hot compresses to push the circulation of blood and wind which increase blood circulation and get rid of blood clots. After a massage, the folk healers give the patients a polyherbal medicine by oral administration. Some herbs have medicinal properties that improve the symptoms by dissolving clotted blood (Nokkeow, 2006). These medicinal properties are *Ros Ya* (taste of herbal medicine). *Ros Ron* (hot taste of herbal medicine) has an influence on warm the blood (Subcharoen, Sroisamrong, & Sittitunyakit, 2005). Folk healers usually use this method together with worship or magic to help the patient in harmonizing his or her body, mind and spiritual self. Folk healers can heal by accessing the context of the culture and environment of the people they are treating (Taoprasert, 1999).

***Lom Ammapart* treatment process**

There are 4 methods in treating *Lom Ammapart* patients as follows: (1) massage; (2) herbal medicine; (3) ritual; (4) advice during treatment.

(1) Massage

The study on the physiological efficacy of Thai massage has shown that it is much more effective on muscular function by increasing on flexibility and duration time of the muscles. Also, Thai massage can reduce the change of integral EMG which means the body of the client who receives the massage will decrease using the central drive to control muscles. From these results, it can be concluded that the massage has an effectiveness to improve muscular pathology (Leelayuwat et al., 1998). A study using a quasi-experiment to determine the effect of Thai massage on the reduction of blood vessel tension, found that after a Thai massage, pain as well as suffering and respiration rate were lower. Heart rate and systolic blood pressure were also significantly lower (Udompittayason, 1999). Additionally, there are more efficiencies of Thai massage on the body system such as strengthening blood circulation; removing the waste of cells to the venous system; relaxing the nervous system, relieving some pains and diseases etc. (Subcharoen, 1997).

When folk healers massage by *Jub Sen* massage (catching and pressing on bodylines) they try to rearrange the lines and tendons to be in order which allows a better flow of blood and wind (Nhootim, Sitthikraipong, Pukanadd, & Thangsukleuthai, 2007). They have several ways of *Jub Sen* massage as outlined: 1) to scratch lines by using the forefinger to scratch a line parallel to the tendon to activate the problem areas, 2) to bring about lines by using equipment such as thin stone, or coin to nudge deep lines to activate the problem areas, 3) to squeeze lines by

using the thumb with painted with oil to squeeze easily to push the obstructive wind in the cavity of lines, 4) to give foot treatment by using the heel and the sole to tread on the lines, 5) to pull the lines by using the forefinger actuating the lines rapidly in the problem areas, 6) to press the lines by using a finger or equipment and pressing on particular areas to take back blood and wind into those areas, 7) to pinch the lines by using the thumb and the forefinger and picking up the line gently and pursuing it through the whole line, 8) to support lines by using the thumb of one hand to press on the line and using the thumb of another hand to press on the lateral of that line to prevent rolling of the line, 9) to climb lines by using the thumb of both hands to press alternately on the lines (Sukhothai Thammathirat textbook, 2004).

Chansongkrhoa (2002) studied the treatments of illness with massages performed by folk healers in Songkhla Province. He found that folk healers use equipment for treatment such as herbal balls wrapped in pieces of cloth, massage oil, hot pieces of iron, and pieces of wood. There are 108 positions and typical styles of massage for performing on the body of patients.

The main techniques of folk healers are still similar to each other in the way of practices. Firstly, folk healers massage the muscle by pressing on the foot and wind channel. Then, they massage further on the back, leg and sign area of 1-5, arm and sign area of 1-5, shoulder and sign area of 1-5. Folk healers place a hot herbal compress on the muscle of the same side of paresis or paralysis. They compress until the temperature of the herbal hot compress decreases or use it for a duration of one hour (Subcharoen, 1997).

(2) *Herbal medicine*

The herbal medicines used can also be varied from one folk healer to another. However, there are three main types of herbs to use for *Lom Ammapart* treatment: oral herbal medicine; herbal hot compress; and herbal steam bath (Keowngarm, 1995). It is found that oral herbal medicines are generally classified as single herbal medicine which contains only one kind of herb, and polyherbal recipes which contains two or more kinds of herb. Usually, folk healers often use polyherbal recipes after a massage to strengthen its efficiency for treating the *Lom Ammapart* patient. A herbal hot compress is used in combination with a body massage in order to reduce massage induced pain, relieve line tension, or increase the effectiveness of the massage treatment. Herbal steam bath is used for the patient who has diseases associated with muscular problems such as a *Lom Ammapart*. It can be used as circulatory stimulation resulting from a high temperature (Subcharoen, 2001).

Polyherbal recipes are often used by folk healers for *Lom Ammapart* treatment based on the fact that every herb in polyherbal recipes can provide a special function, and lastly, form an integrated function for more effective treatment to treat and prevent *Lom Ammapart* complications. Single herbal medicines contain multi-ingredients, but these ingredients do not play such a role as herbs in polyherbal recipes (Li, Zheng, Bukuru, & De Kimpe, 2004).

(3) *Ritual*

There are three steps of the ritual process of the folk healer treatment: pre-treatment, during treatment, and post-treatment (Keowngarm, 1995). The Buddhist folk healers pray to the Three Gems in the pre-treatment phase and during the treatment pray for the recovery of their patients. In the last step, when the folk healers

finish the treatment for the *Lom Ammapart* patients, they worship *Kru Mhor* (dead teachers) to show their respect to their teacher.

(4) Advice for Lom Ammapart patients

Usually, when folk healers finish their treatment, they give suggestions and advice to the patients to practice at their home such as prohibiting the consumption of certain foods, and prohibiting other practices as further outlined.

Prohibited foods

Mhor Kosol, a folk healer, who stays in Narathiwat province always suggests to patients to not eat foods such as cucumber, luffa, bottle gourd, wax gourd, Ipomoea, pork, chicken, fish such as giant snakehead fish, common climbing perch, spine fish, pickled or fermented food, and monosodium glutamate (Ittharat et al., 1997). Similar to the findings of Keowngarm (1995), the folk healers in Songkhla province suggest to their *Lom Ammapart* patients to avoid foods such as pickled or fermented food; iced food and drinks; alcohol, milk, aerated water, coconut milk; pork, chicken, shellfish especially pond snail, scale less fish especially swamp eel, animal entrails; a climber or a vine such as legumes, beans, pea, cucumber, water melon, luffa, bottle gourd, grape; some types of fruit such as rambutan, lansia, twisted cluster bean, eggplant, jackfruit, durian, banana, Chinese pear, apple, taro, and sweet potato.

Prohibited practices

Folk healers in Songkhla province prohibit *Lom Ammapart* patients from eating foods with strong tastes such as strong spicy, creamy, and sour foods. Also, *Lom Ammapart* patients are prohibited to bathe in exceedingly cold water, go out in the rain, and have sexual relationships (Keowngarm, 1995).

Nursing Role related to TFM

The way to develop the potential of nurses to have the capability of integrating complementary therapies is to start at the foundation such as revising the curriculum of nursing to add a subject related to those wisdoms, training nurses to have a better understanding of them (Stuttard & Walker, 2000; Sooksuk, Hatthakit, & Kasetsomboon, 2005). Similarly, before nurses can be involved in TFM service they have to learn and understand the way of the beliefs and practices of TFM. The results of this study will help nurses to understand the cultural meanings and the practices of folk healers in treating patient. As mentioned previously, folk healers usually treat *Lom Ammapart* patients by using massage and polyherbal medicines that can be seen, combined with the beliefs and culture that are difficult in seeing their meanings. So, the findings of this study will be useful for nurses to broadly see and understand the information which can them to select more appropriate alternative treatments for their patients.

Secondly, nurses can take this knowledge to consult with the patients and their families when they need to select alternative medicine. Currently, professional nurses can practice in relation to complementary medicine within the scope of the nursing role (Fontaine, 2000). The nurses' role refers to nursing practice to a person, family, and community by educating, introducing, giving counsel, and solving problems related to health and sanitation (The Professional Act, 2008). At present, a number of patients have access to nurses and often ask them about complementary therapies, or even how to go about getting them. Also, nurses are key providers of health care in both clinical care and community care settings, or as self employed consultants, and engage in longer contact clients than other health care practitioners to discover what

clients are using or if they want to use complementary therapies (Frenkel & Borkan, 2003). Nurse believe that it will help to increase the efficiency of caring, increase the alternative choices of treatment for clients, promote using wisdom, reduce the cost of treatment, and be an independent role of nurses. So, it is necessary to support nurses to learn about eastern wisdom for enhancing the efficiency of counseling to patients (Sooksuk, Hatthakit, & Kasetsoomboon, 2005).

Thirdly, nurses can be coordinators to collaborate with folk healers for treating patients and to communicate between folk healers and the patients and their families. In the study related to the phenomena of therapy by folk healers for chronic patients who have been discharged to recover at home, the researchers offer the suggestions that nurses can merge in their role. For example, the health staff must promote folk healers for treating and caring for chronic patients by training them in an approved curriculum, teaching them techniques of health counselling, developing a body of knowledge about home visits to give therapy and care (Singchangchai, Itharat, Subcharoen, & Khongsuwan, 1997). Although now, the empirical knowledge related to TFM is limited, the knowledge from this study will be useful for nurses to gain a wider insight to understand folk healers and coordinate with them to promote the health of patients.

Ethnographic Methodology

Ethnography is the primary method in this research because it is concerned with the study of beliefs and cultures. Ethnography is the work to depict a culture from the understanding of the native point of view. In order to describe the cultural scene or point of view, the ethnographer has to do field work on the individuals' way

of life through being part of that scene such as “asking questions, eating strange foods, watching ceremonies, interviewing informants, etc”. (Spradley, 1979). The ethnographer always seeks out the usual way or the daily lives of people through patterns of human thought and behavior (Fetterman, 1989). Additionally, Spradley (1979) mentioned that the essential core of ethnography is the meaning of actions and events to the people in which the ethnographer searches for understanding. These meanings can be expressed directly through language or indirectly through action. All of these meanings evolve through their culture, so the ethnography is established based on knowledge of a culture (Spradley, 1979).

The main reason of selecting Spradley’s ethnography to be used in this study is the appropriateness of the methodology with the objective of the study that is to identify and describe the beliefs and cultures influencing the practice of folk healers in treating *Lom Ammapart* patients. Spradley’s method is systematic ethnography which has an objective to “define the structure of culture, rather than to describe a people and their social interaction, emotions, and materials” (Speziale & Carpenter, 2003). In addition, the way to understand TFM is different from the way of medical science because it is a socio-cultural system which relies on holistic health care. Its development is based on the local culture, traditional knowledge, beliefs, and practices of the people in the community which differ from one area to another. Also, it is not only the system of treating a disease but it is also the system of social network which composes of the relationships of all people in that community such as the relationships between folk healers and patients, folk healers and their neighbors, or patients and their families (Krairach, 2003). By this way, it is necessary to use

ethnography especially Spradley's method to explain social experiences, social structure, and cultural structure of the interested group.

Moreover, some of its steps relate to elicit ethnosemantic data involved with folk healers' experiences, beliefs and cultures in treating *Lom Ammapart* patients in order to study what underlies the native's point of view, cognition, and social behavior (Spradley, 1979). These steps give an outcome in accordance with the direction and strategy of the Department for Development of Thai Traditional and Alternative Medicine especially in the third item. It focuses on the understanding of cultural concepts, beliefs, and practice including language, symbols, and rituals which are assembled in the folk medical system and are the most important in reviving the system to be consistent with the social context and maintained uniqueness (Chuengsatiansap, 2003). From this point, the way to respond to this strategy is the study related to understanding the cultural meanings of TFM including all of its system by using Spradley's method.

Trustworthiness refers to the reliability and validity of the research findings (Lincoln & Guba, 1985). There are four criteria that researchers can utilize for evaluating research findings and increasing trustworthiness. These criteria can be both incorporated into a research design and be used to assess qualitative findings. Firstly, credibility is an assessment of the believability or credibility of the research findings from the perspective of the members or study participants. It means that the findings of a study are true. Secondly, transferability refers to the degree that findings can be transferred or generalized to other similar settings, contexts, or populations. The other researchers can apply the findings of one study to their own. Thirdly, dependability relates to the importance of the researcher accounting for or describing the changing

contexts and circumstances that are fundamental to research. There should be consistency in making the same findings under similar circumstances. Dependability may be enhanced by altering the research design as new knowledge emerges during data collection. Lastly, confirmability refers to the extent that the research findings can be confirmed or corroborated by others. It is the findings and conclusions that achieve the researcher's aim and are not the result of their prior assumptions and preconceptions. Strategies for enhancing confirmability include searching for negative cases that run contrary to most findings, and conducting a data audit to pinpoint the potential areas of bias or distortion.

Since this ethnographic research takes place among real human beings, there are a number of special ethical concerns to be aware of before beginning. The first, approval for research study will be submitted to obtain the permission from the Research Ethics Committee. The research goals should be clear to the informants in order to gain their consent for the research beforehand. The inclusion of participants is voluntary and they are given a guarantee of anonymity. All participants are required to sign a consent form to show that they agree to participate in the study. The research study will not harm or exploit them. The informants are free to refuse to answer any question and free to withdraw from the study at any time. The interview will be kept strictly confidential and will be made available only to members of the research team.

CHAPTER 3

METHODOLOGY

This research focuses on treatment practices of Thai folk healers. Building on Thai folk medical and cultural approach using Spradley's ethnographic methods (1979), qualitative data was collected. This chapter includes the descriptions of research design; study setting and context; informants; recruiting procedures; research tools; the study process; data collection which included in-depth interviews, and participant observations; data analysis; reporting findings; establishing trustworthiness; and ethical consideration.

Research Design

An ethnographic method was employed in this study because it is a way for understanding and learning from people's experiences or way of life from the native point of view (Spradley, 1979). It enables the researcher to explore, analyze, and explain Thai folk healers' and *Lom Ammapart* patients' viewpoints, beliefs, cultures, social behavior, practices, and meaning of the recognition of the complexity of health and illness related to *Lom Ammapart* treatment under TFM.

Study Setting and Context

This research was conducted in Songkhla province based on intensive fieldwork carried out over approximately a year. Songkhla has an area of about 7,394 square kilometers. It is located on the east coast of southern Thailand and approximately 950 kilometers from Bangkok (Figure 12). The south of Songkhla

connects to Kedah and Perlis states of Malaysia. Songkhla consists of 16 districts (Ampher): Muang, Ranode, Kasaesin, Satingpra, Singhanakorn, Rattaphum, Kuanniang, Bangklam, Khlong Hoikhong, Hatyai, Namom, Sadao, Natawee, Chana, Taepha, and Sabayoi (Department of Local Administration, 2011).



Figure 12: Map of Songkhla province (source: www.saltwater-dreaming.com)

In the tenth Buddhist century, India began coming in by spreading Buddhism and Brahmanism that influenced most arts, beliefs, traditions, culture, literature, and law. The twelfth Buddhist century was the beginning of spice trading with Persia and Arabia which caused the spread of Islam into this area (Department of Local Administration, 2011). All of these caused Songkhla to become rich in cultural

diversity. Cultural diversity is mentioned in terms of local wisdom and local village culture due to similarities in natural resources and environment. There are especially close relations between the Thais of Songkhla and the people of upper Malaysia in terms of administration, trade, and culture. This may be seen in terms of local wisdom and customs related to village life, such as the eating culture like the production and eating of *budu* (local food of southern Thai); housing like the building of houses on stone stilts; dressing like the wearing of sarongs, or *batik*; and health and medicine like the role played by midwives called *Tho Bee Dare*. These things indicate a pre-existing common culture that has been handed down until today. This culture has deep roots and is very widespread (Pongpaiboon, 2002).

Songkhla also has various forms of topography such as beaches, the seaside, lakes, islands, waterfalls, and wild forests (The Tourism Authority of Thailand, 2008). Because of Songkhla's geology it has been an easily accessible place for the countries in Southeast Asia over a long period of time which has led Songkhla to develop itself as a center of variety in southern Thailand such as in business, transportation, education, health care, etc. Songkhla is an important center for health care in southern Thailand and there are a lot of folk healers who are expert in treating *Lom Ammapart* which are the reasons that the researcher selected to study in Songkhla province.

Songkhla has a total population of 1,357,023 inhabitants with 662,475 (48.82%) males and 694,548 (51.18%) females. The majority of people who live in Songkhla are Buddhist at 64.71% and 31.98% are Muslim whereas other religions equate to 3.31% (Department of Local Administration, 2011). Most of the population speaks southern Thai. There are many different occupations but the main ones are in the agriculture sector such as cultivating rubber trees, and paddy fields, or orchard

work. Other occupations in the area are fishery, trading, and industry (Department of Local Administration, 2011).

The health care system of Songkhla meets the standard criteria of process indicators in that there are more than 4 localities of primary health care services per 500,000 of the population (Theeraworn, 2003). Currently, Songkhla's public health services are general hospitals, community hospitals, and public health centers extended to support people in individual areas. There are also hospitals under the social security project for assuring the health problems of the population. Songkhla is the center for health care services in southern Thailand because of the many kinds of services on offer such as hospital centers, a university hospital, dental hospital, psychiatric hospital, public health centers, etc. (Office of Songkhla Province Administration, 2011). Although there are public health services scattered in all communities, the ratio of health practitioners per population is not sufficient for treating health problems thoroughly. In Songkhla, the ratio of physician per population is only 1:2,136 (Office of Songkhla Province Administration, 2011). The Ministry of Public Health has tried to solve this problem by promoting traditional medicine to support primary health care services. Songkhla has TTM clinics in almost every community hospital. It also has various kinds of traditional health medicine services including TTM clinics, herbal shops, herbal factories, spa centers, massage health centers, and massage centers at beauty shops (The Institute of Thai Traditional Medicine, 2007).

In southern Thailand, there are many folk medicine cultures which are rather similar in each area because they are transferable to each other in those communities nearby. However, the different topography influences the different kinds of herbs in

each community. Therefore, the folk healers in each area may have different herbal recipes to treat the same illness (Academic Affairs, 2010). The majority of folk healers are folk masseurs and folk herbalists and they can be found in every province of southern Thailand. Many folk healers can also be both masseurs and herbalists because they can massage and use herbs in treating patients.

Currently, there are many folk healers who can treat stroke patients throughout southern Thailand. The number of this kind of folk healers depends on the number of patients coming to receive treatment. These folk healers are still popular with stroke patients because they have found from their experience or from word of mouth from other patients that folk medicine can treat stroke symptoms better than modern medicine or can be trusted on its efficiency. In addition, some patients have admiration in the type of treatment they receive from folk healers because they see that folk healers give priority to the social dimension by allowing the participation of family members, relatives, or friends in the treatment process more than physicians allow (Academic Affairs, 2010).

Songkhla is one of fourteen provinces in southern Thailand. It has a lot of traditions steeped in southern Thai culture. In this study, there are ten communities which are the residence of ten folk healers. These communities are located in seven districts of Songkhla province which have been arranged in order of distance from the district of the researcher, namely; Narmhom, Khlonghoikong, Rattapuem, Kuanneang, Mueng, Singhanakorn, and Satingphra. Three folk healers live in Singhanakorn and two folk healers live in Satingphra, whereas the rest live as one per district. All communities have a similar environment in that the topography is generally flat lowlands. The weather is tropical and there are only two seasons, the

rainy season and the hot season but there is rain almost all the year round. There is much remaining forests on the way to the communities. The communities had a lot of natural resources such as plentiful rivers, land, water, and forests.

All communities are more than five hundred years old and they are located far from the main towns of the districts. However, the lives of the people in these communities are comfortable because they are supplied with enough public utilities. There are several routes in and out of the communities and there were connected routes to go anywhere. Every community had enough health care centers such as a public health center and a district hospital. In Songkhla province, there are many large hospitals to serve the patients such as the provincial hospital, the university hospital, the regional hospital, the private hospitals, and particular clinic hospitals. Moreover, there were many private clinics in every community to serve the patients at an inexpensive cost. However, many people usually like to go to the larger hospitals more than the community health promotion hospitals in their community although their illnesses are not severe or critical.

Most people in the communities are local people who are related to each other and have good relationships and are willing to help or support each other. The district of Mueng, Singhanakorn, and Satingphra is connected to the seashore of the gulf of Thailand, therefore, the main occupation of the older generation was related to fishery. This is different from the older generations of the other districts which are not connected to the seashore. Therefore, their main occupations are rubber plantation workers or farmers. These occupations have been passed on to them from their ancestors. The older generation including folk healers had low education. Most of them had finished study at the fourth level of primary school. For the younger

generation who has a better education they usually work outside the community in government employment, industrial factories, or private business, etc. This has resulted in some of them having moved out of their district to live near their workplace. However, they usually come back to visit their family every celebration season.

Most people in the communities are Buddhist. There are many temples in the communities and in surrounding areas for practicing religion and also for socializing for older people. Every weekend and religious days people always gather together at the community temple for religious ceremonies. Other places people meet in the community are local coffee shops or grocery shops. There, they usually meet and talk about various topics such as the people in the community, politics, economic affairs.

Informants

Informants in this study consist of key informants and associate informants. The key informants are Thai folk healers. The inclusion criteria of Thai folk healers are: (1) having over ten years of experience as a healer of *Lom Ammapart* patients, (2) being a well-known folk healer and still providing folk medical services to *Lom Ammapart* patients everyday, (3) having their domicile in southern Thailand, and (4) being able to speak and understand Thai or southern Thai.

All of the informants were selected for the appropriateness to the objectives of this study. In addition, information on Thai folk healers, *Lom Ammapart* and *Lom Ammapart* related issues, as well as socio-cultural issues related to community sectors were collected from secondary sources such as local health offices, public health centers and local newspapers.

The number of key and associate informants was considered by saturated information (Lincoln & Guba, 1985). Eventually, in this study there were ten folk healers, eight *Lom Ammapart* patients, five family carers of *Lom Ammapart* patients, five family members of the folk healers, four neighbors of the folk healers, three nurses in hospitals, and four nurses in health promotion hospitals.

Recruiting Procedures

The lists of folk healers in Songkhla province from the Songkhla Provincial Public Health Office, folk healer network, and literature reviews were initially sought. The snowball sampling technique by asking more informants from primary folk healers was also used.

Research Tools

The Researcher

To ensure the researcher's capability of collecting data, several skills were included such as recognizing and recording verbal and non-verbal contexts of informants which accompany social interactions such as learning their culture, observing what happens, listening to what was said, asking questions, collecting artefacts, and documenting the data. The sensitivity of the researcher to the informants was extremely important particularly when participating in the informants' daily lives and their activities for an extended period of time for gaining rapport to collect credible data. Additionally, the capability to analyze data by imposing some form of order onto the data and contributing to the understanding of the research problem

including capability to report the findings that were discovered during field work were maintained.

Interview Guide

The demographic information form was gathered and included in the interview guide to gain primary information on the informants (Appendix A).

The idea of an interview guide is to get informants to open up and let them express themselves in their own terms and in their own place. Guiding questions were aimed at the basic point of ethnography for gaining the viewpoint of informants. The interview guides (Appendix B) were used throughout all phases of interviewing depending on the informant groups. The researcher also kept focused on the objective of the research study and let that objective guide the interviewing process. The principles of interviews were asking open-ended questions, using understandable and appropriate language and clear questions; using probes and reinforcement questions to get more depth and detail; listening attentively and responding appropriately; observing while interviewing, being aware and sensitive to how the informants were affected by and responded to each question; tape recording to capture quotations for analyzing and reporting.

Observation Guide

Observation is the main source of data in ethnographic research. The observation guide (Appendix C) was a tool for the researcher to record and document everything that happened in the field site. The researcher engaged in observation in order to gain insight into cultural practices and phenomena at the healing centers of the folk healers. The observation gave information about all informants' places, activities, events, and feelings. The most difficult part of an observation was to

maintain objectivity and record the events as they actually were and not interpret, evaluate or jump to conclusions. Thus, the main task of the researcher was to record in as much detail as possible the events, the actions, and the behaviors of all participants in that event.

Field Note Taking Form

Field-note taking form was conducted to note communication and action, nonverbal behavior, and aspects of the physical setting in order to understand the activities of the informants (Appendix D). The researcher wrote down everything observed and heard to capture and highlight major points. Keeping field notes was a good way to keep track of what was happening in the field site. So, notes should be written immediately and in as much detail as possible after leaving the site. In the field-note taking form, the researcher identified which were the researcher's terms and which were the informant's terms to see what was happening from a nonjudgmental and unbiased perspective. Then, field-notes helped the researcher to understand the differences between her own personal perspectives and the informants' perspectives. Also, it helped the researcher to generate more questions that required more interviews or more observations in order to broaden understanding about the research study.

Camera

The researcher could take photographs to capture actions so that the researcher could analyze the events and look at what happened from a very different perspective.

Audiotape Recorder

Tape recording was used to capture some situations in order to analyze the data and report the findings. To improve the accuracy and objectivity of data

collection, the interviews were audiotaped according to the interview guide. Usually, the researcher asked for permission before recording. Not one of informants refused to audiotape recording.

The Study Process

There are two phases of the study process: the preparation phase and the data collection phase.

Preparation phase

The researcher prepared the academic and community sections before entering into the fieldwork. Preparing the academic section comprised of reviewing relevant literature and knowledge on ethnographic methods such as data collection, data management, and data analysis. Preparing the community section comprised of gaining access to the participant, gaining rapport with the participant, and data collection techniques; for example, interviewing, observing, taking field notes, etc.

Before studying in the doctoral program, the researcher had a lecturing background in the Faculty of Traditional Thai Medicine, Prince of Songkla University, and has experience in doing qualitative research related to the treatments of folk healers in Songkhla province. These previous experiences could enhance the researcher in acquiring the knowledge, skills and cultures of folk healers to enable and conduct ethnographic study, particularly gaining access to the folk healers.

In addition, the researcher had conducted a pilot study to describe “Thai Folk Medicine for Stroke Patients in Patthalung Province”. This enabled the researcher to understand some viewpoints of southern Thai Folk Medicine in treating *Lom*

Ammapart patients. The researcher could then plan for further steps in collecting data in the fieldwork.

The information about folk healers and the specific communities were searched from the documents in the Provincial Public Health Office in Songkhla province. After consultation with the health office staff and searching from relevant literature, the researcher gained some lists of well-known folk healers in treating *Lom Ammapart* patients located in Songkhla province. The key informants were then approached at their workplaces. The study process was started after gaining permission in the field.

Data collection phase

In this phase, data was collected and analyzed by using Spradley's method (1979) as a guide. Twelve steps used were: Step one: locating an informant, Step two: interviewing an informant, Step three: making an ethnographic record, Step four: asking descriptive questions, Step five: analyzing ethnographic interviews, Step six: making a domain analysis, Step seven: asking structural questions, Step eight: making a taxonomic analysis, Step nine: asking contrast questions, Step ten: making a componential analysis, Step eleven: discovering cultural themes, Step twelve: writing an ethnography.

Initially, the researcher followed step one by preparing a list of folk healers who specialize in treating *Lom Ammapart* patients in each area of Songkhla province. The key informants were selected based on the inclusion criteria of Thai folk healers. Then, the researcher entered the fieldwork to form a relationship and build trust with key informants. After gaining rapport, the researcher began step two by conducting interviews with the informants. Normally, the researcher started an interview by

asking general questions such as “How many patients do you have today?” Simultaneously, the researcher also performed step three by tape recording interviews and taking field notes during observations. In making an ethnographic record, the researcher also photographed important events such as the treatment process of giving a massage or giving herbal prescriptions. In step four, the researcher started to ask informants descriptive questions that were more specific about their experiences such as “What are signs and symptoms of *Lom Ammapart* patients?” The researcher usually collected the data and analyzed it simultaneously. When there was sufficient information from the interviews the researcher left the field and started step five by analyzing the data. The researcher started an analysis by making a domain analysis which is the way to categorize meaning by selecting a semantic relationship that would be mentioned further in the topic of data analysis. Then, the researcher collected more data in step seven by asking additional questions of the informants. These were structural questions to get more specific information to make a taxonomic analysis in step eight. For example, “What are all the parts of the bodyline that are appropriate to massage in treating a *Lom Ammapart* patient?” This step is important in finding out more terms from the domain analysis. In step nine, the informants were asked contrast questions such as “What are the differences between the symptoms of *Lom Ammapleuk* and *Lom Ammapart*?” These kinds of questions were asked to compare the differences or similarities of the two terms from a domain to make a componential analysis. Then, the themes emerged from many categories of terms that came out from the above three types of analysis. Lastly, in step twelve, the ethnographic report was written from these themes.

This ethnographic study typically employed data collection of qualitative methods including: (1) in-depth interviews; (2) participant observations; (3) field note taking; and (4) audio-tape recording during field visits.

1. In-depth Interviews

The researcher usually started an interview with techniques on gaining rapport, explaining about the research study, and asking permission to tape record.

As mentioned above, in gaining rapport, the researcher had to enter the fieldwork at the initial step for a while to become familiar with the informants. The researcher tried to create a good relationship with these informants. When the researcher has gained the trust of the informants it is easier to get deep information from interviewing. However, some informants were difficult to approach due to bad experiences with previous researchers who behaved in an unethical way such as exposing the informant's techniques to others without asking for permission. Therefore, one of these informants refused to participate in this study, while with other informants the researcher had to spend considerable time to form a trusting relationship and gain rapport. To reduce this situation, the researcher was introduced to the informants by the public health staff in the same community. Prior to an interview, the researcher explained to the informants about the research objectives and usefulness of the study, including the consent form for confidentiality issues.

In-depth interview techniques comprised of getting started, letting the informant lead, and probing. It took approximately one to one and a half hours for each interview and tape recording was allowed when asked for permission. If interviews were done with the folk healers, the *Lom Ammapart* patients, their family carers, and the family members of the folk healers; the interviews took place at the

folk healers' houses. In addition, if interviews were done with the neighbors of the folk healers, nurses and other health providers; the interviews were done at any place that the informants found convenient to give information such as their houses, or their offices. Each folk healer was interviewed at least three times to gain rich information whereas the associate informants were interviewed at least once.

The in-depth interviews were used to obtain information from the folk healers about their meaning and experience in treating *Lom Ammapart* patients. There were many specific questions to ask the folk healers that were descriptive questions, structural questions, and contrast questions. For example, "What are the methods of investigations and treatment of a *Lom Ammapart* patient?" Additionally, the in-depth interviews were used to obtain information from associate informants such as *Lom Ammapart* patients about their perception and experience of receiving treatment from folk healers. For example, one question put to *Lom Ammapart* patients was, "Are you satisfied with the treatments obtained from the folk healer and how are you satisfied?" Other associate informants also were interviewed about their experiences related to the treatment given to *Lom Ammapart* patients by folk healers. For example, the carers of *Lom Ammapart* patients were asked some questions such as "What are the suggestions that the folk healers give you to practice in caring for *Lom Ammapart* patients?" The informants were interviewed until there were enough details to analyze and there was no new information obtained from more interviews. At this point the data is saturated which is important to qualitative study for reliability and validity.

2. Participant Observations

Participant observations were a primary part of the methodology which can produce a very deep understanding of the topic. This included general observations

employed during field visits and specific observations applied while working as a volunteer assistant to the folk healers.

At the initial step in doing this research study, the researcher had to do general observations to see the whole picture in the fieldwork such as the community setting including environmental conditions, facilities, social relations, and relevant events related to the cause of illness, such as lifestyle, activities, etc., and traditional and cultural events in the communities. In addition, the healing centers of the folk healers were observed for general information to see the overall picture of the conditions such as the environment both outside and inside their healing centers, the kind and number of patients, and the medical instruments of the folk healers.

When the researcher had more understanding about that community and the healing centers of the folk healers, the specific observations were conducted. This kind of qualitative method was also utilized to obtain information on the practices of folk healers related to the treatment of *Lom Ammapart* patients. To obtain all information in particular issues according to research questions, the researcher had to use an observation guide as a guideline to prevent missing data. The specific information were observed such as how the folk healers make relationship with the patients, how they investigated *Lom Ammapart* patients at the initial step to treatment, how they massaged *Lom Ammapart* patients in each step, or what the advice they gave to the patients during and final process of the treatment.

Data Analysis

Information obtained from the in-depth interviews, and observations during the home visits and fieldwork were analyzed by using ethnographic analysis. It is the

process of bringing order to the data, organizing it into patterns, categories, and basic descriptive units. Ethnographic analysis is comprised of 4 steps: domain analysis, taxonomic analysis, componential analysis, and thematic analysis (appendix E). Data collection and analysis were done simultaneously to gain understanding as the research progresses during fieldwork. At the beginning of the analysis, the decisions about the coding units also had to be made.

Domain Analysis

A domain is identification and categorization of meaning. This step was conducted by carrying out the interview data into the domain. This analysis was started by selecting a sample of informant statements, searching out words or phrases that could be part of a category, searching out possible cover terms and included terms, selecting a semantic relationship, using semantic relationships to connect the cover term and included terms, and testing hypotheses about relations between domains and domains and items. Include terms were identified into each domain by the researcher from the transcripts which were the similar meanings in the same group of each cover term. There are many semantic relationships given by Spradley (1979). For example, in the semantic relationship of “a way to do”, “learning TFM” was the phrase that was appropriate to be the cover term in the cultural aspect of learning to be a healer and the semantic relationship of this category was “the way to learn TFM”. There were many included terms such as learning from ancient textbooks, observing a teacher in treating patients, learning and practicing with a teacher, learning and practicing with patients, thus they are the way to learn TFM.

Taxonomic Analysis

The domains were collected from the first step of analysis to analyse further by taxonomic analysis. This step was used to make a folk taxonomy that was sets and subsets of categories. Also, it showed how these subsets were related to the domain as a whole. It showed the new relationships among all the folk terms in taxonomy within a domain. For example, in the way of learning TFM, there were two set as “learning” and “observing”. In the set of learning, there were two subsets as “learning in theory” and “learning and practicing”.

Componential Analysis

This step was used to make componential analysis by using contrast sets. It was the step that was used for understanding cultural meaning systems. This analysis investigated or explored the attributes or features of cultural symbols that distinguished them from others and gave them meaning. The basic idea in this analysis was that all items in a domain could be decomposed into combinations of semantic features which combined to give meaning to an item. The researcher selected a contrast set in doing analysis such as *Lom Ammapleuk* and *Lom Ammapart* to search for the differences. The advantage of this analysis helped the researcher to understand more in the differences between these two terms. For example, having light condition, having bone dislocation, having partial sensation are contrast dimensions related to the characteristics of *Lom Ammapleuk* and *Lom Ammapart*.

Thematic analysis

This step was used for learning the characteristics of themes in cultural meaning systems and learning to summarize the overview of the cultural scene. Most of the things in the field site were tacit, so one objective of ethnography was to reveal

these hidden themes. It could be used to explain large sections of a culture. The researcher could make final analytical procedures by establishing relations between domains in certain data which lead to the generation of themes.

Reporting Findings

The findings of the research study were propagated by constructing a thesis report and by publication. The actual content and format was depended on the information gleaned from the research. The researcher submitted this report and publication at the end of the Ph.D. program.

Establishing Trustworthiness

According to Lincoln and Guba (1985), there are four criteria that researchers can utilize for evaluating research findings and increasing trustworthiness.

Firstly, to achieve credibility, the researcher had to enter the field to do ethnographic research for one year. The researcher also had to do continuous observations to gather the data from the fieldwork. The researcher used triangulation such as using multiple methods of data collection including interviews and participant observations; using multiple data sources such as key and associate informants including the *Lom Ammapart* patients, their family carers, the family members of the folk healers, the neighbors of the folk healers, and nurses; consulted experts in regards to the fieldwork; and using several theories to interpret the results of the study such as social constructivism and symbolic interactionism. The researcher discussed the emerging themes with the informants during the research process.

Secondly, to achieve transferability, the researcher provided a thick description and verbatim quotations of the phenomenon in doing the ethnographic study by detailing the research methods, contexts, and assumptions underlying the study. This is so other researchers could apply the findings to other contexts of their own research. For example, TFM could be used in treating *Lom Ammapart* patients in other regions or settings where similar beliefs and cultures have.

Thirdly, to achieve dependability, the researcher must be conscious of constructing meanings throughout the research process, and acknowledge the role of data collection, data analysis, and knowledge synthesis. Self-awareness and self-reflection on biases and predispositions were performed as these might affect the research process and conclusions. Then, other researchers are able to reach similar conclusions by using the researcher's raw data, and analytical documents.

Lastly, to achieve confirmability, the researcher provided an evidence for the other researchers to follow and check whether they would arrive at similar conclusions. The triangulation was applied and was reflexive throughout the research process. For example, the researcher collected the data from various sources such as key informants, associate informants including the *Lom Ammapart* patients, their family carers, the family members of the folk healers, the neighbors of the folk healers, and nurses both in hospitals and in health promotion hospitals. The data were collected by using two methods of indepth interview and participant observation and investigated by the expert both in Nursing and TTM. Data investigation is conducted to identify if any part is biased or distorted. The analysis and discussion are based on

principles of ethnographic study, Buddhism, TTM theory, social constructivism, and symbolic interactionism.

Ethical Consideration

Before the beginning of the study, the researcher submitted the research study for approval in order to obtain permission from the IRB (the Institutional Research Board Committee) of the Faculty of Nursing's Ethics Committee. Then, the researcher sent the research objective and informed consent form to clearly explain to the informants about the research study to confirm the confidentiality of this study. Both written and oral information about the aims of the study was given to the person invited to participate in this study. The informants were informed that their inclusion in the study was voluntary and were given a guarantee of anonymity. All participants were required to sign a consent form to show that they agreed to participate in the study. Also, they were informed that the research study would not harm or exploit them and they were free to withdraw from the study at any time. The interviews were kept strictly confidential and were available only to members of the research team.

There was no risk to informants to participate in this study. However, if they felt discomfort with some questions during the interview, they had the right to not answer those questions. Then, the researcher asked other questions or modified those questions to reduce sensitive issues. If the informants experienced emotional problems, the researcher stopped the interview and looked for another time that was convenient for the informants to participate. Also, the researcher relieved the informants' emotional problem or looked for someone who was able to solve this problem.

CHAPTER 4

FINDINGS AND DISCUSSION

This chapter is a description in two parts. Firstly, it describes the characteristics of the key informants and associate informants, and secondly, it describes the findings and discussions. The data obtained from participant observations, in-depth interviews, and fieldnotes taken from ten key informants and twenty nine associate informants. These informants were residents of Songkhla province.

The Informants

The characteristics of key informants

Ten key informants who had gained high respect and were popular in treating *Lom Ammapart* were selected for the study. They had experiences in treating *Lom Ammapart* patients for more than ten years. Nine key informants were male whereas one of them was female. Having a predominance of male healers was probably because it was believed that a male should be the person who carried on the family mission and that males were more suitable for this service. Most key informants were born into middle class agricultural families and their father or grandfather or great grandfather was a healer. Usually, the healer's role was passed on to one of the descendant family members. They were older adults who had entered the work of healing from the time they were young either as an assistant or trainee to a healer. They were required to obtain direct training for a number of years (at least 1 year) until they had adequate knowledge and skill to carry on the healer role.

All key informants were Buddhist who strictly practiced the five Buddhist precepts in order to purify their minds prior to giving treatment. Two of them did not provide service on the Buddhist holy day in order to hold religious precepts at the temple. All key informants were married. They were experts in massage, especially *Jub Sen* massage (the main technique of massage to investigate and treat the bodylines). They were knowledgeable about *Sen* (bodylines) and related areas such as blood vessels, nerves, muscles, ligaments, and tendons. They also had successful experiences in treating *Lom Ammapart* patients by *Jub Sen* and giving herbal remedies for an exclusive period of time. Seven key informants were specialized in herbal medicine whereas the rest were not. Most of them gave prescribed herbal medicine guided by an ancient medicine textbook. Three key informants only provided massage to patients without giving a prescription of herbs. They were confident that only massage was adequate to treat the disease. Moreover, two key informants also used black magic to treat the patients.

Folk healing was hard work because it requires a lot of energy to massage patients throughout the day. Most key informants had more than ten patients a day. They usually massaged patients over a whole day from dawn until the evening or night. About half of the key informants worked every day, seven days a week including holidays. They did not stop their work because there was still somebody that needed their help. However, they were very happy to do that even though sometimes they were tired. They thought it was honorable work.

Table 1 Demographic characteristic of key informants (n = 10)

Information	Informant 1	Informant 2	Informant 3	Informant 4	Informant 5
Gender	male	male	male	male	male
Age (years old)	59	74	76	75	52
Religion	Buddhist	Buddhist	Buddhist	Buddhist	Buddhist
Marital status	married	married	married	married	married
Highest level of education	the forth level of primary school	the forth level of primary school	the forth level of primary school	the forth level of primary school	junior high school
Field of expert	massage, herbs	massage, herbs	massage, black magic, and etc.	massage, herbs	massage, herbs
Primary occupation	rubber tree farmer	rubber tree farmer	rice farmer	rubber tree farmer	fruit farmer
Experiences (years)	25	30	41	45	34
Average income/month (Baht)	15,000	10,000	9,000	8,000	8,000
Working time	7.00 am-6.00 pm Tuesday-Saturday	5.00 am-12.00 am Monday-Friday excepted Thursday	7.00 am-no limited excepted Buddhist holy day	All the time everyday	7.00 am-12.00 am everyday

Table 1 (Continued)

Information	Informant 6	Informant 7	Informant 8	Informant 9	Informant 10
Gender	male	male	male	female	male
Age (years old)	65	67	49	58	56
Religion	Buddhist	Buddhist	Buddhist	Buddhist	Buddhist
Marital status	married	married	married	married	married
Highest level of education	the sixth level of high school	the first level of high school	the sixth level of high school	the forth level of primary school	the forth level of primary school
Field of expert	massage, black magic	massage, herbs	massage	massage, herbs	massage
Primary occupation	fruit farmer	fruit farmer	employee	employee	agriculturist
Experiences (years)	37	42	12	32	24
Average income/month (Baht)	10,000	10,000	9,000	8,000	10,000
Working time	8.00 am-no limited excepted Buddhist holy day	7.00 am-6.00 pm everyday	7.00 am-6.00 pm everyday	7.00 am-6.00 pm excepted Thursday	8.00 am-6.00 pm everyday

All key informants were local people who lived with their extended families. They had their relatives living nearby and always paid a visit to each other. The older generation including the key informants usually had low levels of education. Most of them had studied up to the fourth year of primary school, while the rest had finished various levels of high school education. Treating patients with *Lom Ammapart* was their primary occupation. Although they usually did not ask for payment from the patients, their income basically came from donations for the service. However, it was enough to support themselves and their family.

Key informants usually had gained high levels of respect from people in the community. They were always invited to be an honorable guest or a ceremonial leader for occasions such as a wedding ceremony, religious ceremony, or social ceremony. The people trusted their ethical behavior due to their practices related to morality. When key informants had any ceremony at their houses, many people also were willing to collaborate and help to prepare the ceremony for them without asking for compensation. The patients who had completely recovered from their illness always came back to visit them and in particular to celebrate the *Wai-Kru* ceremony (a ceremony to show respect to a dead ancient teacher). They felt grateful and impressed by the kindness of the folk healer who had helped save their lives and returned them to society.

The characteristics of associate informants

There were twenty-nine associate informants that included eight *Lom Ammapart* patients, five family carers of the *Lom Ammapart* patients, five family members of the key informants, four neighbors of the key informants, three nurses in hospitals, and four nurses in health promotion hospitals. The associate informants are

represented by a pseudonym of A1 to A29. Most *Lom Ammapart* patients were male aged over forty years old. Most of the family carers were wives or daughters of the patients. The family members of the key informants such as the children and spouses might participate in the service, for example, preparing herbs for a prescription and serving things when needed. Neighbors of the key informants were the people who were residing nearby and had regular contact with the key informants over a long period of time. Nurses in health promotion hospitals were persons who worked in the same community of the key informants or had cared for the *Lom Ammapart* patients who had obtained the treatment from the key informants. All characteristics of associate informants are described in table 2 as follows.

Table 2 Demographic characteristics of associate informants (n = 29)

General characteristic	Total
Associate informant	
<i>Lom Ammapart</i> patients	8
carers of <i>Lom Ammapart</i> patients	5
family members of the key informants	5
neighbors of the key informants	4
nurses and community health providers	7
Gender	
Male	13
Female	16
Age (years old)	
20-30	2
31-40	5
41-50	9
51-60	7
> 60	6

Table 2 (continued)

General characteristic	Total
Marital status	
Married	21
Widowed	3
Single	5
Highest level of education	
Primary school	8
High school	9
Bachelor degree	10
> Bachelor degree	2
Occupation	
Farmer	10
Government employee	2
Private employee	1
Nurse	7
Self-employed	2
House wife	3
Unemployed	4

Characteristics of Lom Ammapart patients

Most patients were local people in the village where the key informants lived. Apart from those, patients came from other places which might be different districts or provinces. Some key informants were very famous that patients from foreign countries such as Malaysia or Singapore come to see them for treatment. Most patients who came for treatment were men, more than fifty years old, and the youngest patient ever found was nine years old. Patients usually came with carers for everyday treatment that lasts for month(s). Thus, they were on intimate terms with the

folk healers as if they are relatives. However, most patients were usually feeling dejected, hopeless, depressed and negative due to their loss of independence as told by a patient.

“At first, I felt how unfortunate I was. I must have done a lot of bad deeds in my previous life that I have to pay for it in this life. My life has been changed. I have to count on people around me. I cannot go to work and do not have any income. I was totally uncomfortable and frustrated. I felt myself worthless and was a burden to others. I felt hopeless like I did not want to live any longer. Sometimes I felt like committing suicide but I could not do it because I really had a hard time moving myself let alone hurting myself”. (A5)

Lom Ammapart patients and their reasons for receiving the folk treatments

Most patients went to hospitals for treatment first and came to see folk healers later upon returning from hospital. A small portion of patients came directly to see the folk healers for treatment when they were affected by this illness because they believe more in massage treatment than hospital treatment. Nevertheless, most key informants commented that patients should be given both forms of treatment.

The reason that the patients came to see the folk healer was most of them did not get better from modern treatment and hospitals admit patients only in such critical states as hypertension or unconsciousness. Patients were to rest at home when they got through those mentioned states although they were still unable to help themselves. Even after some patients had been deemed well enough to be discharged from hospital they were still unable to walk or help themselves. Thus, folk medicine was always a benefactor of patients with *Lom Ammapart*.

“I went to the hospital when I was sick and returned home after four or five days. I did not feel any better but was told to convalesce at home and see how it was. I felt I wanted to get well soon. I did not want to be like that I would not be able to work in the long run. A person happened to tell me that this healer was good at treating and that many people were treated and recovered by him. So I just gave it a try and it really worked that I was able to walk and my hands and feet could move well”. (A2)

Coming to see folk healers was usually done upon the carers' decision and the patients' consent. They were recommended by others like friends or relatives who have experienced a good outcome from the treatment. Most healers were known by word of mouth from patients who have recovered from their treatment.

"I was recommended to come here. I was told that the healer here was good. The person who told me also had this symptom and got better after a short while. He can walk now and goes back to work so I brought a patient to give it a try and I felt it really turned out good that the affected hand was able to move on the very first day of treatment". (A10)

"I have heard that this healer helped many patients to recover. A child of Lung Sin had not recovered after treatment by many healers until he was brought here. So I brought the patient here because I thought folk healers are better than modern doctors for this illness. The distance to here is longer than that to the hospital but I thought it was better here because I have seen people recovered by this healer". (A12)

Another reason that patients came for folk treatment was the folk healers' ability to help patients to recover. The more patients the healers had helped to recover, the more reputation they gained and the more reputation they have, the more patients were persuaded to come for treatment with these healers. In addition, traveling for treatment is presently more convenient in the present day, therefore, there were both domestic and foreign patients. When patients were cured, they felt they had been given new lives. They were able to walk and helped themselves after treatment with a folk healer for their illness. The patients themselves would become the best source of public relations for the reliability of healers because they were people who had experienced successful treatment directly.

Healing Centers of the Folk Healers

All healing clinics of the key informants were located within their own houses. Their clinics composed of a section for a Buddhist shrine, massage bed, herbal storage

shelf, and a waiting area. At the Buddhist shrine, there was a Buddha statue, Shevaka Komarabhacca image (the great teacher of TTM), photographs of the folk healer's teachers, a ceiling cloth, and a tray of ancient textbooks. The Buddhist shrine is a sacred place which is kept high and no one was allowed to stand or pass near it. The waiting area was a biggest part of their clinics. It was given for the patients and their relatives to wait for the treatment and for socializing.

Four key informants provided accommodation for the patients and their relatives from outside the community to stay in during the treatment period. The accommodation was built by using money donated by the patients and their families after the patients had recovered from their illness. The accommodation was built in a hut like style and a two story apartment in the same compound of the key informants' houses. There were only minimal facilities provided, for example, shared bathrooms and toilets. The patients and their relatives may have to bring their own cooking equipment. The accommodation was not convenient for a long time stay but the patients and their relatives did not have many choices. Staying at the healer's house was preferable for those who lived outside the community because the treatment usually took time. Most of healers' houses were located in a community where there was no access to public transportation. Although, some of them had enough money to rent a house but there was none available in the nearby area.

Seven key informants did not offer their services outside their clinic although they had been asked to treat at the patients' houses because (1) there were many patients waiting to have treatment at the healers' houses and (2) concentration was needed in treating patients.

Due to a large number of patients who came to see the key informants daily, the key informants, therefore, thought that providing service at home would be more useful to a wider population. They could help more patients and some of patients had traveled a long way to see them, so they did not need to wait for too long because they need to rush home on the same day. Those were the reasons that the key informants refused to provide the treatment outside of their clinic except for in an emergency as in the case of fainting.

Six major themes emerged from the analysis of the data, namely: becoming a folk healer; the concepts of the folk healers in treating *Lom Ammapart*; knowledge and experiential treatments for *Lom Ammapart* patients; the treatment outcomes; belief in Buddhism, supernatural powers, and Brahmanism were influencing the practice of folk healers; and the involvement of nurses in TFM services.

1. Becoming a Folk Healer

The findings of becoming a folk healer that explain the research objective of the first item, are presented in two themes: inspiration of being a folk healer and knowledge and morality practicing.

1.1 Inspiration of being a folk healer

Data revealed that there were two reasons that the key informants obtained training for becoming a folk healer: inheriting within the family and seeking to obtain TFM training by impression.

1.1.1 Inheriting within the family

Because of the encouragement of ancient teachers aimed to protect and preserve the knowledge, they tried to find an appropriate person to transfer their folk

wisdom to which was mainly a descendant. Folk wisdom is usually kept secret within the family. Thus, the ancient teachers did not want to pass on their knowledge to those who were not of their lineage. In addition, the folk healer who was to inherit this knowledge would feel regret if he failed to keep the ancient knowledge within the family. So it was a strong motivation to drive their descendant to learn about folk medicine.

Four of the key informants felt obligated to carry on their wisdom to become a practitioner as it was a family tradition. Some key informants had ancestors as folk healers since their great-grandfather, passed on down to their grandfather and father. It was believed that many ancient folk healers were very expert in treating patients. They could treat many illnesses by using massage, herbs, and black magic. In the past, there were not many hospitals and it was not convenient for patients to go to hospital due to the long distance between their houses and the hospital also transportation was not good. Many communities in rural areas did not have a route to go to hospital. Therefore, the folk healers were important for the health of people in the communities. When they were ill, they went to see the folk healers. Therefore, ancient folk healers had a lot of experience and skills in treating patients. Because of a long period of accumulated knowledge and experience, they were valued and because of wanting to preserve this wisdom and knowledge they usually passed on their knowledge to somebody within their family which was usually a younger family member such as their children or grandchildren. However, most of the young people were not interested in becoming a folk healer. It was often that the healers tried to find another one who was most appropriate with the regulation of practices. That one should be capable to practice strictly in regards to medical ethics. Sometimes, the

right person was identified, and he or she might be also asked to accept the knowledge to be a healer.

One of the key informants had been unintentionally trained by being an assistant to his grandfather who had been a folk healer since he was young. He naturally learned TFM and absorbed the moral and ethical qualities related to TFM.

“Satisfaction is my motivation. I lived with my grandfather and parents. I came from a family of folk healers. Both my grandparent and parents were all folk healers. I saw my grandfather and father treating the patients, and I helped them. When my father took over the job, he let me treat the patients having minor problems. I also helped him to look for herbs. This gradually shaped me to be a healer and I discovered that I liked it”. (K7)

1.1.2 Seeking to obtain TFM training by impression

Six of the key informants were motivated to become a folk healer by the impression of the effective treatment of TFM. They became interested in studying TFM because their family member was sick and needed folk medicine treatment, especially the illnesses caused by CVA, and *Sannibat* (a febrile disease). In the present study, one key informant was interested to learn TFM since his wife had CVA and was expected to be treated by TFM. Before seeing a folk healer, he took his wife to get treatment from a number of hospitals but the treatment was not successful. Then, he was introduced to a folk healer who could treat *Lom Ammapart* patients. He decided to take his wife to see the healer for treatment. Later, his wife gradually recovered from the illness. This became the motivation for him to learn folk medicine. Another key informant also became interested to learn TFM because he was ill and recovered with the help of a folk healer. He was immobilized from muscular weakness. The hospital treatments failed to treat his illness. He decided to try folk medicine and he discovered that his health problem improved. He was impressed in the effectiveness of the treatment so he asked to study TFM from that folk healer.

A personal desire to help others was another reason that motivated several key informants to learn TFM. They were kind and always feel sympathy for others who were poor or in trouble. They had good understanding about the people as they had grown up in the same community. A willingness to help people could be a strong motivational factor in becoming a healer. They thought that it would be good if they could treat and care for their family. They believed that TFM was effective for some illnesses which could not be treated by modern medicine.

Some key informants demonstrated their real intention to obtain folk medicine training by firstly being acquainted with the healers, visiting them regularly, and bringing food as a gift which is the Thai way of showing concern to friends and others. If the healer agreed to accept them as a trainee they were required to do moral practice before learning. For example, they should practice the dharma for three years before learning. This prepared themselves to have a high level of morality which was a basic quality needed for a folk healer in treating people.

1.2 Knowledge and morality practicing

Folk healers must have knowledge and morality because they believed that morality can enhance the efficiency of treatment. Then, there were two ways to obtain training to be a folk healer as follows: training, reading, and searching to learn more from other sources; and practicing Dharma and conducting life in a good way.

1.2.1 Training, reading, and searching to learn more from other sources

The key informants experienced various kinds of experiential learning and they basically learned TFM by observing and doing following the healer as an assistant. The training usually took time. Hence, they needed to spend effort and be

patient. They had to be meticulous and diligent in learning. They sought more knowledge and experiences. Certainly, they must have a good memory for learning a lot of contents and subjects.

“I’m required to memorize most of what I use and all of the medicines”. (K7)

Most of the teachers taught their students in more than one field of knowledge. There were many subjects that the folk healers need to study. The core knowledge and practice consisted of massage and herbs and the related knowledge included spiritual treatment, etc. In the part of learning treatment practices in treating *Lom Ammapart* patients, they had to learn about the bodylines, *Jub Sen* massage (catching and pressing on bodylines), massage, herbs, and bone structure. In the part of moral practices, they had to learn to practice following five Buddhist commandments, and controlling their mind to be calm. In the part of ceremonial practices, they had learned to practice many rituals concurrently with spell incantations.

“I was trained to write an incantation, utter the massage oil and herbal medicine. It took me a long time to study. This area of practice can’t be understood by modern doctors because they study abroad. They can’t have this kind of knowledge at all”. (K7)

Normally, key informants were trained by older folk healers in their families or by expert folk healers who were popular and/or well-known. Their teachers passed on the knowledge from generation to generation. For example, a grandfather had taught his father, and eventually, their fathers had taken this knowledge to pass on to their child. It included the ancient textbooks which had also been transferred from their ancient teachers. Some key informants did not have a chance to learn directly from their teachers because the teachers had died before they could teach them. In these cases the key informants had learned the TFM by reading and practicing following textbooks left by their teachers. The diagrammatic pictures in these

textbooks showed all the points of the bodylines and the involved parts of the body which was easy to study and practice from.

Most key informants gained background knowledge by observing and living closely to their teachers who were mostly their ancestors. They had seen and were familiar with many illnesses from the patients who came to obtain treatment. In training, the teachers provided knowledge and clinical practices. There was no formal course or class given to the student. The student usually was present and accompanied his teacher when he was giving clinical services. The student basically observed, made enquiries, provided assistance as requested, and exercised some clinical practices following the teacher. Some key informants practiced with real patients. For example, one key informant practiced on his wife as a patient and if he could treat her until she recovered that meant he was successful in clinical practices. In teaching about herbs, their teachers ordered them to collect the herbs in the forest in order to learn about the locations of the herbs and the different kinds in the natural environment which provoked them to remember what kinds of herbs could be used for which illness. In regards to the moral and ethical practice, this will be mentioned further in the topic of “moral and ethics training and practicing”

After completing the training, some key informants continued studying through reading, learning more from other experts, and undertaking short courses related to traditional medicine. Many of them sought more knowledge by themselves from various sources such as a Thai traditional medicine club or association, and traditional text books. One key informant had undertaken a short course offered by a government department about massage. Another key informant had been trained from a short course with a medical volunteer association about herbal medicine in

Bangkok. Some key informants still used text books for referencing when they practiced massage. For example, they read and followed the treatment method introduced in those textbooks and tried out the massage with their patients. Additional training had been undertaken after the completion of the TFM from popular folk healers within or outside the community, and monks, etc. areas of additional training were commonly about herbal medicine, black magic, and incantations.

1.2.2 Practicing Dharma and conducting life in a good way

The treatment of patients with *Lom Ammapart* requires the knowledge of points, bodylines and massage. Also, they must practice in moral principles so to enhance the effectiveness of treatment and incantation and also to prevent the knowledge they learnt from deteriorating.

“I behave morally, do not tell a lie, are not jealous of others, do not gossip about others, do not drink, do not argue with friends. If I break these morality practices, it will affect the treatments given to my patients. The treatment will fail to join the broken bones or treat other health problems”. (K7)

Religious subjects must be studied along with practising the Dharma. Key informants were trained to practise morality until the teachers were satisfied and accepted them as students. In accepting a student, teachers were confident that these students had a good mind and behaved well.

“During the training, every student has to pray and recite one hundred and eight chapters of incantation every night for three months. One must also practise his mind by practicing morality for one year before the teachers agree to transfer to him the knowledge. After that, he is considered a healer”. (K2)

In the past, students who were trained to be traditional healers must be confident that they could behave themselves consistently within the defined scope of morality and ethics. Therefore, most people do not want to inherit this occupation. People who study must love being a healer and be confident. Once the knowledge had

been transferred to the students, they must not degrade the teachers and do not do wickedness because sin may return to the teachers due to giving knowledge to those students. Healers always respect and are grateful to their teachers by believing in “authority” and practicing strictly according to what the teachers teach. One must always keep in contact with the teachers as if they are senior relatives even after they finish their study.

After becoming a healer, key informants must at least observe the Five Buddhist Precepts which are based on not telling a lie, not messing with alcohol and women and not offending against patients. Key informants believed that observing the Five Precepts would give them good results because incantation was mainly used for treating and was as important as massage. Because morality helped purify and calm their mind, observing the Five Precepts was therefore, a practice to prevent the incantation from deteriorating. The healers would not be successful in treating if they were immoral because an incantation would be unable to be used by them.

“Healers have to observe the Five Precepts because we must be moral. In studying folk medicine, having incantation is required and observing the Five Precepts makes my incantation stable. If I am distracted by a beautiful young woman, my incantation would deteriorate. So, having incantation and observing the Five Precepts must come together. Observing the Five Precepts is to purify my soul. I need to observe the Precepts so the incantation would be sacred. Not observing the Precepts is impossible”. (K10)

Key informants must follow the Dharma in daily life such as praying every morning and before going to bed. Some key informants practised a sitting meditation when they were free in order to have concentration in treating patients because the mind must be concentrated on the patients while giving a treatment to produce good outcomes. Some key informants liked to make merit at the temple by offering food to a monk and listening to the Dharma on religious days. Being a healer and following

regular practice of the Dharma helped them to absorb the moral principles and the righteousness into their character. Therefore, most key informants persisted in conducting their life in a good way and behaved well so as to be a role model to people in the community and to foster respect. The key informants were often invited to ceremonies or festivals held by local people. Most key informants often had public awareness and always helped in society. One key informant had his own righteous path he believed in and practiced.

“It is called medical ethics that I cannot live without them. First is to be unselfish. I work in order to give and help society. I do not take money from the elderly because I really want to help. I would have been rich if I had taken money from everyone but I am not rich and have just enough to survive. I would rather be rich in spirit. Secondly is to not to tell a lie, and not to brag about oneself. I would be humble. Admiration should come from my patients. I am satisfied with what I have and I do not like to exploit anyone. I’ll be happy when my patients are happy”. (K5)

Nine key informants provided treatment to patients without asking for a treatment fee. They did not think only of compensation and gave treatment to any patient who did not have money. People all knew that they were required to pay for the treatment but it was a donation based payment.

“There is no treatment fee but they may donate based on their satisfaction or financial status. Some people give me just fifty or one hundred baht. Some people are straightforward in telling me if they do not have money. I do not think about money but I still give them treatment which I consider as help. Where would they go if I do not treat them so I just help them. I provide treatment to all equally no matter if they have money or not”. (K7)

The reason for not asking for the service charge is firstly, it may be due to a culture carried forward from the teachers since ancient times. One key informant analyzed that possibly a small amount of money was very valuable in the past. Paying as *Kha Rad* (payment for treatment fee) was enough for key informants to perform this occupation and survive without any difficulty which was different from the

present in that this amount of money was not enough for one to survive on. Therefore, most key informants must also have other occupations such as rubber tree farming or fruit farming. Four key informants in the study, however, did not ask for a service charge and *Kha Rad* because their teachers in the past did not care about the treatment fee. They mostly massaged for free because it was considered as not for business but for help among relatives, neighbors and people in the same community. This concept is still handed down to the next generations of healers.

Secondly, key informants believed that not asking for the service charge was considered as making merit. However, the payment or donation if the patients did pay the key informants could be put forward to make merit on annual *Wai Kru* ceremony (a ceremony of showing respect to *Kru Mhor*) because it was believed that the benefit of making merit would somehow return to the healers and patients. Helping patients in an emergency was also considered one way of making merit. This included a sudden onset of fainting in that healers did not ask for money but considered gaining the benefit of making merit because it helped people to be saved from crisis that might lead to death. So, giving life back to them was considered gaining the benefit of making merit.

“Some healers call for payment because it is their business but I just think of making merit. So I help people, students or emergency cases, people who have an accident, people who come from far away or people who faint suddenly. I have to help them even if they do not bring any money with them. I mostly perform treatment to gain benefit from making merit and do not ask for any service charge at all”. (K7)

For example, one key informant believed in not taking money from monks and nuns because these people were morality performers so helping them was indirectly gaining benefit from making merit. The kindness of healers that wanted to help people

who were in a difficult position that did not have money such as the poor and the elderly was also considered making merit.

“I think making merit is giving. Going to the temple is unnecessary. I just give to anyone or those who deserve it. This includes the elderly or the poor and that is the merit I would gain. I think going to the temple is like a tradition. I mostly do not take money from the elderly or if they really give me money then I would offer them free five massages or I would return them some money to make merit. I also make merit with the part of money I receive. I assume patients as those who are suffering. I would gain benefit from making merit if I help them to be free from that suffering”. (K5)

Some key informants provided free accommodation to patients because massaging needed to be done continuously and some patients did not want to travel back and forth due to the long distance. Furthermore, these patients did not have enough money to rent other accommodation. So, providing accommodation to poor patients was considered making merit. Sometimes healers also gave everyday items to the patients who did not have money to buy them.

Thirdly, not asking for a healing fee was because healing was believed to be an honorable occupation. The knowledge and ability a healer had was not for business but as a benefactor of the society. The feeling of honor and dignity might subside if healers asked for remuneration because patients would lose their respect of healers. For those who pay money and needed change would take it from the bowl by themselves. Consequently, key informants never knew how much money each patient gave.

However, even though key informants did not ask patients for a service charge, the researcher found that key informants still performed this occupation and earned enough income to make a living. This was because healers who were the key informants were very knowledgeable and capable of treatment and making patients more recover and did not ask for more money from patients. So, there were a lot of

patients coming to receive treatment each day. Although some patients gave little money for the treatment fee or never gave at all, it was found in an overview that most patients were thoughtful enough to give healers a healing fee especially foreigners like Malaysians and Singaporeans who gave three to five times more than general patients.

“Even Malaysians and foreigners come to me. Most of these people give five hundred baht each time. I tell them not to give me too much. One hundred is enough but they insist because they have money. They think I will help them until they get well and that is enough to make them delighted. So, they give money to repay the thoughtfulness of the healers”. (K7)

Many patients came back to express their gratitude by giving plenty of money after they recovered. Some repay with objects by building treatment places or accommodation for patients. They were impressed and willing to repay the thoughtfulness of the healers who had treated them until they recovered like having a new life and not being disabled regardless of business. Some patients always kept in contact with the healers and gave good things to them.

“Most of them are glad and say they were already dead and it was the healer who gave them a new life. They really admire this point. Healers would be given plenty of fruit to eat when it comes to fruit season. Also, when it comes to fishing season, healers would be given many fish to eat too. Those who come from urban areas mostly buy and give healers sweets or milk which helps to nourish the healer because sometimes healers tend to get busy before their time to eat. Some patients give healers brown rice so everyone in the healers’ family can also get to eat”. (K7)

2. The Concepts of the Folk Healers in Treating *Lom Ammapart*

This theme explains the research objective of the first item. There are four categories related to the theory and concepts in treating *Lom Ammapart* patients as described by the key informants as following; the healer’s views on *Lom Ammapart*,

cause and risk factors of *Lom Ammapart*, the condition of *Lom Ammapart*, and internal fever and strongly beat pulse were specific symptoms of *Lom Ammapart*.

2.1 The healer's views on Lom Ammapart

The key informants had viewpoints on the characteristics and stages of *Lom Ammapart* that are mentioned as follows.

2.1.1 Lom Ammapart was the illness of the disruption of the wind element and the bodylines

Lom Ammapart was described by the key informants as a paralysis caused by the disruption of the wind element and bodylines. It was characterized as a severe condition with a sudden onset of symptoms. The patients were usually taken to the healer with alternation of consciousness, weakness of half of the body parts and shoulder dislocation.

The disease was also known by the key informants as *Sen Khang* (rigid bodylines) and *Sen Aon* (soft bodylines). *Sen Khang* was a feature of the bodylines found in the patient who had been sick for a long time whereas *Sen Aon* was a feature found in the patient who had just acquired the illness. Some key informants also named this illness as *Ammappleuk* fever, bodyline fever, and internal fever because they experienced an internal fever at the initial stage of this illness.

Some terms related to the destruction of blood vessels such as *Khaiman Oud Thun Nai Samong* (deposited fat on the blood vessel of the brain), *Sen Theeb/ Thun* (cerebral thrombosis), and *Sen Thak* (cerebral hemorrhage) might be influenced by western medicine as reflected by the following quote.

“Actually, Lom Ammapart is the wind illness. They are ancient terms and are also found in traditional medicine textbooks. Anyway, they are currently not called like that but are named as the deposit of the fat on the blood vessel of the brain and high blood pressure.” (K8)

However, *Lom Ammapleuk* and *Lom Ammapart* were defined as follows. *Lom Ammapleuk* referred to a less severe condition of the illness that was not difficult to be treated. From the key informants’ observation, in females, it often occurred on the right side whereas, in males, it occurred on the left side. This condition caused defective blood that was too weak to flow up to the head. The sufferers exhibited a symptom of progressive numbness.

“If the patient has obstructed vessels, called Sen Theeb, the blood is unable to flow to the brain and the person would have Lom Ammapleuk”. (K7)

These patients were not drowsy and still had partial sensation and partial movement of one side of the body. There was no shoulder dislocation. Some patients could speak and walk but unsteadily.

One side of the hands and feet of the patients with Sen Thak would be dead and they would be unable to speak but still conscious. Their legs and hands cannot be lifted but their shoulders are not loosened. They would recover by being massaged”. (K10)

The pulse of the patients beats lightly. When the key informants did *Jub Sen* (pressing bodylines) to diagnose the condition, they felt that the bodylines of the patients were still active by *Jub Sen* massage and that the organs of these bodylines could be moveable.

On the contrary, *Lom Ammapart* from the viewpoint of the key informants referred to a severe condition of the illness that was hard to recover from. *Lom Ammapart* is more severe than *Lom Ammapleuk*. It is usually caused by *Sen Thak*. The patients usually had a sudden onset of symptoms. Later, these patients were gradually drowsy, lose consciousness, and die.

“The patients who have Sen Thak would become paralysed, drowsy and may die”. (K7)

If these patients came to see the key informants, when the key informants did *Jub Sen*, they felt that the bodylines of the patients were tight, rigid, and hard to be treated. These patients were advised to go immediately to the hospital. They had the viewpoint that the acute stage of *Lom Ammapart* was needed to be treated by high technology of medical appliances to save the patients' lives.

“I know patients would not survive if they have Sen Thak. I would tell them to rush to the hospital. I can tell Sen Thak just by Jub Sen because the bodylines are not active. Many small lines would be stiffened. The lines on the hands can tell the severity of the illness”. (K2)

In summary, *Lom Ammapleuk* could be defined as a less severe form of the illness. It is known as “paresis” in western medicine. It disrupts the wind element which causes the failure of extremities movement without shoulder dislocation. It is a light condition that the patients still have partial sensation. Their bodylines also can be activated by *Jub Sen*. On the otherhand, *Lom Ammapart* refers to the illness with paralysis. It is also caused by the wind element which causes extremities movement failure with shoulder dislocation. It is a severe condition that the patients do not have any sensation. It is hard to activate the bodylines by *Jub Sen*.

2.1.2 The bodylines disruption is depending on the duration of Lom Ammapart

The key informants mentioned that *Lom Ammapart* had three stages according to the duration of the illness and a rigidity of the bodylines. The first stage was the soft bodylines. The key informants mentioned that the first stage was the the duration from the onset of the illness until 2-3 months after. This stage was easily treated if the patients came to see a healer soon after being discharged from hospital. The middle

stage had a moderate rigidity of the bodylines. This stage occupied a period between 3 months after the onset until 1-2 years. The illness at this stage was not easily treated. However, the outcome of treatment was still good if the patients and their carers complied well with the treatment. The illness in the last stage was a rigidity of the bodylines and the patients were less likely to recover from the illness as their bodylines were more rigid and contracted than the first and middle stages. This stage had a duration of more than 2 years of illness.

“The patients who have a chance of recovery must come to get the treatment at the initial stage of the illness within three months from the onset of the illness, otherwise the treatment outcome is not good. Even though they have recovered, they could only be self dependent.” (K5)

“The patients who just have a Lom Ammapart should see a healer to get a massage at the initial stage before their bodylines become more rigid. If they have left their illness to stay longer, their bodylines will be stretchier meaning that there is no way to recover. We still provide them a massage upon request but we cannot ensure a good result” (K7)

2.2 Cause and risk factors of Lom Ammapart

2.2.1 Lom Ammapart caused by the deficiency of the wind element

Half of the key informants also had an explanation that varied from the western explanation about *Lom Ammapart* concerning the brain vessels. For example, they said that patients had a brain infarction and hyperlipidemia and when asked about the cause of the disease, they often said it came from constricted blood vessels or a hemorrhagic stroke and was related to hypertension, diabetes and heart disease. Patients would have constricted blood vessels leading to an insufficiency of blood in the brain and lack of energy. Any area that lacked blood would be partially paralyzed

or paralyzed. However, these key informants were unable to explain clearly the mechanism that caused these symptoms.

All key informants also explained the cause of *Lom Ammapart* related to the four elements. However, they had various unclear explanations about the cause of *Lom Ammapart* related to a basic element. All of them believed that the cause of *Lom Ammapart* came from the deficiency of the wind element. They thought that it was because the patients had a weak wind element and that the wind was not powerful enough to blow the blood to circulate thus causing this illness. One key informant added that patients had weak wind and fire element while the water element was insufficient causing an uncertainty of the earth element and illness. Another key informant viewed that the cause started from a weak fire element causing the loss of function due to many factors such as eating and living style. The earth element would be affected causing an unusual function if the fire element did not work. This would lead to the abnormality of the water element which affected the function of the wind and the bodylines would eventually cease being active because the wind would not flow. It would be found that the bodylines in some parts of the body such as the hands were not active and did not respond to stimulation when tested by *Jub Sen*.

“Lom Ammapart may be caused by a weak fire element that cannot activate the water element. Thus there is not enough power to blow the wind element to flow throughout the body. This situation will lead to the congestion of the wind element which can be solved by Jub Sen at the point of that problem.” (K4)

Although there were many explanations relating to the cause of *Lom Ammapart*, most explanations mentioned the disruption of the wind element that further influenced this illness. A deficiency of the wind element was identified as a major cause of the disease because of insufficient power to mobilize blood circulation. Normally, the wind element flows through the bodylines to supply the

energy throughout the body. If there was a deficiency of the element for a long time, it might cause a disruption of bodylines and a wind obstruction. All of the key informants agreed that the disruption of bodylines led to paralysis of the body part supplied by the bodylines. This abnormality was possibly due to a lack of energy. Many of the key informants linked wind obstruction to circulation disruption. Thus, the weakness of the body could be a result of the disruption of wind and blood circulation. However, there was no clear explanation how exactly the abnormality of the wind element affected blood circulation.

Under the belief of bodyline disruptions, there were three main forms; atrophy, embedded and tight bodylines that consequently affected the flow of the wind element within the bodylines. Persons with *Lom Ammapart* usually had many obstructions along the bodylines resulting in paralysis of the muscles supplied by such lines. Although the bodylines were described vaguely and differently by the key informants, all of them defined bodylines as tendons, rather than other parts such as flesh, fascia, nerves including blood vessels. Thus, many explanations relating to the causes of the disease, symptoms, investigations and treatments often involved bodylines and blood circulation. The following quote reflects a healer's perception about the bodylines as tendons.

“There are five hundred large tendons and five thousand small ones. The human body consists of tendons all over. Many body parts such as bone, flesh, and fascia are all connected by tendons that are actually the bodylines”.(K7)

“Bodyline and tendon are considered the same. We are able to sit because of tendons. Tendon or bodyline is something messy when touched and is all over the body. Bodylines are considered to be located in every area”. (K9)

2.2.2 *Deficiency of wind element induced by misbehaviors in daily life and exposure to cold weather*

The risk factors bringing about *Lom Ammapart* are misbehaviors in daily life, and exposure to cold weather.

1) Misbehaviors in daily life

All key informants believed that *Lom Ammapart* occurred because patients had misbehaviors in their daily life. They did not have exercise and consumed unhealthy foods and drinks. The key informants believed that a lack of exercise was the one of the risk factors of a *Lom Ammapart*. They emphasized to *Lom Ammapart* patients to have regular exercise for physical therapy in their period of rehabilitation. They had experience that exercise coupled with a massage could promote the health outcome of the *Lom Ammapart* patients. They mentioned that the healer did the massage and the patient did the exercise to enhance the efficiency of the treatments. The patients had to practice the exercise regularly.

Additionally, unhealthy foods such as canned food, food contaminated with chemical substances, sweet, fatty and salty food, and alcohol were believed to make people prone to *Lom Ammapart*. The key informants believed that one risk factor was the food because ancient people rarely had *Lom Ammapart* s. There were not many hypertensive patients because they ate a lot of chemical free vegetables.

“Unhealthy food is a risk factor for Lom Ammapart. Many people enjoy eating salty, fatty and sweet food as well as pig and cow entrails. If they do not control their nutrition and continue eating what they like, it may lead them to Lom Ammapart when they get older”. (K7)

“Food containing chemicals is also risky for Lom Ammapart. Some foods such as vegetables, pork and chicken might be contaminated with growth accelerator substances. These chemicals are dangerous to Lom Ammapart patients. Not many people in the past had this disease, not even one in a

village but now there are more than ten in Moo 7 (a village) that is close to my house". (K10)

Then, to prevent a *Lom Ammapart*, one key informant suggested that everyone should eat healthy foods from a young age and also consume more vegetables. Also, people should avoid alcohol because it was the cause of hemorrhage in the brain.

2) Exposure to cold weather

Most of the key informants (n = 7) said that exposure to cold weather caused coldness of the bodylines that led to wind and blood circulation obstruction. The more coldness there was, the greater the obstruction of the wind and poor blood circulation in *Lom Ammapart* patients.

"Lom Ammapart and every kind of bodyline disease are defeated by coldness. We should not let our body get cold and it should be always kept warm. The colder the weather, the more the bodyline destructs. What we must do to melt the fat in our body is to use medicine with a hot quality. Hot quality medicine is then considered medicine for healing Lom Ammapart". (K1)

"Staying in cold places like rooms with air conditioning or fans is discouraged because it will make the blood sticky and cause poor circulation, consequently causing poor blood circulation". (K7)

The key informants assumed that the coldness might be a risk factor triggering the illness. In order to reduce the impact of coldness during treatment, key informants usually provided a hot quality medicine i.e., hot tasting herbal ingredients, hot herbal compresses and hot herbal baths, and advised patients to avoid having cold food and exposing themselves to cold weather.

2.3 The condition of *Lom Ammapart*

The key informants mentioned that patients of *Lom Ammapart* had the disruption of bodylines and the wind obstruction at problematic areas. Therefore, these two conditions are a main topic that must be mentioned as follows.

2.3.1 *The disruption of bodylines*

The specific characteristic of *Lom Ammapart* was little or no wind flowing in the bodylines due to the disruption of them. All key informants said that *Lom Ammapart* was also related to a bodyline abnormality such as the deterioration of the bodylines of the arm and leg on the affected side. There were many symptoms involved with bodyline trouble that caused an obstruction and congestion of the wind element. The congested wind, later, resulted in swelling that eventually become rigid until becoming knotted.

The key informants believed that the bodylines of *Lom Ammapart* patients were deteriorate. The lost bodylines could be found in the long term stage of *Lom Ammapart* patients throughout the body. Importantly, if the bodylines at the centre of the body around the navel were lost, this might cause difficulty in the recovery of the *Lom Ammapart* patients. These bodylines were the main point of transmitting the wind element and energy to other parts of the body. The main features of the bodylines in the patients in a long term stage of illness were imbedded, atrophic and tight and it was hard to dig the line up to release the congested wind element. Therefore, the wind element in the bodylines of long term *Lom Ammapart* patients did not flow and was obstructed which might cause edema in the problematic areas until the bodylines changed into the granular wave. In addition, this group of *Lom Ammapart* patients had *Sen Tai* (lost bodylines) that showed as stiffness throughout their body. The patients felt hot and cold due to the bad flow of the wind element. They also felt numbness because of their obstructed bodylines.

“The bodylines of those with Lom Ammapart are tied as knots. They are embossed and wavy when touched. I know where and how many bodylines are disrupted when I check and I must heal where they are lost. The curved

bodylines means there is blood vessel obstruction. Not walking makes the patients numb and causes paralyzed hands and feet”. (K4)

The wind obstruction might be due to the distorted bodylines. This might block the wind from passing through this point resulting in less wind passing through other areas. Thus, the wind circulation did not flow through the body as usual causing sickness concerning wind. Therefore, this congestion must be removed by massaging and using incantations in order for the wind to pass through.

“I have seen from my experience why some patients have a recurrence of Lom Ammapart and found that it happens from the twisted bodylines at our back bone because that could eventually lead to Lom Ammapart. It may be because the wind is blocked and not be able to pass when it is twisted. This bodyline must be healed first for the wind to pass and it would become better”. (K9)

2.3.2 *The wind obstruction*

In the viewpoint of eight key informants, they mentioned that the four elements were basic components in the human body and they nourished the human body all the time. A balance of the four body elements set good physical and immunity functioning resulting in not having a tendency to be ill. Six key informants believed that the human body could not be short of any one of the four elements otherwise an illness like a *Lom Ammapart* may occur.

“Food would smell bad to people whose four elements are weak. They would be unable to eat and sleep. Elements are then considered important. Human body relies on the four elements. They are required otherwise one would not be able to survive”. (K4)

All key informants said that the cause of *Lom Ammapart* was involved with the wind element. Their explanation was that the origin of the normal wind element was in two directions between the head and toes.

“Circulation usually comes from the foot up along the lines to Bho Leud (blood pit at buttocks), the backbone lines, the neck and up to the head. If it flows through the whole body then nothing bad is going to happen but something wrong will occur if the circulation is obstructed”. (K7)

All key informants also mentioned that *Lom Ammapart* patients had symptoms of a disruption of the wind element. This disruption might cause a turbulent flow in almost all the human bodylines. This situation further leads to *Lom Thid* (wind obstruction) and *Lom Kang* (wind congestion) in the bodylines. The wind element could not flow through obstructed bodylines consequently, the body parts supplied by these bodylines would lack energy. Eventually, the organs of these areas such as the extremities could not function as usual and were weak. When the wind element was disrupted, it could not move throughout the body especially to the upper part of the body, so, the symptom of *Lom Ammapart* occurred.

The wind obstruction could be found throughout the body of *Lom Ammapart* patients including in the brain. If there was an obstruction of the wind element which was mostly found in the neck, then the wind element could not flow through this bodyline of the neck to the head.

“Lom Ammapleuk/Ammapart starts from the foot up to the upper part of the body. It would come back down to the lower part of the body if it comes to the obstructed points and is not be able to go through. The wind is mostly obstructed at the neck. It cannot go up to the head meaning it cannot flow to the brain. This shows a sign of this illness but it would be alright if the wind can still flow to the brain”. (K7)

“People with Lom Ammapart would be dopey due to the congestion of the wind in the brain and is considered in terms of modern medicine as clotted blood in the blood vessel. This can be improved by healing the troubled area in order to loosen the obstructed bodylines. Healing is done where it is blocked by massaging the head and the nearby areas”. (K3)

The origin of obstructed wind was not the area of the problem but was the areas proximal or distal to the obstructed point. For example, if the wind obstructed at the neck, then it caused congested wind in the brain. When the patients had obstructed wind at one point they might feel hurt in pressing on another area and around that

area. It meant that there was congested wind at that area. If the folk healer could release this congested wind the *Lom Ammapart* patients might feel better.

“Sometimes, the patients hurt on the waist but this point may not be the obstructed point. It is the same bodyline but we have to find which area is the problematic point. I have to examine the bodylines thoroughly to find the location of the problem.” (K8)

2.4 Internal fever and strongly beat pulse were specific symptoms of Lom Ammapart

Most patients normally had a sudden onset of *Lom Ammapart* without warning symptoms. However, there were many initial symptoms mentioned by some key informants and patients. In the initial stage of this illness, the patients felt dizziness, cough, feel hot and cold, weakness, pains and aches at the waist, spine, nape, and back, had a headache without an apparent cause, felt numbness, and had convulsions.

“About four or five days before it happened, my father complained about his dizziness and feeling uncomfortable. It happened when he woke up the next morning and he just could not walk”. (A14)

Later, the patients clearly exhibited the symptoms of *Lom Ammapart*. These symptoms happened when they suddenly were unable to get up to sit, stand or walk by themselves or had a fainted suddenly at any time during the day or getting up from their bed.

“Lom Ammapart happens from hypertension. Patients are not unconscious but unable to speak because they are tongue tied while sitting. There must be unconsciousness if one passes out. They are just weak suddenly while sitting and unable to get up to walk. Some are unable to get up and walk suddenly while having a bowel movement in the toilet in the morning that his children are called to lift him up. People who really pass out must have a blackout but this happens from a constricted blood vessel or hemorrhagic stroke and hypertension called Lom Ammapart”. (K5)

For first doctor's visit, most patients were often carried because they were unable to help themselves, move or walk, and most could not speak. Generally, patients would have constipation due to less wind in the intestine causing the excretion system to not work. This leads to uncertain functioning of other systems in the body including dizziness due to the waste in the body from not excreting.

These patients would have numbness, *Meu Tai Teen Tai* (paralysis of an arm and a leg), facial palsy including trouble speaking or understanding speech, wry mouthed, vision problems, such as blurred or double vision, immovable or hardly able to move or feeling pain on the affected side, and a loss of coordination or problems with balance. Also, the patients had humerus bone displacement or looseness out of socket of glenoid cavity at the affected side that key informants considered that it was severe condition. In severe conditions, the patients usually had a mental disorder. The patients in this condition also had weakness of the muscles.

“Most patients have shoulder dislocation but the finger joint is not loosened and are unable to walk because the leg socket is loosened. The joint would be loosened if one is paralyzed. Arms are all weak and shoulders are loosened or dropping. It is difficult to put the shoulders back if they hang down. Some people have a loosened ankle and are considered too severe and cannot be healed”. (K4)

However, in TFM, there were some symptoms which were different from those mentioned in modern medicine. One symptom of *Lom Ammapart* was the abnormality in the bodylines such as the internal fever in the bodylines and an allergy to cold weather. *Lom Ammapart* patients had many symptoms as fever in *Sen* (the bodyline), congested *Lom* (the wind element) in the brain and along the bodylines throughout the body. Some key informants mentioned that every *Lom Ammapart* patients had a fever in *Sen* or *Khai Nai* in the initial stage of the illness which could

not be detected by using a thermometer because the outside body temperature was normal. It was a fever or hotness inside the body and bones.

“Lom Ammapart begins with fever. I do not know but the patients themselves feel chilly all the time, have a headache, dizziness and fever called Khai Nai but the temperature cannot be measured. It is an inner fever called fever in the bones which is difficult to heal but can be perceived by taking a pulse. The patients’ eyes are abnormal with bright red, bloody eyes and lips, mouth, teeth and throat are all dry and the fever is considered very deep inside. Every joint would be loosened and shoulders would drop when it comes to one level. (K4)

The pulse of those with *Lom Ammapart* normally beats fast and strong. If patients had very high hypertension, the pulse would beat stronger and be perceived clearly.

“I know the problem when I take the pulse. It beats strongly. Fluttering and hard beating show severe symptoms that they must be told to go to the hospital. The pulse rhythm of Lom Ammapart is rough because they often have hypertension. It beats fast and strong which is not as usual as ours. For those with severe paralysis, their main bodylines would work at full load”. (K2)

Therefore, abnormal bodylines that were left for too long without healing would cause disorder which was difficult to treat. This disorder included such as the abnormality of walking character happening from the problem of stiffened bodylines. This led to false positioning, as mentioned above, and the pulling of parts throughout the body especially the twisting of appendages such as the hand and foot from its former line. The legs would be twisted out when the inner *Sen Pattakhart* (the bodyline along the leg) was in the wrong position or the legs would be twisted in when the outer *Sen Pattakhart* was in the wrong position.

“The foot would be twisted if the peripheral line on the legs is damaged. There are 3 large pieces of this line lying down. This peripheral line is important. If this line of those who have Lom Ammapart is loosened, that foot would be twisted. This line must be pulled back up in order for the foot to be in the normal direction”. (K10)

3. Knowledge and Experiential Treatments for *Lom Ammapart* Patients

The way of *Lom Ammapart* treatment of folk medicine is characteristically different from modern medicine due to a different philosophy. The process of healing patients comprised of severe *Lom Ammapart* patient should be received modern medicine treatment before seeing folk healer, the ways of folk healer in diagnosing *Lom Ammapart* patient, factors predicting the success of treatment, and treatment processes started by establishing healer-patient relationship before treating patients by the details as follows.

3.1 Severe Lom Ammapart Patient should be received modern medicine treatment before seeing folk healer

Key informants screened *Lom Ammapart* patients in order to be healed using the diagnosis procedure by observing the symptoms, taking a pulse, *Jub Sen* and taking the patient's history using the method which will be explained later in the subject of diagnosis.

"I can tell by Jub Sen on the neck. The lines are damaged if they are obstructed which means patients must be taken to the hospital immediately. I can tell if the blood does not flow by taking the wrist pulse called Sen Fai. The pulse would be still if the blood does not function and that would affect every line. The bodylines would be damaged if they cannot be pulled up so I must take the patients to the hospital. I do not just treat them without checking. The patients could die if I do not know how to check". (K7)

Key informants could divide patients into 2 groups; those who needed to be treated by modern medicine prior to folk medicine treatment and those who could be treated by folk medicine.

Patients who were recommended for treatment by modern medicine prior to folk medicine were those who were diagnosed as having severe symptoms in the

acute to crisis stage, unable to get up and sit, unable to help themselves or in an unconscious state or chronic patients for whom treatment might not be effective. Key informants would refuse to heal these patients and recommend their relatives took the patient to the hospital. After checking the pulse for the condition of the patient's heart function, healers would not accept the patient if his or her beating was found to be strong and inconsistent. Key informants also would recommend the caregivers take the patient to the hospital immediately. The patient would be told to see the folk healer quickly after they got through the crisis period so as to prevent the damaged bodylines from spreading. In case of moderately severe symptoms in that the pulse did not flutter but the patient was unable to walk and help him or herself, the patient also must be taken to the hospital first. Blood pressure must also be checked for safety because hypertensive patients must be treated by modern medicine prior to massaging in order to reduce the pressure to a normal level because massaging based treatment was not given to patients with hypertension.

“Folk healers would recommend the patients who are unable to walk, unable to help themselves and have not seen a modern doctor to go to the hospital. They can be massaged though if they take hospital medicine. I recommend them to go to the hospital prior to healing with me. Taking herbal medicine is one thing but they must go to the hospital, check their pressure, fat and diabetes because I do not have anyof that kind of checking equipment. They can come back later for healing”. (K7)

For chronic patients who had lost bodylines that could not be healed , two key informants would massage the patient first before refusing to heal in order for the patient and their relatives to feel satisfied that the healers had helped. Then, they would recommend the relatives to take the patient to see other healers who might be better or had more experience which might help the patient.

“I give them treatment just to spare their feelings because they still have a perception sense but I have to whisper to their relatives later not to bring

them here anymore because they cannot be helped. The patients can breathe but refuse any treatment. Although other parts of their bodies are still in good condition, their bodylines are found stiffened and damaged and have no chance for treatment". (K8)

"After checking the patients, they cannot be healed if all of the bodylines are embedded. Embedded bodylines mean every line is stiffened. They cannot be pulled back up, do not move, are not sensitive, are not felt and the patients just lie there as hard as a piece of wood. After checking, they would be accepted if they can be healed but told to see other healers instead if they cannot be healed just in case other healers can do better so the patients would feel comfortable". (K7)

The patients who could be treated by folk medicine were those whose symptoms were not severe such as those who could get up to sit, were able to help themselves or those who got through the crisis and were not chronically ill for too long. Key informants were confident they could handle this situation so they did not recommend the patients to see a modern doctor. After the first treatment, key informants would recommend patients to go to a modern medicine clinic to have blood pressure checked in order to prevent emergency situation that might happen.

3.2 The ways of folk healer in diagnosing Lom Ammapart patient

The diagnosis of key informants was different and could be divided into two large groups; healers who accepted the diagnosis result of modern medicine and those who diagnosed according to the folk medicine way.

3.2.1 Adoption of western medicine diagnosis

Six of key informants in the first group were confident in a western medicine diagnosis because the medical equipment and technology provided correct diagnosis results and most of their patients were diagnosed by modern doctors as having a stroke so the key informants often believed in those diagnosis results. The method of *Jub Sen* might be used to further check in order to confirm the diagnosis.

“The diagnosis of the hospital is mainly used to diagnose Lom Ammapart. I just agree whether it is constricted or cracked but I also Jub Sen. Doing so can also tell the disease for real experienced folk healers”. (K1)

3.2.2 Taking pulse, and Jub Sen were main methods of folk medicine diagnosis

Four of key informants in another group were confident that they were able to diagnose correctly resulting in correct healing. Key informants with great experience were also very capable of diagnosing that they knew what was wrong with the patients just by seeing the symptoms.

“I have gained 23 years of diagnosis experience. Taking the pulse and Jub Sen are required for those with Lom Ammapart. All I have to do is to pull it out but those who cannot be Jub Sen are unable to be healed. The bodyline character of each disease is different but those who are not experienced do not know. The patients’ face would be brighter if they are better after healing so healers must be able to diagnose correctly”. (K9)

Folk healer diagnosis must rely on techniques and procedures and its results might be used for prognosis. Key informants diagnosed *Lom Ammapart* by observation as the first procedure, taking pulse to detect the condition of *Lom Ammapart*, *Jub Sen* to diagnose, prognosticate and give treatment and taking history to confirm the diagnosis. The diagnosis processes of key informants were not in a fixed order which was different from modern doctors who begin their processes by taking the patient’s history. Furthermore, every key informant did not rely on any equipment in diagnosing.

3.2.2.1 Observation as the first procedure

Every key informant often diagnosed using observation as the first procedure. For example, a patient who walked by dragging one leg was likely to have this disease. Such facial characters as a crooked mouth and not being able to speak were then observed to confirm what was diagnosed primarily.

“I can tell they have this illness because it can be seen from their hands, feet, mouths and eyes. People with a crooked mouth, one wide eye and slurred speech absolutely have this illness by one hundred percent. Most patients who come for treatment are unable to speak. They would be able to speak in about three to seven days after massaging and taking herbal medicine. Patients may become worse and have a bad effect if the treatment is done at a wrong point and may damage the disease even more”. (K4)

In addition, all key informants added that the circulation of blood and wind to the extremities in this disease was not good. This was because the end of the bodylines to the hand goes straight to the index, patients often had a cold ring finger when the wind circulation in this area was not good.

“Gaining more experience is required in checking. Four fingers must also be touched and checked to see which one is colder. By touching the patients and you would see that people with this disease have a colder ring finger because the large bodyline from the elbow runs straight to the ring finger and this bodyline would not move if the wind is blocked”. (K3)

3.2.2.2 Taking pulse to detect the condition of Lom Ammapart

Another diagnosis technique was taking the pulse and *Jub Sen*. In taking the pulse, five key informants used their thumb for taking it and three key informants used their index while the other two did not like taking a pulse. The pulse taking area was the patient’s wrist.

“Taking the pulse should be done at the wind channel at the outer side of the wrist just a little above the area where the wristwatch is put on which is the only area used to take a pulse. This bodyline comes straight from the heart. Taking a pulse is to check whether there is fever including pressure. Pressure can be felt by its beating and its steadiness can be touched and interpreted by experience. It is hard to tell or explain and you have to touch to know it by yourself”. (K2)

The pulse was interpreted using the rhythm and load of beating which was useful for the classification of such an abnormality whether it was blood pressure or fever. Three key informants commented that most patients with this disease had an internal fever called “*Khai Nai*” within the bodylines so the fever must also be

checked by taking the pulse (the pulse character of “*Khai Nai*” is mentioned in the subject of symptoms).

3.2.2.3 *Jub Sen to diagnose, prognosticate and give treatment*

Jub Sen was the main method key informants used to diagnose, prognosticate and give treatment. It was found from the data that two key informants did not like to take a pulse for diagnosis in which they commented that using only *Jub Sen* was enough to diagnose.

“Taking a pulse is unnecessary but Jub Sen must be done to see whether the bodylines are damaged, stiffened, tightened or loosened and which body lines should be improved. I Jub Sen first when I check to see which bodylines are damaged and which area must be massaged emphatically because the damaged area is located in one certain point”. (K1)

Jub Sen was a procedure used to identify the disease character and search for the obstructed wind position or as called by some key informants as “*Sen Tid*” which was considered damaged bodylines that must be improved so patients could recover.

Jub Sen was performed by using the hands to touch, massage or press on the spot along the bodylines located on the patient’s muscle (figure 13). Most of them touched the bodylines on the affected arms or legs and classified the perceived feeling to identify the abnormality. For those with *Lom Ammapart*, their bodylines were limp, withered, atrophied or stiffened and embedded in their flesh and could not be felt when touched. The main bodylines at the stomach would beat strongly and the rhythm was abnormal when touched. The principle of *Jub Sen* in searching for the position where the wind was obstructed was to *Jub Sen* throughout the patient’s body.

“I investigate the patients by Jub Sen every line throughout the body and every line both small and large is pulled (pulling lines using the end of the finger joint) to see which lines do not move. Those who are normal would be sensitive on their hands and feet when pulled but they would not be sensitive if the lines are constricted. These lines would move on its route when pulled

depending on which lines are pulled so every line must be touched and I can predict what is wrong with the patients or what symptoms they have”. (K7)



Figure 13: The method of *Jub Sen* massage

Therefore, healers who did *Jub Sen* for diagnosis must have the knowledge of bodylines and know the flowing direction of the wind in the lines in order to investigate the area the wind was obstructed in. Three key informants who were experts and experienced did not spend much time in *Jub Sen* but only massaged some points to investigate where the wind was obstructed. Seven key informants spent more time in checking because massaging the lines throughout the patient's body was required. Four of the key informants also applied "*Lai Sen*" method. *Lai Sen* meant searching for the position where the wind was obstructed by using the hands to *Jub Sen* at each spot and to follow the lines along the line way. It was observed that the lines where the wind was obstructed were felt like a bump, knot, curve or wave and were not smooth when touched because the lines were crooked and had moved from their original position.

"I would ask about the painful spots if they have backache, let them lie down and check the problem spots. I know where the problems are when I Lai Sen and I know right away when touched if the tendon is tied or like tuft. I need to Lai Sen first. Patients will not recover just to be massaged. Sometimes the patients say the painful spot is at their waist but the problem spot may not be

there. That line may be the same line that makes their wrist hurt but the problem may actually be in other spots that that line passes through. So I must search for the abnormal spots and improve them”. (K8)

These lines might move to overlap other lines which caused the wind to obstruct even more. Patients might have swelling and congestion of wind at the obstructed line area and there might be obstructed wind in that spot when these areas were touched or pressed and the patients felt pain.

“Obstructed wind means that spot is sprained and swollen which must be massaged and improved. It would not recover, be swollen and the wind would be obstructed in their arms and legs if it is not improved”. (K7)

“This congestion would be the same. It is pain at places where the lines are obstructed such as the knee, ankle, waist and wrist. The ankle would be sprained and swollen if the wind is obstructed there so it must be healed. It would not recover and get more swollen if that spot is not healed”. (K7)

3.2.3.4 Taking history to confirm the diagnosis

Most key informants thought taking history was unimportant and unnecessary. They were confident that they were able to diagnose better by observing, taking a pulse, and *Jub Sen*.

“I do not have to ask what is wrong with them. I only observe or take their pulse and I would know what is wrong and what medicine must be used. For example, I know if there is a torpid hand and foot because the wind is obstructed and does not flow, what the tendon is like and how to heal it. Some patients have obstructed wind all over the body. Some have fever, tendon pain fever, painful muscles and are painful all over so symptomatic treatment is done”. (K2)

“People with this symptom are healed this way and people with that symptom may be healed that day. The symptoms are not the same depending on the areas that are affected. Patients with hip pain must lie prone and those with shoulder pain must sit. I must find the affected areas myself. Patients do not have to tell and I never have to ask. I can tell what is wrong with this patient once he/she sits down”. (K5)

Four other key informants somewhat saw the importance of taking history. They thought that diagnosing to identify whether the symptom was severe must rely

on the information taken from the patients and add to the main data obtained from the body check in order to confirm the diagnosis.

“I must first check the symptoms by Jub Sen so as to see whether the left side or right side is affected and I Jub Sen to see whether it is a hot line or cold line. The cold lines are the damaged lines meaning the wind is obstructed. I then ask the patients about the symptoms and the treatment would be easier if what they tell me is what I expect. For example, I must ask whether their symptom consists of constipation and if it does then I must use medicine to improve the excretion system”. (K1)

3.3 Success factors of treatment

Factors predicting the success of treatment of key informants in patients with a *Lom Ammapart* was based on observation, taking a pulse, *Jub sen* and taking history as same as the procedures used in the diagnosis. Multiple factors used to predict the prognosis of *Lom Ammapart* patients that will be more opportunity to recover were: the short time of the onset, the light symptoms at admission, the good health outcomes at the initial treatment, and other factors.

3.3.1 The short time of the onset

The duration of the illness was a predictable factor for the survival of the *Lom Ammapart* patients. The shorter the onset of the illness, there was more opportunity to recover from the illness. The patients whom the healers were not sure whether they could recover or might take a long time to heal were those who let the illness continue for too long which was usually more than one year.

Key informants found that patients who had only just been affected would recover if healed immediately and it would be best if they were healed within one week after being affected as they often got better quickly. For example, those who were carried to see the healers would be able to get up and sit by themselves within

one week and these patients often recovered within three months if they were receiving treatment continuously. Key informants believed that it might be because the bodylines of the patients were still in the stage that could be recovered because the bodylines were not yet stiffened, not embedded and still responded to stimulation using massage and herbal medicine until they were well active and function as a good pathway of the wind as usual.

“We should not stay in the hospital for too long otherwise the bodylines would be embedded quickly. Two to three weeks is good for staying in the hospital. We should come to see the healers in accordance with the appointment and be massaged continuously together with the modern medicine. We would not recover completely by massaging alone without taking medicine so we would recover quickly if we also take medicine”. (K7)

Furthermore, even though the patients were not cured after one week, they still had a chance to recover if it was within the first three months but the duration of healing might take three to six months. The patients, however who let the illness continue longer than 3 months but not over 2 years also had a chance to recover. This depended on the bodylines of the patients that must still be in good condition meaning they were not too stiffened or embedded to be pulled back up.

For patients who had been affected for more than one year and were stationary, their bodylines changed until they were stiffened, lacked flexibility and were embedded resulting in unresponsive bodylines to massage and unresponsive to treatment by herbal medicine. The more damaged these bodylines, the less opportunity to recover. The patient's bodylines would be obstructed, stiffened and tensed and their hands would be tensed, their feet would be rigid and their big toe would be pressed resulting in poor movement.

“If I see that it cannot be treated then I would tell them right away because people who live far away should not waste their time coming. It depends on the symptoms. The bodylines that are stiffened and embedded and the rigid

hands and pressed big toe are rarely treated. If it is not too tensed then I would massage them for several times and see how much it unties and a muscle relaxant drug would then be boiled and dosed. I would continue to help if they are better but I would tell them it is better to see other healers if the symptoms are constant". (K7)

3.3.2 The light symptoms at admission

The next method key informants used to prognosticate the disease was the symptoms at admission. Patients who tended to recover more were those with light symptoms. These patients included those with a constricted brain vessel, whose shoulders were not dropping or having a light drop but still in the sockets, whose bodylines were not embedded and with consolidated muscle. Two weeks to one month of massage was enough for the shoulders to return to normal along with relieving symptoms.

Patients with severe symptoms often had less opportunity to recover or might take longer to be treated. Severe symptoms meant patients with a history of paralytic stroke, huge shoulder drop, embedded body lines, tensed hands and feet, disabled arms and legs and watery muscles. Some of these patients could recover but some disorders still remained and they were not able to help themselves much and must always rely on the care from their relatives.

3.3.3 The good health outcomes at the initial treatment

In following up the treatment outcomes, key informants observed the walking character of the patients, the appearance, the manner, questioned the patients and compared daily symptoms and did *Jub Sen* around the arms and legs so as to see whether the bodylines responded better. Some key informants assessed the treatment outcomes by taking the pulse which indicated better results including a stable beating, not fast, not slow and of moderate load.

In general, patients usually were better within one week after being healed by folk healers if the symptoms were not too severe. The patients were unlikely to recover if they did not get better after one week of treatment. Healing might take longer and they did not tend to recover if the treatment was not effective after a continuous healing period of 3-6 months.

3.3.4 Other factors

Recovering from illness depended partly on the age of patients. Patients who tended to recover more were those who were not over 70 years old. The characters of patients that did not tend to recover were patients with alcoholism or those who had had brain surgery which were factors that added more damage to the bodylines and made it difficult to recover as usual. Meanwhile, two key informants commented that whether patients recover was partly related to the mind. If they did not have a strong intention to recover and they did not come for treatment consistently, it would be more difficult to recover. The key informants had seen some patients who were likely to be hopeless cases but these patients never gave up and were able to recover because not giving up was motivation enough to make them recover.

3.4 Treatment processes started by establishing healer-patient relationship before treating patients

The process of treating *Lom Ammapart* are as follows: the establishment of the healer-patient relationship, and methods in treating *Lom Ammapart*.

3.4.1 Establishment of Healer-Patient Relationship

Folk healers had a psychological principle of healing patients by putting their faith in mental treatment along with physical treatment. Key informants commented

that establishing a relationship between the patients and healers was very important in that the patients would trust the healers which resulted in a more effective treatment and they would trust the advice given.

“I must heal the patients’ minds by teasing them in order for them to feel comfortable and reduce their worry from the illness. I would not force them to do what they cannot do and they can also tell me what they want and how they feel as if my relatives”. (K8)

Healers and patients began establishing mutual relations from the initial healing appointment. Healers were able to communicate with patients effectively due to both using the same dialect. Giving advice was, therefore, in line with the cultural needs and the way of life of the patients and relatives.

Healers and patients could always talk and consult with each other in every procedure of the healing process. Healers’ advice was provided throughout the healing process and not only before the patients left. The relatives were often allowed to participate in the patient’s treatment in that they could watch every procedure of the treatment. Key informants would always allow relatives to participate in making a mutual decision when there were problems concerning the patients.

After the healer-patient relationship had been established, fever must be healed first if *Khai Nai* was found by dosing with cold herbal medicine. It helped to reduce the heat inside the patient’s body otherwise healing this illness would be more difficult because the bodylines would not respond to massage and herbal medicine. A key informant often did with only herbal medicine for one week and then massaged while five key informants preferred to start with massage although they were experienced in herbal medicine. Two key informants who had good knowledge of medicinal herbs often started their treatment process by dosing with a hot compress and massage was given later.

3.4.2 *Methods in treating Lom Ammapart*

Six key informants preferred to apply *Jub Sen* massage as the main method along with remedy dosage. Three key informants in this group commented that patients who were just afflicted and not much affected by the illness could recover by just using a remedy without having to *Jub Sen*. Four other key informants thought that massage was more important to the treatment than herbal medicine due to their experience that healing by massaging solely was enough for patients to recover because massaging helped to recover the bodylines to become clearer pathways of the wind and stimulate the wind to be able to flow through these bodylines. Three key informants in this group applied massage solely and did not dose with herbal medicine because such remedies had not been transferred to them by their teachers. However, this group of key informants did not keep patients from using remedies for healing.

Every key informant accepted the modern medicine the patients had been prescribed because they thought it also produced positive effects in the treatment of this illness. Seven key informants thought that patients should be massaged along with taking modern medicine and herbal medicine in that the qualities were diverse and support each other to make the patients get better sooner. Three key informants thought that it was enough for patients to just take modern medicine along with massage. Additionally, there were ceremonies performed and sorcery used in healing patients with a belief that the ceremonies could affect the healing effectiveness as much as massage and herbal medicine.

In conclusion, the main healing methods of *Lom Ammapart* consist of *Jub Sen* massage, Herbs in treating *Lom Ammapart* including herbal hot compress and herbal hot bath, superstition was one part of the healing power, and advice during treatment.

3.4.2.1 Jub Sen massage

All key informants used massage to treat the bodylines in order to release the wind obstruction by pressing on certain points only on the bodylines, not the muscles. The massage points are scattered on the bodylines throughout the body. The knowledge of the massage points and bodylines were important for the treatment given by folk healers. The massage was applied to stimulate the bodylines by a technique called “*Jub Sen*” (figure 1). The wind within the bodylines then circulated freely on either its upward or downward path if the massage was performed properly. Three key informants also applied a foot massage because it was believed that symptoms also had a healing spot on the sole of the foot.

(1) General principle of massage for Lom Ammapart

The general principle of massage composes of the utilization of oil made from various kinds of herbs and massage accessories, the application of the arch of the fingers in massage, using multiple techniques of massage according to the symptoms of patients, and massage for short duration in new patient and increased until reaching appropriate duration.

(1.1) Utilization of oil made from various kinds of herbs and massage accessories

Every key informant used massage oil with massage treatment. There were various herbal kinds and formulas of massage oil. Six key informants used their own self-simmered coconut oil which was kept in an opaque closed container to maintain

its quality. Various herbal medicines were added according to the need of the properties for treatment. One key informant mixed the massage oil with bengal root only, while another one mixed the oil with black medicine, bengal root and garlic so as to increase the quality of healing the bodylines and muscles. Moreover, other kinds of massage oil apart from coconut oil were used. The massage oil must be blessed with a blessed oil incantation before being applied to patients. It was believed that reciting incantations rendered the massage oil effective and able to heal the bodylines of the patients.

This study found that only one key informant used such additional massage equipment such as a bamboo pulley machine (figure 14). This machine worked by tying up the massaged parts like the arms or legs with cloth and tying the cloth to the bamboo pulley machine in turn and the pulley would be pulled so the tied up extremities were pulled and tightened. With this method, key informants believed that the embedded bodylines of that organ would be pulled back up and massage would be easier so finding the bodylines did not require much of a pressing force. These bodylines would be loosened and the obstructed wind would flow better after massaging so the patients got better.

“The bodylines were pulled back up using a pulling method. I just massage lightly to tighten the bodylines. The bodylines would be loosened right after I let go with my hands. Massaging without the machine requires much pressure. The bodylines would be tightened once they are stretched. Just pull them so they would be clear and the obstructed wind would be able to get out”. (K7)



Figure 14: The bamboo pulley machine

(1.2) Application of the arch of the fingers in massage

Key informants had different forms of using their fingers to massage in accordance with the techniques of each person. The observation found that two key informants used one finger while seven others used two fingers and one key informant used five fingers in massaging. Massage did not require much strength but the hand load should be just right. The right bodylines and spots must be massaged because healers did not lose much power and patients would not be in pain. The massage that caused damaged muscle was not pressing on the bodylines or pressing too hard so the arch of the fingers must be used to reduce the pressure (figure 15).

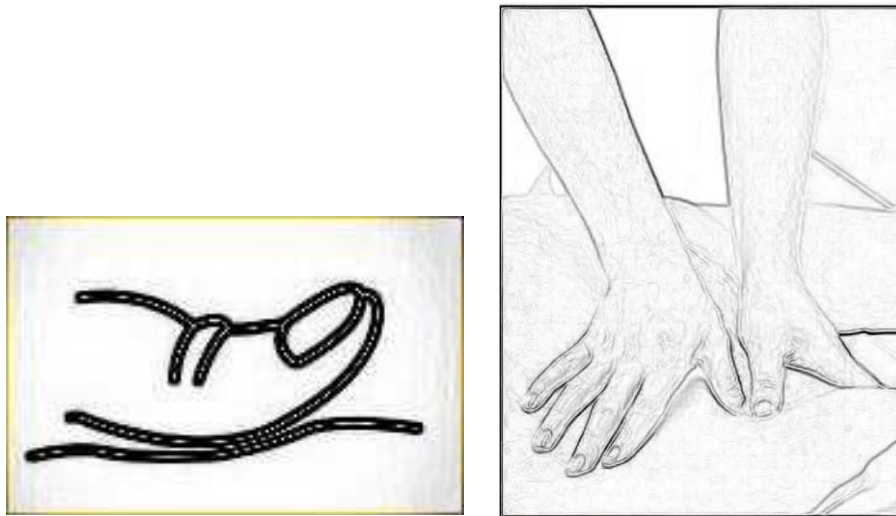


Figure 15: Massage with the arch of the fingers

The massage pressure was applied and adjusted in accordance with the body of each patient. The massage pressure was increased slowly once the bodylines were massaged and adjusted. Heavy pressure should not be used immediately because it might induce great pressure in the blood vessel and might be harmful to hypertensive patients. Therefore, a light load of massage would be used in the beginning and then slowly increased, therefore, a longer time was required in order for the body to adjust to the condition of the lines and muscles which gradually recovered.

(1.3) Using multiple techniques of massage according to the symptoms of patients

Each key informant had different techniques of massage and different techniques must also be used according to the symptoms of each patient. Principally, the main massage techniques are as follows:

At the beginning of a massage, a test must be done by *Lai Sen* (Searching for the obstructed wind spot by massaging along the bodylines). That spot was then improved by *Jub Sen* and *Tang Sen*. The technique was to massage to stimulate the

bodylines. Pressing the bodylines should not be used without exception especially if the embedded bodylines were found because they would even be embedded. Massage should not be done too much because the bodylines might be damaged and returning to normal would be slow. The wind within the bodylines would circulate well both upward and downward if the massage was done properly.

Tang Sen was done by using the finger(s) to squeeze the lines along the bodylines. The embedded bodylines were poked back up, tightened and loosened to move them back to their normal position and to not overlay other bodylines. Poking the bodylines was considered a method of opening the wind pathway. Patients would feel like they were shocked by electricity while their bodylines were poked. After that, they were massaged to loosen the bodylines using finger(s) along those lines for them to move slightly by focusing on the obstructed wind spot. The wind in the bodylines would move out of that area along the bodylines once the bodylines were loosened. Another similar method was *Kad Sen* which was pulling the bodylines out of the overlap, setting the bodyline to its normal line which would help the obstructed wind to move along the line.

(1.4) Massage for short duration in new patient and increased until reaching appropriate duration

On the first visit, a short massage was required for every new patient to balance adjustment of the bodylines. For example, the first, the second and the following day massaging took 10, 15 and 20 minutes, respectively. On later visits, the duration of the massage was gradually increased until it had reached an appropriate duration and remained thus. Each key informant provided different durations of

massage which is divided into three patterns. These are 1) short duration of 10-15 minutes 2) medium duration of 30 minutes and 3) long duration of about 1-2 hours.

Two key informants spent only 10-15 minutes of massage duration for each patient. They massaged and *Jub Sen* only on important spots. It was also the expertise and experience of healers that they knew which spots must be massaged to loosen the obstructed bodylines without having to *Jub Sen* the whole body.

Three key informants spent only half an hour to massage. They commented that massaging the whole body each day was unnecessary. Different areas were massaged each day to prevent damage to the bodylines which was the cause of a slow recovery.

Five key informants spent at least 1 hour for the massage. They commented that every part of the bodylines must be massaged for this illness because the wind was normally obstructed throughout the body and the obstructed wind spots differ individually. Therefore, every line both small and large all over the body including that on the face must be massaged so that the obstructed wind spots would be certainly found.

“The bodylines are everywhere in our body. I would massage every spot and every line in order for the wind to be free and the line to be loosened. I must also Kad Sen and Tang Sen if they walk with difficulty. Massaging without Tang Sen is impossible”. (K7)

Massage should be done once every morning because key informants experienced that the bodylines would recover better. The healing outcome was dependent on the symptoms and the condition of each patient. Overall, at least 3 months were required for healing, as could be seen when one key informant shared his experience about the duration of massage treatment as observed in most patients:

“Patients should be able to sit by themselves after 10 days of the massage. Later, they should be able to walk with a crutch and then without it in approximately 20 days. So the total duration for the treatment was about one month. The patient may need about 2 months for recovering. Thus it may take approximately 3 months to recover from the illness”. (K8)

At the initial healing, patients would be told that they needed to be massaged everyday for about 7-10 days. One key informant believed that patients had a chance of certainly recovering if they got better within 7 days. After the bodylines were adjusted, the key informants would give appointments to the patients to obtain massage regularly, twice every three days or every other day so their bodylines would have time to convalesce because they might be damaged and became worse if massaged every day. In the early recovery stage, the massage would be given two to three times a week or once a week until full recovery from the illness had been made.

(2) Massage process for Lom Ammapart patients

There are 2 main purposes of providing *Jub Sen* massage for *Lom Ammapart* patients: rearranging the bodylines, and propelling the wind element and eliminating the toxic wind.

(2.1) Rearranging the bodylines

There were many damaged bodylines in people with *Lom Ammapart*. Their bodylines were not as smooth as those of general people when pressed through the skin. Massage helped bring the damaged bodylines back to their normal position. Damaged bodylines occurred from having obstructed wind so they must be improved. The key informants provided *Jub Sen* massage in order to release the atrophy, embedded, and tight bodylines and loosen them to their normal positions. The massage also corrected these abnormalities of the bodylines to reduce overlapping, thus helping release the obstructed wind and resume the flow of the wind element.

These areas would then recover from edema and be smoother when pressed through the skin.

“The atrophy, embedded, and tight bodylines were pulled back up and loosened by light massage. Massage does not require much strength but only applying the pressure to the right bodylines and right spots is required. The bodylines will be loosened and return to their original location. So the bodylines would have a clear path and the obstructed wind would be able to get through”. (K2)

(2.2) Propelling the wind element and eliminating the toxic wind

Every massage must be followed by propelling the wind in order to facilitate the flow of the wind element along the bodylines. If the congested wind was not released, it would cause toxic wind, harmful to the body of patients. Also, the congested wind would cause edema of the related parts of the body. Patients would feel pain or aching when receiving *Jub Sen* massage at the congested wind areas. Therefore, propelling the wind helped to release toxic wind, to recover from edema, and patients would be without pain, which was a sign of better circulation of the wind in that area. Therefore, healers massaged patients to propel the wind to flow downward along the bodylines continuously from head to toe so that the toxic wind would be eliminated through to the tips of the hands and feet. Also, when the wind flow from the upper to the lower part became normal, then, the wind flowing from the lower part would flow automatically to the upper part.

Propelling the wind could be divided into 3 main types as follows:

(2.2.1) Propelling the wind element in one direction

Because human bodylines are linked together as a web, the obstructed wind could not be solved by correcting a point. Hence, nine key informants had a concept that every point along the line all over the body must be treated in order to ease the flow of the wind throughout the body. There were 2 methods used as follows:

(2.2.1.1) Massage from head to toe

Eight key informants massaged patients so as to propel the wind to flow downward along the line continuously from head to toe so that the wind would flow through to the fingertips of the hands and feet. Pulling fingers was done for the wind to flow out of the skin and pores. Key informants massaged the obstructed wind areas along the line in order for the wind to flow through which lessened the symptoms.

“There is no way to recover to massage from bottom up because the wind pathway is not completely opened. It would be effective to massage from head to bottom. I massage this way.”

(2.2.1.2) Massage from toe to head

One key informant massaged patients from toe to head because he studied from teachers who believed in the textbook of TTM. The book focused on this mentioned massage direction which was believed to promote circulation towards the heart. It was found that patients also got better using this method.

(2.2.2) Eliminate the toxic wind by opening wind channels

Simultaneously, opening the wind gate was conducted by applying pressure at the area where the wind gate was located. The wind gate was described as a point on the bodylines scattered throughout the body. The main wind gate which is the center of all bodylines is located at the middle of the stomach around the navel. This wind gate needed to be treated to allow the flow of the wind element throughout the whole body together with other affected wind gates. Apart from this gate, there are other wind gates such as the elbow, wrist, middle of the palm, web of thumb, groin, ankle, and beneath the knee groove. Nevertheless, the researcher observed that key informants would open specific areas of the wind gate connected to the massage area because they commented that opening too much of the wind gate might cause more

obstructed wind. In opening the wind gate, it should not be pressed for long but should take only 5 seconds by poking the wind channel to open it.

(2.3) Massage for specific *Lom Ammapart* problems

(2.3.1) Face massage for patients with facial palsy

For patients with facial palsy, the rim of the chin, eyebrows and all the way to the nape must be massaged. For eye palsy, nine key informants would massage at the eyebrows and below the eyes in the same direction for about three times at each point. One key informant used a different method by pressing the top, bottom and sides of the rim of the eyes with his nail which was also effective.

“I do not use finger rolling like other healers but press the bodylines instead and ask the patients to turn their faces. The eyes are turned back if they are squinted. Pressure is applied by pressing the bottom and the top rim of the eyes with the nails. This takes only 2-3 days to recover. These nails are useful for pressing the eye lines to be softened and the eyes would return to the former position but 7 days of massage are required if they cannot be closed”.
(K5)

The massage areas for patients with a crooked mouth were below the chin and at the occiput. In cases where the patients were unable to speak, the head, neck and nape must be massaged. Submental and mouth must be pressed and both front and back of the hands must be massaged. In new patients who were unable to speak, the submental must be pressed first which was equal to massaging the tongue base. Pulling the tongue was unnecessary if patients were able to make a sound after massaging but it must be pulled if they could not do it after three times of massaging. This could be done by taking the patient's tongue foot and pulling it out 4-5 times or pulling and holding up the tongue to function. Later, the tongue would be massaged everyday and a decoction was taken. These patients often were able to speak within 2

weeks. For patients with oblique neck, the bodylines on the neck must be improved by massaging and Jub Sen along the shoulder and nape.

(2.3.2) Whole body massage for patients with hemiplegia

Massage must be performed on both the affected and unaffected sides. The number and the pressure of massage must be done equally on both sides and both the front and back of patients in order to have a dispersion and balance of circulation. Every spot was important to massage because the bodylines were a network that linked each other so unaffected areas must also be emphasized so as to prevent additional damage that might happen from having the obstructed wind.

“Every area including both affected and unaffected sides must be massaged because the bodylines are chains that link each other so they must be massaged to prevent from spreading in the long run”. (K4)

In the initial stage of, the affected side must be massaged first, especially the bodylines that go to the hands and feet must be improved for the wind to flow so patients were able to use their arms and legs. The unaffected side was massaged after improving all of the bodylines on the affected side.

The important spots and bodylines that must be massaged in patients with *Lom Ammapart* were the spots at the center of the stomach which was the center of all bodylines in the body because it was the spot that affected good circulation. There are four points of the main bodylines around the navel which is 2 inches down from the navel, 2 inches up from the navel and 2 inches from the left and right of the navel. These bodylines are deep down and must be pressed to reach. Later, massage was done at different spots. The buttocks should be pressed for the circulation of the legs. The lines along *Sen Pattakad* or along the seam, along the shin ridge and the lines

below the ankle must be massaged. The back, arms and head were then massaged for the circulation to flow to the head.

In case of a loosened shoulder, they must be pulled back which was rather difficult. So, six key informants healed by massaging together while reciting an incantation and then pulled the shoulder joint back to its normal position because they believed that incantations helped the joint to rejoin easier.

3.4.2.2 Herbs in treating Lom Ammapart

More than half of the key informants (n=6) used herbal medicine complementarily with massaging until the patients had recovered from the illness, while some of them only prescribed herbal medicine to the patients with severe symptoms. The patients who did not need to take herbal medicine any longer were those who were better after obtaining massages or those who could walk without support.

Most key informants did not research their own herbal medicine formula but used the classic medicine they obtained from the transference of their teachers which had been effective for patient treatment. These medicines might come from the textbook they bought or come from patients and relatives who obtained the formula from other sources that healers were given. Healers often used the same medicine formula and never change.

“All of the medicines are in the textbook. The ancient people wrote them as ancient books. I do not research myself and I cannot change it because I do not understand the medicine so I always use the medicine written in those books. I just follow what it says in the books no matter how much the medicine is dosed”. (K7)

Besides using the herbal medicine according to the book, two key informants also adjusted some medicines in the medicine formula to meet the symptoms of each

patient with a principle that performing the medicine must be just right because too much medicine might not be effective. Key informants then made their medicine item to heal according to different symptoms of each patient.

Healers would bless the medicine prior to dosage. Most key informants often blessed many sets of medicine all at one time to save time because a reasonable time of reciting incantations and blessing was required. Some key informants liked their patients to take herbal medicine until they recovered but some only dosed herbal medicine to patients with severe symptoms. Patients that did not need to take herbal medicine any longer were those who got better after massaging or those who could walk without support. The last group of key informants did not prescribe medicine for patients due to a lack of herbal medicine knowledge. Some key informants did not prescribe medicine for patients although they possessed the knowledge of herbs because they commented that massaging solely was enough to recover from *Lom Ammapart*. They also thought that taking only modern medicine was effective and extra herbal medicine was unnecessary.

Herbal medicine was prescribed for the patients to use along with modern medicine but needed to be taken before meals while most of the western medicine was taken after meals. Some key informants commented that it would be good for patients to take both medicines because each had its own advantage.

(1) Herbal medicine made from various kinds and properties of herbs

Some key informants had many herbal regimens for *Lom Ammapart*. Each regimen contained different herbs with different amounts/weights and properties depending on the symptoms of the illness, but only 1-2 effective regimens were chosen to heal the patients. A remedy might contain 35-40 kinds of herbs. Taking

herbal medicine often started with a small set and followed by larger ones. The medicine would be more powerful according to the pot size.

Many of the kinds of herbs contained in a regimen to treat *Lom Ammapart* were mainly hot to the taste to counteract the effect of the coldness which was a risk factor of the illness. These polyherbal medicines could be divided according to their therapeutic actions into eleven properties: herbs for excreting toxins, purifying blood and lymph, dissolving clotted blood and activating blood circulation, nourishing the blood, expelling wind, nourishing the bodylines, reducing contusions or inflammations, nourishing the four elements and strengthening the body, nourishing the heart, reducing edema and blood pressure, and excreting urine, and nourishing the brain.

(1.1) Herbs to excrete toxicants were used as carminative and as a laxative drug to excrete air and waste products out of the body. They were also used for purging toxicity of blood, lymph, and the bodylines by being excreted in the feces. It was considered as a medicine for intestinal healing or clearing because key informants believed that toxins might accumulate in a patient's body and circulate to the brain which resulted in headaches, drowsiness and might be harmful to the body if the patient was constipated. These are some example of the herbs in this group: *Ya dam* (*Aloe vera* (L.) Burm.f.), *Samo thet* (*Terminalia arjuna* (Roxb. Ex DC.) Wight & Arn.), *Samae san* (*Senna garrettiana* (Craib) Irwin & Barneby).

(1.2) Herbs to purify blood and the lymphatic system were used for cleansing the blood by evacuating slime from blood vessels, lymph, and the intestinal system to capture the toxicity of phlegm and blood as follows: *Som poi* (*Acacia*

concinna (Willd.) DC.), *Fang* (*Caesalpinia sappan* L.); *Kham foi* (*Carthamus tinctorius* L.), *Kam phaeng chet chan* (*Salacia chinensis* L.).

(1.3) Herbs to activate clotted blood lysis and blood circulation were used for dissolving clotted blood and activating blood circulation. Herbs in this group are as follows: *Chetta mun phloeng daeng* (*Plumbago indica* L.), *Krawan* (*Amomum krevanh* Pierre ex Gagnep.), *Lueat raet* (*Knema globularia* (Lam.) Warb.), *Sak* (*Tectona grandis* L.f.).

(1.4) Herbs used for nourishing blood and reducing anemia are as follows: *Kham foi* (*Carthamus tinctorius* L.), *Fang* (*Caesalpinia sappan* L.), *Lueat raet* (*Knema globularia* (Lam.) Warb.).

(1.5) Herbs to expel wind were used for expelling wind from the intestinal system, reducing colicky pain or choked feelings, and stimulating the digestive system. Herbs in this group are as follows: *Phrik thai* (*Piper nigrum* L.), *Dok chan* (*Myristica fragrans* Houtt.), *Op choei* (*Cinnamomum verum* J. Presl), *Khing* (*Zingiber officinale* Roscoe).

(1.6) Herbs to nourish the bodylines and related tissues such as the nervous system, ligaments, and tendons; to relax them and enhance their efficiency. Herbs in this group are as follows: *Thao wan priang* (*Derris scandens* (Roxb.) Benth.), *Luk chan* (*Myristica fragrans* Houtt.), *Chan khao* (*Tarenna hoaensis* Pit.).

(1.7) Herbs to reduce contusions or inflammation of muscles, ligaments, and tendons, are, for example *Khing* (*Zingiber officinale* Roscoe) and *Ya dam* (*Aloe vera* (L.) Burm.f.).

(1.8) Herbs to nourish the four elements and strength the body were used for balancing the four elements and enhancing the strength of a *Lom Ammapart* patient's

body. Herbs in this group are as follows: *Di pli* (*Piper retrofractum* Vahl), *Cha phlu* (*Piper sarmentosum* Roxb.), *Haeo mu* (*Cyperus rotundus* L.), and *Pradu* (*Pterocarpus indicus* Willd.).

(1.9) Herbs to nourish the heart were used to increase the potential of the heart to pump blood throughout the body. These herbs are as follows: *Khon dok* (*Mimusops elengi* L.), *Phikun* (*Mimusops elengi* L.), *Bunnak* (*Mesua ferrea* L.), *Saraphi* (*Mammea siamensis* (Miq.) T.Anderson).

(1.10) Herbs to reduce edema, blood pressure and to excrete urine were used, such as *Ya channakat* (*Panicum repens* L.), *Chingcho* (*Merremia hirta* (L.) Merr.), and *Ya kha* (*Imperata cylindrica* (L.) Raeusch.).

(1.11) Herbs to nourish the brain were various, for example, *Thian daeng* (*Lepidium sativum* L.), *Thian khao* (*Cuminum cyminum* L.), *Thao wan priang* (*Derris scandens* (Roxb.) Benth.).

(2) *Dosage and duration of taking herbal medicine for Lom Ammapart*

Dosage should be considered in accordance with age, basic elements and symptoms of patients. Strong properties of herbs must be used for severe symptoms and less powerful medicine was dosed for light symptoms. In *Lom Ammapart*, excretion was considered important for dosage in that a laxative drug must be taken if there was a constipation problem. What was important was that the medicine must control the four elements by diluting the medicine for lacking elements so as to adjust the balance of them.

“Everything is controlled by the four elements so the medicine is given to mainly control them. The same amount of medicine must be added to every element so they would be healthy quickly”. (K4)

A half to 1 cup of herbal medicine should be taken each time. The medicine should be taken twice a day before breakfast and dinner if the symptom was not severe. In case the patients had several bowel movements, the dosage must be adjusted so they would have it once a day. The duration of taking each pot of medicine was about 10-15 days. Each pot of medicine was taken until it was tasteless. Herbal medicine dosage depended on the consideration of each healer and was regardless of any rule. Some key informants' dosage was in accordance with the duration of the illness. There should be a provision of 6-12 pots of herbal medicines to the patients who had been affected for less than 2 years. Some key informants dosed 2 to 3 pots or until the patients recover. After recovering, the medicine was still taken but the frequency was reduced to one pot every six months or a year. Some key informants had many kinds of medicine and might change to another kind of medicine if they saw the patients did not get better. The same pot of medicine was repeatedly dosed if the patients did not get better and dosage would be stopped if they did not recover after 12 pots of medicine meaning that the patients' symptoms were too severe for medicine to help.

(3) Herbal hot compress and herbal hot bath to be better circulation

Four key informants often used a compress on patients. They thought that patients should have a compress applied after massaging twice a day in the morning and evening. One key informant applied a compress only to patients with severe symptoms who were unable to help themselves by using 3 kinds of compress. The first piece was mixed with coconut oil, the second one was mixed with coconut and the third one was mixed with alcohol. Each piece should be used for 7 days so it took 21 days in total. Once the 21 day treatment was completed, a new cycle of 21 days

was repeated so the total treatment would be 42 days. Some key informants dosed compress only to patients with swelling for better circulation resulting in the reduction of swelling. Massaging should be done together with applying a compress.

Three key informants liked patients to shower with herbal medicine at the initial phase. Patients must shower with herbal medicine early in the morning because it was believed that the coolness of the night thickened the blood and fat in the vessels. Showering with herbal medicine helped dissolve fat and promote the circulation. In addition, it helped stimulate the cells in every part of the body to be active resulting in faster recovery. The procedure was to mix and boil more than ten kinds of herbs such as *Yan En Tang Song*, *Hua Plai* or bengal root, galangal, *Bai Nad* and lemon grass with water. While showering with herbal medicine, the carers should use their hands to scoop up and pour the medicine and pat lightly on the patient's back and head so he/she would recover faster. After that, a piece of cloth that had been soaked in the herbal medicine was applied to the head, took a bath to clean off the stain from the herbs and let the patients took a rest. Patients should shower with herbal medicine until they could walk or at least until the bodylines were active.

“They must shower with warm water and not drink anything with ice. This warm water must be added with herbs. For people in rural areas who cannot find some herbs, just add galangal, Bengal root and citronella grass in the water and boil them. The water must be warm when showering and it must be done at the initial stage of illness. It would be good to shower early every morning until they can walk”. (K7)

3.4.2.3 Superstition was one part of the healing power

Most key informants usually employed rituals and beliefs in supernatural powers as one part of the healing process.

(1) *Ritual for Lom Ammapart patients*

In regards to ceremony, this comprised of ritual for new patients and ritual in treating *Lom Ammapart*.

(1.1) *Tang Khan* ceremony was a ritual for new patients

As mentioned earlier in the subject of “*Tang Khan*”, every new patient must perform *Tang Khan* Ceremony so as to show respect to *Kru Mhor* and pray for their help in enhancing the treatment to be effective and that the patients would recover from the illness.

(1.2) Various kinds of rituals were performed in treating *Lom Ammapart*

The ceremony for *Lom Ammapart* consisted of using incantations and *Wai Kru* which were believed to add a more effectiveness to the treatment.

Incantations were used as a part of the healing process because this was an important component of the treatment. Five key informants considered that the ceremony and the use of incantations were more important to the healing process than the massage and dosage of herbal medicine, thus were used in every procedure, every time and with every patient. Key informants often recited incantations in order to prevent bad things happening to the patients, to have an effective massage and for the patients to recover from the illness easily. Therefore, each of the key informants had many incantations.

However, incantation was not too strongly emphasized by three key informants due to the influence of western thought. They thought that using incantations partly helped the patients to feel comfortable and have confidence in the healing process. They, nevertheless still believed that using incantations was necessary in some procedures of healing such as a self-protecting incantation was

required before massaging. They commented that using incantations in some procedures was unnecessary but massage and medicine would be emphasized more.

An incantation was usually used prior to massage. These incantations included a self-protecting incantation, an oil blessing incantation, and calling for the bodylines incantation. Different incantations were applied in different areas and for different symptoms, so healers needed to concentrate on the treatment while massaging.

“Incantation is used at all times when doing massage starting from the very moment my hands touch the patients. Each patient would be massaged differently depending on his or her symptoms and area of the problem. Magic words must be recited while massaging. The ancient letters in an incantation would be changed to another one right after an embedded bodyline is found in one certain area. While healing, my mind must be stable, concentrated and cannot think about other things because wrong letters may be used”. (K6)

In massaging, “calling for the bodylines incantation” was often used. One key informant wet the patient’s fontanel with massage oil, recited an incantation to him/her, and blew on the patients’ head and used his hands to wave along the bodylines which meant pushing the wind in the bodylines to move towards the direction of waving. One key informant recited “loosening the bodylines incantation” by rubbing his hands along the bodylines together with reciting an incantation to loosen the bodylines.

“I rub the bodylines to be loosened together with reciting and repeating an incantation that says “Tassa Sawa Tassa Sawa. An incantation would be recited as Namo Khai, Bhudda Khai if there is a tied tendon. Healing would be easier reciting this incantation while massaging the patients”. (K4)

(2) *Belief in supernatural powers*

A few key informants used magical methods to help in healing the patients. One of them wrote an incantation on his hands prior to starting treatment on patients each day, because he believed that the massage would be more effective. Another key informant looked intently at betel leaf for diagnosis and used a pen to drag in different

areas along the bodylines together with using an incantation to help loosen the bodylines resulting in a clearer pathway of the wind. The key informant believed that there was a mystery in every process which controlled the effectiveness of those healings and healers acted only as intermediaries in healing patients.

“Using incantations in Lom Ammapart helps loosen the bodylines, promote circulation and link the tendons, blood vessels and muscles all together. I always massage while reciting an incantation. I do Jub Sen massage to stimulate the bodylines. I just recite an incantation, pull the bodylines and use Jub Sen massage, thus aches and numbness all disappear”. (K3)

3.4.2.4 Advice during treatment

Advice was another important component of the folk treatment during the healing process. The most common advice was about exercise, prohibited food, and herbal medicine. Key informants often advised the patients to take enough rest, and avoid staying in cold places such as air conditioned rooms. Dharma practice was also recommended because it was believed that the merit gained from the practice might help heal the illness. Additionally, the good relationship between patients and healers and trust in the healers could result in more effective treatment and better advice for patients to practice.

(1) Various kinds of prohibited foods to be consumed

Each key informant had different prohibitions for food consumption. Six key informants had so many unwholesome foods the patients were not allowed to eat but four key informants did not have any prohibition. However, five in six key informants were unable to give the reasons of the so-called prohibition. These prohibitions came from the transference of teachers or might stem from their own experience they had seen in patients. Nevertheless, forbidden or unwholesome foods and some reasons of those prohibitions were collected here as follows. Cold drinks with ice were not

allowed to be consumed. Beverages with alcohol such as liquor, beer or fermented food were forbidden. Fried chicken with sticky rice was not allowed because sticky rice caused aches. White egg, shrimp, squid, crab, shell, high fat food, four-legged animal meat or biped meat such as beef, pork, and chickens were prohibited. Only fish was allowed. Pork might be eaten but should be grilled. Animal viscera, extremely fatty food, very salty or sweet food, rice noodles jelly, and fine noodles were not allowed. Key informants believed eating rice noodles and jelly fine noodles caused difficult healing because they were in a line shape and this illness was concerning bodylines.

“Unwholesome foods for Lom Ammapart include very salty food, very fat food and very sweet food including durian, rambutan and longkong. In principle, meat is not allowed because it is not good. Only fish is allowed. White egg is allowed but yolk is forbidden because it contains much fat. Extremely salty food is prohibited and only tasteless food is allowed”. (K7)

Roasted beans, peanuts, bamboo shoots, and jackfruit were not allowed because they contained much flour and people with *Lom Ammapart* already had much flour and fat in their bodies so eating these foods would double the heat in their bodies or cause aphthous ulcer. Pork, chicken, duck, sticky rice, shrimp and squid were injurious to the bodylines so eating these foods might make this illness even worse.

Forbidden fruits were durian, rambutan, longkong, lychee, watermelon, longan and mangosteen because they might cause hypertension levels to increase. A small quantity of banana might be allowed.

(2) Performing exercise in daily life to reduce disability

Key informants advised patients on exercising and moving their bodies as much as possible because not moving for too long caused difficulty in recovery. This was because the bodylines were dead, stiffened and the organs were obstructed and

even caused more disability. Patients should be trained to get up and sit, lie prone and the carers must be asked to walk the patients if patients were able to move their bodies. Key informants who were experienced in healing patients were able to teach how to move patients effectively but patients would be stimulated to attempt to help themselves if they were able to help themselves by trying to practice walking every day. This was started by walking a little each day and the distance was slowly added to. The more walking, the better and patients needed to practice walking. Some key informants stimulated patients to walk without a walking stick because they thought that this method helped patients to practice until they could help themselves faster than relying on a walking stick.

4. The Treatment Outcomes

The data on the health outcomes of the treatment in this study were collected from both the healers and the *Lom Ammapart* patients.

4.1 Health outcomes from the perceptions of folk healers

In the key informants' views, getting better meant the reduction of blood pressure, being able to sit after being treated, being able to balance oneself, stand, walk, eat and sleep, not having constipation, being able to speak, help oneself and perform daily routines like taking a shower or eating. It was found from the treatment experiences of key informants that a crooked mouth would disappear in patients with facial palsy from *Lom Ammapart* and they would be able to speak if the points and bodylines were massaged correctly and regularly. As a result, patients were able to live their normal life; for example, their hands and feet were able to function, they

were able to mobilize themselves and were able to work. As one key informant described:

“By massaging continually, they are able to sit, and eventually they can walk. They manage to walk with a walking stick. Things will slowly get better until they can move smoothly in what is considered to be a normal condition. Circulation and a rosy complexion mean recovery. I would then tell patients to stop the treatment”. (K5)

However, in treating patients with a *Lom Ammapart*, such traces of disorder as swaying or a crooked mouth remained high in most cases. Only a few patients did not have the leftover symptoms of this illness. Although some patients had a normal appearance, a feeling of numbness and inadequate circulation remained.

Most key informants improved the quality of their treatment by means of observation, experiment, following up and collecting and recording data in their own textbook. Two out of ten key informants usually tested the herbal medicines on themselves before using them with patients in order to be confident that the herbal medicine was non-toxic to the body and to be confident that the herbal medicines were natural. For example, key informants had tried the medicine before prescribing any medicine and observe the medicine's effect on the body so as to be able to explain to patients before dosing. For example, some medicines might cause dizziness or nausea. Solving problems from dosing medicine that might occur could be done because the medicines were well understood.

Some key informants had researched their herbal use in treatment by observing and documenting the use and the outcomes of the herbal medicine. Some of them experimented with the dosage of herbal medicines to see which one was effective. Some explored new treatment procedures and new prescriptions with few medicines. One key informant collected the data of patient treatment concerning using

the prescription by proving the prescription contained in the medicine textbook given by teachers and other additional textbooks he acquired.

“I prescribed herbal medicine for Lom Ammapart patients following the knowledge from my teachers and some other sources. I observed, and recorded the outcomes of the treatment for 5 years. If within such the period of time, there were any medicines found to be effective meaning most patients were cured as a result, I would record them in my personal notes”. (K1)

Continuity of treatment was another important issue for the recovery of patients. All of the key informants commented from their experiences that patients who received the treatment continuously had a high chance of recovery. This might due to a consistent stimulation of the bodylines. The lines then slowly adjusted their condition until the circulation flowed as usual. Follow up visits might be conducted especially with the patients living in the same village as the key informants.

4.2 Health outcomes from the perceptions of Lom Ammapart patients

Patients perceived their recovery in different ways. They usually perceived recovery in terms of having the ability to speak, hear and see as usual, the ability to help themselves, with no need to rely on others which could reduce their stress from the illness and enable them to return to work normally. As one patient stated:

“I was still alright but I could not get up to walk at about four o’clock the next morning. My house is just near here. I just came to see the healer here once when I was affected by this illness. I did not go to the hospital because I thought the healer should be able to treat the disease. People who are affected with this illness were all better by the treatment here. Upon my first day of massage, I felt a little better the next morning. I began to walk a little. I just got better the following day. I felt much better after a month of treatment with the healer. I was able to walk up the stairs by myself without any support”. (A1)

The positive outcomes could be observed within a month after the treatment.

The patients were required to receive the treatment regularly for a full recovery. There

was evidence that some patients with severe symptoms who could not move their bodies at the beginning believed that they could be healed by the healer. One patient reflected thus on his experience:

“The outcome was better from the beginning. I could raise my hand, and then I began to sit up. I had to be taken out of the car when I first came here. Now I feel better. I can move my arms and legs and walk more by myself. I think I would come for treatment here until I recover and become normal”. (A3)

Some patients were confident to choose folk medicine solely without modern treatment at all when they got better from the treatment of folk healers.

“I have been treated for two weeks and today I feel much better. I am able to walk now although I still need someone to keep me from falling. Everyone at home is satisfied with the results. I think I do not need to be taken to the hospital now for I would come here only. I think I will come to be treated here until I recover”. (A7)

The recovery of Lom Ammapart patients

The positive health outcomes are the improvement of symptoms and quality of life; reducing disability, dependency, and mortality; and enhancing the satisfaction of *Lom Ammapart* patients.

Every key informant who provided data was able to help most patients to recover. The number of recovered patients could be seen from *Wai Kru* Ceremony (figure 16). People who participated in the ceremony were patients under treatment, patients who had just recovered and patients who recovered long ago.



Figure 16: The crowd of patients in *Wai Kru* Ceremony

The positive outcomes could be observed within a month of the treatment. After that, patients still needed to receive the treatment continuously for a perfect recovery. There was evidence that some patients with severe symptoms who could not move their bodies were recovering well from the treatment.

“As far as I could see, most patients who came for massage all turned out with good outcome. There was a person who could not walk for a long time, she can walk and help herself much now”. (A23)

“I think his treatment for Lom Ammapart turns out pretty good. I think the improvement is about 70%. Many people could move their hands and feet and help themselves. Most people with Lom Ammapart are those who are hopeless of the treatment elsewhere. They get better when they come here. I also wonder how he did that. I used to observe his treatment. He just squeezed, provided Jub Sen massage, and rubbed the body with oil”. (A29)

The failure of recovery of Lom Ammapart patients

Negative outcomes were also reported such as those who could not move their arms or legs, and could not walk due to very severe symptoms, because they came for the treatment quite late. However, the patient’s recovery depended on three main

factors, 1) the expertise of the healers 2) the spirit of the patients and their carers 3) financial support for travelling for long term treatment. Therefore, once they could help themselves, they did not come for treatment any longer because they did not want their families to be burdened concerning expenses.

The bodylines of patients who had not recovered were still cold and they would slowly harden if not massaged and the hands and feet would be rigid. The bodylines were still embedded and the wind still did not flow although the bodylines were massaged. In addition, the muscles were numb which showed a slim chance of recovery. People who did not recover would be severely affected. The shoulders would be loosened, could not be lifted and would not go back into place although they were pulled.

Treatment required a complete process. Additionally, patients must receive continuous treatment which might take months or even years because this illness required a time for convalescence. Patients and carers must be patient because they must travel to the healers' houses which might be far away from their homes. Healers sometimes must use psychology to take care of the patient's mind along with treatment. One key informant set a rule that patients must be better within seven days of treatment because he was confident that within this period of time he was able to treat patients to recover. Moreover, time setting was conducted in order to motivate patients to try harder and to be able to bear with the treatment because sometimes massage especially *Jub Sen* might cause great pain.

5. Belief in Buddhism, Supernatural Powers, and Brahmanism were Influencing the Practice of Folk Healers

There are 3 main beliefs that influenced the attitude and practice of the key informants in treating *Lom Ammapart* as well as their daily life practice namely; belief in Buddhism, supernatural powers, and Brahmanism. These beliefs were concealed in three topics respectively: personal moral, meritorious practice, and essential of life influenced by Buddhism; *Kru Mhor* and black magic were healing power of treatment, rituals were essential practices both in treatment and daily life.

5.1 Personal moral, meritorious practice, and essential of life influenced by Buddhism

Buddhism had influenced the the attitude and practice of the folk healers in the four elements, morality and ethics, merit making and karma.

5.1.1 The four elements influenced the concepts of treatment practices

In belief about the four elements is mentioned earlier in the topic of “theory and concept in treating *Lom Ammapart* patients” especially wind element (page 140) that influenced all processes of treatment practice. For example, massage was conducted to expel wind in the bodylines to flow throughout the body as usual. The main objective in giving herbal medicine to the patients was to expel the wind element both in the bodylines and intestinal system and to adjust the four elements in the body of patients. The advice during treatment related to risk factors both of not to expose to extreme cold weather and inhibited foods aimed to reduce or prevent the cause of the wind abnormality which was the cause of this illness.

5.1.2 Morality and ethics shaped the folk healers to be a good persons and good practices in treating patients

Also, moral and ethical practices are mentioned in the topic of “becoming a folk healer” (page 123) that emphasized all folk healers in practicing following the five precepts that made them to be good persons and good practices such as not taking advantage from the patients, being grateful to ancient teachers, etc.

5.1.3 Enhancing the success of treatment and expressing gratitude to the healer’s teacher through merit making

All key informants believed that the merit possessed by the patient and healer could also contribute to the success of the treatments. Thus, they had viewpoint that both folk healer and patient should make merit to increase the merit possession. All key informants considered the assistance provided to sick people in order to help relieve their suffering was a great way of merit making especially when the illness was successfully cured. In a professional way, key informants believed that treating patients was like making merit and they would earn a great benefit from this especially when the patients recover. Key informants believed that making merit was giving such as giving to the elderly, the poor or the patients. While making merit, they would always recall their teachers so as to dedicate merit to the beneficent teachers. So being a healer has the opportunity to make merit in that healers treat patients regardless of compensation. It is considered that patients also gain benefit from making merit if they give a medical fee because healers would use a part of that money to make merit especially in a *Wai Kru* ceremony. Key informants believed that patients would gain benefit from making merit so they may get better or get well. With this belief, they often recommend patients to make merit and behave within the

bounds of morality so that healers are able to beg sacred powers to help the patients recover.

5.1.4 *The illness and the success of treatment were determined by karma*

The key informants could accept the negative outcomes of treatment without being stressful about their treatment ability because they believed that everyone has karma; both good and bad karma. They also advised patients to accept calmly the result of bad karma that affected the negative outcome of treatment. Karma in the view of key informants meant things done in the past and present. Fate is the effect of karma or bad actions that one must gain those results. *Lom Ammapart* is considered an illness of negative karma. Patients might have created negative karma and had to pay for it by being sick or they might have a Karmic debt from a former life and must pay for it with sickness.

The consequence of karma might be related to the action from a previous life. The healer and patient might have a chance to perform merit and karma together. This existing merit and good karma would allow the patient to meet the healer and enhance the treatment leading to a cure from the disease. On the other hand if the treatment failed, it was possibly caused by insufficient merit or bad karma. The belief in merit and karma also strongly influenced the daily life practice of the healers. All key informants regularly made merit in their daily life by holding the five precepts. In addition, they must chant and pray every night and end with pouring ceremonial water as a sign of dedication of merit to the departed and enemies from a former life including their *Kru Mhors*.

Many key informants believed that they could eliminate bad fate by reciting incantations in order to dispel ill fortune before giving any treatment. The key

informants themselves also needed to protect themselves from being negatively affected by the bad fate of the patients when they were touching the patients carrying bad fate. Therefore, key informants must use incantations to protect themselves prior to massaging patients.

5.2 Kru Mhor and black magic were healing power of treatment

The key informants believed in supernatural powers like *Kru Mhor* and black magic as if they were healing power of treatment.

5.2.1 Power of Kru Mhor contributing to successful healing

The belief of *Kru Mhor* had a great influence towards the practices of most of the key informants both in daily life and in healing patients. Only two of the key informants who study TFM by themselves do not believe in *Kru Mhor* but respect other symbols instead such as the magical knife.

Kru Mhor refers to a spirit of a deceased folk healer who used to be a teacher of the healers. He/she was a person who instructed the healers about moral principles and how to use incantations for healing. Key informants have their personal *Kru Mhor*. They may have only one *Kru Mhor* or many depending on the number of teachers the healers have studied with. They may not obtain the training directly from all the teachers but these *Kru Mhors* are those who handed down their teachings to the next generation of folk healers because every *Kru Mhor* must also have his/her own *Kru Mhor*. Most of the key informants in the present study had many *Kru Mhors* because their ancestors were of healer families and the knowledge was transferred within the family. *Kru Mhors*, therefore, from the older generation to the present are

accepted to pay homage to for favorable auspice and to show gratitude for transferring the knowledge to the key informants.

“My immediate teacher is my father. However my father was taught by 7 Kru Mhors who were his ancestors. I accept all of my father’s teachers to be mine because they all contributed to transferring the knowledge to me. So I have eight Kru Mhors including my father. I will also speak out their names when I pay homage to Kru Mhor”. (K5)

Healers must always show gratitude to their teachers for transferring knowledge and believe that these actions would encourage the *Kru Mhor* always to help them in healing patients. Therefore, healers always pay homage to respect their teachers every morning prior to providing the service and before going to bed. The key informants would pay homage and perform the *Kruad Nam* (pouring ceremonial water) to their teachers when they go to the temple or make a food offering to a monk on Buddhist observance day or holiday so their teachers will gain the benefit from their merit. Some key informants closed their clinic every Thursday in order to worship their teachers. Additionally, healers should not do what *Kru Mhors* do not like because the healing may not be effective. For example, if *Kru Mhors* do not like noise then the healers must create a peaceful atmosphere while healing and arrange the waiting areas away from the healing area.

Key informants believed that *Kru Mhor* always plays an important role in healing patients. Thus most of them worshipped the Triple Gems and paid homage to *Kru Mhor* later, prior to the beginning of a healing process.

“I pay homage to the teachers for favorable auspice every morning. Sadoa Khroa Ceremony is done only for the first coming patient of the day. Doing so is unnecessary for the second and other patients because the area has already been covered by the sacred powers since the ceremony of the first patients was performed. I myself must do Sadoa Khroa to prevent misfortune entering me from the patients. By performing this ceremony, sacred powers are invited to protect bad evils”. (K5)

Healers must recall *Kru Mhors* by speaking out every name of *Kru Mhors* to show their respect to them. Names must be spoken out in order starting with the name of the immediate teacher and followed by the names of *Kru Mhors* of the teacher. The key informants paid respect and invited *Kru Mhor* and sacred powers to the healing places to help the healers heal the patients and clear up the sickness. The involvement of *Kru Mhor* in the treatment could be felt by the key informants when giving the treatment as being more knowledgeable and capable in treating the illness. Key informants believed that *Kru Mhors* came to help by entering the healers' bodies while healing the patients and believed that patients recovered because the power of *Kru Mhor* and they were unable to heal without *Kru Mhor*. For those who had many *Kru Mhors*, *Kru Mhors* would take turns entering the body of healers in accordance with the skill needed for the treatment.

“Each Kru Mhor is responsible for a specific treatment. For example, the Kru Mhor who is skillful in massage will enter while I am massaging the patients. Another Kru Mhor who is skillful in using herbs will enter while I am giving a treatment with herbs. Some Kru Mhors are skillful in head massage or stomach massage only, so they will come over when these specific therapies are needed”. (K6)

There were regulations and prohibition concerning the beliefs on *Kru Mhor* that must be complied with. For example, *Kru Mhor* would stay at home if something the healers did outside the house did not concern healing patients. *Kru Mhor* might accompany the healers when providing the treatment outside the healing house on request. Thus, before going out, the key informants asked the patients to do *Tang Khan* ceremony (a ceremony of showing respect to *Kru Mhor*) and the key informants had *Kad Kru* (asking for *Kru Mhor* to come in treating patients) after receiving a bowl in order to heal the patients.

5.2.2 Enhanced healing by using sacred power of black magic

Healers who used sorcery must behave strictly morally otherwise the treatments they provided would not be effective and the knowledge they possessed would deteriorate. Hence, some key informants did not dare to use sorcery even though they believed that they possessed it as a result of their moral practice. They fear that if they did not follow moral principles strictly, this might affect the healing power they possessed. However, there were still many healers who used sorcery for healing because they believed that they had some special sacred powers.

The healers who healed using sorcery were required to strictly behave morally, doing wrong against the Five Precepts was forbidden and the incantation must be gathered in order to maintain the stability of the healers' status. For example, the healers were not allowed to stay overnight in other people's houses and were not allowed others to cross over or stay above their bodies. They were required to go to the temple every Buddhist observance day to perform a magical ceremony in order to drive out any evil spirits. Self-protecting incantation must be used in performing the ceremony in order to prevent the black magic from entering the healers.

"I go to the temple in the morning of a Buddhist observance day. I usually do not pray there because I must perform Ton Kong (moving out evil) in the sacred areas of the temple. After that, I pray and affirm the observance of the precepts". (K6)

Key informants believed that there were sacred powers covering the healing area. They perceived that they had healing power only when they were treating patients. The perceived healing power was transferred to them by the spirit of sacred power. Therefore outside the service time, the key informants did not feel they had any healing power.

“I feel as if I became someone else while providing the treatment. It is amazing that I can heal every sickness using massage. I think that the healing power comes from the sacred powers, the spirit of my grandparents and teachers who were dwelling in this area and stay with me while I am healing patients”. (K9)

The healing area especially in front of shrine-altar and shelf for worshipping a teacher were like sacred places that outsiders were not allowed to enter but passing by may be possible except for healers and patients who could enter to perform the chanting ceremony for the Buddha image and teachers. Those who were not sick should not enter this area because they might receive *Khroa* from patients.

“Only the Buddhist shrine that others are not allowed to fuss around. The Buddhist shrine is on the upper floor where I pay homage to my teachers who taught me. I speak out the teachers’ names when I pay homage so the Buddha image there will be witness that I recall my teachers”. (K10)

“That treatment mat over there is forbidden for outsiders. I myself cannot sit or lie there either. This mat must be folded and kept after healing patients. Lying there is forbidden. Healthy people are not allowed to lie there because the sorcery, the so-called sacred powers are covering that area. I do not feel as if I am a healer but it is like the teachers are covering the place when I sit there. It makes me know and be able to heal everything” (K5)

At the altar of *Kru Mhor*, the picture of *Kru Mhor* was placed high above but below the shelf of the Buddha image. A piece of square white cloth, “*Paedan*”, was hanging above the picture of *Kru Mhor* that was believed to be a dwelling place for sacred spirits of ancestors or teachers. It was also used to keep the sacred thread and textbook or symbols concerning knowledge.

In addition, *Paedan* was also a place where the mentioned sacred spirits were invited as chief and supporter while healing patients. For example, the folk healers must perform a ceremony in order to ask the mentioned sacred powers to help while healing so the bodylines of patients would recover. Some key informants might use other symbols for healing to put on the shrine for paying homage.

“I design my own style of ceremony. It is a secret called the heart of the healer which cannot be given even to my own students. I like to search for knowledge and sacred objects such as a magical knife, or Pa Yan (inscribed cloth). I pick up every detail and adjust them to be mine. I like to study ancient incantation”. (K8)

Furthermore, whatever was used for healing and blessing was also considered sacred such as blessed massage oil, or blessed herbs and would be kept in a high place.

5.3 Rituals were essential practices both in treatment and daily life

Folk treatments had employed many rituals as an important part of the treatments for *Lom Ammapart*. Most of the rituals had been influenced by Brahmanism such as paying respect to Shevaka Komarabhacca (the great teacher of Thai traditional medicine), and the annual *Wai Kru* Ceremony. The rituals were described respectively following the steps in performing rituals of the key informants: reciting incantation; *Yok Kru* ceremony; paying respect to Buddha and *Wai Kru, Tang Khan*, self protecting incantation, and *Wai Kru* Ceremony.

5.3.1 Incantation was an important element in all ceremonies

Most key informants had many texts of incantations passed on to them from their ancestors except one key informant who studied incantations by himself from ancient medicine textbooks. Incantations were different in each healing process. There were various types of incantations such as self-protecting incantation, massage incantation, oil incantation, and herbal incantation. The self-protecting incantation was recited to protect the healer from receiving the disease, *Khroa*, or *Khun Sai* (black magic) from the patient while massaging, and massage oil and herbal incantations were used to enhance the effect of treatment.

It was believed that reciting massage oil incantations rendered the massage oil effective and able to heal the bodylines of the patients. The key informants invoked *Kru Mhor*, angels and all sacred powers while blessing the oil. The expected outcome was to stimulate and elevate the embedded bodylines to its normal location. In addition, there was an incantation for relaxing and loosening the bodylines, for the blood to circulate in order to loosen the blocked bodylines thus resulting in a better circulation.

There were also many texts in using herbs. In preparing herbal medicines, for the healers who made their own herbal remedies, the incantation was used when collecting herbs in the forest to ask for forgiveness from the sacred powers dwelling in the herbal trees. It was believed that all entities; the mountains, the rivers, including the trees were possessed by guardian spirits. Thus proper and respectful actions were needed when interacting with these entities. Another specific incantation was also required before boiling the herbal medicines for the effectiveness of the medicines.

Similarly, an incantation was always needed with all items used in ritual performance for example, the betel leaves and nuts that were used to worship the teachers, ancestors, Shevaka Komarabhacca, angels, and sacred powers. They were asked to assist in the healing process. The key informants then recited "*Sek Ya*" incantation by writing words in a medicine prescription arranged for the patients in order for the medicine to be effective and actively better. Some key informants had an incantation before going to bed in order for them to prosper in their occupation and be capable in treating patients.

5.3.2 *Yok kru ceremony was a tradition for entering the trainee hood for being a folk healer*

For entering the trainee, it required a formal acceptance by the teacher to be a student. Using the knowledge and incantation that belonged to the teachers without doing this ceremony would not result in successful healing because it was considered a wrong way and viewed as taking knowledge from teachers without permission. This ceremony must be conducted on Thursday meaning a teacher's day. Students would bring betel leaves and nuts, joss sticks, candles, and flowers to pay respect to the teachers. The ceremony was completed when the teachers accepted the prepared set of offerings and recited an incantation to accept the students.

"I was accepted to be a student for folk healer training when I was 15 years old. I was blessed to be successful in treating patients and I have been successful ever since. It took me a long time to complete the training. I started to offer the service when I was 25 years old. I felt the positive outcomes of treatment. I could heal broken bones or heal other conditions". (K7)

Before beginning to study medicine, the teacher would perform a *Yok Kru* Ceremony which meant the healers become students who had a teacher. Then they could start treating patients. After treating for a period of time until they were more experienced, the teacher would perform *Krob Meau* (giving oneself to be a student) by tying a white thread on the student's wrist meaning the healer had completely become a professional healer.

*"At first I felt I did not like this job because there were a lot more interesting jobs for me to do out there. My father said that other jobs were unable to help the relatives but I could help them when they are sick by being a healer. He asked me whether I wanted to be successful in life and I said why not. He then told me to study and so I did. I felt comfortable when I studied. My father performed for me a *Krob Meau* Ceremony and I started studying at the age of 14 in 1971 when I was in primary school grade 7. After I had studied for about 5 years, I have been a healer ever since". (K5)*

5.3.3 *Paying Respect to Buddha and Kru Mhor contributing to the folk healers prosperous*

The key informants started their day by chanting and dedicating the virtue obtained from helping patients to the parents and teachers of the healers. Next, *Wai Kru* was performed for their own favorable auspice because it was believed that gratitude towards the teachers would make the healers happy and prosperous both in life and work. Key informants who did not study from teachers did not have this procedure and other related procedures such as using incantations and the annual *Wai Kru* Ceremony.

5.3.4 *Tang Khan was performed by new patients to ask Kru Mhor helping in healing Lom Ammapart*

The participants of this ceremony are healers and patients. It was an activity conducted for the patients who first came to the folk healer to worship *Kru Mhor*. The new patients were required to bring a set of offerings in a bowl consisting of betel leaves and nuts, joss sticks, candles, flowers, and 12 or 22 baht (Money to be given to *Kru Mhor*) to the healer on their first visit. The key informants would place this offering bowl before the shelter of *Kru Mhor*. The patients were then asked to pray to invite him to help heal the illness.

“The patients who first come for a treatment should bring a set of offerings consisting of betel leaves and nuts, joss sticks, candles, flowers, and 12 or 22 baht. If they don’t have the offerings, they may be just pay homage to Kru Mhor whom the healers respect and pray that Kru Mhor will help them to get well from anything”. (K9)

The joss sticks and candles were lit, and all the names of the *Kru Mhors* were recited aloud to help cure the disease. Most key informants believed that this activity was very important because the treatment required the power of *Kru Mhor* to guide

for the right treatment and to enhance the effectiveness of the treatment. The money was placed at the shelter of *Kru Mhor* until the patients were cured. However, new generations of healers who had not obtained traditional training with teachers did not have this ceremony. It ended when the healers have finished the treatment and the patients pay the treatment fee.

5.3.5 *Self Protecting Incantation was performed to protect folk healers from misfortune and illness of patients*

The healing began after finishing *Tang Khan* Ceremony. Key informants recited a self-protecting incantation and eliminated *Khroa* (misfortune) from the patients before touching or massaging them. The incantation and *Khroa* elimination occurred because the ancient people were afraid of ghosts and sorcery so the healers must have good things with supernatural power with them such as incantations and a sacred knife. They must have an incantation or good things with supernatural power when massaging or touching patients in order to prevent bad things from entering them. One key informant liked to carry a sacred knife all the time because he did not study with teachers so he did not have a self-protecting incantation. This sacred knife was used to protect against sorcery. Key informants would perform these procedures only once prior to providing treatment for the first patient of the day due to the long period of the ceremony. Reciting an incantation to eliminate *Khroa* of the first patient right at the massage area also meant eliminating other patients' *Khroa*. After that, the massage was performed along with reciting an incantation. After a healing session, there must be an untying incantation for loosening the self-protecting incantation said at the very beginning.

5.3.6 *Wai Kru was the ceremony to show respect to Kru Mhor*

All processes in *Wai Kru* ceremony are influenced by the belief of Brahmanism. It was performed every Thursday and once a year for the main *Wai Kru* Ceremony. The weekly *Wai Kru* Ceremony was conducted to end the treatment for those who have been cured. This ceremony was performed at the healer's house. The purpose is to take the evil out of the patients after their recovery. It is believed that if the patients do not take part in this ceremony, patients will suffer some negative repercussions.

“After recovering, the patients are required to come to Wai Kru on Thursday for the healers to remove the poison. They must bring one piece of wrap-around cloth, one piece of sarong, three mouthfuls of betel leave and nut and one food-carrier. They can come any Thursday after their recovery. It is their concern, not mine”. (K7)

Annual *Wai Kru* Ceremony is conducted to express gratitude to the teachers and is an annual grand merit making ceremony in order to pass on the merit to the teachers, ancestors and sacred powers. Key informants believed that they would not be successful in life and bad things would occur to them resulting in sickness if they did not perform the ceremony. Furthermore, it was an opportunity for the patients who are cured from the treatment to show their gratitude to *Kru Mhor* who healed them. The ceremony was held only for half a day in the morning starting at 9.00 am and lasted only two hours. Healers would stop their service on that day. They wore white dress and held the five precepts.

Most key informants who obtained traditional training organized an annual *Wai Kru* Ceremony. Key informants who had not studied with teachers do not have this ceremony. This ceremony is believed to have originated in the ancient times. It was conducted to recall the beneficence of the teachers and healers, and to make

merit. Even though a treatment fee is not asked for, the donation made by the patients and their families was still the main source of income for some key informants. Some key informants focused on making a simple *Wai Kru* Ceremony and hold it in private.

“I perform my own private Wai Kru Ceremony. I do not tell my relatives or anyone because those who live far away would all come if I tell them. Then I have to cook both pork and beef and treat them and it would become a trouble for all. Although I do not tell anyone, quite a lot of people come every time. I like to come to give money to make merit but I will not take money from anyone because I think Wai Kru Ceremony is something I must do. If they insisted they still wanted to give me money then I would take all the money they give to make merit”. (K7)

However, it was found that a lot of people including the healers’ relatives, patients, the patients’ relatives and people in community join the ceremony even though there is no official invitation. Some patients who were cured a long time ago still came to *Wai Kru* every year. The offerings the healers prepared included rice, red rice, yellow rice, curry, dessert, and fruit, and twelve things namely sticky rice, *Kao Pak Mo*, fish with head and tail, *Kanom Dang*, *Kanom Kao*, liquor, water, betel leaves and nut, joss sticks, candles and flowers and another two things namely bean candy, sesame candy and a rice offering. Some may use different things such as sticky rice, rice and *kanom ko*. All of these things are placed in front of the image of the Buddha and pictures of every *Kru Mhor*. In some cases, *Wai Kru* ceremony was held where a pig or a cow had been killed to feed the crowd joining the ceremony.

The ceremony started with a Buddhist ceremony by inviting 5 monks and an alms offering was made to make merit after the monks finished praying. Then, the monks were invited to have lunch. Next, *Wai Kru* Ceremony was conducted in front of the *Kru Mhor* altar and the patients, who provided a donation for merit making but could not make the ceremony, names were spoken aloud. Finally, a merit dedication

was performed and the patients were sprinkled with holy water. The process ended when the healer's hands were washed by the patients.

The major source of financial support for the *Wai Kru* ceremony was from the donation of the patients. Key informants often saved the money they received from their patients for the whole year to spend on *Wai Kru* Day. The rest of the money would be used for their own living expenses.

6. The Involvement of Nurses in TFM Services

There are three main parts about the involvement of nurses in TFM services as follows: (1) nurses' involvement in TFM services, (2) nurses' view of TFM in treating *Lom Ammapart*, and (3) folk healers' view of nurses' involvement in TFM services.

6.1 Nurses' involvement in TFM services

Regarding community health services, it was found that a small number of public health nurses worked collaboratively with folk healers. A key informant who lived close to the village health center was given advice by nurses about sanitation and the environment of the healing house.

“Nurses at the health center used to come and give us advice but they did not get involved with the treatment or prescriptions. They only advised us about keeping the place for the massage clean, taking care of the surrounding area, the patients' accommodation and toilet. They used to check the surrounding area of this house and suggested that we should have at least a toilet for the patients who stay here”. (K2)

The nurses at the health center in the village did not engage in the healer's treatment even though the key informants did not have medical licenses. They perceived that the key informants treated patients through their compassion and did not expect money from them. Although there was no coordination between the nurses

in hospitals and folk healers, nurses in the study thought that patients have a right to choose their treatment and receive this treatment in the rehabilitation stage. However, folk healers who treat patients are required at least to have a TFM license to certify or ensure the quality of the treatment.

“I am not involved in treatment. I am more likely to give advice about environmental sanitation and ask healers to improve the accommodation to suit the patients and general cleanness. Other inferior points are rarely seen. For providing services to patients, he speaks well to patients and he is not short-tempered. He does not force patients concerning treatment and gives good advice to them. He would tell patients to go to the hospital if he cannot treat them or if it exceeds his ability. He does not just give treatment a try. For my twelve years of stay here, I think there are more patients who can help themselves than those who cannot”. (A 29)

There was only one health promotion hospital that the nurses from had collaborated with the treatment of a key informant. The nurses expressed their confidence in the treatment by the key informant because they had seen the positive outcomes in the patients. The nurses referred patients to the key informant for rehabilitation treatment while the informant referred patients who had acute health problems to see the nurses at the health promotion hospital. If a patient who came to receive a health service in the health promotion hospital had a problem with his or her bodylines, the nurses usually referred the patient to see the key informant. On the other hand, when a patient had an acute problem such as muscular inflammation, the folk healer usually suggested the patients see the nurses to ask for medicine to relieve the problem. On some occasions, the informant might ask the nurses to come to his healing center to treat a pressure sore wound or to follow up on the blood pressure of patients who had hypertension.

“When the patients have a problem about muscular pain or inflammation, the folk healer suggests to them that they should receive medicine from us to relieve these symptoms. However, if any patient has severe symptoms such as unconsciousness the folk healer will refer the patient to a hospital. Sometimes,

if a patient has a problem about hypertension, the folk healer suggests to his family carers to ask us to measure the patient's blood pressure at the healing center. Also, sometimes we are asked to do a wound dressing at the healing center for a patient who has a bed sore wound.” (A 24)

6.2 Nurses'view of TFM in treating Lom Ammapart

The study found that presently there was no coordination between nurses in hospitals and key informants who provided data on treatment for patients with *Lom Ammapart*. However, in the view of nurses in hospitals who also had patients that received folk medicine treatment, they all thought that patients had a right to choose but they should rather go for treatment in the rehabilitation stage. The initial stage of illness should be treated by modern medicine in order to help patients to pass the critical state. Folk healers who treated patients must be reliable and at least had a medical license to certify or insure the quality of treatment.

“For initial symptoms, I do not agree with folk healer treatment. For the rehabilitation stage, I think it is alright to use folk medicine in order to prevent the tendons from contracting and the joints from becoming stiff. It is also fine to use massage oil or herbal medicine. I agree if the folk medicine is certified even though it is based on the folk healer's experiences. A TFM license is required. I do not know which organization or authority certifies it but I agree if the healers are certified to ensure the quality of the treatment. For massage healers, they should be reliable if they are educated or trained by trustworthy institutes that provide standard certificates”. (A26)

Nurses in one hospital commented that they had never seen the effectiveness of the folk healer's treatment of *Lom Ammapart*. It was more likely that one would hear the story from patients who had been treated by folk healers.

“There is not enough evidence to prove the effectiveness of folk treatment. For example, patients say they come to see this famous folk healer who successfully treated a patient with Lom Ammapart. But in reality, whether every patient recovered or not is still unknown and some of those patients may have died or continued their treatment at the hospital. This information is not presented. In addition, those who recovered may be treated with other treatments that we do not know for sure”. (A25)

In addition, nurses recommended several points relating to promoting a healer's treatments and a patient's choices of treatment. Folk healers needed to be registered and certified by an authorized institution to ensure the body of knowledge, and safe and reliable treatment. The healer's role should be identified clearly, such as taking care of the patients in the rehabilitation stage after hospital discharge. They should work collaboratively in treating *Lom Ammapart* patients with the community hospital or health center. The past and present history of the folk healer's treatment should be briefly documented and shared with the hospital when the patients use hospital services. On the other hand, the hospital should provide consultation for patients through the Thai Traditional Medicine clinic regarding folk healer treatment needed.

“There must be coordination between folk healers and western medicine doctors if we still need the contribution of folk medicine in the current health service system. It is as if we collaborate with a health volunteer. There should be a form to give information on what has been taken care of or done with our patients. It is like when we consult with a dentistry hospital. Thai Traditional Medical Centers should be consulted if folk medicine is required. For example, it is useful in terms of consulting about herbal medicines used when combined treatment is needed” (A27)

6.3 Folk healers' view of nurses' involvement in TFM services

Key informants commented that Thai traditional medicine and modern medicine needed to be coordinated with each other because both ways of treatment were necessary for patients with *Lom Ammapart*. In emergency cases that had been taken to a healing center, first aid needed to be given to save the patient's life such as unconsciousness. It would then be suggested to the relatives to quickly take the patient to the hospital for investigation and emergency tract part. This was because of their concern about the safety of the patients during the crisis period. The patients

might need to stay in the hospital for many days until they passed the critical state. Patients then could come to folk healers for the massage to rehabilitate and protect them against disability. Key informants also encouraged the patients to see the doctor in the hospital before seeing the healers even though they do not have emergency symptoms.

“I would ask whether they check their blood pressure or lipid level or whether they have diabetes. If they say no then I would give them a massage to treat their bodylines and ask them to check their blood pressure, lipids and diabetes. They can come back to be massaged later if they do not have those things. If they have those things, they have to take two or three types of medicine from the hospital. If patients are not admitted then they can come back to be massaged but medicine must also be taken as prescribed. Massage alone is not enough. Both types of treatment are complementary to each other. I help them on my part and modern medicine must also be taken”. (K7)

Folk treatment and modern medicine are complementary with each other. Key informants always suggested to the patients that they should also see modern doctors regularly for follow up and the monitoring of their health condition and some related medical treatments that they might need. These included hypertension, heart disease and diabetes mellitus. After the patient recovered, key informants usually told the patient to recheck their body at the hospital to assure the treatment results before the treatment was terminated. Key informants who worked close to a health center were usually contacted to take care of the patients together.

“If there are such patients who require special care as those with bedsores from lying still for too long, healers would ask the patient’s relatives to go to health center. Patients would be asked to have the wound cared for here if they are able to come. I used to do wound dressings for many patients at the healers’ houses. I think it would better to use both ways of treatments. Although he is a Thai traditional healer, he is not attached to Thai traditional medicine completely. For any patient who must take medicine, he/she advises him/her to take the medicine here. He/she does not abandon modern medicine and use only Thai traditional medicine”. (A28)

In summary, there was little collaboration between nurses in the community and the folk healers and no collaboration between nurses in hospitals and the folk healers in caring for *Lom Ammapart* patients. However, key informants usually included modern medicine to be a part of their treatment for *Lom Ammapart* patients. They usually advised carers to take *Lom Ammapart* patients to the hospital first. Then, when their condition was stable, the carers should take them back to the folk healers. Additionally, when the key informants could not treat some symptoms they would suggest the carers to take the patient to a hospital. For example, when the *Lom Ammapart* patient had high blood pressure, it had suggested to go to hospital to obtain the treatment for the symptom. Sometimes, unconscious patients were taken by relatives to the folk healers. Then, they were also recommended to go to the hospital after having been given emergency first aid.

Summary of Findings

The data from this study has described the influence of beliefs and cultures in treating *Lom Ammapart* patients. Buddhism, supernatural powers, and Brahmanism were the 3 main beliefs found to influence the perception related to *Lom Ammapart* disease and the practice of the key informants in folk medical treatment as well as their daily life practices. The Buddhist concepts related to the body elements and karma influenced the way the key informants understood *Lom Ammapart* disease and their practice in treating the disease as well as the moral and ethical practice followed in their daily life. They viewed *Lom Ammapart* as an illness of wind obstruction and bodyline disruptions that led to paralysis and related health complications such as flatulence and constipation. In treating the disease according to Buddhist belief, *Jub*

Sen massage and herbal medicine were used to correct the wind obstruction and the bodyline disruptions. The *Jub Sen* massage was used to rearrange the bodylines, and propel the excessive wind element at a problematic point. Herbal medicine made from various kinds and properties of herbs was used to treat the bodylines and other common health problems of paralysis patients such as constipation. Various types of herbal medicines with a hot taste quality were used to propel the wind element in the bodylines, expel the accumulated wind element in the intestinal tract and excrete toxins out of the body per the gastrointestinal system. Many others herbs were also used to nourish the body of the patients. The Buddhist belief in Karma was thought to be associated with the belief in fate which was a cause of *Lom Ammapart disease*. Thus, the bad fate of the patient also needed to be corrected by using black magic and incantation. Regular practices of morality, ethics, and meditation were important in maintaining and enhancing the effectiveness of the use of black magic and incantations. Additionally, the key informants who behaved well, and were strict in their moral and ethical practice could also gain trust and respect from the patients and their families. The Brahman concept relating to God and angels influenced the practice of the informants in using a variety of rituals and incantations to treat *Lom Ammapart disease*. For example, the key informants usually performed rituals to pay respect to Shevaka Komarabhacca (the great teacher of TTM) in order to obtain his power to heal the illness being treated. Supernatural powers of the ancient healer or in other words “*Kru Mhor*” and sacred beings based on individual belief were usually invited to participate in the treatment using the incantation. The *Kru Mhor* and sacred beings exercised their powers through the informant as a medium for the treatment. Therefore, rituals and incantations were performed to increase the effectiveness of the

treatment and to enhance the confidence of the healers and patients. The health outcomes, as a result of the folk treatment perceived by the key informants and the patients and their families, were focused mainly on the physical improvement such as being able to balance oneself, stand, walk, eat and sleep. Regarding the involvement of the nurses in TFM services, nurses working in the community at the health promotion hospitals had a more positive attitude toward folk healers and worked collaboratively with the folk healers to a certain extent especially when the patients had perceived problems caused by the disruption of their bodylines and their health problems were acute in that they required specific investigation or medicines to relieve the problems. Nurses in the central hospitals, on the other hand, had little or no collaboration with the folk healers in treating the *Lom Ammapart patients*. However, they acknowledged the capability of the folk healers in rehabilitating the *Lom Ammapart patients* but they still insisted that folk healers should be registered and certified by an authorized institution. The overall picture of the findings is exhibited in figure 17.

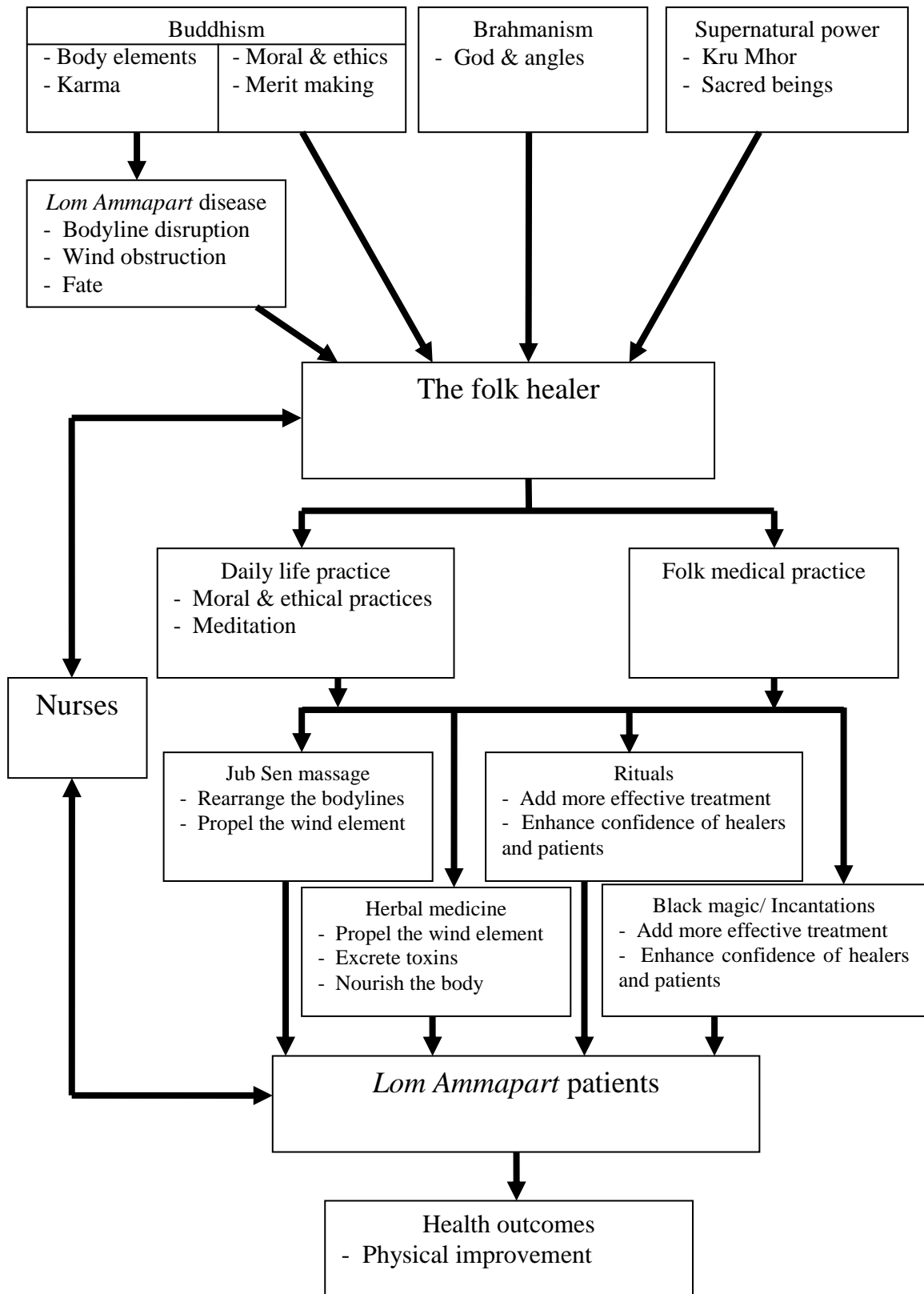


Figure 17 Diagram of the connection of all findings

Discussion

The discussion was based on the data collected from ten folk healers as a key informant, and associate informants including eight *Lom Ammapart* patients, five family carers of *Lom Ammapart* patients, five family members of the key informants, four neighbors of the key informants, three nurses in hospitals, and four nurses in health promotion hospitals. The study was conducted in southern Thailand where the folk medicine is still popularly used by chronically ill patients such as patients with diabetes mellitus, cancer, including stroke patients. The folk treatment for stroke patients from the perspective of the key informants is discussed including becoming a folk healer, their practice in treating *Lom Ammapart* patients, perceived outcomes of the practice, the cultural influence of the practice, and the involvement of nurses in the TFM services.

The folk healers

Folk medicine historically was considered as a family heritage that needed to be protected and preserved within the family. This was supported by Chaichana (1996) who reported that folk wisdom was usually kept in secret. Thus, the informants did not want to pass on their knowledge to those who were not lineage. They preferred to hand down the medical knowledge and skills to their descendants, preserving the knowledge, and practice within their family (Golomb, 1985). This family tradition became the most influential reason for a descendant to become a folk healer. Other reasons for becoming a folk healer were personal interest motivated by the impression of the folk healer who successfully treated sick family members and the willingness to help people who were poor or in trouble in the same community. It was also reported in a previous study that most folk healers became interested in studying TFM because

their family members or friends were sick and they intended to help them by using folk medicine treatment (Golomb, 1985). Suwankhong, Liamputtong, & Rumbold (2011) also reported a similar finding that most folk healers were taken into this profession because of 3 reasons: they were selected by their folk healer ancestors, they want to treat the illnesses of their family members or friends, and they want to learn due to individual interest.

There were various kinds of learning by folk healers. A previous study reported that the knowledge of folk healers is rarely recorded in written form. It is transferred through imitation or demonstration. It is also experiential rather than theoretical knowledge because it is derived from experience and trial and error. It is tested through time in the social life of local communities (Tinnaluck, 2004). Additionally, Na Thalang (2002) stated that folk healers inherited the beliefs from their ancestors about the illness such as symptoms, picking herbs, making up a prescription, treating and rituals, and inheriting knowledge.

Being a folk healer requires knowledge and skills related to Thai folk medicine self-discipline, morals and ethics. Therefore, the training for folk healers emphasizes on not only the knowledge and practice of folk medicine but also personal discipline, morals and ethics.

In personal discipline and moral practice, informants were always following the Buddhist five commandments that are the Buddhist principle guiding lay people to behave well and avoid killing, stealing, committing adultery, telling a lie and drinking alcohol. The five commandments are considered the very basic practice to purify the mind for more advanced mind training. Why the healer is required to follow the five commandments: 1) to be a good person, 2) to protect/ maintain the power of treatment

and incantation 3) to prevent the decline of their knowledge. Khongthai (1997) mentioned that folk healers believe that Thai folk knowledge is subject to give both merit and demerit. If the healers do not follow the Buddhist doctrine, it will affect the potency of the prestige and power of them, the efficiency of herbal recipes including the sacredness of incantations. Praying every day and going to the temple every Buddhist Holy Day were the practices of the informants for enhancing the effectiveness of incantations in treating patients. It has also been reported by Hewison and Thongyou (2001) who found that the folk healers must hold the five precepts. They believed that it gave a good result in treating patients and using incantations. If they do not follow these precepts they would not treat successfully because they could not use incantations. It has also been mentioned by Krairach and Thammawat (2006) that the belief of incantations affect the practice of folk healers that they must practice following moral concepts such as holding the five precepts, and praying for Buddha everyday.

In personal ethical practice, the informants provided services regardless of age, race, and money. Their strict practices in the regulations caused them to be accepted by their community. In the way of morality, they had to observe strictly the 5 precepts in general and 8 precepts on a Buddhist holy day (Aonchomjan, 2005). In addition, a previous study reported that the folk healers must practice in professional ethics to gain trust and respect from their patients and other people. Then, they usually cling to five commandments to be seen as a good person. This regular practice makes them to not take advances from patients (Suwankhong, Liamputtong, & Rumbold, 2011). Not asking for payment is an example of the result from this practice. All informants gave treatment to patients without asking for payment especially from the

troubled or poor patients. Previous studies also reported that most folk healers gave the treatment free of charge which follows the traditional practice. Some of them mentioned only a little money to put in the betel and areca tray to perform a ceremony for an ancestor teacher (Sombat, Piriyanupong, & Arjnarong, 2003; Stuttard & Walker, 2009).

Healer's view on Lom Ammapart

Lom Ammapart is known as “stroke” in western medicine (Hatthakit, 1999). Most of the informants in the study defined *Lom Ammapart* to be a wind disease, because its cause was related to the wind element problem. However, the disease was also known by several informants (n=7) as *Sen Aon* (soft bodylines), *Sen Khang* (rigid bodylines), the terms used to describe the appearance of the bodylines. It is also called *Sen Theeb/ Thun* (narrowed/ obstructed line), and *Sen Thak* (broken line). The latter are in fact western terms used to describe a *Lom Ammapart*. Thus the informants' perception about *Lom Ammapart* has also been influenced by western medicine.

Exposure to cold weather and taking unhealthy foods are the risk factors that may cause *Lom Ammapart*, as mentioned by the informants. This was congruent with much literature (Golomb, 1985; Paetsart Sonkhrao textbook: conservative version, 1992; Chokevivat, 2005). In Chawadarn scripture of Thai traditional medicine, the wind illness is caused by inappropriate eating habits and being exposed to extreme weather (Paetsart Sonkhrao textbook: conservative version, 1992). A previous study also reported that the folk healers always focused on treating the cause of illness rather than the symptoms of the patients. They mentioned that the causes of elemental imbalance are related to improper diet and sudden changes in climate and that these

can be improved by massage and herbal medicine (Golomb, 1985). In another previous study, the causes of *Lom Ammapart* are related to the influence of external wind and an unbalanced diet which causes abnormal functioning of the spleen and digestive disorders. Then, there are the residues of humidity and waste products. If these residues take longer to clear this will cause heat which blocks the bodylines. Later, blood and body energy are not flowing which cause internal heat which further affect the internal wind in variance and flow from the lower to upper part of the body (Wannawiboon, 2004).

Other related causes of the disease are the disruption of the bodylines and blood circulation which leads to a lack of energy to blow the wind element along its bodylines as well as to block blood circulation. Currently, there is still no study explaining how the wind channel and blood circulation are linked together. However, a previous study about Thai massage found that blood circulation could be elevated for a moment by opening a wind gate (Eungpinichpong & Kongnaka, 2002). Many previous studies relating to Traditional Chinese Medicine (TCM) found that blood circulation could be increased by acupuncture at acupoints (Kuo, Lin, & Ho, 2004; Hsiu et. al, 2011). In comparison, there are many points of the bodylines (figure 2) similar to the meridians of TCM showing that both of them supply energy to the human body. Therefore, the study of TCM could be relevant to the findings of this study.

The description of *Lom Ammapart* as a wind disease was congruent with ancient Chinese medicine describing the illness as having rapid onset and change, and many symptoms such as facial palsy, with hardly any ability to move on the affected side, usually caused by either internal or external wind (Wannawiboon, 2004).

According to the Chawadarn scripture of Thai traditional medicine, it is mentioned that the abnormality of the wind element causes the wind illness (Paetsart Sonkhrau textbook: conservative version, 1992). The wind element normally flows up and down in the human body between the head and toes. *Lom Ammapart* was possibly a result of an abnormal flow of the wind element against the original direction leading to a turbulent flow of the wind element within the bodylines. It has been postulated that the turbulent flow of the wind element might affect the bodylines. When the wind element can not flow as usual for a while, the bodylines might become distorted and appear in different forms that are atrophied, embedded, or tight. Thus, the wind might be obstructed at any part of the disrupted bodylines throughout the bodies of patients.

According to the information related to the bodylines in the ‘Theory of Ten Major Lines’, the bodylines lie connect throughout the body (Subcharoen, 1997). This is similar to the blood vessels that link together in the circulatory system. Thus, the bodylines may lie close to the blood vessels and be linked together by nerves (Health and Development Foundation, 2007). A previous study stated that there is invisible energy supplying the human body through the wind element (Ryan, Keiwkarnka, & Khan, 2003). It means that the bodylines may supply the energy to the blood vessels that are located nearby. Then, if any point of the bodylines is obstructed it can have an effect on blood vessels proximal to this area, thus eventually affecting the blood circulation in the body. Consequently, the obstruction of the wind element and the blood circulation lead to a loss of motor functions of the related areas supplied by the wind and blood vessels.

As mentioned above, the main features of the bodylines in the patients in a long term stage of disease are atrophied, embedded, or tight and they are hard to dig

up to release the congested wind element. Then, the wind element in the bodylines of long term *Lom Ammapart* patients does not flow and is obstructed in these bodylines which might cause edema at the problematic areas until the bodylines are changing into the granular wave and bending as touching. The bodylines and tendons of *Lom Ammapart* patients usually are in a confused adhesion with each other, or are displaced out of their normal position, or constructed of fascia, so only a little flow of blood and wind can pass through these problematic areas (Nhootim, Sitthikraipong, Pukanadd, & Thangsukleuthai, 2007).

There are 3 stages according to the duration of the illness and a rigidity of the bodylines. The first and middle stage can be treated because the bodylines are still soft or moderately rigidized whereas the last stage is difficult to treat. This is congruent with a previous study which found that the bodylines of patients, who have been ill for more than 2 years, are more rigid and contracted and have become flat and shrunk into the muscles. It is more difficult to treat than the patients who have been ill within a 6 month to 1 year period. Moreover, if the patients come to see the healers within 3 months and continually come for treatment for 3-6 months there will be a chance for recovery (The Editorial Department, 2007).

Multiple modalities used for treatments of Lom Ammapart within a holistic practice

It has been noted that the explanation about the cause and pathogenesis of *Lom Ammapart* disease did not specify on the improvement of the pathology in the brain as in western medicine. The treatment of TFM emphasizes curing the health problem of the peripheral body. Thus, the objective of TFM treatment was mainly to stimulate the

flow of the wind element that activated blood circulation. The folk treatment for *Lom Ammapart* patients was considered to be holistic medicine. In treating *Lom Ammapart* patients, the folk treatment was given to treat both body and mind. It consists of massage, herbal medicine, and spiritual performance. A previous study that was conducted over a three-month period in a unique rehabilitation program using traditional Thai massage, herbal medicines, and physical therapies, also supported that these methods could improve the body as in ADL and the mind as in moods, pain, and the sleep status of *Lom Ammapart* patients (Sibbritt et.al, 2012). Another previous study also stated that the folk healers always give treatment such as massage and herbal medicine along with specific incantations or supernatural beliefs (Golomb, 1985). Then, three main treatment categories encompass the many different traditional healing therapies that can be prescribed from any of the following categories: traditional Thai massage, herbal medicine, and psycho-spiritual healing (Ryan, Keiwkarnka, & Khan, 2003). It is common that folk healers use more than one method in treating patients effectively such as rituals, herbal medicine, and massage (Singchangchai et al., 1997). Helman (2007) adds that folk healers do not only focus on treating symptoms or physical disorders but also use methods of treatment to eliminate the causes of illness. In the present study, the informants always integrated several methods and strategies both natural and supernatural powers, to manage the symptoms as well as eliminate the cause of *Lom Ammapart*. Folk healers in each part of Thailand have different techniques and methods to treat strokes which are influenced by different cultures and beliefs. *Yamkhang* and *Tok Sen* are the methods in treating *Lom Ammapart* of Lanna Traditional Medicine in the northern region (Taoprasert, 1999). In *Yamkhang*, folk healers soak their foot with sesame oil; then they place their foot

on the *khang* (the iron mixed which burn on fire) for some moments. With the hot foot soaked in oil, they tread on the body or some parts of *Ammapart* patient (Taoprasert, 2001). In *Tok Sen*, folk healers have used the kernel of tamarind wood which is 3-4 inches in diameter or 6-8 inches in length as their instrument to treat patients. They hammer on the points, bodylines, tendons, or muscles along the problem area of the patients' body (The Division of Thai Indigenous Medicine, 2003). In northeastern Thailand, there is no exact pattern of treatment to treat a stroke. Some folk healers performed treatments such as Hot Iron Tread, bodylines tread, or *Jub Sen* (Aonchomjarn, 2005). Actually, Hot Iron Tread is the method of the Thai folk healer in the central region. It has some steps similar to *Yamkhang* such as the folk healers soak their foot in sesame oil and place on a hot iron before they tread on the body of the patient. Also, it has some steps that are different such as using banana leaves to lie on the area that needs to be relieved before they tread on it; and the folk healers who do this treatment must be only male (The Division of Thai Indigenous Medicine, 2003). Each patient received treatment twice a day, in the morning and evening, and 30 minutes per session (Aonchomjarn, 2005). In China, where it was also found that the patients will be better and return to a normal condition more quickly with acupuncture in accompany with massage, Chinese herbs, and hot compresses rather than treating with only modern medicine or drugs (Wannawiboon, 2004).

1. Massage

Massage was the main therapy used by all the informants in the study. It was a method to treat the bodylines. It is usually used together with sacred massage oil. Both the massage and the sacred oil contributed to the effectiveness of the treatment.

Jub Sen was a major technique of massage in treating *Lom Ammapart*. It is conducted to release the bodyline obstruction, correct the wind element, and to stimulate the blood circulation. The informants usually did *Jub Sen* to expel the wind in the bodylines to flow from the upper to the lower part of the body. Thus, most informants began *Jub Sen* massage in the direction from the head and moved down toward the heels. This finding was congruent with a previous study stating that, the healers usually massaged in one direction from head to toe to expel wind. It was believed that massage with mixed directions (up and down) could cause variations of blood pressure (The Editorial Department, 2007). It means that massaging from the upper to lower body is conducted to expel wind and make it flow into the lower part of the body and maintain a constant blood pressure throughout the body. In addition, massage in treating *Lom Ammapart* was performed to rehabilitate patients, stimulate the circulation of blood and wind to the brain, loosen the bodylines, soften the stiffness of joints, and reduce the suffering of stiff muscles (Tangchitcharoen, 2006). Also, massage stimulation causes the internal organs to begin functioning at their highest capacity. Then, massage can help improve the body functions of patients. This will cause an improvement in digestion, nutrient absorption, waste elimination, and the circulation of blood and the lymphatic system. A good massage will help the muscles rid themselves of toxic waste products reducing stiffness and soreness (Ryan, Keiwkarnka, & Khan, 2003).

In traditional Thai massage, the concept clearly originates from Yoga philosophy. The massage focuses on an invisible energy body that surrounds the physical body. This energy body is the energy that sustains life. The main focus of massage is on the energy body creating harmony and balance (Ryan, Keiwkarnka, &

Khan, 2003). An individual's energy body may be comprised of over 72,000 individual bodylines. Giving a massage is to loosen the bodylines on each point. The massage must be modified to the pattern of treatment which is flexible and different depending on the conditions of each patient (Ryan, Keiwkarnka, & Khan, 2003). The entire symptoms of wind illness mostly appear in the bodylines. Then, the bodylines should be massaged to adjust the condition in massaging patients at admission by *Jub Sen* on the important lines. This means the signal spots that correspond to the textbook contents of the royal massage of Thai Traditional Medicine (Tangtrongchitr, 2005).

The massage process for Lom Ammapart patients is rearranging the bodylines, propelling the wind element in one direction and eliminating the toxic wind by opening the wind channel. The healers usually start by massage to rearrange the bodylines into the previous lines. Then, they massage to expel wind to flow through the bodylines. Lastly, they open the wind channel to eliminate the toxic wind out of the body (Suwannawetch, Sringoenyuan, & Utthasit, 1992). At the first time of massaging, the healer must start by gently massaging throughout the problematic area for about 10-15 minutes. This is to activate the muscles and nerves to be awakened and to reduce the contraction of muscles. The healers must softly knead on the stiffness of the bodylines to open wind channels and dissolve blood clots. Then, the next time the healers should increase the weight of kneading (The Editorial Department, 2007). At the beginning, the healers must massage continuously for 7 days to stimulate the life of the muscles and bodylines. Then, they will increase the interval of each time into every other day and then every couple of days (The Editorial Department, 2007).

2. Herbal medicine

Herbs for *Lom Ammapart* disease are mainly hot to the taste and were used to expel wind both in the bodylines and intestinal organs. A previous study reported that foods, medicine, and illnesses have hot and cold properties (Wing, 1998). Wind illness is regarded as a cold disease that should be treated with hot medicines to affect the body heat. Most herbal recipes are composed of various herbs that have different properties to manage the symptoms. A previous study reported that most herbalists prescribed herbal medicine which has many ingredients and flavours in different proportions especially a hot taste to correct the problems of the wind element (Salguero, 2006). Since the limited movement of a *Lom Ammapart* patient also caused complications, such as constipation, the use of herbal medicine was also aimed at helping eliminate the waste and toxins in the body by removing them to the elimination system. It was recommended that at the initial stage, the patients should have herbs to stimulate the circulation of the blood and the wind element as well as to eliminate toxic wind through defecation, and to prevent constipation. In addition, this prescription of herbs had the ingredients to encourage urination in order to reduce high blood pressure. Later, the patients must take the herbal medicine to treat *Lom Ammapart* such as nourishing the bodylines, and nourishing the heart (Tangchitcharoen, 2006).

In addition, a previous study reported that the way of *Lom Ammapart* treatment must make all six wind elements to flow as normal by taking herbal medicine to discharge phlegm or mucus in the blood and lymph vessels, ligaments and tendons, and the intestinal system for capturing toxicity in the body and purge this

toxicity by excreting in feces or excretory system, nourish ligaments and tendons, and the body lines; and lastly, nourish the four body elements (Nokkeow, 2006).

3. *Spiritual healing*

The informants held Buddhist precepts and practised rituals in their daily lives in order to purify their minds and maintain the power of healing, and to treat the *Lom Ammapart* disease. There were 3 main beliefs that influenced the attitudes and practices of folk healers, namely, belief in Buddhism, Brahmanism, and supernatural powers. This finding was congruent with a previous study, in that most treatment processes of the folk healers in southern Thailand are related to the beliefs of religion, and spirits (Golomb, 1985). According to TFM, it is influenced by Brahmanism in its belief of rituals and supernatural powers (Chokevivat, 2003). However, the foundation of its philosophy, theories, and concepts are possibly influenced by Buddhism such as cause and effect and the belief of natural power that life is made up of body and mind or five aggregates (Paonil & Sringernyuang, 2002). This principle is closer to the meaning of health in the holistic perspective of TFM which embraces both physical and mental health. In addition, Brahmanism emphasizes the performance of rituals such as begging prayers, and worshipping, because they believed that it was a way to please God (Dokbuar, 2006). In the belief of supernatural powers, informants in the study performed rituals in order to show respect to the spirits, especially *Kru Mhor* (a dead ancient teacher). The spiritual performance helped give spiritual power to the folk healers to have confidence in treating the patients. A previous study found that the rituals were a way for spiritual healing for patients to help them have confidence, to protect them, and to guard them from disease (Kulsomboon, S., & Adthasit, R. (2007).

Buddhism influenced the folk healers to believe in both merit and demerit. In addition, according to the informants' viewpoint, causes of diseases are also from karmic debts. Some illnesses cannot be cured by any method. This is because the disease is caused by the evil deeds of the patient from previous times (Paonil & Sringernyuang, 2002). Folk healers suggest the patients to make merit and to get rid of bad luck. Then, they will return to a normal condition again.

TFM is based on the principles of Brahmanism which are always seen in the treatment process of folk healers in several communities. Some concepts of Brahmanism are a primary foundation of TFM such as the beliefs of a supernatural power like God, the sacred, and the rite (Chokevivat, 2003). These beliefs influence the paradigm and the way of practice in TFM. For example, before folk healers start treatment they usually pray for Shevaka Komarabhacca to help them in treating patients.

Because of the influence of the belief of a supernatural power, folk healers perform ceremonies in order to show respect to the spirits. It is a way to repay kindness when the spirits protect the patients and keep them safe from disease and illness (Nokkeow, 2006). A previous study also reported that the folk healers believed in *Kru Mhor* as a supernatural power in the image of a spirit. So, before treatment they will worship *Kru Mhor* and invoke their help for gaining the knowledge to treat patients. *Kru Mhors* were invited by the folk healers to pass into their bodies. Then, *Kru Mhor* came to the folk healers to help them with a diagnosis and give treatment to patients (Suwankhong, Liamputtong, & Rumbold, 2011). The informants believed that they had *Kru Mhor* coexisting in their workplace to help them in treating *Lom Ammapart* patients. The *Kru Mhors* help the positive outcome of treatments and the

healers feel that they cannot treat patients without *Kru-Mhor*. This was congruent with the previous study which found that the folk healers believed that when they treated patients there were *Kru Mhor* coming down as spirits to help them in treating patients (Nokkeow, 2006). In using black magic, the practices require that healers must strictly behave within the morality and scope of an amulet possessor and the incantations must be gathered in order to maintain the stability of the healer's status (Assadodon, 2009).

Most rites still have the ceremony of Brahmanism, Buddhism and supernatural powers. The Buddhist rites are usually done at the beginning and the end of the ceremony (Heinze, 1976). This is relevant with Taoprasert (1999), who pointed out that the process of rituals always start with the religious rites. Thus, it means that the morality is the principal of their practices. This way helps to to purify their minds before entering throughout the ritual. For example, there is the ritual of *Wai Kru* which is done to make merit and show gratitude to the healers who treat the patients as well as the teachers of the folk healers. Then, in this ceremony, the visitors are the disciples and the patients. A previous study supported that this ceremony has the main objective to remind the disciples to be grateful to their teachers and develop this profession to have knowledge together with virtue (Assadodon, 2009). The folk healers invite the monk to be present to chant prayers. There is the substance in the prayers to praise mainly the Three Gems. Later, the folk healers perform teacher worship by starting with auspicious lighting of a candle and the reciting of a spell incantation. Then, they chant prayers to invite gods and angels to assemble for this auspicious occasion. Finally, at the end of the ceremony, the folk healers must recite incantation to extinguish the auspicious candle flame. Then, they finish this ritual with

the pouring of water ceremony to build kindheartedness towards their disciple which is the principle of the profession (Assadodon, 2009).

Lom Ammapart patients need treatment for a long time until they recover. Advice during treatment is important to patients. A previous study supported that in the addition of treatment, the folk healers usually have to advise patients or carers to manage caring for their health (Singchangchai et al., 1997). The patients need to avoid contact with cold weather and external wind for too long such as from an electrical fan or air conditioner. A previous study asserted that patients should be advised to consume nutritional food and avoid smoking and drinking, have regular exercise, and control their mind by meditation (Wannawiboon, 2004). After receiving a massage, the wind will circulate throughout the body of patients. Then, they must have an activity or exercise to stimulate the liveliness and energy of their muscles (The Editorial Department, 2007).

The treatment outcomes

The positive outcomes of treatment are the improvement of symptoms and quality of life; reducing disability, dependency, and mortality; and enhancing the satisfaction of *Lom Ammapart* patients. A previous study reported that by giving treatment, the bodyline blockages are removed balancing the essence of life including the four elements. As these elements of the invisible energy body become balanced, pain, discomfort, illness, and disease are reduced and eliminated (Ryan, Keiwkarnka, & Khan, 2003). In the positive outcomes of massage, the patients feel that the suffering area becomes warmer due to the nourishment of blood circulation resulting in the patients being more comfortable (The Editorial Department, 2007).

The perceived positive outcomes of treatment were evaluated by the informants and *Lom Ammapart* patients, focusing on the improvement of physical health outcomes such as being able to sit, stand, and walk. Both the informants and the patients perceived that TFM successfully treated the disease. This was congruent with a previous article which found that the patients who had been ill for more than 2 years, had tighter bodylines, which had become atrophied and embedded to the muscles, and so, were more difficult to be treated. If the patients came to see the healers within 3 months and continued doing so for 3-6 months, there still would be a chance of recovery (The Editorial Department, 2007).

There were some cases that had negative outcomes because of severe symptoms, or because the patient had come late for treatment, or had received treatment irregularly. A previous study found that rehabilitation in the acute stage should be taken for 6-12 weeks or until an improvement in function is produced (Mckevitt et.al, 2004). Another study also pointed out that one cause of negative outcomes was the intermittence of receiving treatment (The Editorial Department, 2007).

The involvement of nurses in the traditional health services

There were different viewpoints on the folk treatments between nurses working at health promotion hospitals and at hospitals. Nurses in health promotion hospitals were often local people who shared the same beliefs and cultures as the folk healers, had more positive attitudes, and had more opportunity to witness closely the folk treatment. Thus, nurses in health promotion hospitals had a more positive view of folk healing than did those in hospitals. However, there was a poor relationship or cooperation between the folk healers and nurses or health personnel at the primary or

secondary health services in taking care of *Lom Ammapart* patients. This may be because of no existence of a formal coordination system between folk medicine and modern medicine. It seems that most nurses and health personnel in the modern medicine sector might have overlooked folk medicine and had their independent functions, and spent less time in working collaboratively with folk healers. Many previous studies pointed out that one barrier in the cooperation between the 2 mainstreams was the lack of knowledge and understanding of modern health providers in the practice of the folk healers (Sooksuk, Hatthakit, & Kasetsoomboon, 2005; Suwankhong, Liamputtong, & Rumbold, 2011). However, most nurses realized the advantage of integrating eastern wisdom into nursing practice to meet the needs of patients (Sooksuk, Hatthakit, & Kasetsoomboon, 2005). Another study suggested that there should be a center for exchanging knowledge to understand and apply another discipline into medical practice (Suwankhong, Liamputtong, & Rumbold, 2011). If nurses in hospitals enhance their knowledge about TFM, they can give more suitable advice on how to access it. In addition, nurses viewed that folk medicine was more appropriate for the rehabilitation stage when the health condition of a patient was stable. Informants also viewed their role to treat the bodylines and adjust the wind element in order to reduce disability and resume the body functions of *Lom Ammapart* patients. Thus, when the patients were referred back to hospital in acute and critical conditions it was suggested that they come back when their condition was stable. This finding is congruent with a previous study which found that the folk healers usually advise or refer the patients to modern medicine or other traditional healers if they could not treat these patients such as in case of any complication or their illness deteriorated (Suwankhong, Liamputtong, & Rumbold, 2011). The folk healers in

earlier studies had a viewpoint that referral patients were a suitable way for cooperation. There could be 2 ways of referral, firstly, that the folk healers refer the patients to the modern doctors and possibly from the modern doctors to the folk healers depending on the condition of a patient (Suwankhong, Liamputtong, & Rumbold, 2011). A previous study supported that the patients should be evaluated and advised on the use of CAM and referred to the right providers who are expert and have skills in therapeutic approaches (Frenkel & Borkan, 2003). This is relevant to a previous study, which stated that the patients should be referred to the folk healers for rehabilitation (Suwankhong, Liamputtong, & Rumbold, 2011). It was recommended that since the folk treatment for patients with chronic illnesses in the community, especially *Lom Ammapart* patients, was likely to increase in the future as it is a popular treatment, the healers must be qualified and supported by the public health organization. Additionally, the folk healers should obtain some formal training to ensure the quality of the services, and they should perform their services under The Ministry of Public Health. This was congruent with a previous study that recommended that the relevant institutes must have a mission to develop the folk healers to be able to care for chronic patients in the community like *Lom Ammapart* and that the trend is increasing as many patients still use folk medical services to manage their illness. There were recommendations that the folk healers must be trained to be efficient in treating, consulting, and home caring for this illness under the control of The Ministry of Public Health. The folk healers should be accepted into the health care team in caring for patients in the community in collaboration with other health care providers (Singchangchai et al., 1997).

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The strengths of TFM in treating patients with *Lom Ammapart* were related to the folk perceptions of their effectiveness in the rehabilitation phase, especially for those who had endured the illness for less than 3 months. The treatment modalities were not harmful to patients and it is congruent with the patients' beliefs and cultures. The patients' faith and trust in a spiritual power contributed to the positive outcomes of the treatment. Hence, spiritual performance, and rites related to the spirit of *Kru Mhor* and supernatural powers were an important component of TFM that helped unite the body and mind of the patient. Additionally, the TFM service was cheap and affordable since most of the services were based on donations. However, TFM treatments were not integrated into the medical system, which may be because of the doubt on its standard of treatment and outcomes. To improve the benefit to both patients and healers, the folk healers' practice and outcomes must be monitored and evaluated.

In conclusion, the results of this study have implications for a national health policy to promote traditional medicine as another choice beside modern medicine. The knowledge regarding Thai folk beliefs of health and illness will help everyone who is involved in this system to understand the health practice of folk healers which result from these beliefs (Chuengsatiarsap, 2003). Since *Lom Ammapart* affects the entirety of a person's being, seeking treatment through resources of health care has become a strategy used to improve well-being. Additional research is also needed to

evaluate the use of TFM treatments in *Lom Ammapart* because they vary considerably across Thai cultural groups and by location.

Recommendations

In developing Thai folk medicine, the government should accept the variety of folk wisdom. They should provide a budget to develop completely from knowledge management to service development. Thai folk medicine should be accepted based on the local cultures and be linked to the public health system. This way is to promote earning more income for the population and the nation. Thailand should have self-reliance on its health system and develop it because Thai folk healers have a potential in treating *Lom Ammapart*. If Thailand realizes its own capacity in treating diseases we do not lose the balance of payments and will earn more income from both Thais and foreigners.

Currently, Thai folk medicine is still developed under the control of The Ministry of Public Health. Some frameworks are currently influenced by the scientific knowledge of modern medicine that may not be congruent with the local wisdom, beliefs and culture. Without understanding of these beliefs, it is difficult to integrate TFM in the medical system of the country. The results of this study have reflected on the beliefs and culture that influence the practices of the folk healers in treating *Lom Ammapart* patients. It could be implied for national health policy that TFM must be promoted to be an alternative approach in treating *Lom Ammapart* apart from modern medicine.

Implications for Nursing Practice and Research

There is little collaboration between nurses or health providers and the folk healers. From the viewpoint of nurses, folk medicine is one choice that patients can

select to get treatment but it should be in the rehabilitation stage. In the initial stage, the patients should go to get treatment from physicians to pass through the crisis period. The folk healers who give treatment must be credible by having licenses. The collaboration can separate the roles between the two medical systems. The folk healers can give treatment in the rehabilitation stage. There should be a nurse or health provider from the public health center in the same community as the folk healers, to follow the health outcomes of patients. In addition, a traditional health clinic in the hospital should exist and give consultations relating to treatment by folk healers for a patient's benefit.

The ultimate goal of the nursing service is to promote health and well being for humans. Therefore, nurses have an important role to keep up with every kind of medical service that will be of the most benefit to their patients. Knowledge about TFM is useful for nurses to understand the folk healing system, and will help them to collaborate with folk healers in treating and caring for patients.

Limitations of the study

Most of the folk healers were older adults and had gained a primary school level of education. The training that they had obtained focused more on practicum rather than the theoretical foundations of TFM. Thus, there was limited sound information of theoretical concepts related to TFM. Many descriptions and explanations relating to theoretical concepts, such as causes and pathology of the disease, were vague and often had no logical basis. On the other hand, the healers could perform the treatments and describe their practice more clearly. The study participants were from one geographical area and limited to the direct experiences of

southern Thai folk healers. The generalizability of the findings to other parts of Thailand may not be possible.

Also, the language barrier was an obstacle to describe the content in writing the report. Some native Thai words or folk terms relating to TFM are more difficult to be translated into English. Many terms cannot be translated exactly by English terminology.

Further research

Thailand has a shortage of knowledge about the connection between Thai folk medical treatments and the health advantages due to a lack of scientific research. More extensive research about the health outcomes of folk medical therapy is needed. Some suspicions remain about the reliability of Thai folk medicine. There are many health benefits of Thai folk medicine especially Thai massage, but they are still not utilized in their advantages for health promotion, prevention, treatment, and rehabilitation. Massage has effects on the physiology of the human body. These results show that there is a need to apply scientific methods to future research. For example, we can apply physiological tests to see the efficiency of massage at each point on the body.

Future studies need to consider the health outcomes of folk medical therapy in other areas. Due to the reliability of TFM, it requires examination in the effectiveness using scientific methods such as applying some physiological tests to measure the efficiency of massage.

REFERENCES

- Academic Affairs. (2010). *Thai Traditional and Alternative health profile 2009-2010*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Aonchomjarn, D. (2005). *Thai folk medicine and cultural dimension*. Department for Development of Thai Traditional and Alternative Medicine, Ministry of Public Health.
- Assadodon, S. (2009). *Decrypting moral principles of Thai traditional practitioner: the article*. The subject of caravan to promote health by Thai Traditional Medicine, Folk Medicine, and Alternative Medicine, the second year.
- Atkinson, P., Coffey, A., Delamont, S., Lofland, J., & Lofland, L. (2007). *Handbook of ethnography*. SAGE Publications Asia-Pacific Pte Ltd, Singapore.
- Bhasin, V. (2007). The use of folk remedies among children in an urban community. *Pediatrics*, 115, 297-304.
- Boonyaprapatsorn, N., Winitchaikul, S., Chirakulchaiwong, S., Maneechote, K., Sanguansak, J., Chocheaichareonporn, A., et al. (1992). *Thai traditional medicine dictionary*. Herbal Information Unit, Faculty of Pharmaceutical Science, Mahidol University.
- Brun, V., & Schumacher, T. (1987). *Traditional herbal medicine in Northern Thailand*. Bangkok, Thailand: White Lotus Press.
- Bureau of Health Policy and Strategy. (2011). *Number and Rates per 100,000 Population of Deaths from Cerebrovascular Diseases*. Health Information Unit, Bureau of Health Policy and Strategy, the Ministry of Public Health.

- Bureau of Policy and Strategy. (2007). *Health Policy in Thailand 2007*. The Ministry of Public Health.
- Chaiprasitthikul, K. (2004). *The report of massage for treatment of disease*. The Thai Traditional Medicine Institute, Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Chansongkhoa, S. (2002). *A study of massage treatments of illnesses by local masseurs in Songkhla*. Thesis of Master of Arts degree in Thai studies of Thaksin University.
- Chinnabutr, S. (2011). Sacred power transmission and the network of Phu Thai folk healers in Tambon Nonyang, Nonsung District, Mukdahan Province. *MANUSYA: Journal of Humanities, 19*, 60-71.
- Chinwanitcharoen, S., Thiyaworanunt, S., Lithisornthanoo, P., & Thongsangworn, D. (2002). *The study of Thai folk healer wisdom: the case study of Phor Yai Fuae Kayankarn*. The Thai Traditional Medicine Institute, Ministry of Public Health.
- Chirunthorn, R., Singpaiboonporn, N., Kamkwaew, J., Phudpad, B., & Uuisui, P. (2006). Assessment of patients' satisfaction with Thai traditional medicine services: a case study of the Department of Thai traditional medicine, health promotion hospital of Songkhla Hospital, Songkhla province. *Songkla Medical Journal, 24*(6), 517-526.
- Chokevivat, V. (2003). *Policies and Directions for the Development of Thai Traditional Medicine and Alternative Medicine in Thailand*. Bangkok: War Veterans Administration Printing.

- Chokevivat, V. (2005). *The role of Thai traditional medicine in health promotion*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Chuaprapaisilp, A. (2006). *Majjhima Patipada (Middle way): Thai Buddhist Nursing Theory*. The document for philosophical foundation.
- Chuengsatiarsap, K. (2003). *The Division of Thai Indigenous Medicine: Views of Thai folk medicine*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Chumpol, P. (1998). *The history of traditional Thai medical science: the study from the collection of formulas or recipes*. The institute of research and development of Silapakorn University, Bangkok.
- Deewiset, K., Konngam, K., Manosilp, U., Keawsonthaya, J., & Phaikhan, P. (2001). *The handbook of Thai massage training: the fourth edition*. The Project of Development Textbook, The Foundation of Traditional Thai Medicine development, The Ministry of Public Health.
- Department of Local Administration. (2011). *Table 4 Population from registration, area, density and house by province, southern region: 2011*. The Ministry of Interior.
- Dokbuar, F. (2006). *Religious comparison* (3rd ed.). Silapabannakarn publishing, Bangkok.
- Eungpinichpong, W., & Kongnaka, T. (2002). Effects of femoral artery temporarily occlusion on skin blood flow of foot. *Journal of Medical Technology and Physical Therapy*, 14(2), 151-159.

- Fetterman, D.M. (1989). *Ethnography step by step*. Newbury Park, California: Sage Publications, Ltd.
- Fontaine, K.L. (2000). *Healing practices: alternative therapies for nursing*. Prentice-Hall, Inc. Upper Saddle River, New Jersey, USA.
- Frenkel, M.A., & Borkan, J.M. (2003). An approach for integrating complementary-alternative medicine into primary care. *Family Practice*, 20(3), 324-332.
- Golomb, L. (1985). *An anthropology of curing in multiethnic Thailand*. Urbana: University of Illinois Press.
- Golomb, M. R., Hune, S., MacGregor, D. L., & deVeber, G. A. (2003). Alternative Therapy Use by Chinese-Canadian Children With Stroke and Cerebrovascular Disease. *Journal of Child Neurology*, 18(10), 714-717.
- Hashizume, Y. (1998). Salient factors that influencing the meaning of family caregiving for frail elderly parents in Japan from a historical perspective. *Scholarly inquiry for nursing practice: An international Journal*, 12(2), 123-141.
- Hatthakit, U. (1999). *Family-oriented self-care: An ethnographic study of stroke patients in Thailand*. Dissertation of Doctor of Philosophy of School of Nursing at Curtin University of Technology, Australia.
- Health and Development Foundation. (2007). *Textbook of Thai massage 1* (3rd ed.). Health and Development Foundation (H&DF) and Development of Tradition Thai Medicine Foundation (DTMF).
- Heinze, R-I. (1976). Nature and Function of Some Therapeutic Techniques in Thailand. *Berkeley Working Papers on South and Southeast Asia*, 1, 321-428.
- Helman, C.G. (2007). *Culture, health and illness* (5th ed.). London: Hodder Arnold.

- Hmuadthog, S., & Sreerhing, P. (2006). *The demanding of TTM practitioner in government hospital in northeast of Thailand*. Sirindhorn Khon kaen public health College, Khon kaen province.
- Holloway, I., & Wheeler, S. (2002). *Qualitative research in nursing* (2nd ed.). A Blackwell Publishing company, Osney Mead Oxford, UK.
- Hsiu, H., Huang, S.M., Chen, C.T., Hsu, C.L., & Hsu, W.C. (2011). Acupuncture stimulation causes bilaterally different microcirculatory effects in stroke patients. *Microvascular research*, 81, 289-294.
- Itharat, A., Singchangchai, P., Subcharoen, P., Ratanasuwan, P., & Srisajjadharna, P. (1997). *The wisdom of Thai Taksin folk healers: the case study*. The Institute of Thai Traditional Medicine, Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Itharat, A., Singchangchai, P., Supavita, T., Ratanasuwan, P., Chongchirasiri, N., Saengphun, J., et al. (2002). Folk wisdom of traditional doctors in the lower south of Thailand on utilization of herbal medicine. *Songkla Medical Journal*, 20(2), 121-136.
- Kasekowitz, K. (1993). *Folk healers and self-care of Esan villages: case study*. Srinakarindh vejhasarn journal, Khon Kaen University.
- Keowngarm, J. (1995). *Methods of paralysis treatment by Traditional medicine practitioners in changwat Songkhla*. Thesis of Master of Arts degree in Thai studies at Srinakharinwirot University, Southern Campus.
- Khampolsiri, T., Pothiban, L., Sucamvang, K., & Panuthai, S. (2006). A home-based nursing intervention for enhancing quality of life of stroke survivors. *Chula Medical Journal*, 50(10), 707-725.

- Khongthai, R. (1997). *Ethics on health care and treatment in Thai traditional medicine*. Thesis in Educational ethics, Mahidol University.
- Kleinman, A. (1980). *Patients and Healers in the Context of Culture*. Berkeley: University of California Press.
- Krairach, T. (2003). *The dimension of culture on folk health care of ethnic group in Northeast Thailand*. Dissertation of Philosophy of Doctoral degree in Thai study, Mahasarakarm University.
- Krairach, T., Klinhorm, U., & Thammawat, J. (2006). The dynamics of health care of the Thai-Khmer ethnic group in Northeast Thailand. *Journal of public health and development*, 4(3), 75-88.
- Kulsomboon, S., & Adthasit, R. (2007). Status and direction of research on indigenous wisdom for health. *Journal of Thai Traditional & Alternative Medicine*, 5(1), 50-61.
- Kuo, T.C., Lin, C.W., & Ho, F.M. (2004). The soreness and numbness effect of acupuncture on skin blood flow. *The American Journal of Chinese Medicine*, 32(1), 117-129.
- Leelayuwat, N., Eungpinichpong, W., Wattanatorn, J., Ishida, W., Manimmanakorn, N., & Manimmanakorn, A. (1998). *Physiological efficacy of Thai massage in pain reduction, muscular function and complication*. Thai traditional medicine developmental foundation, Budget year of 1998.
- Leewanan, C. (2003). *Thai massage for health*. Medical rehabilitation, Faculty of Medicine, Siriraj hospital.

- Li, W.L., Zheng, H.C., Bukuru, J., & De Kimpe, N. (2004). Natural medicines used in the traditional Chinese medical system for therapy of diabetes mellitus. *Journal of Ethnopharmacology*, 92, 1-21.
- Limthiyayothin, A. (2004). *Applied Thai massage for relieving symptom and treating disease*. Thai traditional massage, Sukhothai Thammathirat textbook: unit 8, Health science discipline, Sukhothai Thammathirat University.
- Lincoln, Y.S., & Guba, E.G. (1985). *Naturalistic inquiry*. California: Sage Publication Inc.
- Mckevitt, C., Redfern, J., Mold, F., & Wolfe, C. (2004). Qualitative studies of stroke: A systematic review. *Stroke*, 1499-1505.
- Nhootim, P., Sitthikraipong, C., Pukanadd, P., & Thangsukleuthai, P. (2007). *The study of Thai wisdom: case study of Mr.Phaa Raknui Phattalung province*. The Thai Traditional Medicine Institute, Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- Nicholas, A.C., Norma, C.W., & Arthur, K. (2002). *Illness Behavior and the Health Transition in the Developing World*. Health and Social Change in International Perspective.
- Nokkeow, S. (2006). *Folk healer wisdom of Mhor Nam Nokkeow*. The study report, Sonkhla province.
- Ohtsuka, T. (2005). *Impact of cultural change and acculturation on the health and help seeking behavior of Vietnamese-Australians*.
- Paetsart Sonkhrau textbook: conservative version. (1992). *Textbooks of Thai Traditional Medicine*. Bangkok, Sarm Charoen Panich.

- Paetsart Sonkhrao textbook: developed version. (2000). *Textbooks of Thai Traditional Medicine* (1st ed.). Bangkok, Si Thai Printing.
- Paonil, W., & Sringernyuang, L. (2002). Buddhist perspectives on health and healing. *The Chulalongkorn Journal of Buddhist Studies*, 1(2), 93-105.
- Patton, M.Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks Sage Publication Inc.
- Payutto, P.A. (1999). *Buddhadhamma* (9thed.). Bangkok, Dhamma Council.
- Pongpaiboon, S. (2002). *Structure and innovation of southern culture with development*. Project of sage researcher Professor Sutthiwong Pongpaiboon, the Thailand research fund.
- Pongpetchdit, B., & Thawalyawatnsakul, C. (2003). *Alternative to treatment by Thai traditional medicine of population in community of central part of Thailand toward tendency of nursing course syllabus development*. Boromarajonani College of Nursing, Ratchaburi, Ratchaburi province.
- Pornsiripong, S., Usuparata, P., & Subcharoen, P. (1996). *The case study of Thai folk wisdom: Por Yaijarnkane Larwong*. The Institute of Thai Traditional Medicine, the Ministry of Public Health.
- Rakdee, A. (2003). *Health seeking behavior of patients using Thai traditional medicine in Pattani province*. Master of Education Thesis in Community Development Education, Prince of Songkla University.
- Rodgers, B.L., & Yen, W.J. (2002). Re-thinking nursing science through the understanding of Buddhism. *Nursing Philosophy*, 3, 213-221.

- Ryan, C., Keiwkarnka, B., & Khan, M.I. (2003). Traditional Thai Massage: unveiling the misconceptions and revealing the health benefits. *Journal of Public Health and Development, 1*(2), 69-75.
- Salguero, C.P. (2006). A Thai Ayurveda. *Journal of the American herbalists guild, 6*(2), 28-31.
- Sangkaew, D. (2002). *Readiness services of health personnel of health centers and wanted for integration services of TTM in modern medical system of people in Khon Kaen province*. Master of Science Thesis in Health System Research and Development, Prince of Songkla University.
- Sangpunha, A., & Suriyachaiya, J. (2004). *Thai traditional therapy: unit 14*. Sukhothai Thammathirat textbook, Sukhothai Thammathirat University.
- Sibbritt, D., van der Riet, P., Dedkhard, S., & Srithong, K. (2012). Rehabilitation of stroke patients using traditional Thai massage, herbal treatments and physical therapies. *Journal of Chinese Integrative Medicine, 10*(7), 743-750.
- Singchangchai, P., Itharat, A., Subchareon, P., & Khongsuwan, S. (1997). *Model of therapy and home health care for chronic patients by folk doctors in Songkhla province: a phenomenological study*. Prince of Songkla University, Hat Yai.
- Sirichai, L., & Nhoothong, U. (2001). *Southern Thai folk medicine with social context and treatment process: research report*. Walailak University, Nakhon Si Thammarat.
- Sombat, K., Piriyanupong, N., & Arjnarong, S. (2003). *Folk wisdom for self care of Muslim in three provinces of southern Thailand*. The Thailand Research Fund.
- Somboonna, A. (1998). *Ethics of Thai traditional medicine practitioners: a case study of Surin province*. Thesis in Educational ethics, Mahidol University.

- Sooksuk, A., Hatthakit, U., & Kasetsomboon, P. (2005). Integration of eastern wisdom into nursing care for hospitalized patients. *Songkla Medical Journal*, 23(5), 341-349.
- Speziale, H.J.S., & Carpenter, D.R. (2003). *Qualitative research in nursing: advancing the humanistic imperative* (3rd ed.). Lippincott Williams & Wilkins, A Wolters Kluwer Company.
- Spradley, J.P. (1979). *The ethnographic interview*. New York: Holt, Rinehart and Winston.
- Srijareonjira, N. (2003). *Alternative medicine of private hospital in Bangkok*. Thesis of Master of Arts in Study of Culture, Mahidol University.
- Srisangnam, U. (1994). "Policy for the development of Thai traditional medicine", In: Subcharoen, P. (ed.) Report on the Opening Ceremony of the Institute of Thai Traditional Medicine (Nakhon Pathom, Thailand: ASEAN Institute of Health Development Printing).
- Stuttard, P., & Walker, E. (2000). Integrating complementary medicine into the nursing curriculum. *Complementary therapies in nursing & midwifery*, 6, 87-90.
- Subcharoen, P. (1997). *The line, point and disease in theory of massage*. The national of Thai traditional practitioner and herbal medicine assembly: a first time. The Institute of Thai Traditional Medicine, the Ministry of Public Health.
- Subcharoen, P. (2001). *Thai traditional medicine: holistic medicine* (2nd ed.). Bangkok: E.T.O. Printing.

- Subcharoen, P., Kietinum, S., Deewiset, K., & Srivithaya, S. (1999). *Integration of Thai traditional medicine into the national health care system*. Nonthaburi: National Institute of Thai Traditional Medicine, the Ministry of Public Health.
- Sukhothai Thammathirat textbook. (2005). *Thai Traditional Therapy: unit 1-8*. Health science discipline, Sukhothai Thammathirat University.
- Sukhothai Thammathirat textbook. (2004). *Medical sociology and anthropology: unit 1-5*. Health science discipline, Sukhothai Thammathirat University.
- Sukhothai Thammathirat textbook. (2004). *Medical sociology and anthropology: unit 6-10*. Health science discipline, Sukhothai Thammathirat University.
- Sukhothai Thammathirat textbook. (2004). *Medical sociology and anthropology: unit 11-15*. Health science discipline, Sukhothai Thammathirat University.
- Sutthiyano, P. M. (2000). *Buddhism and holistic health care*. The committee of eastern wisdom restoration to holistic nursing, Faculty of Nursing, Prince of Songkla University.
- Suwankhong, D., Liamputtong, P., & Rumbold, B. (2011). Existing roles of traditional healers (*mor baan*) in southern Thailand. *Journal of Community health, 36*, 438-445.
- Suwannawelar, N.C., Eusattasak, N., Phanthumchinda, K., Piravej, K., & Locharoenkul, C. (2007). Combination of Acute Stroke Unit and Short-Term Stroke Ward with Early Supported Discharge Decreases Mortality and Complications after Acute Ischemic Stroke. *Journal of Medical Association Thai; 90*(6), 1089-96.

- Suwannawetch, C., Sringsoenyuan, L., & Utthasit, R. (1992). *Potential of folk healer and basic public health: summary*. The office of basic public health committee, the undersecretary of the Ministry of Public Health.
- Tangchitcharoen, S. (2006). *Ammapleuk/ Ammapart with caring of Thai Traditional Medicine*. *Herb for health*, 6(62), 97-99.
- Taoprasert, Y. (1999). Folk Healers in Community Health Research. The Thailand Research Fund Regional Office, Chiang Mai. *Journal of Thai Traditional & Alternative Medicine*, 5(2), May-August.
- Taoprasert, Y., Koichusakul, P., & Mhuagkul. (2001). *The project of check up knowledge of folk healers for developing system and reference book of Lanna Medicine*. The Thailand research fund.
- Thai encyclopedia for juvenile: issue 20. (1997). Retrieved July 8th, 2008, from <http://kanchanapisek.or.th/kp6/BOOK20/chapter1/t20-1-11.htm#sect1>.
- Thai medicine volume 1. (n.d). *Textbooks of Thai Traditional Medicine*. Ministry of Public Health.
- Thai medicine volume 2. (n.d). *Textbooks of Thai Traditional Medicine*. Ministry of Public Health.
- Thai medicine volume 3. (n.d). *Textbooks of Thai Traditional Medicine*. Ministry of Public Health.
- Theeraworn, S. (2003). *Traditional birth attendance's role in the five southern border provinces of Thailand*. The project of health and sanitation development of southern mother and child, the institute of southern health research and development, the Faculty of Medicine, Prince of Songkla University.

- The Division of Thai Indigenous Medicine. (2003). *Views of Thai folk medicine*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- The Editorial Department. (2007). Massage therapy for *Ammappleuk/ Ammapart*. *Herb for Health*, 7(77), 34-35.
- The Institute for Southern Thai Studies. (1997). *Viewpoint of culture: the collection of the cultural studies of academic article*. The Institute for Southern Thai Studies, Thaksin University.
- The Institute of Thai Traditional Medicine. (2002). *Research strategies: Thai Traditional Medicine and herbs*. Strategies plan for health research in Thailand.
- The Institute of Thai Traditional Medicine. (2004). *The people handbook for health care with Thai Traditional Medicine*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- The Institute of Thai Traditional Medicine. (2007). *The vision and obligation*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.
- The Professional Act (2008). The Professional Nursing and Midwifery Act B.E. 2528: Thailand Nursing Council. Retrieved December 18, 2010, from <http://www.tnc.or.th/eng/MOPH/ACT/1-4.HTM>.
- The Protection and Promotion of Thai Traditional Medicine Wisdom. (2006). *The survey on Thai folk healer in Thailand*. Department for Development of Thai Traditional and Alternative Medicine, the Ministry of Public Health.

- Tongprateep, T., Pitagsavaragon, P., & Panasakulkarn, S. (2001). Metaparadigm in nursing based on Buddhist view. *The Thai Journal of Nursing Council*, 16(3), 13-24.
- Udompittayason, W. (1999). *Effects of Thai massage on reduction of tension-type headache*. Thesis of master of Master of Nursing Sciences in Adult Nursing at Prince of Songkla University.
- Virapongse, A. (2006). *Ethnomedicine and material medica used by Kui traditional healers in Northeast Thailand*. A thesis for the degree of Master of Science in Pharmaceutical Chemistry and Natural Products, Graduate School, Khon Kaen University.
- Wannawiboon, P. (2004). *Ammappleuk/ Ammapart and treatment of Traditionl Chinese Medicine*. *Mhor Chao Ban*, 26(306), 44-47.
- Wichaiyo, N. (2003). *A study of administering and service satisfaction in Thai traditional medicine center: a case study in Kalasin province*. Independent study report, Master of Liberal art Thesis in Developmental management, Khon Kaen University.
- Wing, D.M. (1998). A comparison of traditional folk healing concepts with contemporary healing concepts. *Journal of Community Health Nursing*, 15(3), 143-154.
- WHO (2007). A publication from the American Heart Association. Retrieved August 9th, 2007, from <http://www.strokecenter.org/patients/stats.htm>.
- WHO (2008). Stroke Statistics. Retrieved December 30th, 2012, from: <http://www.who.int/mediacentre/factsheets/fs310/en/>

APPENDIXES

APPENDIX A**Demographic Information Form****Thai folk healer**

Date/Time:

Gender:

Marital Status:

Highest level of education:

The main occupation:

Religion:

Average income/month:

Address:

Telephone number:

The year begin treatment stroke:

Lom Ammapart patient

Date/Time:

Patient's condition:

Other health problems:

Gender:

Marital Status:

Highest level of education:

The main occupation:

Religion:

Average income/month:

Address:

Telephone number:

APPENDIX B

Interview Guide

Thai folk healer

Aspects of folk healer's experiences and treatment for *Lom Ammapart* patients

1. Describe demographic information on checklist form
2. What are your motivations or reasons of being trained and practicing TFM?
3. Where and how did you obtain the training?

Adding more questions:

- How many teachers did you obtain the training?
 - Do you have license for treating patients?
4. What are moral and ethics that influence your practice?

Adding more questions:

- What are the rituals you have practiced in treating *Lom Ammapart* patients?
 - How do you practice the ritual?
5. What are experiences in treatment for *Lom Ammapart* patients?

- What is *Lom Ammapart* from your TFM viewpoint?

Probing question:

What are signs and symptoms of *Lom Ammapart* patients?

What are causes of *Lom Ammapart*?

- What are abnormalities/disruptions of the human bodily system of *Lom Ammapart*?

- What are methods/ways of investigations and treatment of *Lom Ammapart*?
(massage, herbs etc.)

- What is the suggestion that you give to *Lom Ammapart* patients?

- What are the expected outcomes of the treatments?

Probing questions:

What are the treatment outcomes in treating *Lom Ammapart* patients?

What are your roles as a healer?

- What are ways to evaluate the expected outcomes?

Adding more questions:

What are the ways of prognosis to evaluate the treatment outcomes?

6. What is successful treatment that you ever used for *Lom Ammapart* patients?

***Lom Ammapart* patient**

Aspects of patient's experiences in using TFM for *Lom Ammapart*

1. Describe demographic information on checklist form
2. What are your experiences of using the TFM services?

- What are your problems/needs?

Adding more question:

What do you feel about *Lom Ammapart* problem?

- What are your reasons for seeking the folk treatments?
- How does the folk healer charge for the treatments?

Probing question:

What are the treatment fees being charged?

- What are treatment modalities you have obtained from the folk healer?
(massage, herbs etc.)
 - What are outcomes of the treatments from the folk healer?
 - Do you satisfy the treatments obtained from the folk healer and how?
3. What are your activities for using TFM in daily life to relieve *Lom Ammapart*?

Interview Guide (Addition)

Presenting the findings

These findings can answer some issues of the research question in 4 points, namely:

1. What is the significance of TFM in treating *Lom Ammapart* patients?
2. What are treatments used to treat *Lom Ammapart* in TFM?
3. What are the health outcomes of using TFM in *Lom Ammapart* patients?
4. What are theories/concepts/beliefs/cultures that influence the practice of Thai folk healers?

From the results, there is still no thematic analysis because it is difficult to reach the conclusion. The researcher has to have more the study in fieldwork by interviewing and observing some missed data. However, it can be extracted the title of theme into nine categories as following these:

1. Learning and training of folk healer
2. Moral and ethics of folk healer
3. Religion influencing the beliefs related to cause of disease
4. Factors influencing health seeking behavior
5. The signs & symptoms of *Lom Ammapleuk/Lom Ammapart*
6. The diagnosis of folk healers
7. The treatment modalities
8. The prognosis, and
9. The treatment outcome

Also, the results give some structural questions to ask both of folk healers and *Lom Ammapart* patients in the next fieldwork as following these:

The structural questions for asking folk healers

1. What are all the different characteristics of *Lom Ammapleuk* and *Lom Ammapart*?
2. What are all the characteristics of signs and symptoms of *Lom Ammapleuk/Ammapart*?
3. What are all the characteristics of Morality of folk healers?
4. What are all the results of the efficiency of treatment?
5. What are all the causes of *Lom Ammapart*?
6. What are all the ways to learn TFM?
7. What are all the ways to do massage treatment for *Lom Ammapart*?
8. What are all the ways to do herbal treatment for *Lom Ammapart*?
9. What are all the steps in preparing herbal recipe?
10. What are all the steps of the beginning symptoms of *Lom Ammapart*?
11. What are all the kinds of the ritual?
12. What are all the kinds of diagnostic technique?
13. What are all the kinds of the prognosis?
14. What are all the kinds of the suggestion?
15. What are all the kinds of Muslim folk medicine?

The structural questions for asking *Lom Ammapart* patients

1. What are all the steps of the beginning symptoms of *Lom Ammapart*?
2. What are all the characteristics of the symptoms of *Lom Ammapart*?

3. What are all the results of the treatment outcome?
4. What are all the kinds of the satisfaction of treatment?
5. What are all the kinds of the treatment modalities?
6. What are all the reasons for seeking the folk treatment?

The data of *Lom Ammapart* patients is lesser than of folk healers, and then the structural questions for asking them are also fewer than for asking folk healers as well. Therefore, in the next interviewing, the researcher will use these structural questions together with old questions to gain more data.

The contrast questions for asking folk healers

1. What are the differences between *Lom Ammapleuk* and *Lom Ammapart*?
2. What are the differences between the characteristics of early stage and chronic stage of *Lom Ammapart*?
3. What are the differences between *Jub Sen* and *Sakid Sen*?
4. What are the differences between the outcomes of treatment in early stage patient and chronic patient?
5. What are the differences between the treatment by massage and herbs?
6. What are the differences between the terms of *Krob Mue* and *Krob Kru*?

APPENDIX C**Observation Guide**

Observation issue	Information
Places	Describe the place and environment where the observation was conducted.
Activities	Describe the activities carried out by informants who were involved in events of this study.
Events	Describe about the situation and phenomena occurred during this study.
Feelings	Describe about the emotional expression of key informants.

APPENDIX D**Field Note Taking Form**

Healer name:

Date/Time:

Place:

Activities/Event	Theoretical note	Methodological note	Personal note

APPENDIX E**Example of domain analysis**

Included terms	Semantic relationship	Cover term
<ul style="list-style-type: none"> - reading from ancient textbooks - observing a teacher in treating patients - practicing with a teacher - practicing in treating patients 	X is a way to do Y	Learning TFM

Semantic relationship

Semantic relationship	Form
1. Strict inclusion	X is a kind of Y
2. Spatial	X is a place in Y X is a part of Y
3. Cause-effect	X is a result of Y X is a cause of Y
4. Rationale	X is a reason for doing Y
5. Location for action	X is a place for doing Y
6. Function	X is used for Y
7. Means-end	X is a way to do Y
8. Sequence	X is a step (stage) in Y
9. attribution	X is an attribute (characteristic) of Y

APPENDIX F**Example of taxonomic analysis**

the way of learning TFM	reading	reading from ancient textbooks
	practicing	practicing with a teacher
		practicing in treating patients
observing	observing a teacher in treating patients	

Example of componential analysis

Kinds of illness	Dimensions of contrast				
	Condition	Consciousness	Strong pulse beat	Tight bodylines	Shoulder dislocation
<i>Lom Ammapleuk</i>	light	partial sensation	No	No	No
<i>Lom Ammapart</i>	severe	lose consciousness	Yes	Yes	Yes

APPENDIX G

Thai Folk Glossary

Word	Meaning
<i>Anatta</i>	selflessness
<i>Anicca</i>	impermanence and unstable
<i>Ariyasacca</i>	The Four Noble Truths
<i>Athokama Watha</i>	the wind flowing down to the lower part of the body
<i>Avijja</i>	ignorance
<i>Bai-Sri Soo Khwan/ Tam khwan ceremony</i>	blessing ceremony
<i>Benjakul</i>	five kinds of herbs
<i>Bho Leuad</i>	bottom area of the body
<i>Boon</i>	a good practice, virtue, etc
<i>Dham Bun</i>	make a merit
<i>Dhatu</i>	the four elements in the body
<i>Dhatu chao ruan</i>	personal dominant element
<i>Dukkha</i>	suffering
<i>Dukkhasamudaya</i>	the cause of diseases
<i>Fire</i>	the fire element
<i>Jao Ya</i>	the holy thing that has possessed in herbs
<i>Jub Sen massage</i>	catching and pressing on bodylines
<i>Kad Kru</i>	recall Sheewaka, the great teacher of TT Medicine, and call all teachers, ancestors and holy things
<i>Karma</i>	a bad practice, sin, one who commits a sin, unfortunate,
<i>Khai Nai</i>	fever in the body lines
<i>Khan Ha</i>	five attributes of corporeal being
<i>Khao Song</i>	the ritual to communicate with spirit
<i>Khroa</i>	Misfortune/ unfortunate

Word	Meaning
<i>Kled</i>	tip
<i>Krob Meau</i>	-ceremonial thread from their teacher to give personal teacher to disciple -the ritual to surrender oneself to be disciple
<i>Kruad Nam</i>	ceremonial water pouring
<i>Kru Mhor</i>	a dead person and a teacher of folk healer who had taught them some knowledge about treating patients
<i>Kru Mhor Yang</i>	possessed by dead ancestors
<i>Khwan</i>	Soul, spirit, or life energy that lives in human body
<i>Lom</i>	wind element
<i>Lom Ammapleuk/Lom Ammapart</i>	CVA
<i>Lom Thid</i>	Obstructed wind
<i>Magga</i>	suffering
<i>Mhor</i>	
<i>Mhor Baan</i>	normal folk healer
<i>Mhor Beeb/ Mhor Nuad/ Mhor Jub Sen</i>	Masseur
<i>Mhor Dharma</i>	moral principle healer
<i>Mhor Duu</i>	Fortune Teller
<i>Mhor Khwan/ Mhor Soo Khwan</i>	soul healer/ spiritual healer
<i>Mhor Kraduuk</i>	Bone healer
<i>Mhor Lam Phee Fa</i>	northeastern-style healer communicating with ghost
<i>Mhor Ngoo</i>	healer who treats patients bitten by poisonous snakes
<i>Mhor Phee</i>	shaman
<i>Mhor Ya</i>	Herbalist
<i>Muttakea Muttalungkung</i>	The brain
<i>Naharu</i>	a tendon
<i>Nama</i>	mind

Word	Meaning
<i>Norha Long Kru</i>	It is medium possessed ceremony in southern Thailand to communicate with spirits
<i>panca-khandha</i>	five aggregates
<i>Pate Khon</i>	(calamity) or harm or evil can be returned from patients to folk healer
<i>Phee</i>	ghost
<i>Phee Ban</i>	household spirit
<i>Phee Pa</i>	spirit living in the forest
<i>Phee Poo Ya</i>	grandfather and grandmother spirit
<i>Phra</i>	monk
<i>Plong Khan</i>	lay down money of compensation
<i>Pratoolom</i>	the channel of wind element
<i>Ros Ron</i>	hot taste of herbal medicine
<i>Ros Ya</i>	taste of herbal medicine
<i>Ruesi dud ton</i>	Hermit body stretch exercise
<i>Rupa</i>	Body/ material form
<i>Sadoa khroa</i>	the ceremony to get rid of bad luck
<i>Sad Nam Sadoa Khroa</i>	the ritual to reduce or remove one's bad luck
<i>Samudhan</i>	methods of diagnosis in Thai Traditional Medicine
<i>sankhara</i>	mental formations, predispositions, or volitional impulse
<i>sanna</i>	perception
<i>Sek Ya</i>	spell incantations over the herbs to ask a teacher or holy things activating herbal properties to be efficient
<i>Sen</i>	the bodyline which lies throughout the human body
<i>Sen Ammapart</i>	the bodylines connected from the <i>Sen Sumana</i> to the right leg
<i>Sen Ammapleuk</i>	the bodylines connected from the <i>Sen Sumana</i> to the left leg
<i>Sen Jom</i>	embedded bodylines

Word	Meaning
<i>Sen Khang</i>	stiff bodylines
<i>Sen Lom Glob</i>	embedded bodylines
<i>Sen Pattakad</i>	
<i>Sen Sib</i>	ten major bodylines
<i>Sen Sumana</i>	the bodyline located at the middle part of the chest 1 inch above the xiphoid process
<i>Sen Ussadakart</i>	the bodyline located under the pharynx down to the left about 1 inch
Shevaka Komarabhacca	the great teacher of Thai Traditional Medicine
<i>Slang food</i>	unwholesome food
<i>Song Jhao Khao Phee</i>	medium possessed to communicate with a spirit
<i>Tam Boon</i>	making merit or giving virtue or merit to others
<i>Tang Khan</i>	the ritual to pay respect by patients to the teacher of folk healers
<i>Tang Kan Kaow/ Tang Khai</i>	pay respect to teachers
<i>Tang Kru</i>	the ritual to show respect to a teacher by patients
<i>Tanha</i>	craving
<i>Tho Bee Dare</i>	the traditional birth attendant
<i>Trilakkhana</i>	the Three Characteristics of Existence
<i>Upadana</i>	clinging
<i>Utthangkama Watha</i>	the wind flowing up to the upper part of the body
<i>Vedana</i>	feeling or sensation
<i>Vinnana</i>	consciousness
<i>Wai chao thee</i>	the ceremony of showing respect to the guardian spirits
<i>Wai Kru</i>	the annual rite for showing respect to and recalling a teacher
<i>Wassana</i>	fortune
<i>Watha</i>	Wind element

Word	Meaning
<i>Yam Khang</i>	Thermal therapy by setting foot with hot herbs on the patient's body
<i>Yok Kru</i>	the ritual to ask for permission to be a disciple
<i>Yor Kru/ Bon Kru</i>	performing worship to teachers

APPENDIX H**VITAE**

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Educational Attainment

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-

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(2013). An ethnography of Thai folk healing in patients suffering from *Lomammapart*, a Stroke-like Condition. *Pacific Rim International Journal of Nursing Research*, 17(3) July-September.

Proceeding:

Viriyabubpa, C., Hatthakit, U., Subhadhirasakul, S., & Songwathana, P. (2013).

Cultures and beliefs influencing practices of southern Thai folk healers in

treating stroke patients. Oral presentation at *the 1st annual PSU Phuket international conference 2012, Multidisciplinary studies on sustainable development*. Prince of Songkla University, Phuket, Thailand.