Northeast Thai Women's Experiences in Following Traditional Postpartum Practices

by

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DISSERTATION

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By

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DEDICATION

This dissertation is dedicated to all the women

who experience the hardship of transitioning to motherhood.

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Journeying from a rural family to study in a big city might be very hard without support along the way. I would like to express my gratitude to my parents Samaan and Prapaporn Thasanoh who, while in poverty, dedicated their personal happiness to raise and educate four kids. They taught me to give knowledge higher value than money and other material things. Growing up with industrious parents inspired me to try my best at school and to never stop learning. I am also thankful for two older sisters Chommanee Loboon and Naraporn Weruwanarak who promised me to take care of our parents while I am away. They are the backups who have allowed me to achieve my life goal without worries about having to leave my elderly parents behind in Thailand.

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ABSTRACT

Northeast Thai Women's Experiences in Following Traditional Postpartum Practices

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Traditional postpartum practices are widely followed by northeast Isan Thai women. Poverty, low education, physical distance, inconvenient accessibility to biomedical health care, and influence of seniors in the family kept voices of these women unheard. The purposes of this interpretive phenomenological study are to understand the lived experiences of first-time mothers who follow traditional postpartum, to explore the setting of practices, and to reveal how family generates and transmits practices to new mothers. Study was conducted in Sirindhorn district, Thailand, from October 2008 to September 2009. Sixteen pregnant women during third trimester with uncomplicated pregnancy were recruited from prenatal clinic. Data was collected using three methods: two in-depth interviews, several participant observations, and a demographic form. Within-case, across-case, and thematic analysis were used to investigate meanings of traditional practices.

Based on Traditional Thai Medicine, caregivers used food, fire, water, and herbs to rebalance postpartum women's self, including body, mind-heart, and energy. Supervised by caregivers, women live in hot environment and consume hot food and drink to benefit both maternal and child health. Meanings of practices were revealed and presented through four broad themes. *Food practice after childbirth* addresses meanings related to certain foods which were encouraged to promote breast milk or discouraged to prevent sickness, which

was called *phit kam. Postpartum healing through heat* demonstrated why lying by the fire was important to Isan women. The fire not only helped them retrieve physical health, but also improved beauty and ensured long term wellness. *Hot herbal bath: rebalancing blood and wind systems* reflected how and why the caregivers used hot water to promote women's humoral systems and to heal perineal wounds. Lastly, *hot herbal concoctions: tonic and lactating promoter* explored local herbs used to make the teas taken by women to prevent and cure phit kam, regain health, and increase breast milk production. The findings provide basic knowledge for determining best health care and preventive health service practices. The goal for the future application of this research is to guide the implementation of care plans in biomedical health care system with an awareness of cultural practices.

Approved

Catherine A Chesla

Catherine A. Chesla, RN, DNSc, FAAN

Dissertation Chair

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Chapter One: The Study Problem and Significance

The birth of first child and the observance of postpartum restrictions mark the transition to adulthood of northeastern (Isan) Thai women (Whittaker, 2002). To ensure the humoral balance of the body after the birth, most women practice lying by the fire, *yuu fai* or y*uu kam*. See glossary of Isan terms in Appendix A. This is a period of confinement during which the new mother lies beside a constantly burning fire from one to nineteen days (Chirawatkul, Patanasri, & Koochaiyasit, 2002; Kaewsarn, Moyle, & Creedy, 2003b; Whittaker, 1999). Alternately, the postpartum woman can also keep warm by placing a thermos or burnt herbs on the abdominal skin. Yuu fai is a private matter, usually attended to by members of the woman's matrilineage who visit and care for her and her newborn. Restrictions of particular food considered to be harmful for a woman after childbirth are also practiced throughout this time (Chirawatkul, et al., 2002; Whittaker, 1999). Common food and drinks considered appropriate for postpartum women during the time include sticky rice, salt, dry fish, hot water, and herbal medicine.

The northeast region of Thailand in which this study took place is called *Isan*. The term Isan will be used throught out the document. Traditional beliefs about nutrition and specific practices such as yuu fai are embedded among the Isan people in Thailand. One study found that 79% of postpartum women restrict their food for a minimum of 2 days to a maximum of 24 months (Kaewsarn, et al., 2003b). In addition, women's mothers or mothers-in-law play an important role in controlling the amount of food women have and their eating behaviors.

Postpartum care of Isan women is influenced by two approaches to health practices and beliefs. These include allopathic medicine which is shaped by biomedical western beliefs

and Traditional Thai Medicine (TTM), which incorporates Indian, Chinese, Khmer, and folk medicines with Buddhism and animism (Bamber, 1998; Del Casino, 2004; Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003, 2007). These can be complementary or in opposition, but both will factor into the woman's experiences as she transitions to early motherhood.

Problem Statement and Significance

Beliefs about food restrictions can affect the health of the mother and baby. For example, *nam pu leoi* (decoction of cassumunar ginger) has been traditionally advised for postpartum women to drink because it is thought to enhance the proper flow of blood. However, from a medical point of view it is thought to be associated with anemia for mothers who drink it, as well as jaundice in newborns (Kaewvichien, Sriareporn, & Bhavilai, 1997; Liamputtong, 2004). Whittaker (1997) found that postpartum women in northeast Thailand ate low nutrient food such as sticky rice, which can contribute to inadequate nutrition if other nutrient-rich food is not consumed. Moreover, in northeast Thailand, particularly in the border area, there are a variety of edible wild plants consumed by villagers including postpartum women, yet little is known about the effects of those on maternal and child health. This remains an understudied area in need of research.

Differences in health care beliefs of allopathic providers, TTM providers, and the postpartum mother and her family may create conflicts (Whittaker, 1999). Food avoidance may impair a woman's health or breast milk quality if the woman has poor nutritional status. Yuu fai may cause dehydration or skin problems and is sometimes blamed by hospital staff as the reason for postpartum wound infections. There are very few studies about Isan traditional postpartum practices in and there have been no published qualitative studies on

women living in the remote-border area of the region. In order to provide the best health care and preventive health services, it is important to understand their beliefs, experiences, and specific traditional practices of new mothers during the postpartum period.

Purpose

The purpose of this phenomenological study was to describe the lived experience of Thai mothers in following traditional practices after the birth of their first child. The term "traditional practices" includes specific dietary customs and the use of yuu fai during the postpartum period. The following research questions were addressed.

1. What is the lived experience of Thai mothers who follow traditional practices after the birth of their first child?
2. How, and in what setting, do women perform the traditional practices?
3. How does a family generate and transmit the traditional practices to a new mother?

This dissertation will be presented in five chapters. Chapter one provides an overview and problem statement. Chapter two will critically review the current literature about traditional postpartum health and nutritional practices and will set the context for the study, including the basic principles of TTM. It will also present family life course development Theory as a framework to discuss the family roles in postpartum practices within the home.Chapter three presents an overview of interpretive phenomenology and outlines the methodological procedures for the study. Chapter four presents the findings and Chapter five provides an analytical synthesis of the results and implications for practice and future research.

Chapter Two: Theoretical Framwork and Review of the Literature

This chapter presents the theoretical framework of the study and an overview of the literature on postpartum traditional practices, including the background and significance of traditional practices in Isan postpartum women. Isan family development, dietary practices, the women's nutritional status, and biomedical nutritional education are then presented to provide the sociocultural context of this phenomenon. Finally, a critical review of research about traditional postpartum nutrition practices in Thailand and selected Asian countries is presented followed by a synthesis and discussion.

Conceptual and Theoretical Framework

Two theories provided the framework for this dissertation study. Family life course development theory was employed to understand Isan family changes when a daughter is transitioning to motherhood (R. H. Rodgers & White, 1993). Second, Geertz's (1973, 2001) symbolic anthropology was used for understanding Isan women's dietary practices during the confinement postpartum period. Together these theories provided a robust foundation to reflect upon the study's findings. Six concepts (norms, positions, roles, family stages, event, and transitions) of family life course development theory were used to understand basic structure and dynamic of an Isan family during its transition (R. H. Rodgers & White, 1993). A *norm* refers to a social rule that regulates group and individual behavior. *Family position*, defined by gender, marriage, and biological relations, is the place for each family member within the kinship. Based upon social norms, *family roles* are groups of expected behavior for each family position. Thus, family roles in different cultural contexts vary in content. For instance, an Isan norm for newlyweds is that the groom becomes a part of the bride's family. If the groom follows this norm, he will adopt the new positions of husband and son-in-law,

with the associated roles of working on his wife's farm or family business and taking care of his wife's family.

A family stage is a period of development in which the structure and interaction of role relationships are qualitatively distinct from other times (J. M. White & Klein, 2002). *Transitions* are defined as periods of change from one stage to another. For example, pregnancy versus childbirth is separated by a shift from one family stage to another, conceptually identified as a transition. *An event* (birth, marriage or death, for example) typically initiates transition, which is conceptually important as a period of openness to change in the family system. For recently married Isan couples, the transition to the next stage is to that of a childbearing family. During their transition, they may experience a sequence of events such as birth control, pre-pregnancy counseling, prenatal care, or miscarriage. The transition to motherhood does not end at the birth of the child but is a continual process as the new mother negotiates the complexities of mothering.

Women in Isan observe postpartum traditional practices from the beginning of their transition through pregnancy, and continuing through the confinement and postpartum periods. Some traditional dietary practices for pregnant women may be in conflict with nutritional recommendations from health care providers, but Isan women are pushed to follow them because of the pressure exerted by the norms of their families and societies. Many of them reluctantly follow family suggestions because from the beginning of life, they were shaped by norms to be good daughters, showing their parents obedience and high respect. Social norms, family traditions, personal preferences, and the qualities of food are all factors in food selection during this period.

Four principal concepts are described by Geertz (2001) that comprise symbolic anthropology (culture, thick description, actor-centered interpretation, and no universal human law) were applied during data collection and interpretation processes. Geertz metaphorically describes that man is a web-making animal that spins webs of significance and then suspends in them. *Culture* is analogous to those webs which have multiple levels of meaning and interpretation, and cultural analysis is comparable to an interpretive science searching for meaning. Geertz believes meaning is public or shared, and thus culture is public because meaning is public. A crucial technique to the study of human culture is the concept of *thick description*. Geertz employs the terms "twitching" and "winking" to illustrate thick and thin description. Although winker and twitchers do the same physical movement by contracting the eyelids, only the winker is sending a message (to another person) while the twitcher is involuntarily moving his eye. Geertz considers twitching thin description while winking is thick description because it includes the meaning of the wink, the sender and receiver, and the intended message.

Geertz (2001) asserts that anthropology should produce *actor-centered interpretation* to present the story from other people's symbolic system because the researcher as an observer may not completely understand their meanings. For example, in Thailand a visitor of a mother will say out loud that her baby is ugly. This story can be actor-centered when told from the Thai mother's point of view that saying so will prevent the baby from being harmed by a ghost or evil spirit. It reveals the thoughts and beliefs of the mother. Unlike some scientists, Geertz (2001) is against formalized or schematized systems as a description of culture. If anthropologists used this approach in studying a culture, they would build a whole set of laws and symbols in an attempt to have a complete description. Their reports

might be composed of something like: Matriarchal system + death of husband = wife inherits all of husband's property. Geertz rather proposes that there is no universal law of human behavior. All behaviors depend heavily on the details of the situation, and even on the unpredictable choices of the actors. For example, in the law stated above, what if the wife had killed her husband, would she still inherit his property?

In summary, family life course development theory and Geertz's concepts of symbolic anthropology were employed to understand the experiences of an Isan woman's transition to motherhood as they were revealed through traditional postpartum practices. Family norms, roles, and position will likely determine what an Isan woman does after giving birth. Instead of having food rich in nutrients to recover after giving birth, some women consume only certain kinds of food. Nutrition is not the primary drive behind a woman's food selections; rather the symbolic meanings attached to food will influence her eating decisions. The meaning of traditional dietary practices, understanding why new mothers follow their mother's dietary education, and how family members are involved in the practices are better understood by carefully exploring the messages sent among them.

Review of the Literature

Almost 75% of Isan women breastfeed their children (Saowakontha et al., 2000). This is an important factor in establishing and maintaining infant health. Women need food rich in nutrients to regain their health and produce breast milk for their children during this period (Mitchell, 2003). However, postpartum Isan women adhere to postpartum customs that may well place them, and their infants, at nutritional risk (Kaewsarn, et al., 2003b; Liamputtong, 2004; Whittaker, 1999). Saowakontha and colleagues (2000) found that inadequate nutritional status is one of the most vital problems related to women's health in this region.

This poor maternal nutritional status leads to, and is directly associated with, the poor nutritional status of the breastfed infant (Christian, Gujral, Abbi, & Gopaldas, 1989).

Nutrition problems in Isan stem from many factors including cooking processes and traditional beliefs. The common cooking processes of local Isan food dilute the amount of micronutrients available to the mother, and these are further restricted by traditional dietary practices during the postpartum period. Approximately 78% of Isan postpartum women observe food restrictions. Of them, 77% were allowed certain foods only by permission of their mothers, mothers-in-law, or female relatives (Kaewsarn, et al., 2003b). In addition, a study in northern women by Liamputtong (2004) found that new mothers traditionally consumed cassumunar ginger (*Zingiber cassumunar Roxb.*) which may put the mothers and their newborns at risk for anemia and jaundice, respectively. Finally, beliefs regarding food restriction may also become a source of potential conflict between the postpartum women and their health care providers (Whittaker, 1999).

Understanding the cultural beliefs and nutritional practices during the postpartum period is important to assist providers in the provision of culturally appropriate and effective care and counseling. This critical review of the literature explores the current state of knowledge of postpartum nutrition practices in Asian countries, with an emphasis on Thailand. The goal of the literature review is to present evidence to support clinical practices and questions to guide future research studies. I have expanded the review to include research in the Lao People's Democratic Republic (Laos) because it is a neighboring country to the Isan part of Thailand. Studies in Chinese communities, including those from mainland China, Hong Kong, and Taiwan, are reviewed because of the traditional Chinese medicine (TCM) influences on protocols of patient care in Asian countries, including TTM. Chinese

and Thais share many common beliefs and values that are the underpinnings of these practices.

Several computerized literature searches were conducted through PubMed, CINAHL, Science Citation Index, and PsyINFO. Both medical subject headings and keywords were used: *traditional practice, eating behavior, postpartum nutrition, postpartum women* (or mother), *dietary practices, food/diet restrictions, taboos, prohibitions, precautions or practices*. Combining two search headings dietary practices and postpartum women resulted in 48 references. The search was further narrowed by adding the term "tradition" in front of "dietary," resulting in two references that specifically matched the aims of this literature review. Related articles and secondary reference lists from the articles were also used to expand the search. Unpublished research reports in Thailand were accessed via the library websites of several Thai universities and then manually copied.

The review is presented in four parts: (a) background and significance of the problem, (b) traditional postpartum nutritional practices in Asian countries, especially Thailand, (c) family conflict, negotiation, and resolution on differences in beliefs, and (d) synthesis and discussion.

Background and Significance

Thailand is a country in South East Asia, bordered by Union of Myanmar, Laos, Cambodia, and Malaysia. The country is divided into four regions: central, south, north, and Isan. The rural area Isan is primarily an agricultural community and is the least developed as well as poorest region in Thailand due to inadequate, unreliable rainfall, infertile soils, and lack of resources for health care and other social services. These challenges are reflected by a 2003 United Nation Development Program (UNDP) survey (Misnistry of Public Health,

2005). UNDP applied the Human Achievement Index (HAI) to measure eight dimensions: health, education, employment, income, residence and the environment, family life and community, transportation and communications, and participations. They found that the Isan region had the lowest level of HAI in the country.

Isan Family Development and Dietary Practices

Newlywed couples traditionally live in the woman's matrilineal home and work on the wife's family's farm and business (Kabilsingh, 1991; Tambiah, 1975; Whittaker, 2002). Even when an Isan woman separates to form her own nuclear family, or moves to live with her in-laws, she still has a strong bond with her parental family. Therefore, when she gives birth to the first child she will become a mother (*mae*) through passage of postpartum practices (Tambiah, 1975; Whittaker, 2002) suggested by senior, female family members. Food is carefully selected for the postpartum woman. Commonly allowed foods are limited to sticky rice, grilled chicken, garlic, lemon, hot water, and herbal medicines (Ketkowit et al., 2004; Whittaker, 1999, 2002).

In general, native Isan food is comprised of whole grains, legumes, fresh green vegetables, roots and tubers, and a variety of fruits (Chirawatkul, et al., 2002). However, the availability of food is often limited by drought. Isan cooking practices for food preparation further restricts consumption of food rich in micronutrients. For example, the main ingredients of a popular dish called *som tam* are green papaya which is low in potassium and fermented fish, which has high concentration of a Thiamine destroying factor. One of the allowed foods for postpartum women is sticky, polished rice, which also has low potassium content. Moreover, much of its vitamin content, such as thiamine, is destroyed from a long cooking process (Barennes et al., 2007; Sriboonlue et al., 1998).

Biomedicine Postpartum Nutrition Recommendations

The nutritional requirements for a postpartum woman are addressed across three aspects: a) restoring nutrients, b) sustaining nutrition for lactation, and c) returning to pre-pregnancy weight status (Mitchell, 2003). After birth, a mother needs a large amount of fluid to compensate for the fluid restriction or fluid loss during labor (Olds, London, Ladewig, & Davidson, 2004; Pillitteri, 2003) and to rid waste products released from catabolized uterine cells (Pillitteri, 2003). During lactation, she should drink 3,000 ml of water and other liquids every 24 hr (James, 2008). It is recommended that caffeinated beverages be limited to no more than two servings per day and alcoholic beverages should be avoided (Institute of Medicine, 1992).

Maternal diet and nutrient stores affect the quantity and quality of breast milk produced by the new mother (Dudek, 2006; Witt & Mihok, 2003). In order to produce 100 ml of breast milk, a woman must consume an additional 84 kilocalories (kcal) per day. A well-nourished woman who exclusively breastfeeds makes about 807 g of milk a day during the first six months; thus, she requires an additional 675 kcal per day (Butte, Lopez-Alarcon, & Garza, 2002; Food and Agriculture Organization of the United Nations, 2004). The average woman should consume a total of 2500-3300 calories daily, while a woman who does not gain enough weight during pregnancy or has inadequate fat stores requires a higher caloric intake to compensate (Dudek, 2006). Failure to meet energy requirements may cause milk insufficiency. Recommended intake quantities for protein, vitamins, and minerals for a lactating mother according to the National Academy of Sciences (2008) are shown in Table 1.

Table 1

Dietary intakes (DRIs): Recommended Intake for a Lactating woman

Nutrient (unit)	Recommended Intake
Protein (g)	71 grams
Vitamin A (µg RE)	1300
Vitamin D (µg/d)	5
Vitamin E (mg/d)	19
Vitamin K (µg/d)	90
Vitamin C (mg/d)	120
Thiamin (mg/d)	1.4
Riboflavin (mg/d)	1.6
Niacin (mg/d)	17
Vitamin B6 (mg/d)	2.0
Folate (µg/d)	500
Vitamin B12 (µg)	2.8
Calcium (mg/d)	1000
Phosphorus (mg/d)	700
Magnesium (mg/d)	320
Iron (mg/d)	9
Zinc (mg/d)	19
Iodine (µg)	290
Selenium (µg/d)	70

Source: National Academy of Sciences, Institute of Medicine, Food and Nutrition Board. (2008). *Dietary reference intakes (DRIs): Recommended intakes for individual*. Retrieved August 14, 2008 from

A wide variety of dietary options that meet a woman's energy requirements usually provide enough vitamins and minerals to support lactation (Witt & Mihok, 2003). She should consume a diet including grains and cereals, fresh fruit, vegetables, lean meats, and milk products (Dudek, 2006; Institute of Medicine, 1992). The mother with excessive blood loss during delivery requires more dietary iron (Mitchell, 2003). Except in case of severe postpartum hemorrhage, most women are able to produce high-quality breast milk which meets their infants' needs. However, the level of certain nutrient such as the B vitamins may decline in breast milk as a result of severe insufficiency in maternal intake (Dudek, 2006).

Additional suggestions for postpartum dietary behaviors include eating frequently throughout the day and avoiding freshwater fish from water contaminated with chemicals (Dudek, 2006). Multivitamin and mineral supplements are not advised for daily use, except when maternal intake is insufficient. An iron supplement may be needed to correct an iron deficiency during pregnancy and/or to make up for blood loss during delivery. There are no dietary restrictions for postpartum women without underlying medical conditions (James, 2008). However, mothers with a family history of food allergies may wish to avoid eating such food. Moreover, certain food in the maternal diet may be excluded if they cause allergic reaction in infant (Dudek, 2006).

Nutritional Situation in Northeast Thailand

The recommendation to eat a wide variety of food may not be feasible for some Isan women to follow. The Ministry of Public Health of Thailand recommends that women eat all of the following five food groups: 1) meat, liver, fish, chicken, cockles, crab, squid, milk, eggs, beans, peanuts; 2) rice, flour, sugar, and tubers; 3) vegetables; 4) fruits; 5) fat from animal and vegetables (Piammongkol, Marks, Williams, & Chongsuvivatwong, 2004). However, the low socioeconomic status of many Isan women may limit their opportunities to buy nutrient-rich food (Sriboonlue, et al., 1998) and food habits may lower availability of particular micronutrients. Rice, which is the staple food source for Thais due to the stability of its availability, is an excellent example of one of these food habits. Isans prefer polished rice to brown rice and sticky rice to jasmine rice. Polished rice loses much of its vitamins and minerals from the milling process. The long process of cooking sticky rice, including washing and then soaking over night prior to steaming, further destroys water-soluble vitamins (Sriboonlue, et al., 1998), especially thiamine.

Another popularly consumed item is fermented fish which contains an anti-thiamine factor, thiaminase. Consumption of low thiamine food and/or food containing thiaminase causes thiamine deficiency (Butterworth, 2001; Vimokesant, Hilker, Nakornchai, Rungruangsak, & Dhanamitta, 1975), which triggers infantile beriberi as illustrated among the Karen ethnic minority on Thailand's western border (McGready et al., 2001). An investigation of Isan food by Sriboonlue et al. (1998) confirmed that low potassium intake in rural, northeast Thai people is due to food preparation habits, rather than to low potassium content in the food in their natural state. Among seven groups of food divided according to their potassium levels, the majority of food that this population consumed are in the low potassium group (potassium < 100 mg/100 g fresh food), such as sticky rice rice and green papaya (Sriboonlue, et al., 1998).

Inadequate nutritional statuses, including iron deficiency anemia and iodine deficiency disorders, are the most serious problems for women's health in Isan (Saowakontha, et al., 2000; Supawan et al., 1993). The prevalence of anemia (Hemoglobin (Hb) < 11g/dl) during pregnancy in the Isan population is 17.2 %, which is higher than the overall 13.4% of pregnant women in Thailand (Sanchaisuriya et al., 2006). An examination of childbearing age anemic women (Hb < 12 g/dl) showed that the prevalence of deficiencies of vitamin B12, folic acid, and ferritin were 6.3%, 4.3%, and 12.5%, respectively (Tungtrongchitr et al., 1997). The calcium intake among these women was 379.9 ± 111.4 mg/day which is much lower than the recommended 1200 mg/day for childbearing age women (National Research Council, 1989; Nititham, Srianujata, & Rujirawat, 1999).

In summary, nutritional status studies in Isan found that the majority of women lack iron, iodine, vitamin B12, folic acid, and ferritin. Studies also showed that they also

consumed food low in potassium, thiamine, and calcium. However, nutritional education from a biomedical point of view may not be feasible in a particular ethnic group living in an arid and poor area. Poverty restricts their access to high nutrient food, while the barrenness and infertility of the land reduces crop yields, and improper food practices strip essential vitamins and minerals from the food. Additionally, traditional dietary practices observed in Isan society limit women's food choices. Postpartum food precautions among Asian countries will be discussed in the next section, including the exploration of encouraged food, discouraged food, and the beliefs behind these practices.

Traditional Postpartum Nutritional Practices among Asian Societies

This section describes the beliefs behind the traditional nutritional restrictions and examines practices in Thailand, Laos, China, Hong Kong, and Taiwan. A critical review of studies that explored the kinds of food that are encouraged or discouraged and factors affecting women's health is included. A biological study is provided to give more explanation about the biochemical properties of traditional food.

The term postpartum is defined differently depending upon scientific genre and/or the culture in which the term is used. From a biomedical perspective, the postpartum period is defined as the interval between the delivery of the placenta and the return of the woman's reproductive system to its non-pregnant condition (Matterson & Smith, 2004). The period usually lasts for four to six weeks. Traditionally, the length of time of the postpartum period coincides with other postpartum activities. Even though the confinement period of Asian women has different names, most of them mean "a month." For instance, Taiwanese women practice *tsp-yueh-tzu* (L. Y. Chien, Tai, Ko, Huang, & Sheu, 2006; S. F. Tien, 2004), Hmong women practice *nyo dua hli* (Rice, 2000), and northern Thai women observe *yuu duan*

(Liamputtong, 2004). Isan women have a short intense confinement period. They practice yuu fai for 1 to 19 days (*M* = 7 days)(Kaewsarn, et al., 2003b). Practicing other restrictions, however, may last longer. For example, they observe sexual abstinence for 7 to 450 days (*M* = 63 days), consume hot drinks for 1 to 360 days (*M* = 39 days), and restrict food consumption for 2 days to 24 months (*M* = 62 days).

Beliefs Supporting Postpartum Practices

Dietary practices in Asian countries are grounded in two main schemes: humoral theory and TCM (Manderson, 1981). Humoral theory and TCM are similar, but their relationship is not clearly described. Humoral theory is based on an assumption that the human body is composed of four elements (Earth, Fire, Air, and Water) related to four humors (black bile, yellow bile, blood, and phlegm). These humors are identified by varying combinations of the four natural properties (hot, cold, wet, and dry). For example, fire and yellow bile are hot and dry, whereas air and blood are hot and wet. This theory was employed as a rationale for the practice of food avoidance among postpartum women in Bangaladesh (Goodburn, Gazi, & Chowdhury, 1995), Malaysia (Laderman, 1984, 1987; Manderson, 1981), and Thailand (Whittaker, 1999). According to this theory, blood loss during childbirth moves the woman's body into a cold state. Therefore, the postpartum woman is encouraged to eat hot food and avoid cold food. In Malaysia, a country south of Thailand, hot food includes fats, alcohol, spices, protein-rich animals, salty food, and bitter food. Cold food includes juicy fruits and vegetables, sour fruits, vines, creepers, and climbers (Laderman, 1984). Rice and fish are considered neutral food.

Practitioners in TCM consider the body to be composed of two opposite forces of cold (*yin*) and hot (*yang*)(Liu et al., 2006). The body is also affected by five elements (earth,

fire, water, wood, and metal) (Manderson, 1981). Health and illness are associated with an imbalance of the hot and cold status of the body's energy. Food, which also has hot or cold energy in it, is used to treat the disease by rebalancing the body force. Pregnancy is regarded as a hot condition during which a woman is traditionally advised to eat cold food. Excessive loss of heat during delivery changes the woman's body status to yin, or a cold stage, which makes the woman vulnerable to illness due to the energy imbalance (L. Y. Chien, et al., 2006; Holroyd, Katie, Chun, & Ha, 1997). Thus, hot food, including a protein-rich diet heavy in meats and eggs, or a diet with ginger and wine, are encouraged (Raven, Chen, Tolhurst, & Garner, 2007), while cold food, such as fruits and soy products, are avoided (Holroyd, Katie, Chun, & Ha, 1997).

Both humoral theory and TCM influence traditional Thai medicine (TTM), which also integrates into folk medicine, Khmer medicine, as well as beliefs in Buddhism and animism (Bamber, 1998; Del Casino, 2004; Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003, 2007). Basic knowledge, health care, and recipes for making dishes, drinks, and herbal medicines of TTM has been recently organized and published in Thailand by the Department for the Development of Thai Traditional and Alternative Medicine (2004). Anthropologist, Pierce Salguero (2003, 2004, 2006, 2007) studied TTM in Thailand and published four English books for a broad audience. To provide a reader the fundamentals of traditional family postpartum care, I present foundations of TTM based mainly on a review of those five books.

Practitioners of TTM believe that health and wellness is a balanced status of the self (the body, mind-heart, and energy), especially the body's elements (Earth, Wind, Fire, and Water; Salguero 2003, 2007; Bamber 1998; Department for the Development of Thai

Traditional and Alternative Medicine, 2004). Each element is further classified into internal and external portions, both of which have to be balanced to maintain healthy. Based on levels of systemic education and knowledge organization, TTM is divided into two traditions. The first isThai medicine, or *phaet phaen thai*, a royal tradition well organized and developed. A healer in this tradition needs formal education to learn the knowledge formally and scientifically and a license to practice (Del Casino, 2004; Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2007). The second is village medicine, or *phaet pheun baan*. It is a rural or hill-tribe tradition comprised of practices that are more informal, local, varied, and spiritual, less scientific by western standard (Del Casino, 2004; Salguero, 2006).

Human life or *self* in Thai philosophy is a holistic combination of body (the substance making up a physical self), mind-heart (the entire non-physical human being encased in the physical body), and energy (the vigor that binds the body and mind-heart together; Salguero, 2003). The body is believed to be composed of four elements: Earth, Water, Fire, and Air, each of which is further divided into an internal and external portion (Bamber, 1998; Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003). For example, internal portions of the Earth, Water, Air, and Fire elements are skin, blood, respiration, and body temperature, respectively, while the external portions are dirt, rain, wind, and heat from the sun. Practitioners of Thai medicine believe that sickness is caused by imbalance of the self and humoral elements.

Treatments to rebalance the self are separated into three disciplines according to the affected essences. Spiritual healing is devoted to maintaining the balance between mind and body; Thai massage is used for energetic maintenance; and dietary regimens and herbal

medicine are employed for body therapy (Salguero, 2003). Dietary regimens are central to physical treatment in TTM. A healer will first examine the gastrointestinal system of a sick person before prescribing dietary therapy to correct the imbalance. Herbs will be used as the last resort and as a supplement to dietary regimens. Thai herbal medicines, including food, herbs, and minerals, are classified into ten *tastes* according to their primary taste. Those are astringent, oily (nutty), salty, sweet, bitter, toxic, sour, hot (spicy), aromatic (cool), and bland. The taste links the diagnosis and the therapy because each element relates to several tastes and organs (Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003). For example, the Fire element, which affects body temperature, circulatory system, and metabolism, is negatively related to astringent, sweet, bitter, bland, and aromatic tastes, but is positively associated with oily, salty, toxic, sour, and hot (spicy) tastes. The Fire element imbalance is believed to cause disease in the Fire element organs, the heart, and circulatory system. Herbs with a specific taste will be prescribed with regard to the excess or depletion of the element. Excessive Fire element will be decreased by taking astringent food such as guava and mangosteen, or other herbs in the sweet, bitter, bland, and aromatic taste groups. Diminutive Fire element, on the other hand, will be increased by taking salty flavored food such as oyster and sea salt, or other herbs in the oily, toxic, sour, and hot taste groups.

Herbs in TTM are also grouped by their actions (Salguero, 2003). Among the 20 or more possible actions, there are four groups that are widely used among Isan women during yuu fai. Those include general tonics, female tonics, blood and lymphatic tonics and vulnerary tonics including emollient herbs. General tonics are herbs that strengthen the body, encourage immunity, and promote the natural healing process. Female tonics are more

specific to the female reproductive organs. Some are prescribed to strengthen the uterus during pregnancy, while the others are used to heal the reproductive system immediately after giving birth. Blood tonics and lymphatic tonics are used to treat bad blood and lymph, apparent in symptoms such as rashes, acne, boils, fainting, and fatigue (Salguero, 2003). Finally, vulnerary and emollient herbs are typically applied to promote the healing of wounds and burns of the skin. These herbs can be used both externally and internally.

According to TTM, childbirth unbalances the body, mind-heart, and energy. Excessive loss of blood, embryonic fluid, sweat, and urine decreases the Water element. A perineal wound is damaging to the Earth element. Pushing in second stage changes the Air element and a woman's physical efforts during labor depletes her Fire element. It is believed that these bodily instabilities can quickly have a negative effect on the woman's mind. She may have depression, anxiety, and fatigue after giving birth due to the resulting imbalances in these elements (Salguero, 2003). The energy that binds her body and mind together is also believed to be torn apart, resulting in low immunity. The now vulnerable body can be exposed to illness which can further compromise the balance of the three essences. To rebalance the body, mind, and energy, Isan postpartum women in this dissertation study observed four main traditional practices which included restricting food consumption, yuu fai, taking hot herbal baths, and drinking hot herbal concoctions. A description of each of these rituals is presented in the following section of this chapter and will be discussed in relationship to TTM belief.

Researchers in previous studies about postpartum Thai women explained that childbirth brings the woman's body into a cold state, whereby she is weak and susceptible to injurious agents (Liamputtong, 2004). However, studies about dietary practices in Thailand

have not categorized food consumed by postpartum women into hot or cold groups (Kaewsarn, et al., 2003b; Ketkowit, et al., 2004; Liamputtong, 2004; Whittaker, 1999), although they have mentioned the cold condition of these women. Foods were not consumed or avoided because of their hot or cold properties as described in TCM, but because of their potential to cause an imbalance of wind in the body. To drive out the coldness, Isan women used heat from embers and drank hot water or hot herbal tea (Kaewsarn, et al., 2003b; Whittaker, 1999). Northern Thai women avoided strong smelling food because they can cause *lom phit duan*, which means "wind illness caused by doing something wrong in the postpartum month" (Liamputtong, 2004, page 85). Isan women avoided food considered to be *phit* (harmful, poisonous), believing that ingesting these food could cause *lom phit*, which means afflicting wind due to the disruption and movement of the Wind element (Whittaker, 1999).

The concept of *phit* food in Isan is similar to the concept of *bisa* food in Malaysia (Laderman, 1984). Malays believe that particular food can cause digestive disorders and postpartum hemorrhage in women. Those food are called *bisa* (i.e., certain kinds of fish) are therefore not consumed by a new mother. Isan women consume less buffalo meat due to the belief that it is harmful and poisonous for postpartum women (Kaewsarn, et al., 2003b). In Laos, it is believed that eating white skinned animals can lead to weakness (Barennes, et al., 2007). On the other hand, it is traditional wisdom that consuming particular foods can benefit a woman's health. For example, consuming grilled animal meat is believed to prevent cardiac failure and heal internal organ injuries (Barennes, et al., 2007). Additionally, it is customarily accepted that eating proteins, vegetables, and fruits will assist breast milk production, aid postpartum recovery, and promote the baby's health (Kaewsarn, et al., 2003b). Likewise,

consuming pickled vegetables, pickled fruit, and spicy food can positively affect babies' health and uterus involution. The principles and beliefs of TTM will be examined for their benefit or potential harmfulness on the practices of the postpartum women in this study.

The following section will critique Asian studies (Thailand, Laos, Taiwan, and China) on traditional postpartum practices, specifically examining the perspectives and actions of those populations. Specific areas will include postpartum eating behaviors, factors affecting women's health in the postpartum period and biologic study of traditional food, designed to improve nutritional status.

Postpartum Eating Behaviors in Celected Asian Countries

Studies on Thai traditional postpartum practices were carried out in the north (Jinjiranun, 2003; Thaigla & Peerapakorn, 1982) and Isan (Kaewsarn, Moyle, & Creedy, 2003a; Kaewsarn, et al., 2003b; Whittaker, 1999). Thaigla and Peerapakorn (1982) conducted a descriptive study on postpartum eating behaviors with 70 teachers delivering in Chiang Mai hospital. The researchers developed a questionnaire by interacting with 19 postpartum mothers; however, they did not describe content validation or pilot testing. Data were collected through interviewing participants using open-ended questions, observing food brought from home, and talking with the participants' visiting relatives. The researchers found that around 60% of the participants avoided eating certain foods, especially protein-rich sources such as beef, water buffalo meat, and chicken for at least a month after the birth. The participants practiced food avoidance because they followed their elders' suggestions and/or were afraid of phit duan (doing something wrong during the confinement month).

The strength of this study was the use of multiple sources and methods of data collection. However, the sampling designs and data collection procedures were weak. The

researchers employed non-probability sampling, resulting in selection bias toward higher educated and upper income participants. Data were collected in a clinical setting concurrently with individual nutritional education. The researchers, having observed unhealthy eating behaviors, would give participants and their relatives' advice. This information was likely to influence the other participants' answers. The procedures could lead to self-report bias, narrowed applicability of study results, and placed burdens of stress and privacy on the participants.

Jinjiranun (2003) conducted a qualitative study to learn about traditional postpartum care in Chiang Mai. The key informants were 10 women within one year postpartum, a group of the elderly and community leaders, and a group of grandmothers. The researcher employed method triangulation (in-depth interviews, informal interviews, non-participant observations, field recordings, and document study) and person triangulation (up to one year postpartum women, community health volunteers, community leaders, and grandmothers and elders with delivery experience). Data were analyzed using an analytic induction technique. She found that postpartum women observed traditional care under their female relatives' supervision. Foods avoided were soup, beef and other kinds of meat, pickled food, spicy food, and those that smelled strongly. Vegetables were not allowed in the first week. Permitted food included rice, black chili, sticky rice cake, pork, and certain fish. Roasting was the preferred method for cooking since it smelled less. Failure to follow these practices was believed to cause lom phit duan, which included symptoms of dizziness, nausea, vomiting, headache, fatigue, madness, loss of consciousness, and eventually death. Eating forbidden food might cause diarrhea or delayed drying of the baby's umbilical cord. The strengths of the study included the researcher's background and rapport with the people in

this community as a government official before going back to graduate school. However, this may also have been a limitation and potentially raises some ethical issues, which were not discussed, nor was there a report of how she recruited participants. There was also lack of confidentiality as she exposed the names and addresses of all informants in the appendix and methodological concerns about data collection.

Whittaker (1999) conducted an ethnographic research in a village in Isan for 18 months. The purpose of the study was to expand the concept of authoritative knowledge between biomedicine and traditional medicine related to heath behavior. In the first survey conducted in 1992, the researcher collected data about birth and postpartum habits from 67 women aged from 20 to 60 years. The follow up survey was conducted with 57 women who gave birth in 1992. Additional, in-depth interviews were conducted with 36 mothers and six traditional birth attendants and midwives. To increase the trustworthiness of the data 11 births were observed at provincial and district hospitals and in-depth interviews were conducted with obstetric staff members at both sites. Data analysis processes were not presented. The results showed that many postpartum mothers took the advice of their female relatives about yuu fai and observing food restrictions, instead of the nurses' advice that it was not necessary to do so. Villagers believed that failure to practice postpartum dietary restrictions might cause nausea, diarrhea, or chronic illness. These mothers might not truthfully answer questions about their rituals if they thought it was not in accordance with contemporary nursing practices. Food allowed during the postpartum period such as sticky rice with salt or rice soup might not contain enough essential micro-nutrients for the new mothers. Additionally, some traditional medicinal tonics with unknown properties might even be harmful to maternal and/or child health. Limitations of this study are primarily

methodological as there was no description of the study procedures and positionality of the researcher. This study was done nearly two decades ago and may not be congruent with current socioeconomic changes in Isan. However, it is one of a very few qualitative studies conducted about postpartum practices of Thai women.

Kaewsarn and colleagues (2003b) conducted a descriptive study with 500 healthy women residing in Ubon Ratchathani, northeastern Thailand. Participants were at least 18 years old and 6-10 weeks postpartum. They were recruited from a provincial medical center and district hospitals by using a quota sampling technique. The researchers developed the questionnaire by reviewing literature and exploratory interviews with a convenience sample of nine elder Thai women and nine Thai women of reproductive age in Australia. The items were formed after discussion with experts in the field of midwifery and childcare and then tested with nine Thai women in Australia. They employed a self-completed questionnaire to gather information about traditional postpartum home care. The results showed that 87.6% of women practiced consuming hot drinks and 78.8% practiced food restriction. Hot drink practice lasted between one day to a year (M = 39 ± 35 days) and food restriction lasted between 2 days and 24 months (M = 62 ± 75days). The postpartum women seriously observed food restrictions during yuu fai which lasted from 1 to 19 days. The women reported that they consumed three food groups: protein, vegetable, and fruit. The least consumed food was water buffalo meat since it was believed to be harmful to the women. The reasons given for observing food restrictions were to support breast milk production, to sustain postpartum recovery, and to enhance the baby's health.

The researcher found that women who were younger, with less education, and holding unskilled jobs were more likely to follow traditional practices. There was a

significant difference between education and food restriction ($p < .01$). There was also a significant association between women's occupation and taking hot drink ($p < .01$) and food restriction ($p < .01$). The authors provided a table of food eaten, but, surprisingly, did not mention the food rice and other starchy food groups which are the most consumed food among Thais (Taechangam, Pinitchun, & Pachotikarn, 2008). Neglect of this food group may have occurred during the development of the questionnaire because it was constructed using information from nine Thai women in Australia. The starchy food might be taken-for-granted by this pilot group. Moreover, the questionnaire was designed for Yes/No responses, thus, limiting participants' answers. The authors claim content and face validity (the capability of the items in an instrument to measure the concepts; Higgins & Straub, 2006) of the questionnaire, but reliability was not presented. This is a flaw in the study because "reliability is not prized for its own sake but as a precondition for validity; and unreliable measure cannot be valid." (Lincoln & Guba, 1985, p. 292) Those limitations potentially affect the usefulness of this instrument for studying postpartum women in Thai border areas.

Ketkowit and her colleagues (2004) conducted a cross-sectional study to explore and describe the existence of traditional practices of Isan postpartum women. They used single stage cluster sampling to draw a pool of 69 villages from 148 villages. The researchers administered a questionnaire to collect quantitative data about demographic background, obstetrics history, postpartum practices, and the first year of child care. They obtained qualitative data from direct interviews with 493 mothers who had children aged 0-2 years old and in-depth interviews and focus group discussion with 24 mothers and 24 senior citizens. The researchers analyzed qualitative data by using content analysis technique and quantitative data with the Epidata 2a and STATA programs. The results indicated that 41%

of women practiced yuu fai. Of them, 10% consumed rice with salt, garlic, and lemon, 35% consumed rice with roasted pork or chicken, and 25% ate as usual. After being out of yuu fai, they would eat food believed to increase breast milk volume. Most women (80%) consumed banana flower soup while some consumed vegetables (25%) and fruits (18%). More than half (54%) of the women consumed various kinds of traditional remedies, such as herbal medicine, herbal tonic, and vitamins. Food considered harmful was forbidden since it could cause *phit kra boon,* demonstrated by dizziness and decreased breast milk. Because of this belief, half of the women did not eat mandarin duck, 41% did not eat *phak khaa* (*Acacia pennata, Lace*), and 23% did not eat giant water bugs.

The researchers did not mention to the questionnaire's development, including psychometric properties, therefore, the findings are questionable. The researchers employed probability sampling, which enhanced accuracy and representativeness of the samples. However, the use of cluster sampling, instead of simple random sampling, may have diminished this (Shackman, 2001). The researchers were only able to recruit 493 participants, which was less than their calculated sample of 618 women. All six interviewers for quantitative data collection were students of the School of Public Health, who were familiar with the research sites. They were well trained by the researchers and conducted interviews under researchers' supervision. In the data analysis process, the authors clearly described how they managed and analyzed the quantitative data. Qualitative data analysis, on the contrary, needed to be more detailed. They stated that content analysis was used, but did not mention to the process employed. This research shows that local wisdom plays a role in postpartum care and that serious food restrictions are still followed by Isan women.

The following is a critical review of research in Chinese communities, including mainland China, Hong Kong, and Taiwan. These are reviewed because Chinese and Thais share beliefs and values that underpin these practices. Research in Laos is also reviewed because Laos and Isan people historically have the same background, such as ethnicity, language, and diet.

In Hubei, Mainland China, Liu and colleagues (2006) conducted a cross-sectional survey of 2,100 Chinese women belonging to the *Han* group (one of the minority groups in China) who had given birth in the past two years. The purpose of the research was to describe the prevalence of postpartum practices and identify their influential factors. The researchers recruited participants from urban, suburban, and rural areas by employing cluster-stratified sampling. Interviewers collected data by using a pre-test questionnaire that gathered historical data on socio-demographic characteristics, obstetric history, physical activity, and dietary and health practices. Data on dietary intake were collected by a retrospective food frequency questionnaire which was composed of 16 food categories. Data were collected by trained investigators or interviewers, but there was no description of who they were and how they were trained. The investigators asked participants to recall frequency and approximate amount of food consumed over the puerperal period. They estimated food quantities in grams and milliliters and used cups, bowls, and spoons to help recalling and measuring food. The frequency of consuming a particular type of food was recorded on a daily, weekly, or monthly basis.

The most frequently consumed foods were egg, brown sugar, carassius fish, poultry, pig's trotter, and rice wine, while spicy, raw, and cold food were restricted. As a result, 18% of the participants never ate vegetables, 79% never ate fruits, and 76% never drank milk.

Most of them (78%) believed that cold food was prohibited. About 75 % of the women said that their mothers or mothers-in-law arranged their diet. Factors that influenced women's practices were education levels of women and their spouses, resident locations, family income, postnatal visits, and attending nutritional courses. Urban women consumed more fruits and milk and less vegetables than their rural counterparts. Living in the countryside was a negative influencing factor for milk intake, while residing in city, attending nutritional education classes, having a higher education level, and a higher family income was a positive influencing factor for milk intake. A decreased intake of fruit was associated with living in a rural area and belief that fruit was cold in nature. An increase in the intake of fruit, on the other hand, was related to living in an urban area, a higher education level, a higher family income, attending nutrition education course, and having the knowledge that fruit intake is allowed while *in the month*. Foods cooked by mothers or mothers-in-law were negatively associated with vegetable intake. Living in a rural area, a higher education level of husbands, and having the knowledge that vegetable intake is permitted *in the month* were positively associated with vegetable intake.

The research was strengthened by studying a large group of participants who came from diverse living locations, socioeconomic statuses, and education levels. The response rate was high at 94%. Potential independent variables, which had a significant relationship with the response variables at the $p < .05$ level, were clearly stated. However, the authors did not refer to instrument development or testing. In addition, the results cannot be generalized to the other minorities since most of the participants were from the majority *Han* group. Thus, limitations of the retrospective survey were lack of description of development and testing for validity and reliability, as well as recall bias.

Barennes and colleagues (2007) conducted a cross-sectional study in 41 randomly selected suburb communities (15-25 km from the city center) of Vientiane, the capital city of Laos. The researchers recruited all mothers with a child aged less than 180 days from the selected villages and 300 pairs of mothers and their infants participated in the study. Data about household economic status, morbidity, and dietary intake were collected by the interviewers using a structured questionnaire of 45 items; however the questionnaire development was not described. The researchers applied the 24-hour diet recall method to gather maternal and child food consumption data and samples of the capacity of typical local bowls and cooking tools were taken with scales calibrated to $\pm$ 5 g to measure average quantities of food items. Vegetable weight was estimated using pre-calculated weights based on the size and number of leaves during a pilot study. Dietary intake was estimated for protein, lipid, energy, and vitamin using food composition tables for Asia and compared with daily dietary allowances for lactating women. Chi square and Fisher's exact test were used for category variables, Student's *t*-test and analysis of variance for normally distributed continuous data. A multivariate analysis was used to analyze the socioeconomic factors associated with the antenatal care, the places of delivery, observances of postpartum practices, and malnutrition among mothers. The results showed that 90% of the mothers restricted diets and 95% drank traditional herbal teas as the only beverage. In the first two weeks, they consumed rice with meat or fish only (36%), rice with salt only (16%), and rice with salt during 3 days, then rich with dry meat or fish (48%). They did not consume any vegetables in this period. During the first month they avoided eating raw or fermented vegetables, fruits, meat, white skinned mammals, liquid meals and sauces, and sugar and spices. The majority of mothers (82%) had an unrestricted diet by the third month

postpartum. Eating grilled food without fruits and vegetables was believed to prevent cardiac failure (41%) and/or heal internal organ injuries (37%); whereas eating white skinned mammals was believed to lead to weakness (percentage not specified). Herbal tea was considered to be beneficial for lactation (70%), healing of tissue injuries caused by delivery (67%), and for prevention of cardiac failure (29%). The nutritional adequacy of protein and micronutrient intake of the mothers with restricted diets during the first two weeks was lower than after that period. Due to low dietary diversity and excessive intake of glutinous rice, the mothers' nutritional status was lower than the standard recommendations for lipids, protein, and micronutrients. Approximately 8% of the mothers were underweight (BMI $\leq$ 18.5 kg/m^2). They had insufficient intake of calories (56%), lipids (67.5%), iron (92%), vitamin A (99%), vitamin C (45%), thiamin (97%), and calcium (97%). Factors that influenced maternal nutrition status in this study were lack of access to health care, no or only basic employment, and long time interval after delivery. The strength of this study was the large, randomly selected sample. The sample size was calculated based on the basis of 78% of mothers observing food avoidances, $\alpha = .05$, and $\beta = 0.9$. Type I error was appropriated and clearly stated at $\alpha = .05$. Limitations included: (a) recall bias; (b) potentially inaccurate estimations of macro-nutritional value and micro-nutritional loss by food processing; and (c) a lack of accounting for factors that might impede the bioavailability of nutrients, such as herbal tea and fermented fish paste which contain thiaminase. A threat to external validity exists since the participants came only from the outskirts of the capital city. Although the results may not be generalized to postpartum women in different countries, they may be applicable in studying Isan postpartum women to some extent because people in Isan region

originate from Laos. They share common cultural values, especially in regard to dietary practices and local dialects (Phatharathananunth, 2006; Tambiah, 1975; Whittaker, 1999).

Factors Affecting Women's Health in the Postpartum Period

Chien and colleagues (2006) conducted a cross-sectional study of 202 postpartum women at 4-6 weeks after delivery. The study's objective was to examine the association between adherence to doing-the-month, a 1-month confinement period in Chinese postpartum women, with physical and depressive symptoms. The researchers recruited a convenience sample from two hospitals and one postpartum care center in Taipei. Participants recruited from the hospital received mail questionnaires in the third week postpartum, while those from postpartum care center received them by hand delivery 4-6 weeks after the birth. The researchers checked the completeness of questionnaires and gave the participants a call if they did not fill out the questionnaire completely. There were three tools used for data collection: a) the Chinese version of the Center for Epidemiologic Study Depression Scale (CES-D), b a measure of the severity of postpartum physical symptoms (PPS) and c) a measure of adherence to doing-the-month practice (ADP). All were valid and reliable for this study. The ADP was developed based on literature review and clinical observations. Five experts (including an obstetrician, a TCM doctor, a nurse researcher, a head nurse of the postpartum ward, and a senior nurse in the postpartum care center), rated the correctness, appropriateness, and clarity of the questionnaire. Scale as assessed by the content validity was .95. Finally, the researchers pilot tested the instrument with six postpartum women to assess the semantic clarity and readability.

Descriptive statistics, Pearson's correlation and Student's *t*-test, multivariate linear regression, and multivariate logistic regression were used. The ADP has 27 items; each

item's score ranged from 0 (*never*) to 4 (*always*). Thus, the total score ranged from 0 to 108. The ADP overall mean score was 75.7 (*SD* = 14.5). There were 11 out of 27 items in the ADP that related to diets. Of those, six items were practiced *most of the time* (a mean adherence level is greater or equal to 3): avoiding raw food and salads, not consuming cold drinks or ice products, avoiding spicy and/or hot food, avoiding toxic food, avoiding eating cold food, and avoiding eating hard food. There was lower severity of PPS found in women who had a mother-in-law as the primary caregiver. Using a cut-off score of CES-D of 15 (a score used in previous use of the instrument in Chinese populations), the researchers found that 30% of women were at risk for postpartum depression. After adjustment for potential confounders, the adherence to *doing the month* practices was associated with lower severity of physical symptoms and lower odds of postpartum depression.

For the bivariate correlation between ADP and PPS, the Type I error was set at $\alpha = .05$ and assumed type II error at $\beta = .02$ which were strong enough for a social study (Shadish, Cook, & Campbell, 2002). In multiple linear regression, they set r^2 at moderate level (.13) to get an effect size of .149, $\alpha = .05$, and the number of predictors = 10. This study needed at least 197 participants to achieve a power of 0.80, which was achieved. Unfortunately, the sample failed to be a representative sample of Taiwanese postpartum women. Participants were older, had higher education, and were more likely to have a Cesarean delivery compared to the national population. Moreover, the study was limited by self report bias. A longitudinal, clinical with population-based sampling and study should be done in the future research.

Another cross-sectional study performed in Taiwan was conducted by Chen and colleagues (2007) to examine women's health-promoting behaviors and related factors

during the first month of confinement. The researchers recruited a convenience sample of 122 postpartum women from two hospitals in Taipei. They invited eligible women to participate in the study via a telephone and then mailed the questionnaires with stamped self-address enveloped to the participants. They included a demographic questionnaire and three Likert scales used in the study: the Health Promotion Lifestyle Profile scale (HPLP), the Edinburgh Postnatal Depression scale (EPD), and a Social Support scale (SS). Higher scores on each instrument indicate a higher degree of the attribute being examined. The HPLP is a 48-item measure based on six dimensions of a health promotion life style using a 4-point Likert scale ranging from 1 (*never*) to 4 (*routinely*). It was tested in Taiwanese postpartum women and six items in the HPLP were modified. Subscales obtained the Cronbach's α ranked from .72 to .88. The SS is a 9-item instrument using a four-point Likert scale ranging from 0 (*no support*) to 3 (*a lot of support*). This scale established acceptable reliability (α = .77) and content validity (content validity index ≥ 0.86). The EPD is a 10-item scale scoring from 0-30. A threshold score of ≥ 12 was used to classify postpartum women with a probable major depressive illness. The reliability of the EPD in this study is good at α = 0.84.

The researchers used descriptive statistics, analysis of variance, Pearson *r* correlation and a multiple regression analysis. The results indicated that the majority of participants (80%) received support from mothers-in-law (47%) or their own mothers (33%). On a 1-4 scale, the average over all score of the HPLP was 2.83 (*SD* = 1.35); all of the women were in between *sometime and often* on engagement in nutritional-promoting behaviors (mean of nutritional subscale = 2.78, *SD* = 1.55). The women perceived that they received social support between *some and a lot* (SS mean score = 2.42, *SD* = .49) from the mother-in-law, mother, and husband. They typically felt some postpartum blues (The EPD's mean score =

10.99, *SD* = 5.37). Women suffering more severe postpartum depression symptoms were less likely to engage in health-promoting activities of nutrition (r = -0.28, p = 0.002), while those who perceived a higher level of social support were more like to engage in those activities (r = 0.30, p = 0.001). Postpartum depression and social support were significant predictors for nutrition behaviors (F = 10.38; p = 0.001). Strengths of the study included the use of reliable and well validated instruments which were tested in this population, a good response rate at 69%, an appropriate significance level ($p < .05$), and adequate power. Moreover, the sample was calculated using Cohen's convention for a moderate affect size of 0.3, and previous response rate of postal questionnaires at 20%. Although the researchers adopted non-probability sampling, their participants' characteristics reflected the Taiwanese population and the findings can only be generalized to other populations with caution. The findings may also reflect self-report bias and not actual behaviors.

Biological Study of Traditional Food

A biological study in Taiwan is reviewed here in an effort to examine scientific evidence on traditional food which may affect maternal and child health. One food that interested the researchers was chicken soup flavored with sesame oil and rice wine (CSSR), which contains 19.5% alcohol. CSSR is a popular traditional Chinese food item that may biologically affect infant health since it contains alcohol, which is excreted via breast milk. Chien and colleagues (2005) examined the pharmacokinetics of alcohol in 23 postpartum women who normally consumed CSSR. The researchers recruited a convenience sample from a hospital in Taipei. Samples were drawn from the mothers' breast milk, serum, and CSSR.

Alcohol analysis of the breast milk and CSSR was done using a gas chromatograph equipped with a flame ionization detector, whereas the analysis of serum alcohol was done with a commercial test kit. The researchers employed descriptive statistics, a nonparametric Wilcoxon singed-ranked test, and a correlation to analyze data. They found that the mothers' blood alcohol level peaked at 20 minutes after eating CSSR and decreased almost linearly to zero level after approximately 3 hours. The coefficients of variation in subject alcohol concentration were 16.5 – 46.2% (*M* = 30%) for blood and 32.8-57.6% (*M* = 44%) for milk. Mean maximum alcohol concentration in blood (30.2 $\pm$ 5.0 mg/dl) was achieved at 23.5 $\pm$ 7.6 minutes and in milk (31.6 $\pm$ 10.3 mg/dl) at 31.7 $\pm$ 12.7 minutes. Potential infant doses were 30-58.8 mg (*M* =13.4 mg), and the predicted time required for milk alcohol level to return to zero level was 175 minutess. The acute health risks for infants exposed to alcohol through their mother's milk under the current exposure scenario were low. Hazard index, the estimated worst-case infant dose divided by a reference dose, was lower than 0.2.

The bio-physiological approach was appropriate to examine the concentration-time relationship of alcohol in women after consuming CSSR. However, error could occur if there were participant biological differences (such as age and body size), individual differences in responding to a certain measurement, the sampling and handling process (sampling the wrong mothers or using the incorrect containers, for example), and data analysis errors because of tired technicians or unreliable equipment (DeKeyser & Pugh, 1990). Additionally, maternal factors such as food, drugs, physical activities, or stress may influence the personal alcohol pharmacokinetics. The authors in this study adequately described the CSSR preparation, sampling protocol, data collection, data analysis, and confounding factors that could occur during the experiments. In collecting 2 ml breast milk, for example, they applied

an electric breast pump to each participant at 10, 20, 30, 40, 60, and 90 mins after consuming CSSR. This detailed information indicated the study was carefully conducted and that they addressed any problematic possibilities.

No physiological studies have been employed to study traditional food consumed during the postpartum period in Thailand. Effects of food, especially those containing local herbs, on maternal and child health are questionable. Thavondunstid and colleagues (1993) identified many herbs consumed, drank, and bathed in by Isan villagers, but were unable to describe their pharmacology. Most northern postpartum women (90%) drink herbal tea made by boiling pu loei (*Zingiber Cassumunar Roxb*.) in water, which is believed to expel bad blood (Kaewvichien, et al., 1997; Liamputtong, 2004). Pu leoi contains a uterine relaxant compound (Kanjanapothi, Soparat, Panthong, Tuntiwachwuttikul, & Reutrakul, 1987) which is the most likely cause of increased postpartum hemorrhage. More importantly, pu leoi causes hemolysis in animal experiments, and this could theoretically cause jaundice in the mothers and the infants (Kaewvichien, et al., 1997; Liamputtong, 2004). This has not been studied in humans. In Thailand, little is known about certain kinds of food and their biological effects on maternal and child health.

Family Dynamics in Postpartum Practices

Once an Asian woman gives birth, one of her family members usually becomes her primary caregiver. The caregiver provides care for the woman and her baby, assists in household chores, gives advice, and is in charge of the postnatal dietary practices. Therefore, family members have an effect on a postpartum woman's decision on whether she should observe traditional dietary practices or not, and how those are implemented. In Thailand the primary caregiver is usually the postpartum woman's mother (Kaewsarn, et al., 2003b;

Liamputtong, 2004). In Chinese culture, the main caregiver is usually the mother-in-law (Chen, Kuo, Chou, & Chen, 2007; Leung, Arthur, & Martinson, 2005; S.-F. Tien, 2004). Other family members who participated in the postnatal care tradition are the husbands, sisters, grandmothers, female relatives, and children. If a family member is not available, the women may hire a person to be her helper (Holroyd, Twinn, & Yim, 2004; Kaewsarn, et al., 2003b; Leung, et al., 2005).

A postpartum woman's health status can be influenced by her caregiver. For example, Liu and colleagues (2006) found that food cooked by a mother or mother-in-law was negatively related with vegetable intake. A study in Taiwan (L. Y. Chien, et al., 2006) found that women with mothers-in-law as the major caregiver had lower risks of physical postpartum symptoms than women with their mothers or husband as major caregivers. Nevertheless, the relationship between the woman and her caregiver, or that among the caregivers may not be smooth. Four studies related to caregivers are reviewed in this section: (a) a study in the north of Thailand which presents a conflict between a daughter and mother (Liamputtong, 2004), (b) a study on mother-daughter relationships in Taiwan (Tien, 2003), (c) a study in Chinese postpartum women and parties involved in their care, including family members and health care providers (Raven, et al., 2007), and (d) a study on women's perception of stress and support (Leung, et al., 2005). Four criteria (credibility, dependability, transferability, confirmability) suggested by Lincoln and Guba (1985) are used to critique these qualitative research studies.

Liamputtong (2004) used a phenomenological approach to understand how women practiced postpartum traditional care. The sample was purposive and recruitment was by personal net work and snow ball techniques. She conducted in-depth interviews with15

women from rural areas and 15 women from urban areas in *Chiang Mai*, northern Thailand. Thematic analysis revealed that postpartum women in the provinces believed that childbirth made their body cold and vulnerable to harmful agents. To protect the body, they would observe traditional practices called yuu duan (staying for a month) which consisted of activity and diet precautions. They would avoid strong smelling food such as lemongrass, spring onion, and *cha om* (*Acacia pennata*, in Isan *phak khaa*) because they were believed to cause a traditional-bound syndrome called lom phit duan. Most women mentioned their mothers and sisters as primary caregivers, while others pointed to their mothers-in-law or grandmothers. Although female kin were the main supporters, husbands took up their role in yuu duan. They took care of the newborns, washed nappies, helped with household errands, and cooked. If there was no family member available some middle class women would hire a neighbor or a maid to help them. The helper usually did household chores and prepared food. Most women were willing to observe yuu duan in the first birth because they were told, and believed that the practices benefited their health. Conflict between the postpartum woman and her mother, however, occurred for a few urban women during the second birth. They stated that once they had observed the traditional practices, they did not feel it was necessary to do so again.

Liamputtong clearly presented family roles and conflict in her result, while studies in Isan (Kaewsarn, et al., 2003b) were dissimilar. An example of conflict is demonstrated in one mother's comment, "It is up to you, I have warned you but you not listen to me. Whatever will happen to you then it is your problem." (p. 90) Although the mother acknowledged her daughter's decision, she believed the consequences were the daughter's responsibility. Liamputtong established credibility by collecting data from urban and rural areas and

providing variation in the sample. There was minimal description about the process of transcription and data management, data analysis, research team, or limitations. From this report, dependability and confirmability were uncertain, but the descriptive data and narratives could be used for transferability. The findings showed similarities in cultural practices by women in the north and northeast region where I conducted my study.

The following research studies were conducted in China (Raven, et al., 2007) and Taiwan (Tien, 2003). They were selected to be reviewed and critiqued because family members were studied in relationship to the postpartum women's health. Tien (2003) explored why a postpartum woman chose her own mother as primary caregiver, the significance of mother-daughter interactive behaviors, and patterns of caring behaviors and reactions of the daughter. A convenience sample of three pairs of postpartum women and their mothers was recruited. Data were collected by interviews and participant observations during the first day and the eighth day postpartum. The researchers built a good rapport with the participants while he/she was providing clinical care. The researchers analyzed data by using content analysis. The behaviors were systematically analyzed and categorized using an inductive approach. Four main concerns of the postpartum women were identified: a) choosing their mother to help, b) baby care, c) caregiver's desire, caregiver's load, and d) caregiver's health. The mothers played significant roles in caring and nurturing. They wholeheartedly cared for their postpartum daughters by providing fresh and nutritious food and giving assistance. They applied their own experience to show the nurturing behaviors by giving their daughters guidance. The daughter, on the other hand, had three categories of behaviors of interacting with their mothers: approach, nostalgic, and appreciation behaviors. They felt comfortable in asking their mother for help, liked their mothers' cooking, and were

grateful for their mother's endeavors. The care and nurture of the mother obviously helped postpartum women accept the traditional food provided without pressure and they had more time to take care of their babies. The relationships between them seemed positive; there were no conflicts mentioned.

The inclusion criteria and rigor of the study were clearly described. The researcher established the credibility of the study by providing the reader with his/her background in doing qualitative research. The participants had good relationships with the researcher and were willing to share their experience. The author mentioned a peer review coding and re-coding process and inter-coder reliability, but he/she did not state who the peers or inter-coder were or the basis of their credibility. Thus, the dependability of the study is questionable. The researcher collected data in a natural environment to assure transferability of the results to a clinical context. Confirmability was enhanced because the researcher wrote the results of the interviews within three hours to avoiding missing detail data and he/she repeatedly examined the original data while developing the code categories. Even though the number of participants is less important than richness of data, the researcher recommended to increase the number of participants and to gather more detailed data in future studies. Extending the field of participants to include relationships between a postpartum woman and other people such as her husband, in-laws, and hired helpers was also suggested.

A study by Raven and colleagues (2007) in Fujian province, China, offers views of more aspects of family function because more members were involved. They studied traditional beliefs and practices during the first month postpartum called *zuo yuezi* (doing the month). The researchers conducted interviews with 36 family members from 12 families, four health workers, and four traditional medicine practitioners but no specific method was

described. Six families were from a rural area and the other six from urban settings. Participants interviewed from each family included the postpartum woman, her husband, and her mother. The researchers evaluated the main themes they were studying by applying a framework approach. They used thematic frameworks to classify and organize data according to key themes, concepts, and developed categories.

Five major themes were identified including, the reasons for doing the month, dietary practices, hygiene, behavior precautions, and infant feeding. The main reasons for women to hold to the practices were respect for traditions and the advice of elders. The postpartum women were afraid of being blamed by family and community members if a problem were to arise for not following the practices. Conflict among family members occurred when knowledge from old sources (such as parents) did not conform to those from new sources (books, internet, and health care providers). A husband in an urban family said that it was difficult for him to make a choice when old family members and friends suggested his wife follow the tradition while the doctor gave different advice. Even so, most families tended to follow their parents' and grandparents' suggestions because they were not sure that the new way would be acceptable to them. On the other hand, others abandoned the customary practices because they were not sure that the old practices would be applicable for them. Conflict on dietary precautions happened between limiting the types of food that could be eaten and the increasing amount of food. For example, combination of two practices *eating more food* and *eating hot food* will become *eating more meat and eggs for a month* which lacked of a variety of food. Consequently, some women were bored from eating a few kinds of food in large amounts for a month.

The researchers established credibility of the study using three triangulation techniques: space, person, and investigator (Lincoln & Guba, 1985). Space triangulation was obtained from collecting data in both urban and rural sites, while person triangulation was achieved by collecting data from postpartum women, their family members, and health care providers. Investigator triangulation was acquired during data analysis when different researchers read and reread transcripts separately to identify emerging themes. The interviews were conducted and then transcribed in Chinese. The authors mentioned the process of translation but did not specify the language or dialect. The primary author and the translator cooperated in the translation process to reduce potential data loss.

Leung and colleagues (2005) conducted a phenomenological study with 20 Hong Kong Chinese women who observed doing-the-month practices. The researchers recruited participants by purposive sampling from five hospitals that provided tertiary health care for the Hong Kong population and interviewed the participants at around six months postpartum. The researchers used content analysis to examine the types of helpers, the kinds of help provided, and the participants' view of social support and stress. Furthermore, they employed phenomenological data analysis procedures to identify themes. The findings showed that the majority of care providers were mothers-in-law (n = 14) and mothers (n = 13). The activities of the caregivers or helpers were doing grocery shopping, carrying out household chores, and taking care of the babies; whereas the main tasks of a postpartum woman were eating, resting, and feeding the infants. Sources of stress during the doing-the-month period were placed into four themes: (a) bounded by the environmental constraints, (b) inconvenience in following the proscriptions of the ritual, (c) disagreement between the people involved, and (d) achievement of the maternal role.

Many of women in the study lived in a small flat. They felt loss of privacy and inconvenience because of so many visiting friends and relatives. They also experienced difficulties in following non-flexible practices, such as not being allowed to be exposed to the air to avoid a cold status. Thus, the women were unable to turn on an air conditioning when the weather was hot. Women after caesarean section were not permitted to consume ginger in vinegar with eggs or pork (a Chinese food believed to restore hot status of the postpartum body) since it was believed to be too hot. Thus, they worried that they could not regain good health like the women having normal deliveries would. They also felt that they lost a chance to develop an attachment with their baby and lost power over child care decision making because the caregivers did all child care, except for breastfeeding. Under these tense conditions, conflicts occurred between the new mother and the caregivers or among the caregivers. The mother-daughter conflict caused less stress than daughters-mothers-in-law conflict. Some daughters could release stress by scolding or screaming at their mothers, but they were unable to do so with their in-laws. Therefore, sometimes the mothers'-in-law help was not welcome. The caregiver-caregiver conflict might be seen in dietary practices. For example, a woman's mother encourages her to eat chicken soup immediately after giving birth, but her mother-in-law would not allow it because she reasoned there was too much wind inside the postpartum woman's stomach.

Credibility of the study was enhanced by collecting data from multiples sites, applying peer debriefing during the analysis of the data, and using member checking to confirm that the themes reflected participants' experiences. Additionally, the researchers were faculty in the school of nursing and two of them work in Hong Kong. The findings answered the research questions, but they were only perceptions of the postpartum mothers. Since the

phenomena of interest involved other family members, person triangulation, persistent observation, or prolonged engagement may be useful in a future study.

In summary, childbirth causes major changes in family functions and dynamics, especially during the first month postpartum. While a woman needs time to regain her health, she also has the new tasks of feeding her baby and developing attachments with the newborn. Therefore, family members take roles in supporting her. The main supporter in Thai society is the postpartum woman's mother, while in Chinese society it is the mother-in-law. The difference may come from the tradition that a Thai groom moves into a bride's family, while a Chinese's bride moves into a groom's family (Chen, et al., 2007). Most of the women conform to traditional suggestions. Those who do not want to do so may express negative emotions toward their caregivers. Negative expressions were used by a woman as a strategy to reduce the tension with her mother, but not with her mother-in-law. This review of literature clearly indicates the family roles during the confinement period, but a little is known about the pattern of how they solve problems or negotiate conflict issues.

Synthesis and Discussion

While traditional postpartum dietary practices are widely observed in the northeast part of Thailand, there have been very few studies to understand the experience of women during this phenomenon. Only three descriptive research studies (Kaewsarn, et al., 2003a, 2003b; Ketkowit, et al., 2004), one qualitative study (Whittaker, 1999), and two intervention programs (Saowakontha, et al., 2000; Thavondunstid et al., 1993) were found. I included research from other parts of the country and from some Asian countries to broaden any possibilities of identifying phenomena and issues which might be found in studying traditional dietary practices.

More than a half of the participants in Thailand practiced food restrictions after childbirth. Sixty percentage of northern Thai women avoided eating protein-rich food sources such as beef and chicken for at least a month after the birth (Thaigla & Peerapakorn, 1982), while most of them drank herbal tea made by boiling pu leoi or phlai (*Zingiber Cassumunar Roxb*) (Kaewvichien, et al., 1997; Liamputtong, 2004). Most Isan women practiced hot drink, food restrictions (Kaewsarn, et al., 2003b), and consumed various kinds herbal medicines and vitamins (Ketkowit, et al., 2004). Little is known about consequences of the strictly observed food avoidance which was found in 15-30% of Isan women (Thavondunstid, et al., 1993). Moreover, the pharmacology of herbs and/or tonics consumed by the women is difficult to determine since most of them have different names in each area they are native to (Thavondunstid, et al., 1993). Understanding their pharmacology is important to evaluate their safety for women and infants during the postpartum period.

Fruits, vegetables, and milk, rich sources of micro-nutrients and minerals, were rarely eaten. Most of Chinese women never ate fruit or drank milk (Liu, et al., 2006). Laos women did not consume any vegetables in the first two weeks (Barennes, et al., 2007). Some of the women might eat only rice with meat or fish or rice with salt. As a result, their nutritional sufficiency during the first two weeks post partum was lower than usual and lower than the standard recommendations for lipids, proteins, and micronutrients (Barennes, et al., 2007).

There was no study of Thai women focusing on psycho-social issues or family dynamics during the postpartum period in relation to traditional dietary practices and biological aspects of certain food. But, those were revealed in study of Chinese women. The researchers found that women who suffered more severe postpartum depression symptoms were less likely to engage in nutritionally health-promoting activities (Chen, et al., 2007).

Women who perceived a higher level of social support, on the other hand, were more likely to engage in those activities. Tien (2003) closely looked at mother-daughter relationships and discovered the patterns of their connection, and at times conflict, during confinement practices. Raven and colleagues and Leung and colleagues (2007) also found conflicts between the women and their caregivers (family member and health care providers) or between care givers themselves. Finally, Chien and colleges (2005) uncovered that alcohol from traditional food were excreted in the mother's breast milk for at least three hours post consumption.

A cultural gap between Isan postpartum women and nurses is suggested by Whittaker (1999). Some Isan women ignored nursing advice for their family members' recommendations. They avoided talking about the traditional practices when asked by the nurses. The women may feel inferior when in contact with nurses who have higher social status and educational level, while nurses may think that the practices are wrong and communicate this without trying to learn more about them and to enlist family members help. Methodological gaps were found in many studies. In two studies in Thailand (Jinjiranun, 2003; Thaigla & Peerapakorn, 1982) it was not clearly stated how the researchers designed their study.

Three studies were conducted many years ago and their findings might not be applicable in the current era (Thaigla & Peerapakorn, 1982; Thavondunstid, et al., 1993; Whittaker, 1999). All quantitative studies used cross-sectional design which is practical and economical, but lacks the ability to evaluate long term behaviors and their subsequent outcomes. Data obtained for observing dietary behavior or the woman-mother relationship at a single point in time may not be accurate if the women continue to observe the practices for

the rest of their life, as is found in the northern Thai women (Liamputtong, 2004). Another concern was that many studies recruited convenience samples. This non-probability sampling limited the accuracy and representativeness of the samples. Additionally, the potential for self-report biases might occur when some participants may distort their response to please the researchers or fulfill a socially desired role (Polit & Hungler, 1999). The researchers in two studies conducted in Isan (Kaewsarn, et al., 2003a, 2003b) administered instruments which were not tested in the population under study or psychometrically tested. The only other study conducted in Isan (Whittaker, 1999) the author, as an ethnographer, failed to describe how she engaged in the field work, recruited the participants, analyzed the data, or managed the language issues.

In summary, the future study on traditional postpartum practices in Isan women should focus on the unknowns related to consummation of food items, the patterns of the practices, and the influence of the practices on physiological and psychosocial aspects of women's lives during the postpartum period. In particular it is important to design studies that engage health professionals, women, and families together to collectively understand their perspectives, beliefs, and values and to build interventions based on this knowledge.

Chapter Three: Research Method and Design

Interpretive Phenomenology

This chapter will present how interpretive phenomenology was applied to study experience of Isan women in observing traditional postpartum practices. Hermeneutic philosophy is presented first to ground fundamental concepts of the methodology. This is followed by an overview and rationale for the choice of interpretive phenomenology for this dissertation research. The study design will be described, including setting, sample, data collection, and analytic procedures. Measures to assure rigor of the study will be described and will include a discussion of experience of a novice researcher using this research method.

Phenomenology seeks to describe how individuals experience a particular phenomenon (Creswell, 1998; Speziale & Carpenter, 2003). The phenomenological approach differs from other qualitative traditions in many respects, including its focus, data analysis, and use of narratives. For example, a phenomenologist concentrates on the meaning of experience when deciding upon the focus of a study, a grounded theorist on the social process, and an ethnographer on cultures and traditions (Charmaz, 2006; Creswell, 1998; Heyl, 2001; van Manen, 1990). The evolution of the phenomenology movement is often described as having three phases: the preparatory, German, and French (Speziale & Carpenter, 2003). The predominant scholars in the preparatory phase were Franz Brentano (1838-1971) and Carl Stumpf (1848-1936), Edmund Husserl (1875-1938) and Martin Heidegger (1889-1976) in the German phase, and Jean Paul Sartre (1950-1980) and Maurice Merleau-Ponty (1905-1980) in the French phase. Of these scholars, Edmund Husserl was credited as the founder of phenomenology. Originally a mathematician, Husserl turned his attention to philosophy believing that it could become a rigorous science for studying the

human experience (Creswell, 1998). The phenomenological methodology developed by Husserl is known as *phenomenology* or *descriptive phenomenology,* and is supported by the noted research scholar Giorgi Amedeo (van Manen, 1990).

Trained by Husserl, Heidegger was also interested in the human experience, but he developed a different way to explore it (Laverty, 2003). His methodology is called *hermeneutic* or *interpretive phenomenology* (IP).

Hermeneutic Philosophy

Understanding the concepts of *a person* and *a world* is fundamental to appreciating hermeneutics as a method. Although the concepts of worldhood and person are presented linearly, the concepts are related and inseparable. The world is defined not by the people, animals, places, and things of planet earth but by the meaningful world that is comprised of significant relationships, practices, and language (Leonard, 1994). Language not only connects people but also links the past to the present. More than mere words, language carries traditions (i.e., culture, norms, and history) from generation to generation (B. L. Rodgers, 2005). Phenomenologists do not view the world as the physical place where they live or the environment around them. Rather, their world *is* the people whose lives and experience comprise their phenomenological study. They are united by phenomenological research practices (i.e., interviews, observations, and self-reflection) and language (i.e., *thrownness, a fore-having,* and *situated freedom*) that may not be clearly understood by people outside of this world.

Each person exists within a shared world. Because the world is a priori, each human being is born into or "thrown" into this world in a particular culture and at a particular historical time and phase (Leonard, 1994). Being born not only means that a person has a

body but that he or she is *embodied*. The body gives the self an opportunity to act intentionally in the world. The person is a self-interpreter who relates to the world and uses language and action to share meaning with family and culture. Although everything has significance or value, each person will experience those qualities differently because he or she is situated contextually. Differences in traditions, language, and personal history make each person a qualitatively distinctive individual. Thus, to understand the behavior of study participants, a researcher must study the particular context where the meanings and values of their world come to light.

Interpretation is grounded in a three-fold forestructure of understanding (Plager, 1994): (a) *fore-having* is an interpreter's background experience obtained from their world, (b) *fore-sight* is an interpreter's point of view based on his or her background, and, (c) *fore-conception* is an interpreter's expectation of or theoretical orientation to interpretation (Plager, 1994). I will use my study on postpartum dietary practices to explain these concepts. My fore-having is the world of the Isan, a people indigenous to the northeast region of Thailand. Twenty years ago, I saw my older sister, with my mother's approval, practicing yuu fai and food restrictions. My background provides me with fore-sight of this postpartum ritual once followed by most Isan women under the supervision of their older female relatives. Although I had witnessed the ritual before, I did not understand the experience of food restriction. However, based on my experience and knowledge as an Isan woman, an obstetrical nurse, and a novice qualitative researcher, I could anticipate, using my fore-sight, that each woman would experience the practice differently and that food restriction can either benefit or harm maternal and child health. Finally, my theoretical training and sensibility informs my fore-conception and enriches the dimensions that I can explore.

People interpret things and activities as they appear in their day-to-day life. Metaphorically, forestructure binds understanding with interpretation. It is important to emphasize that the meaning of the phenomenological method lies in interpretation and that both researchers and study participants share some aspects of the lifeworld, such as time in history, and in this instance shared culture, but have different histories and experiences and thus have different lifeworlds. The taken-for-granted experience is embedded within their backgrounds. Thus, researchers must disclose and explain their forestructures as much as possible to increase the credibility of their studies (Plager, 1994).

Because people are born into a meaningful and intelligible world, understanding is a way to interact meaningfully with each others. The hermeneutic circle is a circle of understanding, in which persons exist (Plager, 1994). The circle orbits from preunderstanding to understanding to preunderstanding again (B. L. Rodgers, 2005). If preunderstanding is clarified, it will become a new understanding, which will then serve as a new preunderstanding of the situation at hand. The hermeneutic circle is also an approach for an interpreter to examine *texts* (B. L. Rodgers, 2005). According to Laverty (2003), texts include verbal and nonverbal communication, visual arts, and music. Hermeneutic processes proceed from individual parts of a text to the whole; the parts are then reinvestigated in light of the whole (B. L. Rodgers, 2005). The circle continues until an understanding is achieved and the meanings are revealed.

People use things and engage in practical activities in their day-to-day lives in three modes: *ready-to-hand, unready-to-hand,* and *present-at-hand* (Plager, 1994). The ready-to-hand mode, often unnoticeable, is the primary mode of engagement. People spontaneously use things or perform activities without a second thought. The value of things and activities

are often overlooked because they always work together smoothly. However, when there is awareness that something is wrong, these things or activities cease to function properly. Realizing that those things and activities exist, individuals begin to pay them more attention and to engage in them in the unready-to-hand mode.

Unready-to-hand and ready-to-hand are the modes of interest in interpretive phenomenological study. These two modes can be theoretically demonstrated by yuu fai ritual. If a woman had practiced the ritual following the birth of her first and second child with the full support of her mother, who constructed the place for the ritual, prepared the food, and took care of the new baby for her, she would likely engage in yuu fai from a ready-to-hand mode. But, if her mother somehow left the city at the time of the third delivery and no one else in the family knew how to organize the ritual, she would likely engage in yuu fai from an unready-to-hand mode because a woman cannot perform the ritual without her mother's assistance, even though she did get some knowledge of the ritual from her first two births. In this mode, present-at-hand, things are viewed as objects, and activities are described by strict attributes (Plager, 1994). Understanding women's experiences of traditional postpartum practices, including yuu fai and food restrictions will help us understand their meaning and hold potential to influence health care of this population in the future. Thus interpretive phenomenology is an appropriate method to use for this study.

Research Design

The purpose of this study was to describe lived experience of first time Thai women in observing traditional practices after childbirth. It included an exploration of how, and in what setting, the women perform the practices. A brief discussion of the pilot work for the study is presented, followed by a description of the research design.

Pilot study sesearch. This section discusses my experience during my pilot study before dissertation and its application to improve trustworthiness of the research. After obtaining ethical approval from Committee on Human Research, UCSF's Institutional Review Board and a letter of support from the director of Sirindhorn Hospital, a small pilot study was conducted in the Isan region of Thailand. Four postpartum women were recruited and interviewed during the summer of 2006. From the pilot study, I discovered difficulties related to the participants and their families, data collection, language, an unequal power dynamic between participants and the researcher, and challenges within the researcher's style to approach the participants. The dissertation study design was revised based on these experiences. These included adapting sampling strategies, increasing the number of interviews and observations to gain richer data, lessening participants' burden, and building rapport.

Research setting. The dissertation study was conducted in a remote, rural, agricultural district of Sirindhorn from October 2008 to September 2009. Sirindhorn Hospital was selected as a primary screening site because it was comprised eight prenatal care units within the district. A letter of support from the hospital's director and Sirindhorn Public Health Office's director was obtained (see Appendix B). Approval was obtained from the University of California San Francisco Committee on Human Research and Ethical Review Committee for Research in Human Subjects of Sappasithiprasong Medical Center, Ubon Ratchatani, Thailand before entering the field (see Appendix C).

Sampling and recruitment. Pregnant women in their third trimester expecting the first child were recruited and considered eligible for this study if they met the following criteria:

1. Live in Amphur Sirindhorn at enrollment in the study
2. Have low risk pregnancy, defined as a pregnant woman who was cared by a nurse without any condition for referring to meet a doctor
3. Able to give consent and be willing to talk about their postpartum experiences

Because they were less likely to follow traditional practices or not able to articulate their experiences, postpartum women were considered ineligible for this study if they had one or more of the following conditions:

1. Cesarean section or postpartum tubal ligation
2. Current history of psychiatric disorder affecting their cognitive ability to participate in an interview
3. Acute or chronic medical condition that required dietary restriction

The director and nursing staff of the Sirindhorn district assisted with identification of potential participants and advertisement of the study through word of mouth and flyers (Appendix D). I described the recruitment process, including the criteria for eligibility, to prenatal clinic staff in the prenatal care unit and asked them to screen for potential participants from the prenatal visit registration book, which provided basic information such as clients' name, gestational age, and date of the next visit. The clinic staff gave those women identified as potential participants a recruitment letter which briefly described the study and asked if women would like to be contacted about participating in the study (Appendix E). If they agreed I called them to further describe the study. If the potential participant agreed to take part and met study eligibility, a mutually agreed upon time and place for the first meeting was arranged. At that meeting the study was again reviewed and the consent form was reviewed and if she agreed to participate, was signed (Appendix F). A

total of 28 women discussed the study with me and 23 actually enrolled. Of these, two women withdrew from the study, three were excluded because of giving birth by ceasarean section, one had not finished her yuu fai, and one had not delivered. Sixteen women completed data collection process and were given a baby gift set for their participation in the study.

Data collection. There were three primary methods of data collection including in-depth interviews with each woman during the last trimester of pregnancy and between 4 and 8 weeks postpartum, participant observation with the woman during the early postpartum period in her home, and demographic characteristics. In addition, each woman was visited in the hospital after her birth. Extensive field notes were recorded.

Interviews were conducted using the interview guide in Appendix G. The interview process and guide were developed using findings from the pilot study. In the first interview data were gathered on women's beliefs and experience about yuu fai and postpartum nutrition practices. The second interview focused on women's actual experience of yuu fai and postpartum practices. Examples of the questions in the first interview are "who will primarily take care of you during your intensive postpartum care period" followed by probes to expand on meaning and beliefs. A sample question in the second interview is "tell me about the food you ate during this time" with probes to elicit specific examples. The first interview lasted for approximately 20 to 40 mins, while the second interview 60-90 mins. All interviews were digitally voice recorded, transcribed verbatim, and processed into electronic word files with access protected by password known only to the researcher. Observations recorded with written field notes.

Several participant observations were conducted after women returned home during their confinement period and during the practice of lying by the fire. The participant observation and field note guide (Appendix H) was developed using techniques described by Spradley (1980). I observed the entire event and interacted with the elders who were directing the ritual. The majority my time was spent in observation, rather than participation except for permitted activities such as baby care (Speziale & Carpenter, 2003). I also offered help if a woman or her caregiver were about to do things such as putting firewood into the bonfire, adding water into pot, or pouring herbal concoction prepared by the senior citizen into a bowl. Data from the participant observations included informal discussions with the caregivers about the names, properties, and effects of encouraged or discouraged food during the confinement period. This participant triangulation added to the trustworthiness of the data (Speziale & Carpenter, 2003). Moreover, if possible, an informal hospital visit was done within 48 hours after childbirth to congratulate the new family and build rapport with other family members especially those potential caregivers during the confinement period.

Data on demographic characteristics were collected using a demographic form (Appendix I). Basic data on age, religion, occupation, marital status, expectation of husband's involvement in the postpartum care, income, education, and family type were gathered on the day when consent was obtained.

Data analysis. Data analysis began simultaneously with the data collection. I carefully listened to the women and their caregivers during the observations and interviews. All digital records were repeatedly played and the transcriptions in Thai were read many times. I interpreted the data from the interviews based on the central-Thai language transcripts, but coded and wrote interpretive memos in English. Isan-Thai terms showing

main concepts, having multiple meanings, or being proper nouns were preserved to keep meanings in the context. Validation of analysis was carried out with an expert in phenomenology Dr. Holly Powell Kennedy. I translated transcripts of the first three women myself, examined them to determine if they make sense in all three languages, and shared back and forth with Dr. Holly Powell Kennedy to gain consensus on my interpretation. Further validation was done with a faculty of School of Nursing in Thailand, a dissertation committee member who is working extensively in postpartum traditional practices in the north of the country. I shared de-identified English transcripts of the first participant. The Thai nursing faculty provided helpful feedback on how to reflectively conduct an in-depth interview with Thai women and formulate questions to explore their cultural practices.

Data were analyzed using the method described by Benner (1994), consisting of two interpretive strategies: *exemplars and thematic analysis*. Exemplars substitute as operational definitions in interpretive research. Exemplars not only reveal aspects of a paradigm case or a thematic analysis but also illustrate an interpreter's intentions and concerns within the context (Benner, 1994). I identified a range of exemplars to differentiate practices within the study protocol. Exemplars were developed after I had identified a pattern of meaning, a common situation, and an embodied experience. They were extracted from the text to compare the similarities and differences between those elements. *Theme,* a component that appears repeatedly in the text, describes an aspect of the lived experience (van Manen, 1990). Analysis of theme is concerned more with meaningful patterns than words, phrases, sentences, or paragraphs (Benner, 1994). During the thematic analysis, I read back and forth between a piece of the text and a part of the analysis. Reading and rereading transcripts allowed me to gain complete understanding of the whole story, to see what was important for

the participants, and to develop new interpretive questions (Benner, 1994; van Manen, 1990). Thematic analysis was done within a single case and across multiple cases to distinguish their similarities and differences. Similar units of meaning from the comparative analysis were grouped and organized into clusters of subcategories and themes.

Assurance of rigor. I entered the hermeneutic circle of the research project via engaging in *self-reflection* by examining the three components of the forestructure: practical knowledge (fore-having), a point of view (fore-sight), and theoretical expectations (fore-conception). Background, biases, and blind spots were explored as the research questions were framed. One weakness in interviewing found during the pilot study, talking too fast, was reduced by consciously slowing the pace of the interview. In order to understand women's experience and perception both positive and negative (Benner, 1994), I left my questions as open-ended as possible and encouraged women to share their thoughts in their own words or styles. To equalize power, I encouraged the women and their caregiver to take a teacher's role as they helped me learn about their experiences. I reassured the women that their participation would not interfere with their health care services from the hospital or Primary Care Units (PCUs).

The trustworthiness of the data was established through *participant triangulation* of a postpartum mother and observation of her caregiver involved in yuu fai and dietary practices. Data from the caregiver complemented some topics that a postpartum woman might not know. *Data triangulation* from multiple interviews and several observations generated robust information and various perspectives (Benner, 1994). *Prolonged engagement* in the setting helped the researcher to gain participants' trust, situate in their lifeworlds, and enhance the credibility of the study. I built rapport with each participant for at least four months during

data collection. I had even longer relationships with some of the women I met in the clinic before they became eligible for the study. As a learner and researcher, I spent approximately two hours total for interviews, 30 mins for a hospital visit, and at least three hours total for participant observations for each woman in the study. Finally, to ensure that attention was paid to address each of the components of the research protocol, study procedures (Appendix J) were carefully followed.

Chapter Four: Results

This chapter is a summary of the demographic characteristics of participants and a description of findings. The chapter includes six parts: demographic characteristic of the participants, sociocultural context of analysis, and description of four broad themes including food practices after childbirth, postpartum healing through heat, hot herbal bath for rebalancing blood and wind system, and hot herbal concoction as tonic and lactation promoter.

Demographic Characteristics of Participants

The participants comprised of 16 Thai first time mothers who experienced followed traditional postpartum practices. They were18 years old or older and lived in Sirindhorn during enrollment and postpartum period. All participants were Buddhists and Isan speakers. The majority (93.75%, n = 15) were native to Sirindhorn. Ten participants (62.50%) moved to parents or in-law families during pregnancy or after childbirth. Of those, three (18.75%) moved within the district, and seven (43.75%) moved from other provinces.

The age of the participants ranged from 18 to 32 years old (M = 21.50 ± 3.88 years). Most were married without a legal certificate (75.00%, n = 12) and expected postpartum cares from their husbands (75.00%, n = 12). The majority of them had middle school education (43.75%, n = 7), were housewives (31.25%, n = 5) or farmers who did not own land (31.25%, n = 5), and living with extended family (75.00%, n = 12). The biggest extended family was made up of five members (18.75%, n = 3), and the mode was four members (31.25%, n = 5). Most of the family incomes were between 3,001 and 6,000 Thai Baht a month (100-200USD). See Table 2 for Demographic Characteristics of Participant.

Table 2

Demographic Characteristics of Participants (N=16)

Characteristics	Frequency (%)
Age in years (Mean=21.5 ± 3.88)	
18	4 (25.00)
19	3 (18.75)
20	1 (6.25)
22	4 (25.00)
23	1 (6.25)
25	1 (6.25)
27	1 (6.25)
32	1 (6.25)
Husband Involvement	
Yes	12 (75.00)
No	4 (25.00)
Family Income (Thai Baht per month)	
Less than 1000	1 (6.25)
1000-3000	2 (12.50)
3001-6000	9 (56.25)
6001-9000	1 (6.25)
More than 9000	3 (18.75)
Education	
Primary School or lower	3 (18.75)
Middle School	7 (43.75)
High School	3 (18.75)
Vocational School	2 (12.50)
Baccalaureate	1 (6.25)
Type of family	
Extended	12 (75.00)
Nuclear	4 (25.00)
Number of family member	
1	3 (18.75)
2	1 (6.25)
3	4 (25.00)
4	5 (31.25)
5	3 (18.75)
Occupation	
Employed	2 (12.50)
Housewife	5 (31.25)
Farmer (land owner)	4 (25.00)
Farmer (does not own land)	5 (31.25)

Marital Status	
Married with legal certificate	1 (6.25)
Married without legal certificate	12 (75.00)
Not Married	3 (18.75)

Thirteen participants (81.25%) delivered in Sirindhorn at a 30-bed district hospital. Two participants (12.50%) gave birth in *Piboon Mangsahan* , a 60-bed district hospital, because it was close to their home. Only one (6.25%) participant who had chickenpox was referred to *Sappasithiprasong* Medical Center, a 1,000-bed provincial, tertiary hospital in the capital city. Fourteen participants had normal spontaneous vaginal deliveries (87.50%), while 2 (12.50%) had vacuum extraction. Fifteen of the babies were full term (93.75%), and 13 (81.25%) had birth weight more than 2,500 grams. Ten of the babies were male (62.50%) and 6 were female (37.50%). See Table 3 for Demographic Characteristics of Participants' Children.

Table 3

Demographic Characteristics of Infants (N=16)

Characteristics	Frequency (%)
Place of Delivery	
Sirindhorn District Hospital	13 (81.25)
Another District Hospital	2 (12.50)
Sappasithiprasong Medical Center	1 (6.25)
Types of Delivery	
Normal Delivery	14 (81.50)
Vacuum Extraction	2 (12.50)
Gender	
Male	10 (62.50)
Female	6 (37.50)
Birth Weight	
<2,500 grams	3 (18.75)
2,500-3000 grams	7 (43.75)
>3,000 grams	6 (37.50)

Sociocultural Context of Analysis

This part depicts constituents of Isan postpartum women's lifeworld, where they were born and raised. To portray a concrete picture of the study site geographic, resources, economic, education, and health care service are presented first. Description of history, ethnicity, language, food culture, and Isan family development follows to better understand how the women relate to their world and give meanings to things showing up for them.

Geography and Resources

Ubon ratchathani (also known as Ubon) is the 5th largest province of Thailand, a tropical country in South East Asia. The province borders Laos to the north and east and Cambodia to the south. It is subdivided into 33 districts, one of which is Sirindhorn, an easternmost district of the country. Sirindhorn is divided into seven neighborhoods (*tambon*), which further are divided into 73 villages (*moo ban*). Sirindhorn borders Laos with two border crossings: *Chong Meg* and *Wang Tao*.

Sirindhorn has plenty of resources such as forests, dam, and rivers. Natural forests are for villagers to pick firewood, herbs, fruits, and vegetables, and to hunt game for food. Commercial forest projects have been implemented and supported by the government to promote the planting of rubber trees or eucalyptus which have been a source of income for the project's members. Moon River and Dome River flow through the district. Both serve agricultural purposes and daily use. Sirindhorn dam produces electricity for Sirindhorn nearby areas. The reservoirs and irrigational systems support agricultural activities such as farming and fishing.

Economy

The main economy of Sirindhorn is agriculture. People primarily plant rice at least once a year. Farmers whose lands are reachable by irrigational systems may do so twice a year. The main agricultural crop is sticky rice, a staple food of the region. Farmers are now diversifying into cash crops such as cassava, rubber trees, and eucalyptus. Chili as well as other vegetables and fruits are grown for family use and sale in a local market. Cows or water buffalos are raised for working in rice fields and also for cash when the families are in need of money.

To raise more family income, some families are occupied with vocational activities such as weaving baskets, mats and brooms and making *dork mai jan*, an artificial flower used specifically in Buddhist funeral on the day of cremation. The baskets and brooms are sold by vendors at the roadside or to dealers. Dork mai jan are made to order for dealers who periodically buy big lots of them. During my data collection period, one family weaved brooms, one family weaved mats, and three families made dork mai jan.

Forced by poverty, lack of farming land, unreliable rain, and personal desire, some young Sirindhorn residents seek better-paid jobs outside the district. The others work in family farms or wherever they are able to commute. Most participants in this study have worked in Ubon or bigger cities. Two participants with vocational degrees got married and worked in their new nuclear family's land.

Business at the Chong Meg border stimulates Sirindhorn economy. The border is opened for people from Thailand and Laos to travel, visit, and trade. Duty free shops, golf courses, handicrafts, and natural wonder draw Thai to Laos, while garments, goods,

entertainments, better-paid jobs and more civil lifestyle attract Laotian to Thailand. In addition, foreign tourists use this border to travel between the two countries.

Education

Education in Sirindhorn district is provided by the government and supplemented by the private sector. Fully supported by the government, each of the larger villages has a primary (elementary) school. There is one high school in the main district. Students who are unable or not qualified to attend school full time may attend a long distance school which occurs on the weekend or in the evening. Some families may send children to a school or college in a bigger city.

Besides government schools there are two private primary schools. One is run by a family; another one is run by a foundation. Close to the border line and far from the city is a secondary school that gets support from both the government and a wealthy foreigner, friend of the royalty. There is also one private vocational school offering a diploma degree in business and computer.

The majority (81.25%) of participants in this study had a high school education or less. The main reasons of leaving school early are because either the family cannot afford higher education or they need another hand working the farm. Then, participants got married and had children. With family support, one woman continues her long distance school two months after delivery, and another has plans to attend when her baby is six months old. Two participants with vocational degrees got married right away after graduation at age 18. One participant enrolled in a university in the capital city of Ubon for her baccalaureate degree after moving home from Bangkok and then got married when she was 27 years old.

Health Care Service

Sirindhorn hospital offers both biomedical and traditional medicine. Traditional Thai Medicine (TTM) services include hot herbal compression, herbal sauna, and Thai massage for relaxation, pain relief, and condition improvement. The hospital provides care for residents of the districts and people from Laos. It is a 30-bed district hospital directed by a physician. A few general doctors are working full time in the hospital; others are circulated from bigger hospitals or are medical students. No specialist is working there. Patients with serious conditions are referred to more advanced hospitals such as Piboon Mangsahan district hospital and Sappasithiprasong Medical Center. At the time I was leaving the field, a new and bigger building for TTM was under construction to offer more services. Sirindhorn is also a health promoting hospital providing a fitness center for staff, patients, and the public for a minimal fee.

The smallest health care unit and first stop for patients is Primary Care Units (PCU). There are eight PCUs in the district, seven of which are administered by the district public health office. Another one is under the hospital responsibility. Each PCU is chaired by a registered nurse or public health scholar. Although there is no doctor working at the PCU, a physician hotline or consultation via webcam has been implemented between PCUs and the hospital.

Some nurses in Sirindhorn hospital run private nursing clinics outside of their duty hours. The nurses provide basic nursing cares, physical examinations, and treatments for uncomplicated illnesses. They also provide over-the-counter drugs and herbal medicines and tonics for sale. A client with serious or ambiguous condition will be referred to the hospital. Unlike in a big city, there is no physician’s private clinic in Sirindhorn.

History, Ethnicity, and Language

The north east of Thailand was officially named Isan since the beginning of the 20th century. Ubon had a long history of provincial development. Centuries ago, it was part of the Khmer Empire and outside Siamese or Thai Autthaya Kingdom. It was officially incorporated as part of the Thai Kingdom in 1786 by Thao Khamphong, a Laotian prince from Vientiane. The prince and his followers became ancestors of many families in this province.

To distinguish themselves from other ethnics, residents of Ubon call themselves khon Isan or Thai Isan. Among their own ethnic or intimate friends, they may replace the word Isan by Lao to specify their uniqueness such as *khon Lao* (Lao people) and *pa sa Lao* (Lao language). An outsider should use the word Lao carefully because it may be interpreted as a term of disrespect.

The official language of Thailand is central Thai or standard Thai, but regional populations have their own dialects. The dialect widely spoken in Ubon is Isan or Lao, which is similar to Laotian. Both spoken languages from the two countries are mutually understandable. Isan written language, however, is in Thai alphabet, while Lao has its own alphabet.

All participants in this study spoke Isan. All interviews and conversations carried out during data collection were in this dialect. Transcriptions, nonetheless, were in Thai alphabets using the central Thai accent. Translation from central Thai transcripts to English was done by the researcher, a native Isan speaker. Isan or Thai terms with complicated or irreplaceable meanings were not translated.

Food Culture

Isan food culture has much in common with that of Laos. In general, native Isan foods are made up of whole grains, fresh green vegetables, roots and tubers, and a variety of fruits. However, the availability of food is often limited by drought. The most obvious characteristics of Isan food culture are the use of sticky rice (*khaw neow*) and fiery chili. Most dishes are cooked with extreme spiciness, sourness, and saltiness. Popular dishes include green papaya salad, meat salad, grilled chicken, and a variety of chili paste.

Residents of Sirindhorn get food either by buying or finding it. They buy food in the capital district's local evening markets which open every day. In case a large amount of food is needed, they travel to the nearby district where there is a bigger market. In remote villages, there are automobile markets, carrying groceries for sale in a daily time schedule.

Food can be found around the house. The main animals raised for food are cattle, pigs, poultry, ducks, and fish. Fruits grown in the farm or garden are papaya, tamarind, and mango; vegetables are chili, bitter melon, lemon grass, galangal, and onion. Some may gather seasonal fruits and vegetables from the forest for eating or selling. For example, mushrooms, bamboo shoots, and wild litchi are plenty in the forest by the end of the summer. People gathered and sold them in a temporary stand by the road. In addition, male residents may hunt game in the forest or rice field for food.

Isan Family Development

Most participants in this study were born in farm families and are natives of Sirindorn district. One woman was born in an unskilled labor family; another was a native of Nakon Rachasima, also a province in Isan. Each participant found a mate during work far from home or within the hometown. Some faraway-from-home participants stayed with partners

without marriage or parent's knowledge until they got pregnant. This is unacceptable in Isan rural society.

In Isan tradition, newlyweds move into the woman's matrilineal home and work on farm and business of the wife's family (Kabilsingh, 1991; Tambiah, 1975; Whittaker, 2002). This tradition has not been strictly followed by Sirindhorn residents nowadays because of many reasons. For example, Ladda moved in with her in-law family because her husband is the only son staying at home and working in the farm. Jamjan and Opor did so because they had no postpartum caregiver available in their own families. (All participants' names are pseudonyms)

At the onset of the study, it was sometimes difficult to determine whether a family was nuclear or extended. Some new couples may stay outside parental families to work for better wages. During pregnancy, however, they would have to decide about which side of the family, whether his or hers, to move in with after childbirth. At an extended time after delivery, they will again make decision whether husband or wife will relocate for work.

I define participants' family types as nuclear or extended family by using their situation from the day of recruitment to six months after childbirth. I use these criteria to reflect how a woman gets care from the family during her transition to motherhood. A *nuclear family* is defined as father, mother, and/or child living together in a place separated from other families. If the couple were migrated laborers, both of them would have a strict plan to move back to work after six months postpartum. Four participants (Areya, Chumaan, Darin, and Hansa) fell into this type. A new mother (with or without a spouse) who is raising her baby during the first six month with other generations in the household is assigned into an *extended family*. Twelve participants (75.00%) are categorized into this group. Nine

(56.50%) of the women (Irin, Kahom, Nisa, Ratha, Saijai, Thara, Udomwan, Wanta, and Yada) stayed with their parents, while three (18.75%) (Jamjan, Ladda, and Opor) lived with their in-laws.

An Isan woman has a strong bond with her parental family. She tends to seek support from her parental family during transition to motherhood. In this study, all the women in nuclear family moved back to their parental family. Darin, whose parents had separated and mother had passed away, still moved back to her maternal clan. All migrated women, but Jamjan, had moved back to their hometown Sirindhorn a few months before their due date. Most of them came back to their parental families. Even for those few women who moved in with their in-laws, the women's parents still took care of them during yuu fai period. Only one participant, Jamjan who came from another province, had moved here to live with her in-law family without her parental family support because of long distances. The next four parts are discussions about what these women and people around them did to regain health and well being after giving birth.

Food Practice after Childbirth

In TTM, healers believe that human being or the "self" is composed of three elements: concrete (the body), internal (the mind-heart), and force (the energy). I will use the word "self" to refer to a holistic form of the three essences, and "body" for the physical body. The three essences have to be balanced for a healthy being (Salguero, 2003, 2006). An unbalanced body will be treated by herbs and diet. Energy lost will be regained by getting Thai massage. Mind-heart disturbances can be recovered by rituals in Buddhism and Shamanism. The ultimate goal of food practices during the postpartum period is to heal the body. According to TTM, the body is composed of four elements: Earth, Water, Air, and

Fire. Each of these elements relates to the quality of solid, liquid, movement, and heat, respectively (Bamber, 1998; Salguero, 2006).

Transitional changes such as those experienced during pregnancy, childbirth, and lactation hold potential to disrupt a woman's balance of the four elements during the postpartum period. Blood (Water element) and heat loss (Fire element) during childbirth disturbs the humoral balance requiring special dietary attention (Salguero, 2003). In Traditional Chinese Medicine (TCM), the same condition is believed to bring the woman's body into a cold state that needs to be compensated by hot food (L. Y. Chien, et al., 2006; Kaewsarn, et al., 2003b; Liamputtong, 2004; van Esterik, 2008). Along with TTM that identifies food and herbs into ten tastes, the women in this study applied dichotomous classification of hot-cold food to what they chose to eat. To bring the self back to a balanced state of health, Isan people use four practices to treat postpartum women. These practices include consumption as well as avoidance of certain food, lying by a fire, hot herbal bath, and hot herbal drinks. This section will present food practices.

The meaning of "herb" covers plants, animals, and minerals (Salguero, 2003). Thai medicine and cuisine do not separate food from herbs. Many herbs are ingredients used in daily meals (Bamber, 1998; Department for the Development of Thai Traditional and Alternative Medicine, 2004; van Esterik, 2008). Selected examples of Isan postpartum food and its effects on the elements are provided here for better understanding of dietary practices.

In TTM, allowed mineral such as sea salt and the salty taste supposedly increase the Earth, Water, and Fire elements, but decrease the Air elements. The hot (spicy) taste in herbs such as galangal, garlic, and ginger is encouraged to strengthen the Air and Fire elements while it lessen the Earth and Water elements. In the hot-cold dichotomy, juicy fruits and

vegetables, sour fruits, vines, creepers, climbers, and soy products are considered cold (Holroyd, et al., 1997; Laderman, 1984). Conversely, animal meat, eggs, fat, salted fish, ginger, alcohol, and papaya are hot (Raven, et al., 2007). Rice and fresh fish are considered neutral. Indulgence in each group of food may result in imbalance of the humors. For example, eating too much hot food, sugar, and alcohol causes excess of the Fire element, while indulging in fatty and fried food causes excess of the Earth element.

Isan Term Clarifications

Isan postpartum food practices can be summed up in two Isan terms, *ka lam* and *phit kam*. As defined by the women, the word ka lam in general means prohibited activities. The prohibited activities relating to food practices or eating behaviors are called *ka lam kin*. Colloquially, the term ka lam also means prohibited food practice and eating behavior. Certain prohibited food capable of producing symptoms (phit kam) is called a wrong thing (*kong phit*). I understand that ka lam alone is used in a broader sense than kong phit, but ka lam food and kong phit shared the same meaning of forbidden food. This section focuses on food practices. The term ka lam will be used in the context of forbidden food and employed as a noun, verb, or adjective.

> Someone said if they ate [food] and then vomited or got a headache, it meant they were phit kam. …Someone said that it was harmful [*slang*]. If we eat [food] and then have subsequent symptoms such as headache, vomiting, or a fever, that means we are phit kam. (Darin, Interview #2)

Ka lam and phit kam are related by cause and effect. As such, eating ka lam food creates phit kam symptom. The word *phit* literally means "wrong, by mistake, a fault, an error, a mishap, or to be unlike" (ScanSoft, 1996), while *kam* is related to karma, a concept of cause and effect in Buddhism. Women in this study used the word phit kam to mention to a group of symptoms happening after eating food believed to harm them and their babies. This

term is used as a noun, verb, and adjective. The short form phit is more likely to be used as an adjective meaning wrong, harmful, poison, or allergic.

> "Ka lam" is what we are unable to eat. If I eat it, it will result in harmful symptoms for me or my baby. [Pause]… Suppose that we are practicing yuu fai and then eat wrong food, we would be unable to practice yuu fai at all. (Saijai, Interview #2)

Saijai's mother commented that phit kam or phit shared the same meaning with other Isan terms. These are *phit ka boon*, *phit ka ra boon,* and, in central Thai terms, *slang* and *phit sam dang*. According to the Thai-English dictionary (ScanSoft, 1996), "slang" means "harmful", whereas "phit sam dang" means "to eat deleterious food which aggravates symptoms". The terms ka lam and phit kam are used interchangeably by the women; however, synonyms of phit kam are used differently by each woman. I will use phit kam as the more commonly used term for the consequence of consuming certain food. Other Isan and central Thai terms will be clarified throughout this paper.

Food Prescription

All participants and seniors in their families mentioned phit kam symptoms caused by eating harmful food during pregnancy and the postpartum period. The older generations strongly believed that certain food could harm postpartum women and their breastfed babies. Because of fear of phit kam, a woman would skip most of the food she normally ate before pregnancy to avoid harmful symptoms for herself and baby.

Safe food. A woman who practices in the strictest way may only have one main staple (sticky rice) and a few ingredients.

> The senior people don't want her to eat a variety of food because they worry that some food may cause phit kam symptoms in the baby's stomach. Looking back at food practices in the elderly generation, they had only grilled sticky rice seasoned with salt [rice cake or *kaw jee*]. Ladda had a chance to try that sticky rice once, but she didn't like it. (Ladda, Field note from the participant observation #1)

Salt is a basic ingredient in the Thai kitchen to flavor or preserve food. During yuu fai, the women used salt to season sticky rice and grilled meat. It is available in every kitchen and has no smell, a characteristic of avoided food. In addition, because salt is a white and pure substance, a caregiver can be somewhat sure that it does not contain any ingredient possible to harm the woman. Other Thai-Isan salty ingredients with strong smell such as fish sauce, instant seasoning paste, fermented fish, and shrimp paste, are not allowed because they may cause phit kam symptoms.

In dietary regimen of TTM, salt is categorized into salty taste and used for increasing the Earth, Water, and Fire elements (Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003, 2007). The Earth element in the body represents solid form such as skin, muscle, tendon, and viscera. It becomes unbalanced when changes (i.e., expansion, contraction, or laceration) happen during childbirth. The Water element is in all the body liquid. Loss of blood, sweat, saliva, and urine decreases the Water element. The Fire element is present in body temperature, metabolism, and circulatory system; all of these are affected during the labor process. Therefore, it is believed that salt can help the parturient regain equilibrium of the Earth, Fire, and Water elements in her body.

A familiar food, rice, is prepared for the new mother and is likely to become her primary source of energy when only a few items are allowed for her to eat during yuu fai. According to Malays food ideology, rice is considered neutral food, which is safe for a postpartum woman whose body is in the cold state (Laderman, 1984). During my observations in the homes during the postpartum period, rice cake was cooked as usual but was seasoned with salt only for the postpartum women. Other people in the family may add egg and garlic on the rice and eat it with chili paste. From my observations of women in this

study, it seemed that they tried to keep meals as simple as possible to prevent phit kam. In meal preparation for a postpartum woman during yuu fai, no luxurious food or elaborate cooking method or ingredients were mentioned. I had a chance to observe how grilled sticky rice was made and eaten.

> Saijai's maternal grandmother says that allowed food during yuu fai is grilled chicken and pork. At first she thought she would allow Saijai to eat grilled chicken, but later she thought it might be too early to do so. The grandmother says that Saijai's intestine is still fresh [*sai seun*]. She finally decides that she will allow Saijai to eat only rice cake until Saijai's intestine settles [*sai yoob*] tomorrow. (Saijai, Field note from the participant observation #1)

Saijai's caregiver decided which diet she should have due to the condition of her internal organ. The condition of the intestine becomes an important indication for therapeutic diet. In Isan, *sai* literally means "intestine", while *seun* means to be "refresh" or "cheerful after cheerless"[i] Therefore, sai seun literally means "intestine is refreshed". How she and other Isan people refer to human organs may confuse people trained in allopathic medicine. From an anatomist's point of view, the intestine has no role in a woman's fertility. However, from an Isan*'s* perspective, the gastrointestinal, urinary tract, and reproductive systems are inseparable. Isans may call an organ in one system by the name of an organ in the other. For instance, the embryonic sac is called *pok yeaw,* literally means the urinary bladder.

Therefore, I believe when Saijai's caregiver mentioned the word "sai", she meant more than just the intestine; rather I think she meant viscera, especially the uterus and other reproductive organs. In Thai language, pregnancy is mentioned as a condition of the gastrointestinal system. A Thai word for pregnancy, *tong,* also means the abdomen. Colloquially, the word sai (intestine) goes with tong in a sentence. For example, being pregnant is said in Isan as *kam lang tong, kam lang sai* which literally means "being the abdomen and being the intestine".

Saijai's grandmother specified two conditions of the intestine during the postpartum period: "fresh" condition for the first few days after delivery followed by the "settle" condition. During the fresh condition, a simple meal such as grilled sticky rice seasoned with salt was prescribed. Subsequently, a more complex item such as grilled meat is added into daily meals.

As a nurse, I see the similarity between this concept and how diet is prescribed for a patient after abdominal surgery. In a Thai hospital, the patient begins post-operation diet with the easiest things to be digested such as water or ginger tea. If the gastrointestinal system works well, a soft diet such as rice soup or regular diet such as rice with some other dishes will be ordered. I imply from this shared concept that fresh intestines does not exactly mean the intestine or uterus is fresh, rather it means the organ is inflamed and swollen. My interpretation is confirmed by its antonym in later state, *sai yoob*, which means the organ is settled or sunk (as in uterine involution), a better condition that allows postpartum women to appreciate various food.

Saijai, however, did not easily resume her regular diet. She had grilled animal meat with steamed sticky rice for the whole period of yuu fai. Fruits, vegetables, and dairy products were not mentioned as allowed food during that period.

Avoided food. As previously discussed, allowed food such as grilled sticky rice and salt during yuu fai is a method for preventing phit kam symptoms. Another method for preventing phit kam symptoms is to avoid certain food, including cold food and fermented food.

Cold food. The women in this study avoided eating fruits. Darin explained her reasons which can be understood using the hot-cold dichotomy from TCM.

> Someone seniors said that a cold thing was a wrong thing. Watermelon, for example, is a cold thing. Fruits are cold things, so they are disallowed to eat them. They are prohibited or wrong. … Fruits are disallowed. No fruits are allowed during yuu fai. (Darin, Interview #2)

The Isan term *kong yen* literally means any cold thing including food or fruits. Darin believed all fruits are cold, capable of causing phit kam symptoms, and thus she avoided eating fruits.

Her belief conforms to the Chinese concept of hot-cold forces in TCM rather than that of ten tastes in TTM. Cold food in TCM include fruits and vegetables (L. Y. Chien, et al., 2006), but a cool taste in TTM is found in aromatic plants such as jasmine, lemon grass, eucalyptus, and peppermint (Salguero, 2007). In TTM, fruits are assigned according to the ten tastes, and various tastes may simultaneously exist in the same fruit. For example, lime is allocated into sour taste but its rind bitter taste, mangosteen and pomegranate astringent taste, banana bland taste, pineapple and green papaya sour taste but ripe papaya sweet taste, and ebony fruit toxic taste.

Although women in this study adopted hot-cold properties to fruits, they did not classify every fruit as "cold". Some fruits were considered "hot" and thus prohibited. Chumaan and Darin told me that some fruits such as durian and longan (*Euphoria Longana*) were considered hot and should be avoided. I am familiar with those fruits and know that they are considered hot for people in general. But I do not know if certain fruits have different effect on postpartum women. In the hospital where I worked, the staff encouraged postpartum women to eat a variety to food including fruits. But during yuu fai, this recommendation might be ignored. The role and effect of fermented food serves as a particularly important exemplar in this discussion.

Fermented food. Pickle and fermented food were not allowed for postpartum women because of the meaning of the preservation methods.

> After being out of the fire, seniors did not allow me to eat pickled and fermented food because they were afraid that my inside would decay. Pickled and fermented food is not allowed because they are pickled and fermented. They were afraid that those will go through the body and pickle the inside body, resulting in a serious state of decay. (Darin, Interview #2)

Fermented and pickled food are translated from *kong mug* and *kong dong*. From my observations, fermentation (*mug*) and pickling (*dong*) are common preservation methods for local produces as well as fish. During the rainy season when there are plenty of fruits, vegetables, and fish, people will preserve them to eat later during the dry season. One of the most popular fermented products is fermented fish available in every Isan farmer's kitchen. As part of the fermentation process, fish are salted, dried, pounded, and packed with toasted rice and rice husk. After a few months, it becomes a necessary item accompanying rice and other familiar fares across the region. People eat it by dipping or use it to flavor Isan soup, chili paste, and green papaya salad. Some Isan families use it in every meal. A postpartum woman, who needs to avoid this item in her meal, has to pay close attention while she is cooking. If not, she may automatically add fermented fish to her food.

Darin told me later that "inside the body" meant the uterus and wound. She was told that, if she consumed pickled and fermented products, both might decompose and the healing process would be delayed. TTM posits that decay of organs (the Earth element) is caused by depletion of the Fire element (Department for the Development of Thai Traditional and Alternative Medicine, 2004). This belief may not be in concert with that of Darin's family. In TTM, pickled and fermented food belongs in the sour or salty taste, which should increase

the Fire element supposedly should helpful for the postpartum body. Thus, I think the belief in Darin's family came from the linguistic meaning of preservative methods.

That eating fermented food could pickle and decay a uterus and wound because of the preservation method is an intriguing concept. Preferred methods of preservation potentially become sources of decomposition. It raises a question as to how a well preserved product, when consumed by a postpartum woman, turns into a potentially harmful agent. Darin commented "those will go through the body and pickle the inside body, resulting in serious state of decay." Logically, pickling and fermenting when properly done are intended to preserve food, meaning preventing food from decay. If it has any effect on a parturient, it should be preserving instead of rotting her internal organs. Perhaps Darin and her caregiver associated the meaning of fermentation and pickling to decomposition when not properly preserved and related this to the possibility of rendering the internal organs in a decomposed or decay state. What they wanted is a fresh, normal, or healthy condition; thence, all preserved food was disallowed.

Women's Experience of Phit Kam

As defined by women in this study, phit kam is a postpartum woman's reaction to wrong food or substances, a process that varies from woman to woman. Synonyms of phit kam are phit ka boon, phit ka ra boon, slang, and phit sam dang. This section presents experiences of Isan postpartum women with eating wrong or prohibited food. These experiences may happen to study participants, their family or clan members, or other women.

Women in this study expressed a strong belief that phit kam can be life threatening. The families treated phit kam by using local herbs. Some herbs are added into a hot herbal drink as a preventive medicine. When phit kam occurs, women may drink this herbal

concoction as a curative medicine, use new herbs, or change preparation methods. This part focuses on therapeutic herbs applied to a woman with phit kam symptoms. The hot herbal drink practices in general will be presented later in this chapter.

Phit kam. This may be the most powerful reason why women follow food avoidance. The first participant who experienced phit kam is Areya, a 20-year-old housewife.

> I was afraid that they were harmful. I wasn't sure that I was harmed by small frogs [*kead*] or black string bean. It was black string bean that I ate. … I felt fainted when standing up. At first, I didn't pay much attention to these symptoms. I was thinking about why I felt fainted. Then I realized that I was harmed by eating wrong food. So, I drank a hot herbal concoction. Consequently, those symptoms were gone. (Areya, Interview #2)

Frogs and string beans are common Isan foods. Areya had been eating them without problem before giving birth. According to TTM, childbirth causes Areya to have an unbalanced self and increased susceptibility to illness, while TCM may say that her body is cold from eating cold food (string bean). Chumaan's caregivers, mother and aunt who belong to an older generation, had more to share.

> Chumaan's mother said that symptoms of phit ka boon or phit kam vary between individuals. Some women have fever, whereas the others have headache. A woman with good blood and wind [leuad and lom] will not be harmed by anything. A woman with bad blood and wind, such as one who has less blood, will be harmed by many things. (Chumaan, Field note of participant observation # 1)

Chumaan's mother referred to blood and wind as factors influencing phit kam. Blood (Water) and Wind are only two of four elements mentioned by the women in this study. Although they talked about the effects of traditional practices on skin, muscle, tendon, and viscera, they did not refer those organs to the Earth element. Similarly, they conducted practices relating to fire and heat, but they did not cite the Fire element. It is possible that rural laypeople misinterpret the theory of TTM in practice. My observations suggest that they did the practice to rebalance all four elements, but did not express the specific name of the

elements. Rather, they focused on fixing the affected organs which is more practical and useful for people who are not trained in formal TTM education.

Water and Air elements work together as well as independently. Air (wind) moves the Water (blood) to circulate to its destinations, while Water is the host of the Wind energy (Department for the Development of Thai Traditional and Alternative Medicine, 2004). The two elements in Isan refer to the humoral system which has some significance. I translated the word "blood and wind" from Isan's two syllables *leuad lom* which are usually spoken together. The word may mean two separate humoral elements as described above. When translated as one word, however, I believe it has meaning of being healthy or humorally balanced. When Chumaan's mother said "A woman with bad blood and wind, such as one who has less blood, will be harmed by many things," it can be implied that bad blood and wind may impair the body's immune system and make the body vulnerable to illness. She referred to problem of bad blood and wind, and gave less blood as an example of the former without describing what bad wind might be. Perhaps for her and other Isan laypeople, blood and other fluids were easier to recognize because they were tangible compared to wind and heat. Blood loss during childbirth was also more apparent.

Chumaan's caregivers had broad experience and knowledge about phit kam symptoms. They classified phit kam symptoms into two types.

> Symptoms of phit kam may occur during or after practicing yuu fai. Those could be classified into two types: acute and chronic symptoms. Acute symptoms [*phit wai*] immediately occur after eating harmful food, but late or chronic symptoms [*phit yeum*] gradually or chronically occur. (Chumaan, Field note of participant observation # 1)

They did not only classify phit kam symptoms, but also described treatments and provided stories to support these. As found in the following story, acute phit kam symptoms can rapidly happen and are severe.

> Chumaan's aunt adds a story of a woman with acute symtoms. There was a woman who wanted to eat a salted mackerel so bad. She lined up in front of the store to buy it. After she got what she want, she carried it home. She was feeling dizzy on the way to her house. She told her a family member, who then asked her what she ate. She answered "I didn't eat anything" and then went to bed. After that, she was unconscious. Chumaan's grandfather helped her by dripping a mixture of ground an herbal bulb wan jai dam and water into her mount. Consequently, the woman regained consciousness. (Chumaan, Field note of participant observation # 1)

For Chumaan's caregiver, the strong smell of salted mackerel was enough to cause acute phit kam. The woman developed symptoms, even though she did not eat it. Possible other explanations of dizziness and unconsciousness could be: (a) the salted mackerel's strong smell, (b) wind imbalance, and (c) hypotension. Food with a strong smell is among the things to avoid in Isan postpartum food practices. Other examples include the local plant phak kha (*Acasia pennata, Lace*) and tropical fruit durian (*Durio zibethinus*). According to TTM, this postpartum woman might have the wind imbalance, which causes dizziness and fainting (Department for the Development of Thai Traditional and Alternative Medicine, 2004). From an allopathic perspective, her dizziness could be a sign of hypotension due to blood loss during childbirth.

A bulb planted around the house became the only medicine to cure this woman. Chumaan's mother told me about her father's work as an herbalist. He knew how to treat phit kam a woman with a serious phit kam condition. He taught Chumaan's mother and aunt how to identify herbs and prepare them. They applied the knowledge to take care of Chumaan and other women in this community. The following is a prescription being followed in Chumaan's family.

> Phit kam symptoms will be cured by herbs called *ya kae kam* [literally means a drug to rectify karma]. It was made from a medicinal bulb called *wan kae kam* [literally means a bulb to rectify karma] such as *wan jai dam*. Medicinal roots such as *ya nang dang* or *nang tang dang* are also used. In general, these herbs have to be boiled before drinking but, if a woman is experiencing acute symptoms, they may be ground and added to water before drinking. If the situation is urgent, chewing and then swallowing are the fastest ways to take the herbs. These herbs can be found in the forest. (Chumaan, Field note of participant observation # 1)

The above prescription is likely indigenous to this area and this practice has been followed for a long time. Chumaan's mother and aunt clearly described the names of herbs, their appearance and the useful parts, where to find, and how to prepare for using in different degrees of urgency. Other signs of acute or severe phit kam were described by Chumaan and Ladda. They used the phrase "suddenly fall flat on the back or stomach" (*kid tuan* or *ngai leui*) to describe how rapid the acute phit kam could be.

> I was told that phit kam would make a woman suddenly fall flat on her back or stomach. The hands contracted; the eyes half-closed; and the mouth widely opened. I heard somebody said so, but I never saw those symptoms with my own eyes. (Chumaan, Interview #2)

> After exiting the fire, [a woman] must continuously restrict eating food. After being out of the fire, some women were harmed by easy things, *kong ngai ngai*, such as those that are not supposed to be harmful, but they are. … I had seen the other women were harmed by this and that. Then, they were [a short pause] like falling flat on their own back [*ngai leui*]… [They were] harmed. (Ladda, Interview #1)

Ladda emphasize how important food restriction was because a simple food could cause a serious condition. I translated the Isan word *kong ngai ngai* to "easy or simple thing" to represent any ordinary thing that seemed incapable of inducing phit kam symptoms, except in some women. Darin shared what she had heard about sudden death caused by eating harmful or wrong food.

> [Some women] ate wrong food and then died during yuu fai, *tai kha fai*. … I don't know for sure whether there is a woman dead during yuu fai or not, but I have heard about a woman dying after birth. She gave birth, ate wrong food, and then died. Some

> women were dead while the food was still in their mouth, *tai kha pak*. (Darin, Interview #2)

The most severe condition of eating wrong or harmful food is death. By relating death to when it occurs, Darin categorized death into two types: death during yuu fai and death while food is in the mouth. The former happens within a specific time period during which a woman is practicing yuu fai, but latter may occur at any time. Although both terms were stated by only two participants, Darin and Chumaan, stories about death because of eating wrong or harmful food were seen in other stories. Integrating knowledge from Darin and Chumaan's family, I considered both kinds of death as subsets of acute phit kam. Saijai's mother described a woman, who died while harmful food was in the mouth.

> Saijai's mother says that she has heard of postpartum woman dying. She might eat greenweed [*tao* which is *Spirogyra, Zygnemataceae*]. Seniors said that it was a thing that caused death while it is in the mouth. The elderly spread the story by word of mouth. They said that it [greenweed] was in water, so it was cold. After eating it, the woman felt dizzy, her chin hardened, and she eventually died. This story made Saijai's mother strictly controlled Saijai's dietary restrictions. (Saijai, Filed note of the interview # 2)

Comparing the severity between the two, death while food is in the mouth is the most severe. When phit kam becomes fatal and food is still in the mouth, that food has not been completely digested, metabolized, and absorbed. The caregiver does not have a chance to detect any symptom; thus the woman has no chance to be treated. Death during yuu fai, on the other hand, takes the whole period of yuu fai to develop. The woman and her caregiver have more time to notice signs and symptoms. However, both kinds of death could occur simultaneously when a woman is eating harmful food during yuu fai and suddenly dies while food is still in her mouth.

The women and caregivers in this study believed that both kinds of death happened because a postpartum woman did not observe food restrictions well. Logically, death during

yuu fai should not happen because the woman is supposed to restrict food to a few approved items and drink a lot of hot herbal concoctions as a preventive medicine. I noticed that most of the stories about phit kam told in this study happened after the woman completed yuu fai when they tried more kinds of food but drank less hot herbal concoctions. Two strong smelling items, including a local vegetable, phak khaa, and a spiny fruit, durian, were most frequently mentioned as the serious phit kam-producing agents.

> Some woman may be harmed by certain food such as cha ome or phak khaa [*Acacia pennata*, a local strong smell vegetable] and durian all of the time. A woman may suddenly fall flat on her back or stomach just because somebody is holding a lobe of a durian past her. (Chumaan, 32, Field note of participant observation # 1)

Both Chumaan and Darin agreed that durian was the deadliest fruit for postpartum women. They assigned it to the dead-at-the-mouth food group causing acute phit kam symptoms. Like salted mackerel, durian can induce the symptom merely by its smell.

> Women show signs of phit kam differently. After being out of the fire, we are able to eat food as we do in the ordinary day, but we will follow food prohibition. … Some women may be harmed by cha ome, feeling that it stinks. Then, they will have dizziness, one of the phit kam symptoms. Durian and Jackfruit are examples of food that may cause phit kam symptoms which varied from woman to woman. (Ladda, Interview#1)

Ladda's interview was conducted when she was seven months pregnant. Although she had not yet given birth and practiced food restriction, she already identified herself with a group of postpartum women. She was using a plural pronoun "we" to show her unity with that group. She gained some knowledge about food avoidance that may guide her food practice after birth. Stories circulating in her community became lessons for this expecting mother. For example, she was told not to eat jackfruit.

Interestingly, jackfruit is a common backyard tree in Isan. Its edible pulp and nutritious seed are consumed as a fruit, sweet, or snack. It is used as medicine in TTM. The

pulp, a sweet taste, increases the Earth and Water element, but decreases the Air and Fire elements. The seed is assigned differently to a nutty taste, which increase the Earth, Water, and Fire elements (Salguero, 2003). Its property is to increase the Fire element and postpartum women are encouraged to eat its seeds, but not its pulp. Jackfruit mentioned by Ladda above might mean the pulp only, which should be avoided. The rather strong smell of jackfruit might be an issue as well, although it is much less than that of durian.

Ladda told a story of her sister, who developed phit kam symptoms after six months of postpartum. A durian was the causative agent. Her main symptoms were dizziness and headache, which had been bothering her for a few days. The phit kam investigator and healer was her mother, who boiled herbs for her to drink for a month.

> She was working in Bangkok. She was harmed by a durian. …How long had it been since she delivered? [Ladda repeats the question] [She] took the baby with her. It was very small. The whole family had moved. How many months? [Ladda asks herself] [She may be] around 6-7 months postpartum. She still had phit kam symptoms. She had dizziness and a headache. She was unable to work that day. …My mom was sure that she had phit kam. "What did you sneakily eat?" [Change the tone of voice in "__"] "A durian", my sister answered. Durian is her most favorite fruit. She said she ate only one seed; however, it still caused phit kam symptoms. She got the severe headache and needed to lie down for a few days. My mom boiled the medicinal herbs for her. (Ladda, Interview #1)

From the TTM point of view, half a year was not enough for Ladda's sister to rebalance the three essences and four elements for the self and body, respectively. She was still vulnerable to illness caused by eating prohibited food. While the self was regainingbalance, it might not be sufficient to deal with durian. Ladda's sister dared her to eat durian although she had been warned about its possibility of causing phit kam symptoms. She had to sneak to eat it.

I am not surprised why Ladda's sister did so. Durian tastes very good, but it smells is "bad" or strong when it is ripe or overripe. Long time ago, I read a travel-guide book saying

that eating durian gave the feeling of eating your most favorite ice cream in the toilet or tasting like heaven but smelling like hell. In its season, some public transportation in Thailand such as air-conditioned buses does not allow a passenger carrying a durian to get on.

Ladda's sister was sick when she was in the capital city, whose residents might have a different opinion in what was happening to her. As an expert in Isan traditional postpartum care, her mother quickly acted. She detected the cause of the sickness fast and knew in her mind how to deal with the symptoms. She was prepared by taking medicinal herbs with her when she moved to that city. She boiled the herbal medicine for her sick daughter to drink. Finally, she took care of the daughter closely to make sure that all processes were properly managed. As a mother, she took responsibility in caring for an ailing daughter in her own way. Saijai's mother had not yet had a chance to take care for a daughter with phit kam, but she had experience in caring for her mother. Moreover, she herself had phit kam symptoms at one time.

> Saijai's mother said that, when her mother had a little baby, she had phit kam because of eating a mandarin duck. After eating the duck, she had severe conditions for a half a month. She had dizziness; she always smelt something stinky; she was unable to remember or recognize anyone; and she could not see things well. The family took her to a military doctor, who was practicing in a temporal unit in Sirindhorn district. She got a shot, but the conditions were not getting better. (Saijai, Filed note of the interview # 2)

The first story above happened thirty years ago. Saijai's grandmother had phit kam symptoms for 2 weeks. Her conditions could be defined as acute phit kam according to a symptomatic classification of Chumaan's mother. She received allopathic medicine from a military doctor at a mobile unit, because there was no hospital in the district. That she and her family sought care reflects how seriousness of the condition. Still, most persons with phit

kam symptoms will seek traditional care within family or community, no matter how old they are or how easy it is to access a hospital. Ladda's sister sought care could be used as a comparative case. I considered her as a contemporary new mother who gave birth to the first birth within 10 years. When she had phit kam, she was in a big city with easy access to a hospital, but she was still treated by her mother. Saijia's mother, who had the first childbirth 18 years ago and experienced phit kam three times, shared her story as follows.

> Saijai's mother said that she was harmed three times for three kids. First, it was *sa wai* fish [*Pangasius fowleri*] that she never thought would become harmful to her. Her mother cooked it by wrapping it with banana leaves and then steamed [hor mok] it. After eating that dish, her legs were weak and in pain. She was dizzy and got a headache. In addition, she felt like the chest was compressed; she felt suffocated. Second was a fruit of a local herb named *lin mai* [*Orcxylum indicum Vent.*]which thrives in this rural area. Third and most serious phit kam symptoms she experienced were from eating *beung* [a mygale which is a spider of genus *Avicularia*] and then sa wai fish. (Saijai, Filed note of the interview # 2)

Fish is a neutral food, which is not supposed to harm a postpartum woman (Laderman, 1984). Fish is plentiful in Sirindhorn district because there is a dam and rivers in close proximity. It is an Isan daily food similar to rice. Therefore, it is reasonable that Saijai's mother seemed surprised when she realized that sa wai fish could cause phit kam. This particular fish may be one example of "easy or simple thing" identified by Ladda. It is a thing that is not expected to harm the women, but according to the women in this study it does. It can be food that was eaten before childbirth with no harm, but causes malady if eaten after childbirth.

Thailand is well known as a place where insects are eaten. Vendors sell fried bugs on the street, in local markets, food courts, expos, and at night markets. The business has become franchised in some parts of the country, including commercial farms. Some Isan people eat seasonal insects such as giant water bugs, scorpions, grasshoppers, crickets, and

eggs of giant red ant as meals or snacks. During the data collection period it was a season of a cicada, an edible insect sold in a local market or available for free in trees. Saijai's mother told me her severest phit kam happening after eating beung, a pupa of a spider.

> When her baby was one month old, Saijai's mother ate beung [a pupa of a mygale] because she did not know that it was capable of causing phit kam. She tried a small portion as the same size as her thumb. Consequently, her chin was numb and hard. She felt pressure at the chest; hence, she was unable to breathe well. When she breathed, she heard noises like "feed feed". She had dizziness and blurred eyesight. Her husband ground roots of a local herb called nang chang taken from a temple with water for her to drink. He was unable to sleep because he had to ground the herb all night. After taking the medicine, she vomited, defecated, and urinated all night long. She said, when she got up in the next morning, she looked like a very ill person. She was unable to walk steadily. She felt pain in her legs. When she walked, she inclined back and forth between the left and right side. She concluded that if she didn't have the herbal antidote, she thought she would have died that night. (Saijai, Filed note of the interview # 2)

That Saijai's mother ate a pupa of a spider is not a strange eating behavior in Isan. She probably ate it because it was free food she could find in her rice field. When food is short, whatever is edible will be gathered and brought home. Growing up in this area, she has known that it was safe to eat the pupa, but she did not know how it would affect her as a postpartum woman.

Unlike her mother, Saijai's mother received traditional treatment only. She had gone through a critical night with intensive care provided by husband and mother. They cooperatively detoxified her. As an herbal provider, her mother obtained the herb *nang chang* from a temple and used it as a common medicine. The herb functioned well in rescuing Saijai's mother's life.

I interpret that her family's faith in the herb was not only from the herb's known actions, but also from where they got it. Growing up in a Buddhist family, I have learned that a temple is a holy place. It is a place for worship, purity, and virtue In the temple, all things,

from the smallest element such as a drip of wax from the candle to the largest such as the temple itself or land surrounding it, are sanctified. Some monks also gained reputations for providing herbal and spiritual treatments. When Saijai's mother said the herb was from the temple, she might have meant either it was given directly by a monk or her mother gathered it from somewhere in the temple area. Either method indicates holiness and empowerment.

People from two periods of time employ different ways to approach phit kam. Darin, a 22-year-old new mother considered herself a modern person. She thought an allopathic health care provider was able to treat phit kam conditions. She would go to a hospital instead of taking an herbal medicine. I think whichever tradition chosen depends on the choices available to a woman. Darin took avantage of allopathic health care available to her and used it to distinguish between a modern and non-modern eras. The former is the present time when a woman chooses the tradition she wants to get care from and is able to access selected services. The latter is the past time when a woman got traditional treatment only or as the first choice because she was unable to access an allopathic hospital.

> There is a doctor in our area too. Unlike people in the present, people in the past had herbs found in the forest. They were cured when phit kam symptoms were gone. Today, we go to see the doctor. He or she has an antidote [*ya kae*]. (Darin, Interview #2)

Antidote is translated from ya kae, which literally means a medicine for correction. This translation works in terms of treating purpose to stop or control the effects of a poison. However, because those harmful things are food not poison, the given drug may not act as the antidote in the body. It may not be the antidote for the poison. It could be anything else (such as vitamins, electrolyte, or pain killers) which are able to stop the symptoms or make the patient feel better.

Holistic Healings

Bodily cares. After childbirth and hospitalization, all Isan mothers in this study changed their food practices. These changes involved decisions, selections, preparations, and restrictions when returning to their homes. They followed the practices under senior family members' orthodoxy with a few chances to make their own decisions. The senior persons, who were also caregivers, laid out the practice rules and regulated the new mothers by observing them. They took a crucial role to decide and select what the new mothers should eat or must avoid. They prepared recommended food for the women, when they were practicing yuu fai or busy with hot herbal baths or drinks. Isan women were encouraged to have special food to rebalance the body especially to improve blood quality or to drive out bad blood. However, because of fear of phit kam symptoms, most items were avoided during yuu fai. Moreover, many other reasons such as maternal and child health, economic status, food availability, and convenience limited their food choice

Blood recovery. Blood and other body fluid are organs in the Water element according to humoral theory in Thai medicine (Salguero, 2003). Losses of blood, sweat, amniotice fluid, and lochia during childbirth and postpartum period cause Water imbalance. Isan women regain their body balance by eating special food.

> When I was pregnant, I ate as other ordinary people did. When I was practicing yuu fai, senior persons suggested me to eat galingale, garlic, and onion because they would drive the blood out of the body fast. …Because the garlic, galingale, and the like are hot things, they could drive [the blood] out of the body. (Darin, Interview #2)

In the beginning of the interview, Darin told me about cold food, but did not talk about their hot counterpart. I asked her to talk more about hot-cold food, how she defined hot-cold food, and how to assign each item into appropriate categories. She said there were other cold foods which were prohibited, but she could not give examples because she did not

eat them. Eating hot things on the other hand, was encouraged as demonstrated in the example above, which shows that Darin had changed her food practices after childbirth. Being in a postpartum period made her pay more attention to how she ate. Dietary awareness after childbirth was more important for her than before. Her seniors taught her about what she should eat, what she should not eat, and why.

In both TTM and TCM, some of the hot herbs allowed for postpartum women are samara similar. In Chinese medicine, a postpartum woman is encouraged to have more ginger (Raven, et al., 2007), while an Isan caregiver encouraged the woman to eat more garlic, galingale, and onion. They believed that would help the body flush the bad blood out of the body. Darin's belief was in keeping with TTM knowledge. Those spices with hot (spicy) taste would increase the Air and Fire elements, but decrease the Earth and Water elements. Garlic is used as a blood tonic in an herbal remedy of TTM (Salguero, 2003). I previously understood that those spices were use to season dishes, but I saw one woman ate garlic raw. Saijai peeled and ate raw dry garlic. I thought it must be spicy, but she did not complain.

> Saijai's maternal grandmother gives garlic to Saijai and tells her to eat it. She is quietly following the grandmother's instruction. The grandmother also says that she will find galingale to be ground for Saijai to eat. Galingale has good smell after grounding. Both garlic and galingale are considered blood medicine. (Saijai, Field note from the participant observation # 1)

Stomach care. In the postpartum period, certain food were prohibited or allowed for different reasons, one of which was that those foods might be too hard to digest. In Darin's food practices, along with sticky rice as a source of carbohydrate, only three animal proteins including fish, chicken, and pork, were allowed during yuu fai. Beef was not allowed because it was believed to be difficult for digestion.

> Food must be pork and chicken. Beef was not allowed by the senior persons who were worried about [our] intestines. They were afraid that the beef would be too hard to be digested or our uterus and [perineal] wound might be hurt. Thus, they didn't permit us to eat it. They said pork, chicken, and fish were easy to be digested. … Otherwise, [we should] eat our homemade rice cake. (Darin, Interview #2)

Based on TCM, animal meat is hot and should be encouraged for postpartum women (Raven, et al., 2007). TTM classifies plants, fruits, mineral, and selected seafood used as medicine into tastes, but does not do so for animal meat. Fish, chicken, pork, and beef are not classified into tastes (Salguero, 2003). However, those meats are solid organs which are parts of Earth element. For a woman, those meat she ate are considered external Earth element for her. This theoretically increases the Earth element in her body. Thai healers also believe that digestion is central to health. I understood that Darin's caregiver applied TTM knowledge, by allowing Darin to eat mostly fish that was easier to digest. In Malaysia, fish is grouped into neutral food which is safe for a postpartum woman (Laderman, 1984).

I am not sure how Darin connected eating beef to the uterus and perineal wound. As mentioned earlier, some Isan lay people grouped the reproductive organs into the gastrointestinal system. I think Darin might have logically thought that if beef could cause difficulty in the stomach, it could make trouble for the uterus and wound as well. Another reason for not eating beef in Chumaan's family was that it was hard distinguish it from water buffalo meat, which was absolutely forbidden. Unlike in Darin's practice, pork was not allowed in some families because it contained animal fat which was believed to delay wound healing. Chicken was allowed in every family, but not all chicken could be used in the women's meal. Saijia said that her grandmother allowed her to eat only black chicken, a fowl with black feathers, skin, legs, and meat. She said "I can eat only black chicken, pork, galingale, and garlic.*"* (Saijai Interview #20)

> I was told that I was not allowed to eat spicy raw papaya salad, fermented fish [pause], and meat. I am not allowed to eat meat…water buffalo meat. In the beginning of the practice, I was not allowed to eat beef and flesh from a fowl with multi-colors. … A chili is not allowed as well because it may irritate the baby's stomach. [Laugh] (Saijai Interview #2)

The gastrointestinal system of the baby was another reason for the mother's food practices. New mothers avoided eating sour, spicy, and pickled items because of their belief that those foods can cause gastrointestinal problems such as diarrhea, bloating, and gas for the baby.

> If the mother doesn't practice food restrictions, the baby will have more frequent poops. Therefore, its weight will decrease fast. The newborn baby will cry a lot if its belly is bloated. The baby will cry all day and night, if we eat without thinking about it. We should decrease eating sour food. (Ladda, Interview #1)

> About eating, senior persons didn't allow us to eat sour food because they worried that our baby would have diarrhea. The babies drink our breast milk. The babies' health would go bad, they said. … If I didn't breastfeed the baby, I was able to eat normal food as I did when I was [pause] when I hadn't delivered. (Darin, Interview #2)

From a nurse's point of view, this belief is compatible with biomedical practices because all three kinds of food can irritate gastrointestinal system, causing abdominal discomfort or pain and bloating. Sour food in TTM elevates the Water and Fire elements (Salguero, 2003). That should benefit a postpartum woman because she lost both elements during childbirth. Isan women skipped sour taste to protect the baby. Another example of food capable of causing bloating for the baby was morning glory (plant).

> She tells me a story of her postpartum cousin who ate soft-boiled morning glories in the third day after exiting the fire. Her baby's belly was bloated and he cried a lot. She didn't know how to deal with him. She didn't know that the baby was hurt by soft-boiled morning glories. (Ladda, Field note of the participant observation # 1)

In TCM, vegetables are cold and should be avoided (Laderman, 1984). Based on TCM, it is possible that a baby's condition is caused by eating cold food. For example, the

morning glory, and how it is cooked could both cause problems. If it is soft- boiled meaning not thoroughly cooked, it could produce gas resulted in bloating for the baby. This idea was supported by Saijai's mother, who did not want her daughter to eat raw vegetables because it might affect the baby's health.

> Saijia mother does not want her daughter to eat raw vegetables because they will make the baby's belly bloated. She does not want Saijai to eat a lot of raw papaya salad. She thinks unripe papaya has sap that is able to cause an itch in the wound. So, eating raw papaya salad and raw fermented fish are not good for a postpartum woman. She will allow Saijai to eat those kinds of food when her baby is a few months old. (Saijai, Field note from the interview #2)

Isan papaya salad is made from green papaya seasoned with fish sauce, fermented fish, chili, and other ingredients. The main tastes are spicy and salty. Most women in this study avoided eating this salad because of its extreme tastes. Saijai's mother, on the other hand, concerned more about sap, white liquid seeping from skin of green papaya. Green papaya contains the enzyme papain, used as a meat tenderizer (Salguero, 2003). I think Saijai mothers may generalize its quality as the tenderizer to its reaction on the woman's wound.

Isan soup seasoned by ground-roasted sticky rice, *khaw beau* or *khaw khua*, was another avoided item because it was believed to cause bloating in the baby. An example of such soup was *kang aom*, an Isan soup made of vegetables and meat, fermented fish, fish sauce, onion bulbs, garlic, chili, lemongrass, and *khaw beau*.

> Rice groups such as a certain Isan soup with ground rice are prohibited because seniors were afraid that our belly would be bloated. The baby was breastfed while I was yuu fai….Rice was allowed, but the soup seasoned with rice was not. They allowed us to eat nothing except pork and chicken. (Darin, Interview #2)

Breast milk's taste and smell may change after a lactating mother consumes certain food (Mitchell, 2003). Darin watched what she ate because she knew that certain food could be excreted via breast milk. She told me later that she did not dare to eat much of those

discouraged food. She just tried them a little bit at a time. She would eat as usual when the baby was a few months old. She, however, ate the soup once after being out of the fire for 2 weeks. Consequently, her baby's belly bloated; hence, she cried a lot. Darin might be stricter in following the senior's food recommendation after seeing negative results of eating forbidden soup. Nisa reported the same condition happening to her baby after she ate Isan meat salad (*larb*) seasoned with roasted ground sticky rice, mints, onion, lemon juice, fish sauce and chili powder. Yada's baby, on the other hand, had bloated after the mother ate ground peanut. In the literature (Lawrence and Lawrence, 1999), colic may occur in some babies after their mothers ate garlic, onion, and sulfur-containing vegetables. Women in this study, however, ate garlic as a haematic herb and they did not mention onion as a cause of the baby's bloating. The following example is how Ladda advised another postpartum woman to gradually resume her regular food practices.

> Soft-boiled vegetables and some kinds of soup should be carefully eaten. A postpartum woman should eat a little bit of those and then observe phit kam symptoms in both mom and the baby. She must observe its outcome from how the baby poops. If the food isn't hurting him and his stomach is normal, he will poop normally. On the other hand, if she eats wrong food, the baby's belly will be bloated and it will poop more often. (Ladda, Interview #1)

Unlike soft-boiled vegetables that may not be cooked well, soup was generally cooked using more time and heat. Soup has a lot of water just like the hot herbal drink. What may matter may be the ingredients in a particular soup such as ground rice in the soup as mentioned by Darin, or strong tastes of typical Isan soup. Just like general Thai food, some kinds of Isan soup are cooked with one predominant taste such as salty, sour, spicy, or hot. These tastes may be capable of irritating the gastrointestinal system. The flavor from these tastes may transfer to the baby via mothers' breast milk and contribute to gastric distension.

Saijai's mother confirmed that phit kam could hurt the baby's belly and decrease milk production.

> Saijai's mother says that today's women eat things when they want to. She herself didn't dare to eat a mandarin duck because she saw her mom was harmed by it before. She allowed her daughter to eat chicken and pork, but not to eat other meats. She is afraid that the baby's belly may bloat because he is too young. She will allow Saijai to eat those when the baby is 2-3 months old. (Saijai, Filed note of the interview # 2)

> Saijai's mother says that most of women who did not practice food avoidance ended up feeding the baby with formula. Their breast milk will be gradually decreasing and finally gone. She insists phit kam has been happening since the ancient times. Her mother did not want her and her daughter to eat prohibited food, according to an ancient belief. She, however, thinks it is not just the belief because it actually happened to her. She concludes that if postpartum women eat carelessly, they will get dizziness as she did. So, they have to be careful about eating. (Saijai, Filed note of the interview # 2)

Family planning. Caregivers of the women mentioned that food restriction was used in the past, as a contraceptive method to control spacing of children. This method does not exist in any natural nursing, medical, or TTM textbook I have read. Chumaan's mother told me how food affects a woman's fertility.

> Chumaan's mother said that eating many foods would make the intestine fresh. The fresh intestine, or sai suen, is believed to narrow the interval between children. In the past there was no contraceptive method, so that food restriction became one of traditional ways to limit the number of children by widening the empty uterine interval. (Chumaan, Field note of participant observation # 1)

I interpreted earlier that the word *sai* literally means the intestine, but it should also mean viscera especially the uterus and reproductive organs. The word *seun* literally means fresh or cheerful. Although previously I translated *sai seun* in Saijai's context into inflamed reproductive organs, its meaning in Chumaan's is different. From the field note above, I think Chumaan's mother was sending a message. She did not want her daughter to eat a variety of food, because it would make her daughter's uterus regain its health and be ready to

have another baby too soon. So, *sai seun* in this context should mean the uterus or reproductive organs might resume their function. I think if this family planning method was effective, it might be because food restrictions made a woman unhealthy and temporally infertile. One question raised is why food restrictions were still followed when other birth control methods are available. Perhaps in the past, senior caregivers might lack knowledge about family planning and nutrition. Positioned at a higher hierarchy in the family, she set the course of postpartum care for a younger new mother without any objection. It then became family's traditions and norms followed by women although the new generation has more knowledge in family planning methods and nutrition. It is possible that there are other more powerful reasons than just family planning for food avoidance in this family.

Mind-Heart rebalance. The majority of symptoms developed after eating harmful food were demonstrated by physical and psychological suffering. Most frequently mentioned symptoms were dizziness, fainting, fever, and headaches. The severest was death. Chumaan was the only woman who mentioned psychological symptoms. She said "Some women with phit kam might be depressed and sad. The symptoms varied from woman to woman. But they [anybody or senior persons] talked by comparing that "the patient will die and harden before arriving to the hospital." (Chumaan, Interview #2) Citta or mind-heart is one of the three essences of the self according to TTM belief. Mind includes intellect, beliefs, thoughts, reason, and learning, whereas heart involves emotion, intuition, faith, and spirituality (Salguero, 2006, p. 6).

The mind-heart essence is important in transferring knowledge from generation to generation. Based on what each family practiced and believed, a novice was taught and trained by an expert to learn how to eat as an Isan postpartum mother.

> Saijai's mother said that somebody may not believe in phit kam, but she does because she herself had the experience of serious phit kam conditions. Consequently, she strictly controls her daughter's food restrictions. She doesn't want Saijai to carelessly eat food. She disallows Saijai to eat prodigally. She says she actually doesn't want Saijai to eat anything. Allowed items are what she ate before and had no phit kam symptoms. She is afraid that Saijai may have the same conditions as she had in the past. (Saijai, Filed note of the interview # 2)

Both Saijai's mother and maternal grandmother experienced phit kam symptoms that occurred after eating certain food. They used these experiences to lead the way they cared for Saijai. Her story has been recited over and over to caution a new mother about eating. New food such as pupa of a spider, freshwater greenweed, mandarin duck, and sa wai fish, was added to the list of taboo food for her family, clan, and community. Similar to knowledge in rural TTM, wisdom about food restrictions in Sirindhorn district appeared to be mainly passed down from generation to generation within a family.

> She [Darin's maternal grandmother] knows because she did that before. She said she wanted me to eat this way. She didn't dare to let me try the other food that she has never tried. If she allowed me to eat, she was afraid I might have phit kam. Eating harmful food might cause death. (Darin, Interview #2)

> This makes me keep in mind that the elder directly experienced things before me and then taught me from their lessons, all of which were proved later that they were right. We are unable to object to those truths because they are direct experience. We come later; we come after them. No, we are not able to contradict because we haven't had those kinds of experiences. So that believing in the elder is the best way. What they tell us is the best. Everything is the best because they are not going to suggest us to do bad things. (Chumaan, Interview #2)

Suggestions coming from outside the family were also welcome. I noticed that women in this study did not hesitate to take suggestions, while other people seemed pleased to give advice. Chumaan, for example, got advice on how to eat after childbirth while she was shopping in the local market.

> I met people outside my family such as somebody who knew me. We met in the market. They suggested me not to eat dry food such as grilled items. Do not eat them,

> because they were dry. They will decline breast milk. Yes, all people I knew said so. (Chumaan, Interview #2)

Chumaan is an example of a middle generation standing between old generation (her mother) and newest generation (her son). When employing a practice for herself, she tended to believe in traditional knowledge.

> I do believe in ancient knowledge first. [Laughing while talking] We survive because it was continuously passed to the present. Although contemporary knowledge is piled up, the ancient knowledge isn't bad. On the contrary, it has been good since the past time. (Chumaan, Interview #2)

Chumaan, however, applied modern or western knowledge for child care.

> I must believe in the contemporary knowledge because the baby is born in the modern period. So, I have to believe in the current knowledge first. The world changes every day. We cannot hold to ancient words because diseases are developing. (Chumaan, Interview #2)

The above quotes from Chumaan show conflict in health care decision happening within one woman. A study from China (Raven, et al., 2007) in a sample of 12 families showed that most postpartum women tended to follow their parents' and grandparents' advice because they were not sure if the modern medicine would be good for them. Some women, on the contrary, ignored traditional practices because they were not sure if those practices would still be appropriate in the current time. Chumaan, however, was presenting her two different stand points in selecting her first choice of health care services: traditional care for herself and allopathic care for her son. Her choices were built on her trust of expertise in each tradition. In postpartum care for herself, the expert who prescribed cares was her mother who had self experienced with yuu fai and also took care of other women in this ritual. Outcomes of the practices must be good, according to what she said "…the ancient knowledge isn't bad. On the contrary, it has been good since the past time." Therefore, Chumaan believed her mother knew enough to take care of her. Care of the baby,

on the other hand, was not her mother's expertise. Thus she chose allopathic care provider reasoning that although her mother might have some experience in baby care, it was long time ago.

I think certain level of vulnerability and autonomy could be another factor influencing Chumaan's health care decision. Her thinking might be that she is a mature adult capable of evaluating and informing her caregiver about any condition happening in her body in time. As well, she could go to a hospital if traditional treatment was not working. She was strong enough to tolerate the condition to some extent. Therefore, practicing traditional care might be worthy and low risk for her but not for her baby, who was more vulnerable to disease. Lastly, in postpartum care Chumaan lost personal independence to her mother. She practiced yuu fai and food restrictions under her mother's rules. In the baby's case, however, she is the mother and thus entitled to to make her own decision about which traditions of care her baby should receive.

Food for spiritual assurance. Spiritual practice is a way to improve a woman's heart. In TTM, the fire from the bonfire is considered an outside Fire element, a quality of which is able to burn the body (Department for the Development of Thai Traditional and Alternative Medicine, 2004). The main rituals to secure the souls of the woman and her baby were performed before and after yuu fai, which will be present later in this chapter. This current section discusses specific food including salt, sugar, and sticky rice, used in food practices and yuu fai.

***Salt: A protective ingredient*.** Salt plays many roles in Isan traditional practices. When there is a postpartum woman in a family, it was used to season sticky rice and grilled meats, main items for the woman during yuu fai. Salt was thrown in embers before the

woman exposed her face to the fire and mixed with warm water for hot sitz bath. Chumaan added salt in her curcuma mixture applying it to the skin to protect it from the heat. In the spiritual rite, salt was thrown into a bonfire to control the power of the fire before the women entered yuu fai. Salt now is not just a seasoning or preservative substance.

> The purpose of entering the fire rite is to protect the woman from heat of the fire. If the rite is not done correctly, the woman will feel like there is a bonfire burning on her back and skin. The rite begins after firewood is ignited and the bonfire is blazing. The healer then will salt the bonfire, chant a mantra the same as that in exiting the fire rite, and blow the mantra into the fire (not the woman). (Ladda, Field note from the participant observation #3)

Salt in an Isan kitchen may be either sea salt, *kleua sa moot*, or soil salt, *kleua sin taw*, which is obtained from salty soil in Isan region where there are underground salt deposits. Soil salt is one ingredient in Thai medicinal remedy (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Chumaan's mother told me that women in the past used the soil salt, which they called salty pill, *kleua med*, in the yuu fai. She could not find it. Thus, she used mass-produced sea salt sold in a local market. In the past when transportation was not convenient, Isan people relied mainly on the soil salt. The area has no access to the sea, so sea salt might be unavailable or too expensive. When I was a child, I saw a peddler carrying buckets of salt on his shoulders in my community. The salt was coarse and polluted by dirt.

It might be because they used salt in hot sitz bath as well as food preservation that Isan women believed that salt kills germs and maintains organic substance. They used it to protect things from harm and decay. The preventive and protective meanings were not only applied for physical substance, but also spiritual essence. The healer in the ritual used it to protect the women from excessive heat from the fire, which is controlled by a supernatural being named the God of the Fire. I think the healer used salt to spiritually control the heat

for a therapeutic condition. Thus the women could get benefit from the heat without being harmed by it.

Sticky rice: Food to feed human and spirit. A few varieties of rice are popular in Thailand, but sticky rice, khaw neow, is an Isan daily staple. It is cooked by soaking in water overnight and then steaming. Sticky rice is also used to make noodles, rice flour, and rice wine. As an Isan woman, I think it is valued far beyond its nutritional content because it reflects the eaters' ethnicity, culture, and a native region. To identify their uniqueness, some Isan citizens may call themselves "an offspring of the sticky rice" (*look khaw neow*). When Isan people get together to eat, steamed sticky rice will be one item in their menu. When a Thai person is seen eating sticky rice, he or she will be assumed to be an Isan resident. Moreover, only steamed sticky rice can make some Isan people feel full after eating. They feel this satiety longer after eating sticky rice than other starches such as rice, noodles, or bread.

Although childbirth is a happy moment worthy of celebration, the women were not allowed to do so by indulging in food as Thais normally do in other rites of passage such as marriage and ordination. Other family members might prepare various meals for them or guests to celebrate so long as the repasts were safe for the postpartum women. Otherwise, family would have to eat at a distance from the yuu fai place.

In my interpretation, however, celebratory food may be in the sticky rice itself. Rice earns high value in Thailand. As a merit making activity, it is steamed and offered to a monk during early morning alms rounds. I found this early morning ritual practiced in the study site, including in Saijai's family. For a farmer who is unable to afford side dishes, rice is the only food he or she can give the monk for increasing individual merit. Therefore, it becomes

a symbol of merit and generosity. It is also a medium between laypeople and religious. The laypeople use it to honor Buddha via a monk, Buddha's apprentice.

Thais praise rice as a sacrificing mother, who has a soul called *Mae Po Sob* (a Goddess of Rice). My family and other Isan farmers call each stage of growing rice by terms referred to a pregnant woman. For example, rice about to form ears is called "being pregnant" and a white liquid substance inside each rice seed is called "milk." Rice containing a sacred- protecting maternal soul is finally transferred to the postpartum woman via her daily meals.

I believe the ability to grow may be another hidden meaning for providing sticky rice to a postpartum woman. Sticky rice is popular in the north and the northeast regions of Thailand. Thais in other regions or whoever does not eat sticky rice enjoys rice called *khaw chaw*, the most popular of which is aromatic jasmine rice. Comparing the two, sticky rice survives drought, salinity, and floods better than khaw chaw (van Esterik, 2008). Therefore, it symbolizes strength, patience, endurance, fight, and survival. Those are preferred characteristics of a new Isan mother in a farmer family. So, once again, the qualities of the grain may symbolically be transferred to the mother as she consumes the sticky rice. Increasing the ability to do hard work in the farm is one goal of yuu fai, which will be presented in the next part of this chapter.

Isan women in this study believed in animism, which is practiced harmoniously with Buddhism (Salguero, 2003, 2004). Chumaan's grandmother, for example, saved a small lump of sticky rice offered to a monk in the morning alms for a wandering spirit. She put it on top of a column of the gate door. My mother and sister do it the same way. They said it would become food for a bird, a rat, and an ant, after a ghost spiritually ate the rice.

Influenced by animism, Isan people believe that the fire has a spirit named God of Fire, *Pra Pleng*. In general use, pra pleung has a male spirit, but Darin's grandmother, who was also a healer in the ritual, referred to the spirit as female by calling her *Mae Fai*, mother of fire. Isans give high respect to this spirit regardless of what they call it. The word *pra* means "monk" and in the past, is used to address Thai royalty and government official; the word *mae* means "mother". The God/Goddess of the Fire was animated with changeable emotions. He/she could be either benevolent or malevolent depending on his/her mood. For example, on the headline of Thai newspaper, an inferno was said to be caused by an angry God of Fire, *Pra Pleung phi roat*. The spirit of the fire in Darin's ritual was pacified by steamed sticky rice flavored with sugar.

> Darin's maternal grandmother is preparing the offering for the rite. She places a white plate containing two 1-inch bites of betel leaves, two 2-inch rolls of tobacco, and three small bites of steamed sticky rice seasoned with sugar. She leaves the place for a while and then comes back with *dork pood* [a white flower] and two threads of white cotton. (Darin, Field note from participant observation # 3)

Sticky rice seasoned with sugar was offered to the God/Goddess of Fire during exiting the fire rite in exchange for his/her protection. Sticky rice, the main source of carbohydrate for a postpartum woman, became an offering to please the deity. It was sweetened by sugar, a common ingredient in an Isan kitchen. Also, I understand that sticky rice and sugar may symbolize two types of Thai cuisine. The former symbolizes rice and side dishes, *khong kaw*, whereas the latter a dessert, *khong wan*. Thus, three bites of sticky rice seasoned with sugar symbolize the whole Thai food tray, which is supposed to please everyone including a divine being. I assume that the God of Fire preferred sweetness and liked what Darin's grandmother was offering, because she and Darin seemed satisfied in

what they had done. Darin completed her yuu fai without any skin problem nor did she complain about a burnt feeling on the back after exiting the fire.

Other Reasons for Food Practices

One factor influencing food choice of Isan postpartum women was the availability of certain food. The study site Sirindhorn District has a reservoir and its surrounding river serves as habitat for fish, specific kinds of which were allowed for postpartum women. Chumaan mentioned poverty as the reason limiting her family's food selection. Her family was unable to afford a variety of food. Therefore, food available in nature was the best choice. "Because of poverty, we [Chuman's family and sister-in-laws] eat … most houses are close to a river or the [Sirindhorn] dam, therefore we mostly eat fish. We grill it." (Chumaan, Interview #1)

From my observations, rural and urban people in Thailand have different ways to get food. The urban people may earn more money, but they have to buy food in a market. The rural, agricultural people, on the other hand, earn less money but they can find food in their natural surrounding. Fish can be found in the rice fields, rivers, and ponds. They own lands to grow vegetables, fruits, and crops and to raise poultry, cows, and water buffalos. Those products are produced for selling and consuming. Their income may be lower compared to national income but their chances to access food are abundant. However, a variety of free food is limited by climate and geography. For instance, people who live near the river have access to more fish than those live in the highland. Conversely, the highland people have access to more plant food such as bamboo and various tubers. Therefore, certain nutrient rich food recommended by allopathic health care provider may be almost impossible to obtain due to climate, geographic location, and poverty.

Places to cook for some women were somewhat isolated. Meals of most women were cooked using the fire by which they were lying. No food for other family members was allowed to be cooked there. Because cooking by using the ritual bonfire might not be as convenient as using the fire in the family kitchen, Chumaan noted that easy preparation might be a reason why a postpartum woman ate sticky rice with grilled meat.

> They [postpartum women] will not eat complicated items. They will eat food…like… hand-held food….They will not eat a variety of food set in the food tray like the ordinary people do. …The postpartum women grill [something] on the fire by which they are lying and then eat …. [They] just eat sticky rice molded in the hands and then done. This means that they will eat easy-to-cook food during yuu fai. (Chumaan, Interview #1)

Chumaan also described Isan eating style. Typically Isan people, including my family, eat sticky rice from the same bamboo container, and a few dishes in a circle on a bamboo or metal tray. Rice and side dishes are served all at once and shared among each other sitting around the tray. I had a chance to have lunch with one family. I found dishes in that meal were spicy papaya salad, grilled fish and pork, chili paste, and raw vegetables gathered from the garden and rice field. This daily style was too cumbersome for the yuu fai woman, who had to take specific food in isolation.

The phrase "hand-held food" translated from Isan word *kin ka meu* reflects ease of the postpartum woman's eating style. To reduce complexity in food preparation, rice and a few dishes were simplified to "sticky rice and grilled something" and a tray was transformed to "hands." Although Chumaan did not say what was grilled, I knew from contexts of the interview and observations that it was meat like chicken and pork or sticky rice, not prohibited fruits or vegetables. She further elaborated what was easy to cook for her. She gave examples of easy-to-cook items (dry food) versus complicated-to-cook items (watery food). "There is no soup; instead, only dry food which is convenient for cooking is allowed.

The postpartum women cannot move around because of [perineal] wounds." (Chumaan, Interview#1) She considered her body damaged and that prompted her to adapt different eating behavior during yuu fai.

Variations in Food Practices

Postpartum food practices of the women changed over time. During hospitalization after childbirth, women were served regular meals.

> A provided breakfast in the hospital was rice soup with pork. Ladda comments that the soup had too much water. A midday meal consisted of other kinds of soup and stir fried vegetables with meat such as bean sprout stir fried with pork. Ladda consumed hospital's meal, but sometimes she ate food bought from a Thai food vendor. (Ladda, Field note of the participant observation #2)

Meat, vegetables, watery items, and stir-fried dishes were prepared for all patients in the hospital. Ladda was able to consume those items without mention of restrictions. I thought food bought from the store might substitute or add variety to hospital meals. I later realized that spending money for extra food was unusual. Typically, Isan farmers have limited and unstable income which depends on crop productivity and market demand. They spend money carefully for necessities. They will not spend money to buy food, if it can be found at home, in the rice field, or the forest.

Buying extra food might be the way family members show how much they care for the new mother and baby. It might be a message saying they would do whatever it takes to support both. The bought item might be a necessity for the postpartum woman. I found out later that most of food bought was grilled chicken and fish sold by vendors in front of the hospital. From my experience working in the hospital, grilled meat was not provided by the hospital because it was expensive to prepare.

A postpartum woman is typically hospitalized for 48 hours. Allopathic care can be considered a part of postpartum regimens. For example, Chumaan's mother counted the number of nights Chumaan had to practice yuu fai by adding the two nights in the hospital to the seven nights at home. The woman and/or her traditional caregivers might not want to start any of postpartum practices within eyesight of hospital staff. They might be afraid that the staff would blame or look down on them. However, they trusted the staff in helping the new mother, who might be eating wrong food in the hospital. As Saijai's mother said "women in the present day hardly get sick because of eating wrong food because they stay close to the doctor." (Saijai, Field note of the interview # 2) Chumaan was also saying her mother had changed her concepts of postpartum care because of advances in biomedical service.

> She [Chumaan's mother] has to adapt her habits in administering postpartum practices. For food, she might say "no problem, go ahead and eat," or "it should be no problem because the doctor is close in case something wrong happens." (Chumaan, Interview # 1)

The above quotes from Saijai and Chumaan showed the integration of two health care traditions and that customary cares after childbirth are changing. The women gave birth in an allopathic hospital, got familial-traditional care at home, and went back to the hospital if they had serious conditions. I understood that the hospital become their backup services, allowing them to try new food with less worry about phit kam symptoms. A woman's reaction to a new food item will be used to determine whether it is safe or harmful. The former will be recommended by the experienced mother, while the latter will be discouraged.

Encouraged food during yuu fai and after exiting the fire were opposite. Women practicing yuu fai were advised to eat dry items such as grilled pork and chicken. They promoted breast milk production by drinking hot herbal concoctions. On the contrary, after

exiting the fire some of them were encouraged to have hot watery food, such as soup to promote breast milk production, while grilled items should be avoided.

> They [people outside family] suggested not eating dry food such as grilled items. Do not eat them, because they were dry. They will decline breast milk. Yes, all people I knew said so. I should eat hot, watery items. Hot….Hot…items, I should sip them. Then they would increase the breast milk. I will then have plenty of breast milk for my baby. (Chumaan, Interview #2)

The concept of how to determine wet or dry food differed greatly from that to distinguish hot from cold food. It was obvious to see wet food from cold food by its water content. However, the differentiation between hot and cold food could only be felt internally by the body. I think the belief about wet-dry food is embedded in the language used. Chumaan transferred the meaning of the word "dry" in dry food to "dry milk" or lack of milk. In later interview, Chumaan said she did not follow all the rules of food restrictions. She would combine hot- watery with dry items in various proportions for each meal in a day. Thus, she did not worry about decreasing breast milk production due to eating the dry items. Her most favorite hot-watery item was banana flower soup. She confirmed its ability to increase her breast milk production.

The women might try some vegetables after yuu fai was completed. Well cooked vegetables were preferred over soft-boiled or raw ones. Ladda, however, told me that eating a variety of the same kind of vegetables may cause different result. For example, she said that "eating white cucumber is good while green cucumber is considered harmful." (Ladda, Field note of the participant observation #2) Food practices were regulated by a caregiver when a postpartum woman was yuu fai, but when she was out of the fire she would be responsible for her own food. She might get instructions or reminders, but no one was going to carefully

choose, prepare, and cook food for her anymore. If the woman failed to control herself, negative consequences would result.

> If we are out of the fire, we will eat as usual such as eating soup or stir fried items. However, we have to practice food avoidance [ka lam] by regulating ourselves. We will not eat potential harmful [phit kam] food, which affects each woman differently. (Ladda, Interview #1)

Changes in Postpartum Food Practices

During pregnancy, women experienced some dietary changes and restrictions. They also knew that these restrictions would continue after the childbirth. Not all women were thrilled at the prospect.

> I won't eat such suggested food as rice and salt without meat. I won't eat like that. I won't eat food suggested by some old women, [A long laugh] because the doctor said that it won't happen as it did in the past. There is no phit kam. … I will eat complete food as I want to eat. I will best take care of myself to provide enough breast milk for the baby. (Chumaan, Interview # 1)

Childbirth is a time of change. The woman suddenly finds herself in a new role as a mother while adjusting to her responsibilities as daughter and wife. Her food practices are also changed due to beliefs embedded in her culture. An Isan woman may enjoy any food before and during pregnancy, but has to strictly control what she eats after childbirth. Women learn about nutrition from the prenatal clinic. They are encouraged to eat more protein, dairy products, fruits, and vegetable during pregnancy. During yuu fai, however, they are allowed a specific variety of rice, a few kinds of meat, and a lot of herbs.

> Ladda concludes that her eating is more difficult after the baby was born. When he was in the womb, she could eat whatever she wanted, but, when he is out, she has to restrict eating many kinds of food. All food are harmful, Ladda overstates on this practice. (Ladda, Field note of the participant observation #2)

I think Ladda exaggerated when she says "all food are harmful" because it was not true. Some foods were absolutely allowed while others were not. I think she says so because

in normal situation no food was prohibited, but in pregnancy and delivery many foods were. Therefore, she might feel overwhelmed with a lot of prohibitions and practices. From a psychological point of view, removing a pleasant thing from a person is punishment. When satisfying dishes were temporarily removed from a postpartum woman's daily menu, she might feel like she was being punished. Resumption of regular diet starts after the women exits the fire. But how long it takes for her to completely go back to normal style is unpredictable, depending on her reaction to certain food and gastrointestinal health of the baby.

> When I was pregnant, I was alone with less responsibility than after delivery. … When I hadn't given birth, I was able to eat whatever I wanted to. Now, I have to do food restrictions. I am afraid that I might be harmed or my baby's belly might be bloated. His belly has been in bad condition. [Pause] … I was very comfortable before pregnancy [laugh] I lived with my husband. There were only two of us. Before pregnancy I had no responsibility. (I) woke up in the morning, cooked, and did general housework. After giving birth, I have to get up early. I have to get up whenever the baby gets up. I breastfeed the baby. Breastfeeding makes me more tired. Besides, I have to wash baby's and husband's cloths. (Saijai, Interview #2)

Food restriction was important for Saijai to keep herself and her baby healthy. She was both a wife and a lactating mother, preoccupied with housework, milk production, her own health, and the baby's health. She would achieve those goals by being careful with what she eats. For Saijia and the women in this study, food was not only to fill the stomach and repair tissue, but alsoto prevent phit kam and rebalance the body, mind-heart, and energy. Following food restrictions was a way to show that they belonged to a family and community, whose residents held the same value. It also showed that they were good and obedient Isan daughters.

Change in food practices affected both postpartum women and other family members. Areya's family was an example. Areya did not practice yuu fai. She took hot herbal bath only

one day and drank hot herbal concoction a few times a day. Apparently, she did not strictly follow traditional practices except for food restrictions, which were controlled by her mother.

> She [Areya's mother] bought food for us. It was up to her. Because she would not buy food considered harmful for me, nobody in the home would be allowed to eat those prohibited food. If I was unable to eat certain food, nobody should be allowed to eat such food. … She forbade bringing certain food close to me. She was afraid that I would be harmed by their smell. (Areya, Interview #2)

I think food restrictions are the most important practice in Areya family. When she refused to practice yuu fai and take a hot bath, her mother did not compel her to do so or she might have but failed. Since the mother bought food for the whole family, she exercised her power indirectly to control what Areya should eat by buying only safe food. Perhaps strictness in food practice was emphasized because Areya had phit kam symptoms once after she ate a frog and string bean.

Saijai's mother contradicted dietary education given by health care providers with her own concepts of eating after childbirth. The providers said a postpartum woman can eat everything to regain health status, but she wanted her daughter to eat only allowed food based on knowledge transferred from her mother and from their actual experience.

> Saijai's mother expresses her observation that women in the present day hardly get sick from eating harmful food because they stay close to the doctor. Although the doctors suggest to her family to let Saijai eat everything as their theory says, she doesn't want to. She ate harmful food such as freshwater greenweed only when the body was strong enough. It took her around 2 years before she dared to eat harmful food. (Saijai, Filed note of the interview # 2)

I noticed that Saijia's mother often made comparisons between traditional and biomedical cares. I think she was not anti-biomedical; rather, she accepted biomedical concepts. She said many times that advice from a doctor was good with supports from textbooks. However, she insisted on taking care of her postpartum daughter in traditional ways. I think she made comparison this way because she did not want to express her personal

ideas against mine. I do not criticize her ideas about the traditional practices for she may keep in mind all the time that I am a nurse representing the biomedical world. Perhaps it was because she gave me some respect as a nurse or a senior. This is a polite way Thai people do to compromise the ideas during conversations.

Summary

Isan mothers employed both allopathic and indigenous medicine for health and healing. They gave birth, ate provided food, and took advice and medication while in the hospital. When they returned homes, however, methods of healing after childbirth including dietary directives from traditional medicine were used in lieu of allopathic health care. Although a Thai healer does not view childbirth as a disease requiring therapy and pharmaceuticals, food and herbs are still prescribed to rebalance the self (the body, mind-heart, and energy) disturbed by reproductive changes during pregnancy and childbirth.

In Sirindhorn district, food practices and treatments for phit kam symptoms reflect village medicine, a tradition of TTM. Those were varied and non-systemized. Each family used different herbs to treat phit kam. Medicinal preparations were described, but no formulas with exact components and dosage were mentioned. A common remedy in the district is simple to treat with one or a few herbs. In the Thai or royal medicine, on the other hand, many active ingredients will be mixed to increase potency and adjuvant herbs are also included (Salguero, 2003). Meals and herbs were prepared for postpartum women in this study without referring to recipes or written documents.

Like most people in South East Asia, women in good health ignore food restrictions until they are sick or pregnant (van Esterik, 2008). The imbalance of the self makes women, especially those with bad blood and wind systems, weak and vulnerable to disease and

illness. Food restriction is intended to prevent women from getting phit kam symptoms, while certain food is encouraged to promote maternal health and lactation. Besides fear of traditional maladies, humoral systems, economic status, food availability, and Isan food style are factors shaping Isan postpartum food practices. These practices are transferred orally, usually from mother to daughter, and perpetuated by generations of women. Meals are restricted to rice with a simple side dish such as grilled fish, chicken, and pork during the confinement period. Fruits and vegetables are believed to be cold and should be omitted. Sour, pickled, fermented, and smelly food should be avoided, while spices such as garlic and galingale are encouraged. After exiting the fire, other food is gradually introduced back into the diet. Food, including salt, sticky rice and sugar, is also used in animistic rituals to assure the safety in the practice and the quality of maternal and child lives.

Meals are readily shared among Isan family members and guests. Usually, people have no need to prepare food or eat separately. Following childbirth, however, the postpartum woman is physically isolated to practice yuu fai. She would eat all her meals there alone because a senior caregiver may not want her to be away from the fire. The caregiver also may not want her to be enticed by the smell of disallowed food being prepared for other members of the family. Instead of isolation, the mother of a postpartum woman who did not practice yuu fai fire provided the whole family with food that is allowed during the postpartum period. A dichotomy of pure versus polluted food for postpartum woman was not mentioned by Isan people during the study.

Postpartum Healing Through Heat

A postpartum woman is not considered sick according to Thai Traditional Medicine (TTM). However, the physiological changes of the pregnancy and postpartum period are

perceived as a time of humoral imbalance of the body's four elements. Functions and changes of the body during labor include contraction of the uterus (Earth element), loss of blood (Water element), increase in respiration (Air element), and elevation in body temperature (Fire element). The mind-heart connection takes place when a woman realizes she is pregnant. She may feel anxious and nervous anticipating new roles and responsibilities, practices, and beliefs she is about to learn. Finally, the energy essence may be imbalanced from compression and decompression of the uterus on the energy lines which run throughout the body. The hot-cold dichotomy in Traditional Chinese Medicine (TCM) also applies to TTM. Like other Asians, Thais believe that childbirth causes the body to be cold humorally from loss of blood and vital fluid (Kaewsarn, et al., 2003b; Liamputtong, 2004). Therefore, heat from many sources such as food, fire, hot water, and a hot bath are used to restore the hot-cold balance.

The Fire element, one of four bodily essences in the humoral system, is thought to warm organs and prevent decay (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Traditional Thai healers categorize the Fire element into two types based on its sources: internal Fire from inside the body such as metabolism and body temperature, and external Fire, from outside the body such as heat from the sun or other artificial heating sources. Fire from both sources has to be in balance to keep the self (body, mind-heart, and energy) healthy. Symptoms caused by an excess of internal Fire element are related to indigestion, fever, and bloating. Fever caused by excessive Fire is treated with diet and herbs in the cool, astringent, sweet, bitter, and blend tastes. Conversely, a postpartum woman's body is fire depleted, and thus internal fire is restored by consuming food and herbs in oily, salty, toxic, sour, and hot tastes.

The Isan family has unique cares for the body of a new mother by increasing both internal and external Fire elements. To increase the internal fire, an Isan woman is encouraged to eat hot food such as garlic and galangal and avoid cold food such as certain fruits and vegetables, as presented in previous part of this chapter. During the critical, cold period, she also uses external fire elements by staying by or above the fire. Her mind-heart essence is ensured by having family and community support, learning about self-care and child care from hospital and family, and having spiritual rituals before and after lying by the fire practices. This part of the chapter presents data from the interviews and observations that reflect these concepts from TTM, in particular the practice of yuu fai , a hot healing method developed in Isan Thai communities based on folk medicine and verbally passed down from senior mothers to the juniors.

Basic Concepts

Imbalance of the self. Childbirth is thought to cause imbalance to the body, mind-heart, and energy of a postpartum woman. Imbalance alters immunity; hence the self is vulnerable to sickness (van Esterik, 2008). Nisa described what she was told by the older people of her community about the changes following childbirth.

> The senior people said that the spirit of a new mother was not connected well to the body. They also said our sen and en were torn apart during labor; hence, they wanted us to complete yuu fai ritual. We were in pains. Yuu fai could decrease the pains. (Nisa, Interview #2)

To regain well being, Chumaan's mother, considered to be an expert who had personally practiced yuu fai six times, told me that after childbirth an Isan woman has to *yuu hon, kin hon* meaning "to stay hot, to eat hot" or *kin nam hon* "to drink hot water," *non mae sa nan* "to lay down on a woody plank called mae sa nan." Both concepts indicate that the

most important goal of postpartum care is to increase heat. The body is heated up via yuu fai, food practice, hot drink, and hot bath

To consume hot. Isan words kin hon, to eat hot, and kin nam hon, to drink hot, reflect that whatever she is to ingest should be hot. The word *kin* means both eat and drink in English. Both terms contain slightly different meanings. The meaning of kin hon is broader than that of kin nam hon. The former means to eat whatever is hot, including food and drinks, while the latter specifically means to drink hot water. How Isan women ate after childbirth was presented in the previous section, and how she drank will be presented later in this chapter. This section specifically presents how she stayed by the fire, thus increasing the heat of her body through exposure.

> Chumaan is in the third day postpartum, but this is her first day of practicing yuu fai. She is lying on a woody plank which is placed by two fires: one is the bonfire of firewood under a steel tripod and the other is the bonfire from charcoal under an earthen stove. (Chumaan, Field note of participant observation #1)

To stay hot. According to Chumaan's mother, a postpartum woman's place is to be in a hot environment. The word yuu hon means staying in hot place or being in hot situation. Yuu hon in a broader context, means living in "hot" situations (e.g., often in conflict with others, always in debt, procrastinating). In the context of childbirth, yuu hon covers practices relating to heat such as eating hot food, drinking hot concoction, and taking a hot bath. The second word *non mae sa nan* is narrower and more specific. It delineates lying on a narrow wood plank created specifically for yuu fai. The term specifies where a postpartum woman will be confined. The woody plank by itself is not hot; it becomes hot by where it is placed. Maybe only an Isan woman following *non mae sa nan* can understand what lying on a woody plank really means and how hot it is. An outsider may learn some from the above field note.

Lying by two sources of fire in Thailand during the dry season is challenging. Moreover, Chumman and other women in this study were not allowed to perform personal hygiene such as washing skin with soap, combing hair, brushing teeth, and wearing a sanitary napkin. I asked some caregivers why that seemingly basic hygiene was not allowed. They responded that how women did yuu fai was also known as *yuu kam*, to be under interdiction or to be with karma. From my background as a Buddhist, yuu kam is also a ritual of Buddhist monks. The word *kam* is original from *kamma* or *karma*, a concept in Buddhism about the relationship between actions and destiny or outcome of actions (Jackson, 2003; Sayadaw, 2008). Kam also means work, action, fate, misfortune, or the thing that happens as the result of one's karma (Phinthong, 1989).

According to the caregivers' rules of not allowing the women to be clean and comfortable, I understood that the situation might be a simulation of living with bad karma or misfortune. Chumaan's mother said yuu fai was a woman's karma because she would be in uncomfortable situations comparable to interdiction. She would be in a hot environment, take a hot bath, and drink very hot water. She would be restricted from eating and doing activities. In addition, she would very likely be sleep deprived. Therefore, Isans called the pot to boil hot water for a hot herbal bath a karma pot *mor kam*, and called the caregiver a karma pot's supporter (*khon kham mor kam)*. Mor kam became a classification for yuu fai. For example, if an Isan woman practiced yuu fai seven times for seven childbirths, we will say "she practiced seven mor kam".

Why should Isan women practice being with karma and apply the word karma to other postpartum practices? My interpretation is that giving birth is fulfilling one's karma because it begins a cycle of *samsara*- birth, aging, illness, and death.The ultimate goal of Buddhism is

Samadhi or *Nirvana*, in which a person attains freedom from suffering and rebirth (Jackson, 2003). When a woman gives birth, she unknowingly perpetuates karma and thus, samsara. Therefore, to pay for the karma she creates, a woman is confined to an unsatisfactory condition, *dukkha*. One interpretation is that placing a postpartum woman in a hot, dirty, and uncomfortable situation may be a test for her in becoming a mother, who is supposed to give up her comfort for her children. Completing the whole postpartum practice may be viewed as ritual of passage to the embodiment of being a mother.

Basic Procedures

Yuu fai is considered promotive and restorative care for Isan postpartum women. The word itself literally means lying by the fire, but is usually used as noun to indicate a set of rituals which include lying by the fire and observing other traditional practices such as food restriction, hot bath, hot drink, and abstaining from activity. The word lying or staying by the fire reflects two important components, position, and source of heat. It indicates that the woman is confined to a hot area. To heal the body and energy, however, what Isan women in this study "did" during yuu fai mattered. It was not enough to merely lie or stay by the fire; women had to specifically expose each part of the body to the fire. This practice was called drying by the fire *kang fai*. How to do drying by the fire was well described as followed:

> Like… Ann [a pseudonym of a neighbor], for example, she was unable to complete yuu fai [*yuu mai dai*], because she rarely dried her body parts by the fire. I mean she didn't expose her body to the fire. … When she finished bathing, she should stand up by turning the face to the fire, fold the bottom edge of the Isan traditional skirt up, loose its top edge down, take a towel to cover the head while keeling on the floor, put hands against the rail constructed for leaning on, and cover the head by the towel. I mean, to dry the face by the fire [*kang na*], a woman should dry the face by the fire for 1-2 hour [s]. Then, she should practice drying the back by the fire [*kang lang*] and drying the wound by the fire [*kang plae*] by turning the back to the fire. (Ladda, Interview #1)

Drying by the fire had three foci: drying the face, wound, and back. Each part needed to be dried by the fire for a set duration. Failure to do so was considered the practice failure or *yuu (fai) mai dai* (literally, unable to stay by the fire or yuu fai disability), making the whole practice almost useless. The practice yuu fai may be the most complicated procedure of Isan maternal care. It requires around-the-clock confinement in hot environment with rigid schedules and rules set by a senior caregiver. Moreover, other practices such as taking a hot bath and drinking hot water were strictly observed during this intensive period. Fortunately, the senior caregiver determined in advance how many days yuu fai should last, while the other practices are encouraged as long as possible. Thirteen women (81.25%) in this study practiced yuu fai for a range of 1-9 days. Of them, 10 women completed the practice, while the rest discontinued before expected completion date.

Fuel preparation. TTM divides yuu fai into two patterns: lying by the bonfire, and heating the abdomen (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Heating the abdomen is done by applying sources of heat such as a hot water bag, electrical bag, or an aluminum bag called *fai chood* directly on the abdomen. Both methods were followed by Isan women in the current study. Twelve women (75%) laid by the bonfire only, while two used a hot water bag to complement heat from the fire and another 2 women used the hot bag to substitute for yuu fai. To lie by the bonfire, a woman must have enough fuel for burning all day and night. Once a woman became pregnant, her family would begin to gather resources for fuel and carefully selected substances used for burning.

> The bonfire by which a postpartum woman is lying can be originated from two sources: firewood and charcoal. Because the firewood produces more smoke than the charcoal, one of factors that influences what material should be used is ventilation of the place for practicing yuu fai. The firewood is appropriate for well ventilated, open-

> air place, while the charcoal is suitable for a close area. (Darin, Field note of participant observation # 2)

The expecting couple and/or their family members would be looking for their ideal fuel sources available in the community, although they were not always successful. The sources are firewood and homemade charcoals. The best firewood is from a local tree called *jig*, while the best charcoal is made from another local tree named *bok*. Those things are prepared in advanced. Dry firewood is preferred because it produces less smoke. Some families cut them from trees for more than a month in advance. Ladda, whose family members extended the house's eaves to create a better ventilated place for her to do the practice, described to me why dried wood from the jig trees were best for burning in yuu fai ritual.

> The bonfire is made from jig firewood blazing and emitting heat. Jig [a kind of hardwood trees] is brought from the rice field. It is chosen because its blazing firewood will not crackle and spread out. Besides, heat emitting from this wood will not cause irritation of the body. Some kinds of firewood such as *shad* trees and *koong* trees will irritate the body. (Ladda, Field note of participant observation # 1)

Because the dried firewood produces less smoke and making charcoal is time consuming, the fuels have to be prepared in advance to ensure their readiness. In the past a woman's husband was required to cut the tree by himself to show love and care for the wife (Department for the Development of Thai Traditional and Alternative Medicine, 2004). However in the current study, the family gathered firewood at their convenience. For example, Areya's mother cut branches of jig trees from her rice field; Chumaan and her husband picked dry branches of various trees from a nearby forest; Darin's grandmother asked someone to cut branches of tamarind trees surrounding her house; Ladda's husband and father-in-law cut jig trees from their rice field; and Saijai's parents made charcoals from bok trees found in their rice field using a local, primitive technique, while Khamhom's

mother bought charcoals from a vendor by the road. Although the women got fuel by various means, one thing in common was that their family found the best fuel they could afford to use in this practice.

> Saijai mother informs me that she uses the best charcoal from bok trees for her daughter's yuu fai. She often emphasizes that she prepares the best charcoal for her daughter. In addition, she tells me she is not using firewood because she worried that its smoke may irritate the baby's eyes. (Saijai, Field note of participant observation # 1)

When it comes to whether firewood or charcoal should be used, the physical structure of the place for practicing yuu fai, health of the mother and child, and fuel availability and affordability were all points for consideration. Firewood is not appropriate for a small and stuffy place as it also produces smoke irritating eyes and perhaps lungs. Saijai practiced yuu fai inside the house. Caring about the baby's health, her mother decided to use charcoals in this ritual. The charcoals were free because they made those from bok trees which were plentiful in the rice field. However, making charcoals required much more time and knowledge than preparing firewood.

Childbirth required that the family collaborated in the support of the postpartum woman. Each family member did whatever they could to make yuu fai happen. Both firewood and charcoals used for this ritual were available almost free of charge. Only Kamhom's family bought the charcoal because no one in the family was capable of picking or cutting firewood and they had no time to make charcoals. Her family dealt with many challenges having neither time nor ability to cut firewood or make charcoal.

Compared to other sources of heat such as battery or electrical devices which locally heat the body, firewood and charcoal become the most effective method to expose women to heat and they were the best Isan families in rural areas could afford. However, it does create

by-products such as smoke, dust, and ash. Choosing "the best" substance is a way family and caregivers show how much they love and care for the new mother and child. Knowledge about how to determine whether firewood or charcoal is best to use is embedded in this community and transferred from a caregiver, usually mother, to a new mother.

Place preparation. Men were responsible for making and preparing a place called *keem fai* in yuu fai practice. This collective word keem fai means a bonfire and stove but, in this study, it was used to refer to the whole unit of yuu fai such as a plank, a temporary bathroom, stoves, pots, and other infrastructure as necessary. Beside the bonfire, the plank was the main focus of yuu fai practice. It was where the women were confined.

> The traditional wooden plank has been made by Chumaan's father-in-law. Made of four pieces of timbers lining up from left to right, the plank was lifted up four inches from the floor. It is covered with a brown screw pine mat [A screw pine is a plant of the genus *pandanus*. This woven mat is called *saad tiey*] Again, the mat is covered with two old ankle-length skirts on which Chumaan sits. … Chumaan does not use a sanitary napkin during yuu fai practice. Both of the old skirts will soak with her lochia. (Chumaan, Field note of participant observation #1)

The women stayed on the plank all day and night for the whole practice; they were allowed to leave only to use the bathroom or for short periods of time to breastfeed. One woman felt bad when her father, a brand-new grandfather, made a shorter plank for her.

> My bonfire was short. Actually, the others had the bonfire made at the same length with a postpartum woman's height, but my dad made only a half. When I stretched the legs [she is stretching her legs], I was heated only from the knees to shoulders. Actually, the legs and whole body were supposed to be heated all the time, but here [touching the shins] did not expose to the fire. So, I had to bend and moved them toward the fire. (Ratha, the interview # 2)

Progressive heat and heat management. Heat radiating from the fire was not to be consistent in temperature; rather, it became progressively hotter with the duration of yuu fai. This progressive heat concept also applied to hot herbal bath and drink. The concept of

progressive heat was stated by every yuu fai woman in the study. One caregiver described what it was like.

> Darin's maternal younger sister adds information about adding the firewood to the bonfire. In the first night the bonfire will be small with less firewood. Later, the firewood will be added more and more. On the last day, the bonfire becomes big with a lot of firewood. (Darin, Field note of participant observation # 2)

On later days the heat could be too much to bear. There would be an imbalance between internal and external Fire elements which could harm the body and cause sickness (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Instead of decreasing heat, the caregivers used a few techniques to lessen the women's discomfort. For example, they provided heat according to the weather and time of day. The caregivers added less fuel during the daytime and/or dry season. "There is not much firewood in the bonfire. Ladda says the weather is already hot during the day; therefore, less firewood is needed." (Ladda, Field note of participant observation # 1), and "The caregiver will keep the fire in lower heat during the day time, but higher at night." (Saijai, Field note of participant observation # 1)

It was not easy to control the intensity of heat needed during yuu fai. Once firewood or charcoals were added to the bonfire, heat might exceed the level caregivers expected. They then applied the second technique by covering the fire with physical objects such as ashes and pieces of a plant. This technique was convenient to control the heat. When the heat was lower than expected, they simply picked the pieces of the plant or poked the ashes out of the embers. "Some pieces of leaf sheaves of a banana tree trunk are covering on embers in the stove. Saijai's mother tells me that those are for reducing the heat from the fire." (Saijai, Field note of participant observation # 1)

Twelve of the women laid down by the bonfire from firewood or charcoal, but one woman laid on a high wooden litter above embers in stoves. Her caregivers allowed her to lie on a wet, folded blanket working as a shield preventing her skin from burning. It may also have worked as a cushion to protect her body from touching the scorching wooden plank and the wet blanket added moisture to the heat, functioning as a steam sauna in an open room. Instead of using these techniques, Chumaan applied curcuma mixed with other substances to her skin to prevent overheating.

> Chumaan turns her face to the fire, touches the mixture of curcuma, salt, lemon juice, potash alum, and water, and smears it over the skin. The curcuma is believed to relieve heat from the fires. Her mother-in-law suggests Chumaan to add *din sor pong* [a clay rich in alumince, used as toilet powder] into the mixture, but she hasn't done so yet because she cannot find it. (Chumaan, Field note of participant observation # 1)

Chumaan is the only one who used this herbal mixture. The herbs have properties to sooth the skin. It is interesting that salt, lemon juice, and alum powder actually increase the Fire element if they were to be used internally (Salguero, 2003). The women were protected from overheating by employing many strategies, yet some of them developed skin reactions to the heat. Unlike Chumman who used curcuma as preventive medicine, Saijai topically applied it after she developed a skin rash and swelling.

Yuu Fai: A Healing Method for Recovering the Self

Spiritual healing. Among many postpartum practices, spiritual healing is the first to be performed. I interpret a spiritual ritual as a preventive and protective method. It reassures both the caregiver and postpartum woman that she will be safe and healthy and that yuu fai practice will be smoothly completed. To secure a woman's spirit to the body, a healer, a senior person from inside or outside of the family, performs rituals called *kaw fai* or entering the fire, *pap fai* or suppressing the fire, and *aork fai* or exiting the fire. Isans also believe that

the newborn's spirit is weak or still has strong bond with a mother from the previous life. Therefore, they do a spiritual practice called *kaw dong* or entering the basket, and *aork dong*, exiting the basket. These spiritual practices are different for each family. Before performing any ritual, some family may make an offering plate called *kan ha*, a plate containing five pairs of flowers and candles and five Thai Baht. In exiting the fire ritual, Darin's grandmother made a plate containing tobacco rolls, betel nut, and small balls of sweet sticky rice for offering to her ancestors, fire goddess, and guardian spirits.

***Entering the fire*.** A ritual to heal or protect an Isan postpartum woman's spirit is the first thing to be done in yuu fai. Some Isan families practice animism and believe the natural and supernatural world have no boundary. Spiritual beings such as ghosts and deities can interact with human beings. When a place for practicing yuu fai is established, postpartum women do not just simply lie by the bonfire, but they must first have a healer perform an entering the fire ritual.

> Entering the fire ritual is a customary observance done on the first day of yuu fai practice. …Also, a family member had to go to another village for telling *mhor dharma* [a traditional healer using a magic spell for healing people] about Chumaan's labor. She told me that mhor dharma is an elderly man. He came to her house and performed entering the fire ritual for her. He tied cotton threads around her neck, wrists, and ankle. He then did the same thing with the baby. (Chumaan, Field note from participant observation #1)

Entering the fire is a ritual to protect women and babies from being harmed by ghosts and the heat. The healer makes the cotton threads holy by chanting mantras to them before tying them to a woman and her baby. The healer obtained the holy cotton threads from a monk or by doing other holy, religious activities in Buddhism or Brahma. Based on my experience as a Buddhist Isan, the Isans believe that the holy cotton can protect them from being harmed by ghosts or evil spirits. I understood that the thread represents a shield

protecting the wearer from the occult. In this study, all babies and women, including those who did not practice yuu fai, were tied by these holy threads although they may not know the actual purpose.

> It was against their [senior people'] something I don't know, because the senior person came to make prevention. He prevented bad spirits from getting close to us. This may be true. I was not quite sure because I didn't ask them. (Chumaan, Interview #2)

Surrounding by mantras chanting for protection, women were told to hold a knife while entering the fire. They told me that the knife protected them from something bad.

> The mother held the knife when entering the fire and then put it under the pillow on her the plank. Then, a very old person … who is senior and respected in the community took her [Ladda's sister] to enter the fire. He chanted… I mean he told spirits providing protection at a place and a road, whoever in the sky, this, and that. He held salt and threw it into the fire. He finally allowed my sister to yuu fai. (Ladda, Interview #1)

I interpreted the knife as symbol of a supernatural weapon generally used for fighting bad spirits. By holding the knife, there is no act of chopping, cutting, or the likes to pretend that the woman or performer is fighting against the spirit. I think it must be a powerful weapon because it functions well even when it lies still underneath a pillow or blanket. This means it is not the physical quality that is applied in the practices, but the supernatural. Beside a knife, Wanta and Yada, who lived in the same community, had a paddle attached to the wooden plank. They said it was for protection, but did not know from what. I understood that the paddle plays a role in the practice because some parts of this community are surrounded by the Dome River. Villagers go fishing for food, and so their food security or safety in the river may depend on the paddle. Therefore, it may be symbolic for security and safety of the new mother and her baby.

***Suppressing the power of the fire*.** Thai animists believe that fire is controlled by a God called Pra Pleung and Goddess called Mae Pra Pleung or Mae Fai, who animate human emotion such as anger or happiness. If the fire is treated right, the God/Goddess will be happy and give benefit to people. If the God/Goddess is angry, on the other hand, he/she will destroy things. Isan postpartum women need beneficial fire, and hence require a ritual to prevent excessive and uncontrolled heat. This ritual is done by a senior male or female, who knows how to perform the ritual and has mantras, or was a monk. Typically, he or she is the same person who performs entering the fire ritual.

> The healer [named Ta] told me that the purpose of the ritual was to protect the woman from heat of the fire. If the ritual was not done right, the woman would feel like there was a bonfire burning on her back and skin. The ritual began after firewood was ignited and the bonfire was blazing. He then threw salt on the bonfire, chanted a mantra the same as that in exiting the fire ritual, and blew it into the fire [not the woman]. (Ladda, Field note of participant observation # 2)

Salt, mantra, and blows are components of the ritual. The healer told me that he learned how to do this ritual from his father, but did not clearly explain how those three components worked. A Thai exorcist uses rice, amulet, and Buddha images, along with magic to fight bad spirits (Salguero, 2006; Tambiah, 1975). Salt is used because it bears a symbol of protection and prevention. It is used to preserve organic substance such as vegetables, fruit, and meat especially fish, a common protein source of Isans.

Mantras, according to my Isan background, are many and serve different objectives. Mostly, they are secretly passed down from master to apprentice who has to follow specific practice or worship to keep the mantra sacred. While performing the ritual, a healer generally recites the mantra softly and rapidly. Ladda's healer slowly chanted it again for me after he completed the ritual. His mantras are Thai sentences showing his gratitude to his ancestors and masters and then asking for protection from the God of fire. Finally, I interpret the blows

as a way to direct a mantra and its power at the fire. Entering the fire ritual is very important to success in yuu fai practice. The ritual has to be done correctly; if not, the yuu fai woman would have skin problems, which could discontinue of the whole traditional postpartum practices. That means the practices fail; consequently, women neither heal well nor get the benefits of yuu fai.

***Exiting the fire*.** Once the ritual to suppress the power of the fire is completed, women receive the first hot-herbal bath and they are completely engaged to yuu fai practice. They then followed traditional practices as regulated by their caregivers for 1, 3, 5, 7, or 9 nights. Exiting the fire ritual is done early in the morning after the last night. The ritual is not a private matter; guests from outside family are allowed to observe. It comprises of a hot-cold bath, a supernatural matter, and the cleaning of the place for yuu fai. (The hot-cold bath will be presented in the next section). The ritual performer may be one of the senior people in the family or one from outside, but he or she has to know how to perform it correctly. The supernatural matter in the ritual is about preventing women from being harmed by the heat and ensuring their wellbeing.

> The healer [Ta] silently chants a mantra and blows Ladda's head, both shoulder blades, and back a few times. I see movements of his lips but cannot hear his voice. The ritual is done with no time. … He then told me that the mantras chanted during exiting the fire ritual are able to suppress or get rid of a toxin of the fire. The purpose of this mantra is to suppress or get rid of power of fire from the woman. The healer gives me an example of a woman named Pae who said she feels like there was a fire blazing at her back after improper exiting the fire ritual (Ladda, Field note from the participant observation #3)

Ladda and her performer believe in the effectiveness of mantras. They strongly believe in the power or toxin of the fire had on a yuu fai postpartum woman. To support her belief, Ladda talked about another postpartum woman who had incorrectly done the exiting the fire ritual. That woman did not get a proper performer, meaning she got an inappropriate

ritual. She experienced negative effects compared to what Pae got. She had itching and swelling, whereas Pae got a feeling of the fire burning her back. I learned from this story that the ritual can be done again the right way and the symptoms will be relieved.

> In short, the woman had a senior male performer to appropriately do entering the fire ritual, but her exiting the fire ritual was unconventionally done by her mother-in-law. As a result, she itched and had swellings all over the body. A paternal younger sibling asked her who performed both rituals and then went to the performer's and begged him to come to re-do exiting the fire ritual. The performer chanted mantra, blew the woman, and boiled some herbs for her to drink. She eventually had quick recovery. (Ladda, Field note from the participant observation #3)

The above story shows the possibility that performer of the ritual matters. It is difficult to tell that a woman had symptoms because she got the wrong healer of exiting the fire ritual or her healer (a mother-in-law) did not perform the ritual correctly. I observed the exiting the fire ritual in three participants. Of those three, Ladda and Saijai got outside-family performers, whereas Darin got a maternal grandmother. Only Ladda's performer chanted mantras; Darin's grandmother recited words, not a magic spell, asking for protection from ancestors and guardian spirits; and Saijai's performer neither chanted nor recited anything.

> When I was exiting the fire, I was feeling hot. I felt torturous. While I was sleeping at night, I felt like there was a fire blazing at my back. It was like hot flash. I could not cover me with a blanket. … I got fever in the first day of exiting the fire. … After exiting the fire I felt more torturous than when I was doing yuu fai. The heat during yuu fai was just hot, but after exiting the fire it was switching between hot and cold (Thara, The interview #2)

Thara experienced a feeling of heat in her back, but she did not think it was caused by having an improper exiting the fire ritual. Rather, she said it was collective heat from seven days of the yuu fai. From my observation, I realized that how important exiting the fire ritual was for women in an Isan community. Performing the wrong ritual usually by a wrong person may cause a postpartum woman to have rash and swelling. The ritual eludes its purpose. I think knowing of a woman who got the wrong exiting the fire ritual and then had

negative outcomes may motivate another postpartum woman to carefully plan for her practices. The following is the last ritual for the fire.

> While Saijai is taking a bath, her husband is cleaning up the place for yuu fai practice. The maternal grandmother tells him to move the earthen stove away from the house. After finishing the bath, the performer becomes a chief commander in cleaning process. (Saijai, Field note of participant observation # 3)

The last treatment for the fire is the cleaning process to be done right after a woman gets off the plank for the last bath. Women are not allowed to come close to the place for yuu fai again. Some women are not even allowed to look at it. I understood this is a process symbolizing closure, separating a woman from the fire.

Entering the basket. While mothers have rituals of entering and exiting the fire, babies experience the entering and exiting of the basket. These rituals were done community wide, but varied in details. The ultimate purpose of these rituals is to bless a baby with healthy and successful life. The following was an entering the basket ritual for Ratha's son.

> The healer had a holy word. She tied his wrists with money and cotton threads. She then put a notebook and a pencil underneath the basket before covering it with a cloth. Also, there are a pin, money, and a Buddha image. (Ratha, The interview #2)

The women and caregiver told me that a book or notebook predicted scholarly excellence; a pin represented intelligence; money signified wealth; and a Buddha image symbolized virtue. Thara's daughter received the same ritual, but her symbolic objects were a pair of scissors, textbook, and notebook meant to ease her at school. Money and Buddha images were not included.

Exiting the basket. This ritual is done three days after entering the basket. The healer can be the same or different person doing the previous ritual. He or she may be the same healer performing the mother's yuu fai.

> Three days after, a senior woman took him out of the basket. … I don't know what she said. She hit a basket's rim and said 'if he was your son, you had to take him today. If he was my son, after today he would be my son'. She just said so. [A soft laugh] She finally put him into a cradle. (Ratha, The interview #2)

Ratha told me that when the ritual performer said "if he was your son, you had to take him today. If he was my son, after today he would be my son," she was talking to a spirit like a ghost. According to a belief in Buddhism and animism, Isans believe that the baby was in his spiritual family before he was born (reincarnated). The previous mother may not realize that her child is already reincarnated; hence, she could take the baby back to the spirit world. The healer of Ratha's family hit the basket while claiming the right over the baby. I understood that the noise served to draw attention of the "other" mother. The healer would need to make sure that other mother listened to the announcement. If she did not make an objection, the baby then belongs to the human world.

A performer in Kamhom's family had a slightly different technique to protect the baby. He made an offering plate with betel leaves and calcium carbonate. He then fingered the calcium carbonate at a place of yuu fai practice to protect the baby from the spirit of his mother in previous lives. Edible calcium carbonate is an ingredient to go with betel nut for Isan betel nut chewer. My late grandmother made it from burning clamshells. From Kamhom's story and my experience, I understand that it has healing or soothing power. Seniors in my family smear calcium carbonate on a rash from insect bites or on the abdomen of a crying baby. I understand from rituals of entering and exiting the basket that the first three days of life is a period of uncertainty about whether a baby belongs to the mother who has just given birth to him or another mother from previous life. He is a young soul who is not yet able to protect himself. His present family has to protect his soul from being harmed.

Bodily healing. Isan women believe that heat, Fire element from the fire is able to heal the body, which is composed of four elements according to humoral theory in TTM (Salguero, 2003). The following is how an Isan woman dried her body parts by the fire.

> They [senior people] suggested me to loose the skirt down and expose the belly to the fire. When I was lying, I should not bend the knees. The legs had to stretch out, so they would not be in pain when I am getting old. They told me to stretch my legs all the time, but I sometime sat on my legs because that was more comfortable. [Laughing while talking] (Wanta, The interview # 2)

Although each element affects different organs, it does not function independently. Rather, the elements work together harmoniously to keep the body in balance (Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2007). For example, a muscle cell (Earth element) has metabolism (Fire element) using nutrients from digestion (Air element). Those nutrients are carried by blood (Water element) circulated by the circulatory system (Fire element). In order to depict the expected healing outcomes, I am going to address each humoral element affected by drying by the fire.

Healing focusing on the Earth element. According to TTM, the Earth element affects solid organs including skin, muscle, tendon, bone, viscera, and fat (Salguero, 2003). Earth element may get damaged during pregnancy and childbirth. The aims of drying by the fire for this element are to heal the wound, the uterus, and viscera and to prevent suffering from pain in muscle and joint. The quality of a well-healed wound is dryness, while that of the uterus is involution. The goal of healing is similar to what an allopathic healer wants, but the healing method is different.

> Immediately after birth, while we were practicing yuu fai, the wound would dry fast and the uterus would return to its normal size fast. Yes, they [senior people] said so…. [Yuu fai make us] feel comfortable all over the body. … When my body was dry, she [caregiver] had me do it again. (Darin, The interview # 2)

Drying body parts by the fire is believed to heal the whole body and prevent it from future ache and pain. Without drying by the fire, muscle ache or any pain women endure in childbirth will come back in their old age. Ensuring long term health by seriously practicing yuu fai may actually be very important for people with few choices for health care services because of living in remote areas and/or poverty.

> They [senior people] told me to dry body parts where I felt pain to the fire. For example, if I felt pain at the arms, I should dry the arms by the fire until they were flashing hot. I should do so until I was feeling blazing, because I will not have pain when I am getting old. When I am young, the symptoms are not showing up. When I am getting older, our sen-en are going to loose and then cause pain. (Nisa, The interview #2)

Sen, en, or *sen-en* literally means fibers, tendons, and ligaments. The term *sen* alone, however, can be referred to energy meridians running through the body (Salguero, 2003, 2004). A network of sen holds the body and mind-heart together (Salguero, 2004). I interpreted that, when women in this study talked about sen-en, they meant both body and energy, because body parts cannot work without energy and vice versa. It seems that legs are the most important parts to be dried, and body ache or pain is the most important condition to be prevented.

> If something is happening to us, we will not get an ache in the body. Somebody said that if yuu fai wasn't practiced immediately after birth, we would get an ache or bad health might happen to us in the future. (Darin, The interview # 2)

Yuu fai not only helps in recovery of internal Earth organs, it also beautifies skin and improves body image. Based on the experience of women in this study, beauty was defined by brighter skin. Ladda's mother was an example of a woman who was able to complete the practice. "My mother said if we were able to dry our body by the fire, Ooy !!!! [an intensified exclamation] a teenager could not defeat us." (Ladda, Interview #1) I understand that Ladda's mother may have inspired her to strictly follow the practice. She trusted and strongly

believed in a positive outcome of yuu fai. The beauty reflected in brighter skin, making women who successfully completed yuu fai look younger. From my interpretation, those positive qualities (bright complexion, strong physical health, and clear vision) belong to teenagers. However, if a postpartum woman, considered being in older generation than a teenager, can do the practices right, she will be able to hold those qualities even though she is older.

> Opor's mother-in-law told me that if a postpartum woman is not able to do the whole drying by the fire, at least she should do drying face by the fire. It will protect her face from melasma. If a woman crooked the shoulders during yuu fai, they will be crooked until her old age. So, a woman should stretch the back during yuu fai practice. (Opor, Field note from the interview #2)

Healing focusing on the Water element. The Water element affects blood, lymph, eyes, phlegm, saliva, urine, semen, and other body fluids (Salguero, 2003, p. 14). Drying by the fire is expected to benefit the eyes, and thus drying the face by the fire is the most important ritual according to Opor's mother-in-law. She said "in the past people salted the fire and had a woman open the eyes to the fire. If she closed the eyes, they said she would be blind." (Opor, Field note from the interview #2) Again, salt was used in a healing process. Women or caregivers threw salt into embers, covered the head with a towel, and then exposed the face to the fire. Some women did so while salt was crackling, while the other waited until the salt stopped crackling. Ladda confirmed an effect of the heat to qualities of eyes that "If we open our eyes all the time when we practice drying the face by the fire, our eyes will not be hurt. They will be bright, clear, and able to see things even we are getting old." (Ladda, Interview #1)

Healing focusing on the Air element. The Air element involves respiration, digestion, excretion, motion of the limbs and joints, sexuality, and aging (Salguero, 2003, p.

14). Isan women pay more attention on mobility of the legs. A mother-in-law and caregiver of one participant shared her evidence based story as follows.

> The mother-in-law of Opor told me that she did drying by the fire to prevent her from having body aches. However, she could do only one leg. She moved the other leg away from the fire when it was hot. She is now getting older and finds out that the leg that she did not dry it by the fire is not good. It has a noise like 'pod pod' [crepitus] within the knee. (Opor, Field note from the interview #2)

Typically, the legs are important to human beings because they provide the means for mobility. However, the extent of dependence on the legs for living may be different among people. Isan farmers, for example, cannot go to work in the field, their only job, if they lose the use of their legs or have weak legs. By virtue of being in an agricultural community, they have limited chances to find a job that does not require healthy legs. Also, they may be unable to afford a locomotive-aided machine. Even if they are, the machine may help them move around in the community, but it would be impossible to resume their job in the rice field. Conversely, urban, highly educated, or wealthy people with poor legs have more chances to find jobs with less locomotive demand such as writer or artist. Moreover, it is easier for them to be in facilities or work that accommodates their weak legs.

One participant's late father is an example of an Isan farmer who had lost mobility due to paraplegia for five years. He received good care daily from his wife and children, but they were unable to help him move around or provide a method for him to move by himself. When his condition worsened, he refused to be transferred to a more advance medical center because he did not want his family to waste money on him. This family's story shows that for people with a specific condition such as paraplegia, life is deemed not as worthy as it should be and especially when it interferes with mobility. Therefore, traditional preventive treatment

from their knowledge may be a better way Isan people can do to secure their jobs and ensure wellness.

> I think yuu fai will be good. … Looking at senior people, who completed yuu fai ritual before [yuu dai], they are able to work well, because they were able to follow the practice appropriately. They are able to work hard. … She [the old woman] was able to do the practices. … She told me that, if we were able to lie by the fire, we would be able to work no matter how hard it is. (Ladda, Interview #1)

Ladda later clarified that Isan term *yuu dai*, to be able to stay, or *yuu fai dai*, to be able to stay or lie by the fire, signifies the status of a postpartum woman who has successfully completed yuu fai. Based on geographical and economical context of the study site, I think the hard work in Ladda's statement implies carrying out agricultural activities such as digging ground, plowing the rice paddy, or carrying lumps of wood. These jobs required physical strength. The need to regain strength for farming purpose also shows that a female laborer is important in Isan agricultural field. She is a housewife but also works in the farm, perhaps as hard as her man does.

Healing focusing on the Fire element. The Fire element impacts body temperature, circulation, and metabolism (Salguero, 2003, p. 14). The yuu fai ritual is about increasing the internal Fire element. However, women as well as caregivers in this study talked less about improving Fire than the other elements. Organs of the Earth element were most frequently mentioned. I understand that this may be because the Earth element contains observable, touchable, and sensible organs, while organs of Fire element do not. Darin's following sentences may be an example of function of the Water element (blood) and Fire element (circulatory system). "My grandmother didn't allow me to use a towel to dry my body. She didn't allow me to do so, but to dry by the fire instead. She said 'it' would go into sen and en." (Darin, The interview # 2)

The pronoun "it" was not identified during the interview. However, from conversations with the main caregiver in the first observation, what she wanted to be flowing through the flesh and skin was blood, a Water element. Since flesh, skin, ligaments, and tendons are organs of the same element and Darin receives knowledge from her caregiver, I believe "it" in this context is blood. Therefore, it can be concluded that the heat (Fire element) promotes blood supply (Water element) in bodily organs (Earth element) and connects the energy lines.

Energy healing. Energy essence of the self connects the body and mind-heart essences together, flowing through the body via the meridians, sen (Salguero, 2004). Isan women in this study used the term sen (meridians, tendons, or ligaments) together with en (tendons or ligaments). I understand that sen-en in this context is a combination of both energy (sen) and body (en) essences. Nisa told me that both of her essences were torn due to childbirth.

> They [senior people] said that, because our sen-en was torn, we felt pain after giving birth. It took around one week for sen-en to be connected; thence, we felt better. When I was entering the fire, I could not move well. I was unable to hold my baby because of weakness and pain. It was painful when I lifted my hands up. The arms were the most painful parts. Those were more painful than the legs were, because my arms worked more during the labor. (Nisa, Interview #2]

Torn body elements and energy lines need a week to recover. This may be the reason why Isan women practice yuu fai for about one week or more. Typically, TTM healers solve the problem by Thai massage, but, in folk TTM such as the caregivers in my study, they used heat from the fire to connect both energy lines and ligaments and tendons.

Suffering and Conflict

Excessive external Fire element can destroy the body particularly organs of the Earth element. Most women in this current study practiced yuu fai for seven nights, while a few

more conservative families did so for nine nights. The heat from the bonfire was progressive. In subsequent days, some of the women might get skin problem. If a woman's body showed a destructive sign, yuu fai ritual would be discontinued as mentioned by Darin.

> Darin: My maternal grandmother said that if we had a rash or prickly heat, yuu fai practice would be discontinued. She said she was afraid that we would be allergic.
> Researcher: If we are unable to practice yuu fai, how will they [senior people] do?
> Darin: Exiting the fire … We have to be out of the fire, because we will be allergic. Some women may have a rash or some things wrong happen such as feeling dizzy or faint and hence will stop their yuu fai practice. (Darin, Interview #2)

I translate the word allergic from an Isan term *pae* which may mean to be allergic and/or be "defeated". I believe Darin used the word in both meanings, because the skin problem might be a result of some kinds of allergy and it indicated that the body was defeated by the fire. Darin's practice was smooth; she did not have any sign of a defeated body. Saijai, on the other hand, developed rashes and swelling.

> Saijai: How I dealt with the swelling area? My maternal grandmother smeared curcuma on it, but it didn't work. The swelling area was hot.
> Researcher: Did you hurt?
> Saijai: Yes, I did. There were small blisters like prickly heats…. When they exposed to the heat, I was hurting. I was unable to sit because there were vesicles in my bottom. … I had to lie on my stomach all the time because I was unable to sit on the bottom at all. When the blister touched my cloths, I felt like there were many thorns piercing me. (Saijai, Interview # 2)

Saijai suffered from the swelling and blisters that disturbed her routine practices. Her maternal grandmother's curative method did not act fast enough. Moreover, the progressive heat was still being observed, although Saijai's body was breaking down and she was suffering. She finally gave up. She asked her mother and maternal grandmother to stop yuu fai two days before the due date.

> I was able to yuu fai at the beginning [laugh] because it was not too hot. I thought I was able to do 9 nights of the practice. However, after I did so for many days, I was unable to continue. My skin was swelling, drying, and peeling off. Some seniors told me to practice yuu fai for 9 nights. … I told them that I could not do so because I

> could not stand the heat. I got swelling. … I didn't want to yuu fai. (Saijai, Interview # 2)

A rash and prickly heat are considered serious complications prompting caregivers to stop yuu fai practice. Saijai's decision became a controversial issue among three generations of women: grandmother, mother, and daughter. The oldest generation tends to have a more conservative idea.

> My maternal grandmother didn't want me to practice yuu fai for seven days; she, rather, wanted me to do so for nine nights. My mom, however, said it was up to me. Seven nights might be acceptable. My grandmother was afraid that the wound might be not easily healed, so she wanted me to practice yuu fai for 9 nights. (Saijai, Interview # 2)

Instead of lowering the heat to relieve Saijai's suffering, the caregivers chose to end the practice before the expected date. Their decision reflected that the intensity of heat is more important than duration of practice or that current health is more important than future health. Comparing to the practice of other participants, seven-night practice is actually the modal duration of the group. Her family's idea on traditional practices may be more conservative than that of other families. There were several women who discontinued yuu fai before their expected date for various reasons. Ladda ended yuu fai on the seventh night for lack of a caregiver; Udomwan stopped after the first night due to phit kam symptoms; and Irin practiced for three instead of seven nights because she passed out many times. Her mother was worried that she might fall into the fire.

I believe that the postpartum traditional practices were gradually changed by dynamic happenings inside and outside the family. My interpretation is that the woman, who has successfully negotiated with her caregiver to have less strict practices, may transfer the new paradigm to other new mothers. In addition, a woman who developed complications such as a rash or swelling may make the fire less hot when she becomes a caregiver. Allopathic

health care providers may cause change as well. One of them suggested to one family to keep the degree of the fire's heat low. He or she reasoned that high temperature could prematurely dissolve the suture of a postpartum woman's perineal wound.

> During Saijai's hospitalization, Saijai's mother was informed by health care providers that Saijai's perineal wound was sutured by dissolvable chromic cat gut; therefore, she should not have Saijai yuu fai at a very high temperature. A warm fire was acceptable. (Saijai, Field note of participant observation # 1)

From my perspective, the interaction between allopathic and traditional cares lead to safer yuu fai practices and more culturally sensitive care. Some villagers may adjust their beliefs according to advice or suggestions from allopathic health care providers. For some reasons, the caregiver of one participant has changed the way she manages the fire by decreasing fuel put in the fire.

> I asked Darin's aunt why her grandmother put a lot of firewood into the bonfire. She replied that the grandmother put it much less than she did previously. Many of Darin's visitors said the grandmother has actually reduced amount of firewood added into the bonfire. (Darin, Field note of participant observation #2)

The final piece of the interview showed how happy a woman was when she was allowed to finish yuu fai ritual. "The most impressive thing was when I was allowed to exit the fire. I was very impressed. (Laughing while talking) I was pleased. I wanted to sing and dance. I was feeling like I just got out of hell." (Ratha, Interview # 2)

A few women use "hell" as an analogy for the heat of the fire. According to Thai mythology, hell is a place deep down under the earth. There exist many torturing instruments to punish persons with bad karma. One of the instruments is a huge copper pot or saucepan to boil those persons. This copper pot is boiling at all times; hence, the suffocating heat from the fire and hot steam are the images of hell. This could imply that the feeling of being in hell means excessive heat, discomfort, and suffocation. Chumaan's mother also drew an analogy

of a boiling pot of herbs for a postpartum woman with hell's boiling copper pan. The women in this study made this analogy to describe their physical discomforts only, not their moral condition. Although they mentioned hell *na rok*, a place for sinful spirits, they did not state that they had committed any sin because of childbirth. In Thai, the word for sin is baab which means sin, evil, wickedness, misfortune (Phinthong, 1989). Unlike the term *kam* or karma that can be used in a positive or negative way, the term *baab* has negative meaning only. I conclude that childbirth in the communities in this study is not considered a baab or sin, although it may be considered kam or karma.

Managing Bonfire: Managing a Family

Not only must the fire be progressively hot, it must also be burning at all times. Caregivers monitor the bonfire and add more firewood when the fire is waning. Adding firewood to the bonfire is more flexible comparing to taking a hot herbal bath or drinking hot-herbal liquor. Beside the main caregiver, the postpartum woman, other family members, and guests are allowed to add firewood to the bonfire. However, they have to do it right because how they put the firewood into the fire becomes an omen of the relationship among the postpartum woman's future children. As in the field note, "We review a popular belief of 'don't knock firewood to each other'. Ladda informs me that the firewood must not knock each other on purpose. If it does, the woman's future offspring will fight each other." (Ladda, Field note of participant observation # 2) In my interpretation, this popular belief does not directly relate to heat as a healing process, but rather its outcome as associated with long term relationship within a family. I think the firewood is a symbol of offspring of a yuu fai woman, and knocking is a representation of fighting or crashing.

Translation from Isan to Central Thai and English may distort this popular belief. I use English word “fighting” for Thai word *mai tuk kan* which contains broader meaning. Mai tuk kan means “to not get along well, to quarrel, and to dispute” (ScanSoft, 1996). The word “knock” is translated from *khorh* (to knock, to tap, to hint) that is more complicated because khorh is linked to two other negative-meaning central Thai words. Khorh has similar action with *kra tob* (to touch, to strike, to crash against, and to collide with) which shares two first syllables with *kra tob kra tang* (to have a conflict with or to clash with). Therefore, in a broader sense, knocking pieces of firewood together is not allowed because it is a bad omen for a family. Children in the family will not get along well, as shown by quarrelling, crashing, and fighting. The family will not be peaceful.

On the last night of yuu fai practice, the fire was hottest. A caregiver continuously added more firewood or charcoals, not allowing the fire to die out until the next morning. The last set of those fuels had to be used up before the ritual of exiting the fire. It is interesting that Ladda related this activity to a birth control method.

> Ladda explains that people in the past waited until the firewood burned out. Because there was no sterilization or birth-control measure at the time, a woman had to let fertility continue until menopause.She said that having the firewood burn out symbolically meant “stop the ability to have a baby.” This is a popular belief among Isan women (Ladda, Field note of participant observation #1)

A popular belief of burning up the firewood in the last night may be changing, because of allopathic birth-control methods. Sterilization or tubal ligation is provided in the hospital. A woman can choose when she wants her fertility surgically ended. Therefore, she no longer needs to let it end naturally.

> Ladda said that a woman in present day, on the other hand, is able to control how many kids she wants and when. Hospital provides sterilization which ends a woman’s capability of reproduction. A postpartum woman can decide to stop having a baby

> whenever she prefers. Thus, waiting for firewood to naturally burn up is no longer necessary. (Ladda, Field note of participant observation #1)

Wanta told me what she felt about yuu fai practice. After completing 9 nights of the practices, she thought her experience was beyond women living in different areas. In the statement below, she used the pronoun "we" instead of "I". I think she was speaking for all Isan women including me.

> It is true that every woman must have experience in giving birth, but women in other regions may not have the same experience as we do. They may have no chance to practice as Isan women do. … They may deliver and finish; they do not practice yuu fai and drinking hot water as we do. … Yuu fai is good for us. The seniors suggested us to do because it is good for us, not for the others. … We tried to do the practices. If we complete the process, we will gain good outcomes. If we are unable to do it, our body will be bad. (Wanta, Interview#2)

Summary

Yuu fai is a set of traditional postpartum cares provided by senior family members of postpartum women. Its main purpose is to heal the "self", focusing on the body and heat. Expected outcomes are healed wound and viscera, healthy and strong legs, no body aches and pain, physical strength, bright eyes, and beautiful skin. One of the family members, usually the most senior female person, becomes the primary care giver and determines the place for yuu fai, kind of fuel, duration, and rules. She manages the whole practices, leaving little room for a postpartum woman to make her own decisions about postpartum care.

Although the fuels are carefully selected, some health care issues may occur. Jig firewood is believed to produce less smoke and less skin problem. Some families did not have this special firewood. Even those who had it were still exposed to smoke because it did not dry well. Therefore, some of the women and babies were lying in a smoking environment for a week. Most participants complained that the smoke irritated their eyes. Overheating is another concern. Several women suffered from the heat. The idea of progressive heat and

judging how much heat to use is subjective to the caregiver. This could be attributed to causing rashes and swellings in some of the women. Other participants also said the heat made them uncomfortable and they did not like it.

After completing exiting the fire ritual, each woman starts her life with new roles. Yuu fai and hot herbal bath are over, but drinking hot herbal concoction and restricting certain food would continue for a duration of time specific to a woman. From my observation, social and family supports are quite strong in Isan society. Although a caregiver may go back to resume her previous roles, she continues to support the new mother in her adjustment to new roles and responsibilities. By following through with the traditional practices, the new mothers have now acquired some wisdom, knowledge that may be applied to their next yuu fai ritual. They may also transfer the knowledge to other new mothers.

Hot Herbal Bath: Rebalancing Blood and Wind Systems

This part is an interpretation of taking ritualistic hot herbal baths, one of the four main traditional postpartum practices observed by Isan women. It is a practice developed from the Isan cultural concept of "to live hot, to eat hot" , *yuu hon, kin hon*. To "live hot" the women practice yuu fai and taking hot herbal baths given to them by their caregiver every 2-3 hours. Unlike yuu fai where the belief is that heat from the bonfire (external Fire element) moves through the air by convection to warm the women, the hot baths transfer heat directly from the hot water to the women. It is believed that women not only get benefits from the heat, but also from specific herbs that are added into the water. The herbs used are thought to aid the women in regaining their health and to improve breast milk production.

Hot herbal baths are considered to holistically heal the self of a postpartum woman. The bath, as stated by women in this study, principally restores balance in the blood and wind

organs, *leaud lom*, of the Water and Air elements, respectively. The circulatory system is considered to be a function of the internal Fire element. The women believed that the hot herbal baths circulated the blood and wind through the body. In addition, some of the boiled herbs used in the baths are thought to beautify and brighten the skin (the Earth element). Meanwhile, the other herbs release aromatic oils which are believed to relieve their mind-heart stress, emotional and psychological stress, and prevent them from fainting and experiencing dizziness, symptoms that develop from an Air imbalance (Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003). During the bath, some women would massage the knees, abdomen, and breasts to prevent a future knee pain, enhance uterine involution, and promote milk secretion, respectively.

Basic Concepts

Progressive heat. Like in yuu fai, heat is progressive in hot herbal bath. Before giving birth, Ladda had heard about the hot bath from her sister and a neighbor who lived across the street from her. Without direct experience, she compared the temperature of water used for a bath, for drinking, and taking a hot sitz bath. Among these, the temperature of water for the bath was the hottest and made even hotter with every passing day.

> The water for drink was just warm, but for baths had to be hotter. … The water for a bath had to be hot. On the first day it was hot but not too hot. On the second day it was hotter and then hotter. Its heat was gradually increased. (Ladda, Interview #1)

After giving birth Ladda found out that the same progressive heat process was also to be applied to her bathing rituals.

> Ladda says she feels that the water's heat is gradually increasing for every single bath. Her mother mixed hot herbal water with room-temperature water for three buckets, each of which contained different degrees of heat, including the coolest, the warmer, and the hottest bucket, respectively. (Ladda, Field notes from participant observation #1)

Consistent heat. Increasing the temperature of the water was not only progressive but also consistent. A caregiver mixed boiling hot herbal water with room-temperature water to achieve the desired temperature for the bathing water. Instead of using a reliable instrument such as thermometer to test the mixed temperature, they subjectively tested the water's heat by dipping a hand into it. Therefore, the consistency of the mixture's heat might be not reliable. The caregivers sought to minimize the problem by trying to make sure that the same person bathed the postpartum woman every time. If the bath was done wrong, they believed that symptoms might develop.

> Darin has no rash on the body. Her maternal grandmother says that Darin has no rash because she is the only person who gives bath, mixes and tests the water by her standard. Thus, the water temperature is more stable. Darin's body does not have signs, such as a rash, of having unstable temperature due to switching between hot and cold states, *thok hon thok yen*. (Darin, Field notes from participant observation #2)

Some caregivers told me that, if a postpartum woman first got a hot bath and then got a colder bath, she might develop a rash. Rash was considered a complication of yuu fai and was important because its occurrence indicated discontinuity of yuu fai. It reflects a postpartum woman's inability to complete the traditional practices. The rash might be caused by many reasons, but the most crucial one was yuu fai "malpractice".

> My mom gave me a hot bath. She knew the level of the water's heat. One day, my husband wanted to give me a bath. My mom didn't allow him, because the way he did it would be different. They [the ways they did it] might contrast each other. The temperature of the water had to be increased with every bath, but my husband didn't know how hot the water should be in that particular bath. Therefore, my mom didn't allow him to bathe me. (Chumaan, Interview # 2)

Having one bather for seven days and nights might be impossible. Usually, the bather was the same person as main caregiver responsible for the whole range of practices all day and night for the entire yuu fai. The caregiver must get very tired. Chumaan's mother, for

example, might feel an extreme burden because she was also the caregiver for her paralyzed husband. To allow her mother to have some sleep, Chumaan had to take a risk by taking a bath given by her husband.

> I had compassion for my mom. She was sleeping; hence, I didn't want to wake her up. My husband worried that the water would be too hot for me. "Was it [water] hot enough" … I told him that "it was not hot enough. Mom made it hotter than you did" … [Laugh] However, the waters were already mixed; I had to have a colder bath. … My mom was right. I used to be bathed with a hot water. When bathed with the colder, I got a headache. I felt heavy in my head. (Chumaan, Interview #2)

The rash, headache, and feeling heavy in the head were symptoms developed from switching between hot and cold baths as mentioned by the caregiver of Darin. Like Chumaan, Ladda got the hot bath given to her by her husband on the last day of the practice because there were no senior caregivers available. Ladda's husband also mixed the water to a colder temperature. However, she seemed happy with this bath.

> Her husband, however, gave her a bath with bearable hot water, not too hot. She seemed glad that she was able to control the water's temperature. [She is laughing while talking about this] She dipped the hands into the mixed water to check its heat before her husband bathes her. He made the mixture to Ladda's pleasure. (Ladda, Field notes from participant observation #1)

From Ladda's laughter, I interpreted that she was happy to have the autonomy to control the water temperature. She did not complain about feeling unusual after a cooler bath. Her situation, however, differed from Chumaan's. Her husband was the last bather of the daily bath cycle. On the next morning she got the last bath (a hot-cold bath) from her mother-in-law and then exited the yuu fai. She did not go back to taking progressively hotter baths again.

Frequent baths. Each family tried to give the women hot herbal bath as frequently as possible. Because of many reasons, however, the frequency varied. Most women had 8-12 baths a day, while Hansa and Udonwan had the fewest baths, three times a day and in the day

time only. Irin told me she felt like her mother gave her a bath every hour. A regimen of frequent baths was followed for a few different reasons. Darin's caregiver did so to prevent her skin from dryness, while Saijai's caregiver did so to prevent her from sleeping. Saijai complained she barely got enough sleep at night because her grandmother did not want her to sleep. She did not know the reason why good sleep should be avoided, but her mother explained it during the second interview.

> Saijai's mother told me that the elderly allowed yuu fai women to sleep during the day but not at night time. They worried those women would have an illness called *leaud keun* [literally, blood is going up]. A woman with leaud keun would have headache and dizziness; they eventually sleep forever. From later conversations, the mother told me that leaud keun was caused by taking a cold bath. (Saijai, Field notes of interview #2)

The Isan term *leaud* means blood and *keun* means to go up. Leaud *keun* literally means "the blood is going up". At first I did not know for sure where the blood is supposedly going up to. Later Saijai's mother told me that the symptoms of this illness were headache and dizziness. I finally assumed that the blood was going up to the head. My assumption was confirmed by Irin and Thara when they explained the same reason for taking frequent baths. The caregiver did not want them to sleep too much at night. If they did, they would get a sickness called *fai keun hua* meaning the fire is going up to the head. Based on humoral theory, leaud keun (the blood is going up) and fai keun hua (the fire is going up to the head) suggest excessive Water and Fire elements, respectively.

From allopathic point of view, I think leaud keun or fai keun hua may be comparable to physiological conditions and postpartum complications such as hemorrhage or embolism. Saijai's mother gave me an example of a woman who died after childbirth. She did not say that the cause of death was leaud keun, but rather explained its symptoms. She said the

woman had dizziness followed by bleeding and shock and finally passed away. Those clinical conditions can be found in postpartum hemorrhage as well.

> My mom controlled [the hot bath ritual]. At night, she woke me up for taking a hot bath and drinking hot herbal concoction. She tried not to let me sleep too much. During yuu fai, I was so sleepy. I was sleepy at the day time, but my mom prevented me from falling asleep. She urged me to get up, drink hot water, take a hot bath, and drying the body parts by the fire. … She said if I slept too much during the day time, I would go crazy and dizzy. (Wanta, Interview #2)

I interpreted that a frequent bath is significant because it is a way a caregiver monitors an Isan postpartum woman during this critical period. Like hospital staff who wake a patient up to take vital signs every four hours, a caregiver wakes the postpartum woman up to do her routine which includes taking a hot bath, drinking hot water, practicing drying by the fire, and breastfeeding . If something goes awry, they can notice it right away.

Bathing Preparations and Heat Management

The bathroom. When I was collecting data from the first few women, I thought a hot bath was a private practice done in a private place. Later, I discovered that the place was optional. Most women took a bath in a temporary bathroom created especially for them, while a few bathed in the house's permanent bathroom. The temporary bathroom was built near the fire because the caregivers wanted the women to go to the fire right away after bathing. They did not want the women's bodies to get cold for long, so they had to take a bath fast and quickly go back to the fire.

Nonetheless, taking a bath in the temporary bathroom did not give enough privacy for some women. The women might feel too exposed in certain circumstances. Before bathing, the women wore an Isan skirt, *phaa sinn* in *kra jom oak* style, by putting it up to cover the breast. In the process of bathing they had to loosen the skirt and lower it down to the waist

and fold the lower edge up to the groin. I visited Chumaan on the first day of yuu fai. Her temporary bathroom had not yet been built. She expressed that she felt embarrassed.

> I do not take any pictures because Chumaan clearly expressed that she is embarrassed. She says that she doesn't want to take a bath in an open area. Her mother opposes that by asking her "why you are so embarrassed? All ancient people practiced this in the same way." (Chumaan, Field notes from participant observation #1)

The boiling pot. Caregivers boiled herbs and water in any one of three water containers: a sticky rice steamer, a stockpot, or a large rectangular tin can or *peep*. Most of the water containers for boiling herbs were normal kitchenware such as steamer and stockpot. During a family's developmental transition such as a daughter becoming mother, daily kitchenware becomes part of the rite of passage. From growing up in Isan culture, I know that both types of pots can be seen in every household. The steamer was used to cook sticky rice, a staple food in this area. Typically, each Isan family has only one rice steamer, but has a few stock pots in different sizes. One steamer is enough for making rice for the household. If the household is big or extra rice is needed for guests, people will use the same steamer for cooking rice a second time. If they use the steamer for boiling herbs for a postpartum woman, it means that there is no steamer left for household use.

> Herbs and water for baths are boiled together in a sticky-rice-steamer which is now burned and becoming black. This pot, called a bath pot, needs to be filled with water at all times. Herbs put into the pot are leaves of *naad* [*Blumea balsamifera*] and tamarind. However for Chumaan, the current pot has only leaves of naad. The tamarind leaves are not brought here yet; they will be added later. (Chumaan, Field notes of participant observation #1)

Chumaan's mother used the steamer for boiling herbs and water for the hot baths, while she used a stockpot for the hot herbal tonics. She did not tell me why she selected which pot for which purpose. I was wondering why, from among all the kitchenware, the steamer was chosen. Other than my assumption that she might have more than one steamer in

the kitchen, I think the shape of the steamer may be part of the explanation. It has a pear shape with a narrow neck, looking more like a flask. The narrow neck might be able to keep the concoction hot longer. Another explanation is that it might be the only pot that was big enough to contain the amount of herbs and water needed for a bath. Or, the family might value the steamer as the most important piece of kitchenware to prepare the most important food, sticky rice. Therefore, it became a symbol saying "you are important" from a mother to her daughter.

Some families boiled the herbs in a stockpot that had the same size from top to bottom. From my observation in Isan kitchens, people use stockpots for making big portions of soup. Each family may have various sizes of stockpots to serve different cooking purposes. It seems reasonable that a big one was picked to boil the herbs and water for the baths. Compared to the steamer, the mouth of the pot was wide. Thus, the caregivers would be able to conveniently scoop the water out for a hot herbal bath. Other families boiled the water and herbs in a large rectangular tin can. This tin can was not part of the family's kitchenware, but it could be routinely used for agricultural purposes in many farming families. Originally, a tin can was a container for gas, preserved bamboo shoots, or candied palm nuts. An Isan farmer reused the container to store seeds, crops, water, and the like. Compared to a steamer or stockpot, it had the largest capacity. Thus, I understand that it was selected because of its big size and because using this pot would not disturb a family's kitchenware management.

Herbs. Most families added specific herbs into the boiling water. The main actions desired from the herbs were related to skincare and soothing the women. Various herbs were used, but the most popular herbs were leaves of tamarind (*Tamarindus indica*) and *naad*

(*Blumea balsamifera*). *Plaw*, (*Croton roxburghii* N.P.Balakr., a local herb), was used only in Saijai's and Ratha's families. In Ladda's practices, plaw was mentioned by her visitors but she did not use it herself. Areya employed herbs named *ya nang dang* and *wan hoad* for both bathing and drinking.

> Tamarind leaves were added into the water only in the first pot. Because the tiny, sour leaves hung all over Ladda's body, the caregiver gave up using those leaves. An herb named plaw is mentioned by a visiting health care provider and a female guest, but it is not used in Ladda's herbal boiled water. (Ladda, 22, Field notes from participant observation #1)

Tamarind leaves are topically used for skin care. From my experience, tamarind pods soaked in water are used for exfoliating dead cells on the skin. A healer in TTM applies them topically to treat skin ulcers and sores. In Thai herbal sauna and steam baths, tamarind leaves are used to clean the skin and open the pores (Salguero, 2003). I think boiling the leaves for a bath may affect the skin in the same way as steaming but have a different level of effectiveness. From the above field note, however, tamarind leaves were optional for Ladda. Taking out a skincare herb did not mean that the skin's beauty was not important for her. She, on the other hand, strongly believed that yuu fai was a way to beautify a postpartum woman. Therefore, she focused more on drying by the fire which is believed to yield the same result. The leaves of naad, another herb left in the pot, may still have an effect on her skin's beauty. It is also believed to affect the women's blood and wind systems.

> I see a bundle of naad leaves placed on the woody plank [mae sa nan]. Chumaan's mother picked it from somewhere in a neighboring village. She said that its properties are to recover a person from fainting and to improve blood circulation. (Chumaan, Field notes from participant observation #1)

Tamarind is a common tree in Isan. Most women in this analysis were living in a house with tamarind trees nearby. Ladda's and Darin's families even earned money from products made from tamarind fruits. Isans use every part of the tree in their daily life. A pulp

of fruits, leaves, or flowers is added to soups or salads. The unripe fruit is made into candies. The trunk is sliced to make cutting boards and furniture or heated to make charcoal. Many families use its dry trunk as firewood in the yuu fai.

Areya used a package of herbs provided by her herbalist mother-in-law. Among those herbs, she knew two names: ya nang dang and wan hoad, which were boiled for bathing and drinking. She told me that ya nang dang was able to increase breast milk volume and wan hoad to shrink the uterus. I believe that the mentioned actions occur when the herbs were internally applied.

> Yes, my mother-in-law told me that wan hoad would help the womb rapidly gets into the same conditions. … She wanted me to rapidly recover. It will help me auto-cure the body. The womb will get well; hence I will have no pain. (Areya, Interview # 2)

Degree of heat: Hot like hell. People from the outside world, or even I, who share in some parts of the Isan culture, may be unable to imagine what the boiling pot looks like and how hot it is. Ladda said to me during a participant observation "when my mother gave me a bath I never dipped my hand in the water to test the temperature. If I did so, I might refuse that bath because it might be too hot." (Ladda, Field notes from participant observation #1) Saijai, a young new mother could not stand the heat. She said "I took two buckets… more like…three buckets of hot water. When it was poured on my head, it was very hot. When I felt its heat, I got up [laugh] and ran from the chair [Laugh]." (Saijai, Interview #2) Thara used a few coping techniques to get through each bath.

> If a woman delivered in the hospital, the water would not be too hot. Senior people said my water was not hot, but Oyi!!!! [Intensifying exclamation] They said 'was it hot, it should not be hot'. For me, however, I wanted to jump out of the chair. I ground my teeth and held the breath, while my mom was pouring the water on my head. (Thara, Interview #2)

Chumaan's mother, a person who connects the postpartum family practices in the past (for her mother and herself) and the present (for her daughter), made an analogy of the heat for me. I gave her credit as being an expert in Isan traditional practices who has gained knowledge from the practices of her mother and gained more skills from doing this for her own family. She has also taken care of her daughters and daughters-in-law and supervised other postpartum women in the community. Therefore, I think her following analogy should be a reasonable description.

> Chumaan's mother said that when she was a kid she felt like the pot for boiling herbs and water for a bath was scary like the pot in hell [*mor na rok*]. Her mother responded that 'you said like you had been in hell before'. She laughed a lot while spinning the yarn of her childhood experience. (Chumaan, Field notes from participant observation #1)

Seeing the boiling pot during her mother's practice might be one of her first experiences in traditional postpartum care. Although she was laughing and seemed to be happy while talking about the past, the feeling that the boiling pot was hot as the hell's pot might not be fun at all for a child. Later on in her story, she told me where the image of a pot in hell came from.

> Chumaan's mother responded to her mother that 'I didn't know. I had seen it in a strip of Phawade's story cloth and then imagined about hell'. [Phawade is Isan pronouncement for Prawasesandon, the last birth of Buddha before being Buddha. This life practiced the virtue of charity] (Chumaan, Field notes from participant observation #1)

While the pot in hell is for boiling beings with bad karma as a punishment, the pot in an Isan family is for boiling herbs and minerals to benefit a postpartum woman. Like other Buddhists, Chumaan's mother believed that hell was where beings with bad karma were born into. The Buddhists believe that in hell there is a huge copper pan or pot called mor na rok or *kra ta thong dang* for boiling beings with bad karma. Boiling is one of many methods for finite punishment. Buddhists and women in this study do not believe in original sin as

followers in some religions do. They rather believe in karma and *vipaka* as a cause-effect theory (Sayadaw, 2008). Karma represents all kinds of actions, while vipaka represents its reactions or results. Women did not view childbirth as a sin, *baab*, but as karma, *kam*. They integrated the term karma into yuu fai by calling it *yuu kam* (being with karma) and into other terms such as *ya kae kam*, a medicine to correct karma, or *ya kam hon*, a hot karma medicine.

According to its functions, karma is classified in to four kinds, one of which is reproduction karma which conditions the future birth (Sayadaw, 2008). It generates mental and material aggregates at conception and also conditions rebirth consciousness. The reproductive karma throughout a lifetime is maintained by supportive karma, while it can be weakened by obstructive karma or deprived by destructive karma. Based on knowledge about karma and postpartum practices studies in Isan, I interpreted that, although the reproductive karma can be good or bad, Isan newborns were not viewed as persons with bad karma unless there were sick or had deformities. They typically were perceived as vulnerable, valuable souls that should be protected and supported in order to live a good life. Likewise, mothers' bodies were viewed as vulnerable bodies due to damages of humoral elements, but not in a sinful or dirty status. Their practices were not about cleaning, but about restoring physical strength by rebalancing the four elements. However, they did view blood as bad blood that the body needed to be rid of. I think this belief is more about blood quality in term of physiology than religion. None of them related it with any concept in Buddhism or animism.

Images of Chumaan's mother emerged from memory of seeing a painting drawn on a long strip canvas meant to remind believers that they would get torturous penalties if they committed bad karma. Although each community made its own unique painting strips, I

believe artists created them to have one theme in common: the picture of torture must look horrible to scare people. I am also a Buddhist, but have a different attitude toward the paintings. I did not make a comparison between the two pots and did not connect the hell's pot with Buddha, karma, or any aspects of religion. My memory about it was cloudy until I heard the analogy of this caregiver. I think her mother's herbal pot must have looked terribly hot to a child at that age, so its image glowed in the mind of Chumaan's mother for a half century.

The water has to be hot. Saijai's mother experienced both hot and cool baths. She said after having a cooler bath, she felt uncomfortable. A hot bath, on the contrary, made her comfortable and it felt easier for her to breathe. Yada experienced four standards of a hot bath; she got baths from her mother and three other seniors. She contrasted her feelings after two different hot baths as follows.

> My mom was unable to give me a hot bath. I mean the water was not hot; it was just warm. My aunty, on the other hand, gave me a real hot bath. … The feeling during the bath was different. Taking a warm bath was not comfortable, but the very hot one made me feel comfortable, relieved, and light in the body and head. … When I got a bath from my mother, I felt tired and dizzy. (Yada, Interview #2)

Yada's mother differed from the other women's caregivers in that she had moved from another Isan province, where people are influenced by the *Khmer* culture. Yada called her mother *ka men*, which reflects her ethnicity. During my participant observation, her mother, who was supposed to be a main supporter, was barely at home. Even when she was home, Yada said that she was unable to give a hot bath according to this community's standard. She got most of the baths from her aunts and neighbors living nearby. There was a day when she had only one bath because her mother was not home and other bathers were not available.

> Yada: I appreciated my aunt because she cared about me and gave me baths. … She watched out for me. One day she was not available. An uncle [maybe a husband of the aunt] went to their rice field for fishing; therefore, she could not come. My mom decided to discontinue my yuu fai. When the aunt came, she rebuked us. She intended to have the ritual continued for 9 nights. However, she did not come for 2 days; hence nobody gave me a bath during daytime.
> Researcher: … Where was your mother?
> Yada: My mom could not give me a bath. She did not give me a hot bath; she gave me a warm bath instead. My aunt, on the other hand, gave me a real hot bath. (Yada, Interview #2)

Yada's hot bath ritual relied on her relatives; she did not count on her mother. After two days of absence of a care provider, the ritual had to be over. A story in Yada's family differed from that of the others. Yada said "My mom decided to discontinue my yuu fai. When the aunt came, she rebuked us." I interpreted these sentences that her mother, the most senior woman in her family, had the right to make decision but did not have an absolute power in this ritual. The older woman in their clan had an authority to reprimand her mother, although she did not live in the same family. Besides seniority, having more experience in the practice might make the aunt feel that she was superior to Yada's mother.

I asked Yada to evaluate her satisfaction with the traditional practices. Her answer was that she was 90% satisfied. Ten percent was taken off because she did yuu fai for 7 nights instead of 9 nights. The reason mentioned was yuu fai, but the actual cause was the hot bath. This showed that an obstacle in a sub-practice could affect on the whole practice and vice versa. It also indicated that a knowledgeable and dedicated caregiver was necessary to complete the practice in the traditional way. Yada said her case was called yuu fai disability because she stopped yuu fai earlier than expected. Some visitors suggested to her to seek help from either allopathic, TCM, or rural medicine because they worried that her uterine would remain large. She did not follow the suggestion, saying she was fine, with no pain in the body.

The bath marks the beginning and the end of yuu fai. When a woman returns home from the hospital, she might wait for a while until the wooden plank can be built and the bonfire ignited before entering the ritual. The caregiver will then give her the first bath and the healer who may be the same person as the caregiver performs the ritual of entering the fire as previously presented. The bath then becomes a routine with specific schedules unique to the individual families. On the last morning, the women have a hot-cold bath symbolizing completion of the yuu fai.

Every day bath. The hot herbal bath procedures followed by each woman were varied. A bath was typically done every 1-3 hour(s). It would begin with boiling water, with or without herbs added to the water, and then the boiling water would be mixed with room-temperature water. Each bath needed 2-3 buckets of water, each of which may have the same or a different degree of heat depending on the tradition of each family.

> I took a hot bath every hour. The water was boiled with tamarind leaves. I did not soap the skin. It must be my mom to give me a bath; I was not allowed to do it by myself. … She boiled the water very hot and then mixed with colder water to make it warm. Then, my mom or sometimes my aunts gave me a bath. The water had to be poured from my head. If not, it could make me tired and weak. (Irin, Interview #2)

The following field note added details about how Ladda massaged the knees and abdomen during a bath.

> First, Ladda's mother scooped the water from the first bucket and poured over Ladda's knees and instructed her to squeeze the knees. Next, she scooped water and poured it into Ladda's hand and suggested her to place the water on her belly and rub it in. Finally, she poured the whole amount of water directly from each bucket over Ladda's head. (Ladda, Field notes from participant observation #1)

The daily bath was done in a short time. After a few scoops of water were poured on the knees, abdomen, and breasts, the rest of the water was poured on the head. I interpreted this step as the most important part of the process because it is believed that the head controls

the body functions and water from the head will flow down through the other parts of the body.

The last bath. In the morning after the last night of yuu fai, the women were given the last bath as a part of the exiting the fire ritual. The bather for the last bath was the main caregiver and the bath was given either with or without a helper depending on the circumstances and family traditions. The bath was done while a healer was present and ready to perform the next step of the ritual. They did the last bath with a goal of "trying to make a postpartum woman chill". To achieve the goal, they bathed this woman early in the morning (around 6-7 o'clock) and made sure there was a great difference between temperatures of the hot and cold baths.

> Darin's maternal grandmother tells me that she will give Darin a bath with three buckets of hot water followed by four buckets of cold water. Taking cold water [room-temperature water] after a hot bath will make a postpartum woman chill. … She says the ritual will be done early in the morning because the cold weather in the morning will stimulate Darin's body to easily get chilled. (Darin, Field notes from participant observation #2)

The last bath was composed of a hot bath and cold bath. The hot water bath was done like the regular hot herbal baths during yuu fai. Under the progressive heat concept, however, the water was extremely hot. When I tested the water with my hand, I felt I could not tolerate the heat of the water. I was wondering how Isan women got through the hot bath ritual. I think maybe their skin might get used to it and develop a tolerance. The cold bath was done right after the hot bath was finished. Unlike Darin's caregiver, Ladda's did not count how many buckets of water were needed. Rather she evaluated the coldness from Ladda's self report.

> Ladda's mother-in-law asks Ladda 'are you cold?', while pouring the water. Ladda makes noise like 'aey aey' and says 'it is cold' as it is called cold water' while the water is pouring through her body. 'It differs from taking a hot bath', Ladda contrasts

> the hot and cold baths. The mother-in-law tells me that she does not count how many buckets of cold water are needed. She pours cold bath water until Ladda feels cold. (Ladda, Field notes of participant observation #3)

The last bath differed from previous baths not only in that it would be done with both hot and colder water, but that the women were allowed to shampoo and comb their hair, soap the body, and rub their skin. Additionally, all the water containers used in the bathing procedures, such as the pot, bucket, and tank, were overturned. My interpretation is that overturning those containers is symbolic of the end of the practice; it means "done" or "stopped".

Healings of the Self

Bodily healing. The effects of the hot bath on women may come from either the heat of the water or from the herbs that are used. The women in this study, as well as their caregivers, stated that the baths improved both their blood and wind conditions and that a hot sizt bath healed a perineal wound.

***Retrieval of the blood and wind*.** They all said that it propagated both elements throughout their entire body. Described by using the humoral theory applied in TTM, the external Fire element (heat in the water) affects its target organ (the circulatory system) to move (a function of the Wind element) blood (an organ in the Water element) to its destined organs (the Earth element). Because women in this study used the term blood and wind together, and the functions of the two elements are closely interconnected, I am presenting the experiences of these women in the context that the rituals heal both elements in concert. Chumaan appreciated the hot herbal bath. She did not state how either the herbs or heat benefited her blood and wind systems. Because she did not specify which system is affected

by the heat or the herbs, I could only assume that they acted together on both of the systems. In physics, the heat is dynamic; it can move objects, including producing blood circulation.

> Taking a hot bath will help our blood and wind. I felt that those were flowing very well. If we pass the delivery process, we will feel like our bellies are heavy. So do our heads and bodies. If we take a hot water bath, we will feel like the blood is flowing. The blood and wind are freely flowing, maybe. So that, we have never felt unusual, instead we will feel spacious and comfortable. (Chumaan, Interview #2)

From my observation, terms for blood and wind were said together as *leaud loam* in Isan and believed to cause many conditions such as fainting, dizziness, and delay in the healing of a wound. Although fainting is a spontaneous loss of consciousness caused by insufficient blood perfusion to the brain, Thais connect it with the wind system. Fainting is a translation the Thai words *pen loam,* which means "to be the wind." Another example of leuad loam as connecting the two systems comes from a pre-menopause period called *leuad ja pai, loam ja ma* which means "the blood is leaving, the wind is coming." I noted that Chumaan used the pronoun "we" (translated from *hao*) when she talked about the conditions as if she spoke for all women, including me. I think she might believe that feeling heavy was universal for all postpartum women, not just Thai women or Isan women. What Chumaan expressed about the bath was confirmed by Ladda as she told me how she felt during the process.

> Ladda said that she felt hot when the whole bucket of water was poured on her body, but felt relief or stronger [mee hang] after that. She felt that the body was light. The hotter the water, the lighter the body would be. She also felt that the head was light and clear. (Ladda, Field notes from participant observation #1)

Nisa added comments about an effect of the hot bath on the eyes, another organ of the Water element. She also related that she compressed the abdomen like a nurse stimulates uterine contraction.

> She (a bather) first poured the water on my knees and then poured a few ladles of water on my abdomen. She told me to press on the abdomen to let the blood come out, so it could quickly flatten. Next, she told me to lift my face up before pouring the water on it. … She told me not to close my eye because, if I did so, my eyes would be wet [meaning have excretion]. (Nisa, Interview #2)

The blood and wind imbalance that occurs during childbirth is reversed by taking hot baths. In my interpretation, the blood and wind indicate health status of Isan women. Good blood and wind mean good health with an effective immune system. The hot bath differs from related sub-practices, such as drying by the fire, in that the women reported feeling changes in their body immediately after the bath was done. The change may impress them and become a motivation to continue the ritual.

Care of perineal wound by a hot sitz bath. The hot sitz bath is a traditional method of caring for the perineal wound (an injury of the Earth element). It was done at the same time as taking a hot herbal bath. The women were sitting on the same hot herbal water mixed for the bath, but it was a little bit cooler. Some women sat on a hardwood chair, either with or without a hole in the middle, or on the bottom of an overturned broken earthen jar. They put a folded cloth on top of it to soak up the warm water.

> In the past, someone made woody chair for a woman to sit on. The chair was well fitted. A senior person poured water into that…poured cold water first and then mixed by hot water until it was warm [pause] as ordinary warm water, not too hot. [pause] It was warm just enough for a postpartum woman to be able to sit on it. (Ladda, Interview #1)

Ladda's story above was about her sister. She herself performed the same procedure for wound care. In general, the hot sitz bath was done during a bath, but Ladda did extra hot sitz baths when she was urinating. Instead of going to the bath room, she urinated on the woody chair, using the same procedure for the hot sitz bath. Saijai, who sat on the chair without a hole in it to collect the water, shared a different technique in doing a hot sitz bath.

She said “The water was poured directly on my head. When it ran through my body, I had to rock my body back and forth to allow the warm water to touch the wound. The wound will shrink easily.” (Saijai, Interview #2) I understood that doing so might make the perineal wound come into contact with more water. Some women added substances (also called herbs in TTM) such as potash alum, salt, or permanganate of potassium into the water. From my knowledge, potash alum is used as a deodorant; salt is used in preservation; and permanganate of potassium is for killing germs. Therefore, those herbs could protect the perineal wound from infection.

Energy healing. Therapists in TTM apply massage to heal the energy essence. Influenced by Ayurvedic, they theorize that the energy runs through the body, limbs, and internal organs via a network of meridians (sen) connecting acupressure points (Salguero, 2004). When any meridian in the network is broken or obstructed, the self will have an energy imbalance and will develop symptoms related to the organs thought to be connected to the affected meridian. The postpartum women in this study pressed, twisted, grasped, or squeezed three organs, including the knees, abdomen, and breasts, while having a hot bath. Unlike a Thai therapist practicing full course massage for an hour with a client lying down, the women did so for just seconds while in a sitting position. Chumaan told me that during the bath she squeezed her knees to prevent future aches and belly to ease the uterine involution. Ratha and Opor did so as well, plus adding breast massage as in the following examples.

> My mom mixed boiled water with cold water [room-temperature water]. I tested the heat; it was bearable, not too hot. Then, she gave me a bath by pouring water on the knees and the abdomen. I pressed the abdomen. Next, she poured it on my breast and told me to press the breast to press lumps of milk powder [*pang nom*] (Ratha, Interview #2)

The women stated how they massaged the organs and the outcomes they were expecting, but did not make any connection between the massage, target organs, and energy lines. I believe their massage techniques could be a primitive form of Thai massage, a treatment for the energy essence (Salguero, 2004), with origins from the same fundamental knowledge. An energy line affects more than one organ and each organ is served by many meridians. I understood that the abdomen is an important area to be massaged because the navel is the beginning of the main meridians. For example, the meridians named *Sahatsarangsi* and *Tawaree* correlate to the eyes, the lower abdomen, and the chest. They run from the belly button, descend the inner leg line, turn at the ankle, ascend the second outer leg line, and stop at the eyes (Salguero, 2004). If they are blocked, or broken down, the self will develop symptoms such as abdominal pain, gastrointestinal disorders, leg cramps, knee pain, impairment of vision, and weakness (p. 188-189).

> While my mother-in-law was giving me a bath, she told me to press the abdomen down and press the breast to allow the milk to come out. What is it called? It is like a group of small lump or pill. When hot water was poured on it, it would break and release milk. … Pressing on the abdomen would flatten it. (Opor, Interview #2)

Two other meridians, named *Itha* and *Pingala,* are also important for a postpartum woman because they correlate to the knees and head. They run from the belly bottom, down the outer leg line, turn at the knee, run up the inner leg line, then along the top of the iliac crest, and up along the first back line (Salguero, 2004). Damaging these lines causes symptoms, such as abdominal disorders, anxiety, chills, colds, dizziness, eye problems, fatigue, knee pain, shoulder pain, vertigo, impairment of vision, and weakness. I pulled out these four meridians from a list of 72,000 meridians as examples because they correlate to symptoms that occur in the postpartum period, or that can be anticipated to occur in the future, as stated by the women in the study. The women practiced yuu fai to prevent pain in

the knees and legs and to gain physical strength. Additionally, they dried the face by using the fire to improve vision. They also believed that if they ate the wrong food, they could have dizziness, fatigue, vertigo, impairment of vision, and weakness. And, although the traditional full course massage to relax mind and body was not done, the quick pressing of the acupressure points during the ritual baths may still be able to stimulate natural healing.

Lastly, the meridians correlated to the breasts are called the *Lawusang* and *Ulanga* and are found running from the belly button through the nipple, to the side of the neck, and stopping below the ear (Salguero, 2004, p. 186). If they are blocked or injured, they would affect lactation and cause breast disease. I understand that what women did with the breast was a massage to relieve a mild degree of breast engorgement that develops during the transition from colostrum to mature milk. Ratha called lumps in the breast "milk powder", while Opor did not know what to call them but, given what she was trying to explain, I think they were talking about the same thing. Breast massage could prevent milk duct obstruction. In a postpartum ward in Thailand, it is practiced to relieve breast engorment in a postpartum woman.

Spiritual healing. Spiritual healing is a proficiency that works on the mind-heart, one of three essences of the self. The mind-heart is translated from Thai word chita, which includes the intellect and emotions (Salguero, 2006, p. 7). Typically, a hot herbal bath provided in a Thai spa or hospital applying TTM consists of herbal inspiration therapy, medicinal tea, and a comforting environment. Then, a Thai massage will be followed with applications to holistically treat all three essences. The postpartum women in this study applied the same concept, but they did what was suitable and affordable under the circumstances instead of following the full spiritual healing course. The relaxing

environment might be impossible to provide because they had to take the baths in the temporary bathrooms which provide only minimal privacy. Drinking the medicinal tea for healing internal organs and promoting lactation was well followed and will be presented in the next section. A brief massage was done on the three target organs, as presented in previous energy healing topic. The herbal inhalation therapy was accomplished by adding one or more herbs picked from a list of a few appropriate choices to the boiling water. "The water for a hot bath is boiled with leaves of an herb named naad. She says that the leaves will prevent her from feeling of dizziness or being intoxicated [moa]." (Ladda, Field notes from participant observation #1)

The leaf of naad was popular to use for a hot herbal bath. Kamhom told me that it made the water smell good. Ladda said it prevented her from feeling dizzy. The women told me that leaves of naad has a smell like the herb camphor, *ga ra boon*, *Cinnamomum camphora*, which has hot and aromatic tastes used to treat respiratory system. As an aromatic, sedative herb, naad can be used for the treatment of fatigue, exhaustion, psychological and emotional imbalances, and postpartum depression (Salguero, 2003). It is also good for curing skin problem such as a rash, prickly heat, and swelling.

In Thailand naad leaves are believed to be able to ward off a ghost or malevolent spirit. Growing up in Thai culture, I think Thai people basically know of the supernatural power of naad leaves from the folk story of *Mae Naak Pra ka nong*, a woman named Naak who died during childbirth in the Pra ka nong district in Bangkok. Waiting for her husband to return home from military service, she haunted villagers who then either sought for help from a monk or hid themselves behind a naad tree. The story became the basis for movies, TV shows, and stage musicals over and over. Naad leaves are also an important component in the

making of holy water to use for religious purposes, especially for fending off malevolent spirits or omens.

Because of that background knowledge, I understand that the women in this study used both the medicinal and supernatural properties of naad leaves to treat the mind-heart essence. Its smell soothed their minds, while its protective power ensured their safety by protecting them from being harmed by a ghost or other bad omens. Some Isan people plant naad around the house to protect it from ghosts. When there is a postpartum woman in the community, the tree owner would give it to the woman's family. Therefore, the plant became a material showing the sharing frame of mind of villagers in the same community.

Conflict and Suffering

The main concept of health and well-being in TTM is balancing the body, mind-heart, and energy of the self. To rebalance the body is to balance both the internal and external Earth, Wind, Fire, and Water elements (Department for the Development of Thai Traditional and Alternative Medicine, 2004). When any of the elements get out of balance, the body would become damaged, weak, and vulnerable to disease. The self will also be suffering. Many of the women in this study had problems from an inordinately hot bath. The most frequently found problem was damage of the skin, an Earth organ. Nisa lost some hair as she told me "Sometimes the water was extremely hot until I lost some of my hair. The skin of my skull must be very hot," (Nisa, Interview #2) while Thara got red skin as she described in the following quote from her interviews.

> On the last day, the water was really hot. The heat burned my skin which later turned red. A woman who gave birth at home got hotter bath than mine. Their last day bath must be much hotter. … I had to hold my breath during an everyday bath, but the last day was too hot to hold. I would like to jump out of the temporal bathroom. My body got red. (Thara, Interview #2)

Darin told me why she had to follow her caregiver's instructions. The women's feelings after taking a bath became another indication for when to stop yuu fai. The women should feel hot after taking a bath. If they felt cold, yuu fai had to be over.

> After bathing, I would practice drying by the fire to make me feel warm, not cold. My grandmother said if we took a hot bath during yuu fai and felt cold, that meant we were unable to practice yuu fai [yuu fai mai dai]. Therefore, we have to take a hot bath. Feeling cold means we are unable to continue the practices. (Darin, Interview #2)

I have learned from Darin, and other participants, that the women who were unable to reach the caregiver's standards of traditional practices, or got complications causing yuu fai discontinuity, would later be labeled as a woman with yuu fai disability. Failure to follow the practice may later be blamed for future unhealthiness. I understood that other than being concerned about their health status, the women continued taking very hot baths because they may not want to be labeled as having a disability. For my interpretation, completing the practice was a source of pride and a trophy of becoming an Isan mother. Saijai was an example of the woman with yuu fai disability.

> The seniors told me to practice yuu fai for 9 nights because it was good for me. I could not do so because it was very hot. [A soft laugh] They told me to practice yuu fai for 9 nights. Everybody agreed with that. I told them I could not do so because I could not stand the heat. I got swelling. I didn't want to take a hot bath. (Saijai, Interview #2)

Saijai had rash and itching from the extreme heat of the water. She expressed her feelings to her grandmother who compromised by reducing the heat of water. The grandmother, however, still insisted firmly that she would bathe Saijai with hotter water in the near future. On the seventh day Saijai reached the top of her compliance threshold. She was the only one who stopped yuu fai before the due date because of skin problems. Even so, she did the practice for seven nights which was a modal length of yuu fai in this study. She

actually negotiated with her caregiver to reduce the water's heat. She succeeded in the beginning, but failed in the end.

> The water was very hot. [Raise the tone of voice, laugh] How come I wasn't allowed to exit the fire? I wanted to take a cold bath. When the bather mixed the water, I test its heat by dipping my hands into it. How come it was very hot? So, I added more room temperature water. [Pause] The bathers did decrease the water's heat for me, but anyway they didn't want me to take a cold water bath. (Saijai, Interview#2)

Saijai also experienced chills after a hot bath. Unlike other women, she was bathing in the family's bathroom, which was shared with other family members. The bath room was in the far back of the house. She had to walk there many times each day. The distance between the fire and the bathroom was farther in comparison to the distance in the other women's homes. She did not complain about the distance, but it became a problem when she got cold after her bath. "There were two days that I felt cold...shivering with cold after a hot bath. I was almost unable to reach the fire in time. I suddenly felt chill." (Saijai, Interview #2) Both Saijai and her mother experienced chills. The mother explained to me that feeling cold could happen if postpartum women took a cooler bath. They would feel cold like they were unable to adjust their body temperature in time.

Jamjan, the only woman who lived with her in-laws without the presence of a member of her parental family, suffered complications from both the heat and the perineal wound. She had to call her mother to complain and ask for suggestions and mental support. She did not practice yuu fai because an expert caregiver (her grandmother-in-law) was out of the province and a novice caregiver (her mother-in-law) was not prepared for Jamjan's 4-week premature labor. To compensate for the heat from the bonfire, the mother-in-law had Jamjan take a very hot bath and sit on extremely hot water.

> I told my mom [on the phone] that she [a mother-in-law] had me do a hot sitz bath. My mom said 'didn't your wound get infection?' My legs and buttock were peeling

> off because they were scalded by hot water. Moreover, my wound is opening. I guessed it was infected or torn up. It was possible. It is still opening now, but much smaller than before. (Jamjan, Interview #2)

I understood that Jamjan might have a hard time during the traditional practices. She lived in her husband's family because her mother was busy with agricultural activities in a faraway region. Her husband was supposed to be a main supporter, but he worked far away from home as well. When Jamjan felt uncomfortable with the practice, she might not have had enough confidence to negotiate with or object to her mother-in-law. Her mother could only mentally support her, but that might have been too late to help because her physical body was already harmed. Another non- yuu fai woman Areya was unable to get through the water's hotness. She refused to continue the baths after the first day.

> On the first day, I took a boiled water bath…hot boiled water. It was so hot. I was unable to continue the bath. I took hot baths for a day. After that, I took a room-temperature bath because the vesicles didn't totally disappear. I took a normal bath. … My mom had me take a very hot bath, but I could not do it. (Areya, Interview #2)

The vesicles mentioned were from chickenpox, which she had on the first day of labor. The vesicles became a reason to negotiate with her mother for not practicing yuu fai and taking a hot bath. Comparing the power exercised between a postpartum woman and her caregiver, I think the power between Areya and her mother wass almost equal. Areya did not strictly follow the practice; her mother accepted that. Only food restriction was fully left to the mother's selection because she was the postpartum food provider and also the family's cook. The heat was not the only thing that made the women uncomfortable. There were several prohibitions which made a hot baths unpleasant.

> She [Ladda's sister] wasn't allowed to shampoo her hair. [She was allowed] only to have a bath by pouring hot water over the head. She then got dressed and lay by the fire. That's it. She had not soaped and shampooed and combed the hair until the day of exiting the fire. (Ladda, Interview #1)

In my thoughts, taking a bath a few times a week may be bearable in the United States. In a tropical country like in Thailand, on the other hand, taking one bath a day is needed for cleaning and two baths a day is a general practice to provide comfort for the body. From my knowledge, the water is a carrier of heat and used for washing out dirt, but apparently a main purpose of the postpartum hot herbal bath was not to clean the body. No cleaning agents (shampoo and soap) as well as cleansing activities (combing and scrubbing) were allowed. After a few days of the practice, the women told me that they felt sticky; hence, they wanted to take a normal bath. They could not wait for the exiting the fire ritual. Some women were also uncomfortable with the frequency of the baths which were done every 2-3 hours.

> [I dislike] taking a bath, because my maternal grandmother said I had to do it often. I must take a bath for not letting the body dry. So, I had to take a bath all day. [Pause] It was around 10 baths a day. Yes, it was so. She gave me baths, saying those prevent my body from dryness. (Darin, Interview #2)

Lastly, Saijai concluded that, among the traditional practices that she had done, the hot bath was the most miserable practice for her.

> I think drinking hot water was acceptable, but I could not stand taking a hot bath and yuu fai. [Pause] What I most dislike was taking a hot bath. I was awaked to take it five to six times before sunrise. (Saijai, Interview #2)

Summary

The hot herbal bath is one of the four main types of Isan traditional postpartum care practices. It was done by both yuu fai and non yuu fai women. The yuu fai women took a hot bath to start and finish yuu fai. The first bath was done during the entering the fire ritual, while the last bath was done during the exiting the fire ritual, meaning when the yuu fai was over, the hot herbal baths would be over as well. Non yuu fai women, on the other hand, took a bath for a minimum of one day to a maximum of 15 days. During a bath, women did a brief

massage on the knees, abdomen, and breast, and had a hot sitz bath to care for the perineal wound. Affected by either herbs or the hot water, the women believed that the bath improved the blood and wind systems. Specific herbs were believed to prevent women from having dizziness and fainting and to brighten the skin.

The hot bath caused discomfort and extreme heat damaged the skin. Caregivers bathed women many times per day. The frequent baths caused some women get less sleep and feel uncomfortable. Moreover, they were not allowed to shampoo and comb the hair, soap the body, or rub their skin. The most important issue was that the bath was given under the progressive heat concept which was strictly followed. Therefore, on the later days of the practice the women's skin developed reactions to the heat such as a rash, prickly heat, swelling, and peeling. Some women could not make it to their due date for completion of the yuu fai. Ideally, the bather should be the same person for the whole practice time to make sure that the heat was gradually increasing. Switching between hot and cold baths was believed to cause symptoms ranging from feeling heavy in the body and head, dizziness, and even death.

In my interpretation, a few seconds of a hot bath illustrates a picture of how an Isan caregiver provides holistic care for a postpartum woman. Described from TTM's point of view, pouring hot herbal water on the body is a treatment for blood and wind system; massaging recovers an energy line that has been affected; and the scent and supernatural power of herbs comfort the mind-heart. As an allopathic health care provider, I understand that having frequent baths is a strategy to monitor for postpartum hemorrhage. The dynamic quality of heat stimulates blood circulation, while pressing on the abdomen stimulates uterine

contractions. The sourness of certain herbs such as tamarind leaves cleans out the skin and the camphor-like smell of the herb naad soothes the woman.

Hot Herbal Concoctions: Tonic and Lactating Promoter

This section presents the experience of Isan women in drinking hot herbal concoctions after giving birth. Among four main rituals identified in this study, food restrictions and hot herbal drink are two practices with potential to affect the baby's health. Second to diet, herbs are likely to be used by a healer in TTM to principally treat the physical body (Salguero, 2003). In this study, drinking herbal concoctions was believed to benefit both the women and babies. As presented previously, the healer typically classified food and herbs by their tastes which have their affect by increasing or decreasing humoral elements (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Herbs can also be classified by their actions on the body using a classification system of TTM (Salguero, 2003). Isan women in this study described actions they believed herbs had on the mother and newborn. The first three most frequently mentioned actions were to cure or prevent phit kam (symptoms developing after taking, smelling, or touching certain food or substances), to promote breast milk production, and to heal reproductive organs.

Limitations of studying Isan herbs and actions are that their names are in a local dialect making it difficult to identify central-Thai name before searching for common or scientific names. The Ministry of Public Health of Thailand recognizes 16 herbs as ingredients to enhance flow of lochia (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Of these, ginger, potash alum, garlic, galingale, cassumunar ginger, and an herbal bulb *wan shuk mod look* were internally and topically used by women in this study. In manner of Thai medicine or royal TTM traditions, the Ministry of Public

Health also approved two herbal prescriptions for driving out lochia and helping uterine involution. Each prescription consists of at least five herbs ground to powder for taking orally three times a day. Four of those herbs were used by the women in this study, but they prepared them in village medicine or rural tradition. They ate it raw or boiled to drink as tea as much as possible. No exact recipes and dosages were mentioned. Moreover, they consumed herbs that are not likely recognized by the Ministry of Public Health, although this may be inaccurate since some herbs may be called differently in a government document using central-Thai language and by the women using Isan or Lao dialect.

Isan Term Clarifications

Instead of drinking normal or cold water, all women in the study drank a hot concoction after childbirth. They as well as their caregivers categorized herbal drinks prepared for the women into two groups: hot karma medicine *ya kam hon*, and cold karma medicine, *ya kam yen*. Both terms were introduced to me by Chumaan and her caregiver. The word kam is an Isan term for karma. The hot karma medicine was herbal concoction consumed at hot state during yuu fai. The cold karma medicine, on the contrary, was consumed at cold state after yuu fai was over. The women could continue drinking the hot karma medicine a few weeks after exiting the fire, but the cold karma medicine or any kind of cold or room-temperature drinks were not allowed during yuu fai. This paper is focused on the hot karma medicine, which was prepared regarding an Isan postpartum care concept "to drink hot water, to lie on a woody plank". The cold karma medicine will be briefly presented in this section.

Medicines for the women were traditionally prepared in various forms. The hot karma medicine was also called *ya tom*, indicating that it was boiled in water. Some women took

herbs in other forms to supplement the hot herbal drink. Those were a manufactured “woman medicine” *ya sa tree,* containing in a bottle, a herbal medicine steeped in alcohol, and a herbal medicine steeped in honey. After being out of yuu fai Chumaan substituted her drinking water with cold karma medicine. She steeped herbs in fresh water and make it available for her to drink anywhere at any time. Herbs used in both medicines could be the same but had different modes of preparation as found in Ladda’s family. “To drink the herbs, Ladda explains further that during yuu fai an herb named *krea ya nang dang* will be boiled, but after exiting the fire it will be grated and added to water.”(Ladda, Field notes of the participant observation # 1)

I had little previous knowledge about herbs used in postpartum period. I knew that basically an herb had to have specific way to extract its medicinal properties. I had questions about why Ladda’s family employed two ways to prepare one herb, whether boiling or grating extracted different medicinal properties, and if hotness and coldness affected herbal pharmacokinetics. I understood that women changed the way to prepare herbal medicines after exiting the fire because a bonfire was no longer available around the clock. Typically, rural Isan*s* cooked food twice a day by using a charcoal burner. Boiling herbs was not convenient for a family with no gas or electric stove. However, a family who can afford a thermos may drink the hot karma medicine longer. For instance, Hansa, who did not practice yuu fai but drank hot herbal concoction for more than 2 weeks, contained hot concoction in a thermos teapot.

Basic Concepts

Each family managed this practice differently. Saijia’s caregiver, for example, applied her own experience in consuming herbs after childbirth to her granddaughter. As I

recorded in the field note that "The maternal grandmother's principle is that she will follow what she used to do. She did the hot drink in the same way as she did in the past. She put herbs that she used in the past." (Saijai, Field notes from the participant observation #1) Similar to a hot bath and yuu fai, temperature of the herbal concoction should be in "progressive heat", meaning it should be gradually hotter every day. Therefore on the last day the women supposed to drink the hottest concoction. The concept, however, might be followed in a less strict way. Unlike the hot bath given by a caregiver or drying by the fire to which firewood were added by a caregiver or guest, hot herbal drink was subjectively controlled by the woman herself. The caregiver could only control this practice by checking the woman more often.

> Saijai's grandmother periodically asks Saijia if she wants to drink hot water. Sometimes she serves her granddaughter a bowl of very hot drink and tells her to not let it cool. She urges Saijai to drink two bowls of it in order to increase breast milk. Sometimes, she checks the drink if it is hot enough. (Saijai, Field note from the participant observation #1)

Drinking hot herbal water was strict during yuu fai. One month after delivery, the women might drink only one glass a day. Areya, for example, said that "I rarely drank it when my baby was approximately one month old. I rarely drink it lately. … I drink it one glass a day. (Laugh) Some days I don't drink it at all. It depends." (Areya, Interview #2) However, a caregiver might have a different idea as expressed by Saijai's mother.

> Saijai's mother tells me she doesn't want her daughter to stop drinking the herbal concoction. If Saijai drinks these herbs, she will have the bright complexion, beautiful skin, and plenty of breast milk. The mother says that the first month postpartum is important because the baby is still young. (Saijai, Interview #2)

Drinking hot herbal concoction was to benefit both a woman and baby. First month postpartum seemed to be a vulnerable period for the baby, although the mother was confined to the fire and strictly followed postpartum practices for no more than 9 days. A belief in the

first vulnerable month postpartum was found in the northern Thai women, Hmong, and Chinese (L. Y. Chien, et al., 2006; Liamputtong, 2004; Rice, 2000).

Basic Procedures

Preparations. Drinking hot water is a privilege of a rural Isan mother. Darin talked about her grandmother that "She drank [the herbal boiled water] before [laughing while talking] She had experience in drinking hot water. Unlikely urban women have ever drunk that kind of thing." (Darin, Interview # 2) Darin told me she trusted her caregiver because she gained knowledge how to take care of a postpartum woman from personal experience. Although her grandmother was from a rural area and without formal education, what she knew was more than that of some urban women. This section presents how an herb was found and boiled.

Herbal provider. All of herbal providers in this study were seniors in families or clans. Most of them were female, except for Ladda's father and brother-in-law and Ratha's father who found the herbs for them. When it was realized that there was a pregnant woman in the clan, those with herbal knowledge would be voluntarily responsible for seeking herbs. Most herbs were available in nature free of charge. Herbs could be found in a house's fence or backyard, in a temple, a rice field, public or private forests, or in a sugar cane plantation. Few commercial herbs, manufactured under TTM or TCM, were sold in local grocery stores. Ratha told me how her parents sought herbs for her.

> My mom as well as my dad sought herbs for me. When my dad went to our rice field, he took an herb named *tong lang* home. When my mom went to the rice field, she did the same. Ya nang dang, on the other hand, my dad got it from a master [maybe a monk] when he went to another province to sell homemade brooms. There may be ya nang dang around the community, but it is difficult to find. Nobody in this village has it. If they have, it comes like this… like they begged for it from somewhere else. (Ratha, interview #2)

Recipes. Recipes to make hot karma medicine were varied to each family. In general, drinks were composed of water and one or a few herbs. Provided by her herbalist mother-in-law, Areya's herbs were at least ya nang dang root and wan hoad in the herbal package for both bathing and drinking. Chuaman had ya nang dang leaves, *wan jai lare* as also known as *wan jai dam*, *wan hua*, and some unknown herbs provided by her herbalist mother-in-law. *Wan* is a general word for calling a plant that has a bulb. Wai jai lare or wan jai dam was named by its central black (*lare* or *dam*) color. Women did not mention how to measure a quantity of each herb. I had asked, but they told me a size of it or said that they simply put some in a pot, no measurement needed.

Boiling pot. During yuu fai, caregivers used a metal water container to boil herbs and used water for drinking, *nam kin*, within the family. They did not use water for other purpose than drinking or *nam chai* because it was considered less clean. Boiling herbal water was scooped using a ladle or a mug and then poured into one or two earthen bowls. *Tra kai* earthen bowl was preferred by the women because, they said, it allowed the hot water to cool fast. So, they could drink it right away. Chumaan's mother shared her experience that she drank the hot herbal concoction not in a bowl, but in a much bigger container. Instead of using a cup to scoop the liquor, she used a deep coconut shell scoop with a long handle which was safer to get the very hot water. She couldn't find a coconut shell scoop for her daughter while I was visiting, but she would find one soon.

Commercial herbs. Some women use herbs directly from plants accompanied by commercial herbal products. Saijai, for example, had several plants in her hot drink recipe and a manufactured herbal product called *sua sib ed tua* which literally means eleven tigers. Sua sib ed tua® is a trademark of herbal medicine in form of a burgundy sheet. Later in this

paper, I will refer to it as Tiger medicine. Saijai was the only woman who took this medicine as described in the field note. “Before drinking, Saijai breaks the Tiger herbal medicine sheet into small pieces and sprinkles it over the hot drink bowl.” (Saijai, Field note from the participant observation #1) Saijai and caregivers expected that it would increase breast milk. The producer of Tiger medicine claims that this herbal medicine will affect the body as follows.

> Herbal pharmacodynamics [written on the medicine’s envelope] of the Tigers medicine are for nourishing body and blood, appetizing, and recovering debility [*kae ka sai*]. The drug is also suitable for a woman with irregular menstruation and a woman who is unable to practice yuu fai. (Saijai, Field notes from the participant observation #1)

I have heard of this herbal medicine’s trademark from radio commercials since I was a child, but never seen it. I have known only that it was for steeping in alcohol, resulting in liquor called medicinal wine which was widely drunk by men. I don’t know if Tiger medicine could develop allergies. I have never heard about it. I worried that if it was steeped in alcohol and consumed by Saijai, the alcohol could be transferred to the baby via breast milk. Fortunately, she did not do so. She just put a little bit of it into hot water before drinking. However, the main caregiver prepared one more herbal remedy for her to drink after exiting the fire.

> Saijia’s maternal grandmother shows me the jar containing the herbs and honey. I smell it. It smells like alcohol liquor, but she confirms it is herbs’ smell. She says that she has not added alcohol in the liquor. She tells me the herbs are a haematinic [blood tonic or *ya bam roong leuad*] or a musculo-tendotinic [*ya bam rung sen en*]. (Saijai, Field notes from the participant observation #1)

Saijai’s grandmother bought the herbs from a street hawker. I think these herbs are less reliable than the Tiger medicine which was a manufactured product. I worried about the alcohol smell. I do not know if honey itself is able to be fermented to become alcohol, but I

have never heard about that and never smelled herbs steeped in honey. On the contrary, honey is well known for its high concentrate of fructose which is able to preserve an organic substance from decay. Therefore, it should extract herbal potency instead of fermenting herbs to become alcohol. Saijai's mother told me a few weeks later that alcohol was added into the jar.

According to my experience as a perinatal nurse, hospital staff told a postpartum woman to not consume alcohol. I thought, because I was representing a nurse, the grandmother did not want me to know that the alcohol was added, so she did not tell me the truth. This phenomena was also found in the anthropological study in Isan when women did not tell a health staff that they were going to practice yuu fai (Whittaker, 1999). Having meal or medicine with alcohol was not usual in my study. I discovered this questionable tonic only in Saijai's family. Women influenced by TCM, on the other hand, were encouraged to consume rice wine or certain soup cooked with the wine to increase hot humor in the body (Y. C. Chien, Liu, Huang, Hsu, & Chao, 2005; Liu, et al., 2006).

Boiling herbs. In the preparation process, the herbs were rinsed and simply put in a metal container such as a kettle or pot. Some women wrapped the herbs with a white, thin cotton cloth. I think the cotton cloth worked as a filter removing herbs and dust from the liquor. For medicinal purposes, Isan people employed different parts of plants, including a leaf, root, vine, fruit, heartwood, trunk, and bulb. When referring to herbs, women put a word showing the parts of plants used as a prefix. Some herbs were not available in the neighborhood. Yada, who had two herbs from heart wood of *kabaw* and tamarind tree, hired her male relative to cut heartwood of kabaw tree from a conservations forest. She told me how she prepared the herbs.

> I peeled its bark off, leaving only heartwood. I then cut it vertically. Senior people put it as it was in to the herbal pot, but if they were going to put in the bath pot, they tied some together to ease when they wanted to take it out. (Yada, Interview #2)

From interviews and participant observations, I understand that women in the study considered the hot karma more seriously than cold karma medicine. To prepare hot karma remedy, the caregivers boiled the herbs until they are cooked, or *sook*. If it was not cooked, it could cause bloating. Fire for boiling herbal drink was from the stoves, not the same fire used for hot herbal bath. The women or caregivers took care of the fire to make sure that the liquor remained hot or at least warm. When the women were going to drink it, the hot herbal concoction would be reboiled. The women were encouraged to drink it a lot. Some caregivers often walked to the woody plank to urge the women to drink the liquor. The cold karma medicine, on the other hand, was consumed after the women finished yuu fai as a prophylactic treatment. The caregiver was not as strict about drinking the cold herbal drink.

My interpretation is that during yuu fai both mother and baby were more vulnerable to disease. The caregivers seriously controlled how to administer the hot herbal drink to ensure its therapeutic value. A method to administer herbs by boiling is called "decoction" (Salguero, 2003). In Thai medicine, herbs in hard forms such as heartwood and bark will be boiled for 10-15 minutes until they are cooked and release their therapeutic value. General dosage is a handful of herbs boiled with 500 ml of water until it is reduced to 250 ml (p. 65). Caregivers in the current study, however, boiled a bunch of herbs in a big pot with a large amount of water. Their dosage was like a few pieces of this herb and that herb, and no specific measurement was mentioned. There was no limitation on how much the women should drink. I think this practice reflects a village medicine tradition. Boiling a large amount

of hot karma medicine was more convenient for the women who drank a lot of it throughout the day.

Herbal drink: Crossing the toes to strengthen the joints. The following field note gives a full picture of how an Isan postpartum woman drank hot herbal concoction. It describes what they drink, what it looks like, how much to drink, how hot it is, and the reason to drink.

> Ladda is pouring hot boiled herbal water from the kettle into the tra kai earthen bowl [an earthen with fowl pattern]. The water is beautifully pink and is steaming…. She drinks two kettles of hot drink during the day and one during the night. If the herbal boiled water becomes less pink, she will replace the herb by a new set of it. She hasn't consumed much of the hot drink because she already has plenty of breast milk. A woman who has less breast milk may need to drink more. (Ladda, Field note of the participant observation # 1)

When a woman finished each bowl of the drink, she had a special way to manage the leftover. This popular belief was related to a woman's long term health. Drinking hot herbal concoctions was believed to have an effect on the reproductive, elimination or gastrointestinal system as well as lactation. Interestingly, the leftover of the concoction was associated with the musculoskeletal system.

> There is a popular belief in taking hot drink. Ladda is not allowed to throw away the leftover of the hot drink. Instead, she has to pour it on her crossed big toes, believing that she will not ache at the joints, legs, and arms, when going to a forest. (Ladda, Field note of the participant observation # 2)

Pouring the leftover of hot concoction on the crossed big toes symbolized treatment of her joints. By crossing her big toes, Ladda was making a knot or connection representing a joint between two bones. The toes are parts of human limbs, so they themselves may represent both legs and arms. Pouring the leftover hot drink might be considered similar to consuming the herbal medicine. The woman did so as a different symbol of taking the herbal medicine, with an expectation that it would anatomically affect joints, bone, and muscle. This

belief is one among many that Isan women practice to ensure their long term strength and ability to move their joints without aches.

The word *forest* in this context is used more by it literal meaning than its symbolic meaning. Women in this study live in border area in which forests are preserved for purposes of security, commercial, and ecology. Some forests belong to National Police Institution, while others are part of the National Electric Department or Ministry of National Resource. Also, small forests can be found at the end of a rice field or around a pond, creek, or river. People gather wild vegetables, fruits, herbs, and firewood and hunt games in the forests. Those activities require a strong body. Symbolically, the forest could mean hardship or danger. A woman needed to be strong to get through that situation. While observing the hot drink practice, I wondered why she used the leftover to bathe her toes rather than using a larger amount of the liquid. More hot water might have had more complete protective l action.

Herbal elimination. A set of boiling herbs lasts for 4-5 days before being bland at which time, a new set is used. Saijai told me that the taste was bitter or astringent at first, but after 4-5 days it became bland as boiling fresh water without herbs. The residue was scooped out, dried by the sun, and re-boiled if needed. She threw away the residue because she had plenty of herbs. Other women who had plenty of herbs such as Opor or Areya used the same herbs for drinking and bathing. Yada told me how her father got rid of the residue.

> Yada: They kept it in a bamboo woven basket. After I exit the fire, they *poad* it.
> Researcher: What do you mean by poad?
> Yada: Like we do so with a dog and a cat. They abandoned it somewhere else. They did not do so around the house for some reason I don't know…. I don't know when my dad poad it. He did so at the rice field. (Yada, Interview#2)

Poad is an Isan word meaning to discard, leave, abandon, or get rid of (Phinthong, 1989). From my observation this word was used regarding domestic animals mostly pets. A family who had an unwanted pet might take and leave it somewhere far from the house. They will make sure that the pets do not remember how to go home. If the word was used with fowls, it meant to kill. I do not know that the word was able to be applied with plants and what it meant. When I heard the word at first, I think Yada's father treated the herb as a higher-developed living organism which was more like an animal than a boiled plant.

I interpret that this family gave high value to the herbs. They treated it as a pet which had closer connection with the family than a plant does. When they did not want it anymore, they abandoned it far from home to make sure that it would not come back and disturb the family. A few families eliminated the herbal residue in the same way, although they did not used the word poad. I think the same concept of abandonment was applied to overall yuu fai. For example, when exiting the fire ritual was finished, a woman had to leave the place for yuu fai immediately. Most women were not allowed to help in the deconstructing and cleaning processes, while the others were not allowed to get close, walk by, or even look at it. I understood that doing so might be a cutting point between vulnerable and healthy postpartum bodies. Leaving herbs and the place for yuu fai implies that "I am now healthy, no need for medicine or special treatment". Having those things around could be an omen of being vulnerable.

Effects of Women's Tonics

Women's tonics were herbs believed to affect reproductive organs (Salguero, 2003). The Thai Ministry of Public Health announced two herbal formulas for use within a household. Those were named *yaa fai praa laai kan* and *yaa fai ha gong*, each of which

consists of 16 and 5 herbs, respectively (Department for the Development of Thai Traditional and Alternative Medicine, 2004). The medicines, whose names contain the word *fai* meaning fire, help with the flow of lochia and uterine involution. Unlike those approved women's medicines, herbal tonics used among Isan women consist of a single or few herbs. The main expected effects are to prevent phit kam symptoms, promote breast milk and uterine involution, heal the wound, and care for the stomach. The last action occurred both in a mother and her baby. Although herbal medicine is purposed to heal the body, some women mentioned a few fragrant herbs for soothing mind-heart essence and one woman said that hot drink affected the energy meridians.

Effects in the body essence. The women in this study believed that the hot herbal concoction can shrink the uterus, heal the perineal wound, expel bad blood from the body, break the wind, and prevent phit kam.

Shrink the uterus. The women in this study clearly stated that three herbs were believed to shrink the uterus. Those included *wan shuk mod look*, wan hoad, and *wan thong boak*.

> My mother-in-law told me that wan hoad would help the womb rapidly get into the same conditions.… She wanted me to rapidly recover. It will help me auto-cure the body. The womb will get well…no pain. (Areya, Interview #2)

Phinthong (1989) suggested that "*wan* is a general name for a variety of plants, some with tubers or rhizomes, often grown in gardens, some are edible or medicinal, some are used for sorcery or believed to provide supernatural protection against attack" (p. 857). The one used for making medicine is generally called a medicinal bulb. Wan hoad was used by a few women. The word *hoad* literally means "to shrink". I previously had no knowledge about wan hoad. It may get the name from its pharmacodynamics to shrink organs such as the

uterus, or people used it for that specific purpose because its name said so. *Wan shuk mod look* was used only by one woman. Its name is in central-Thai language and appears in the formulary of Thai Ministry of Public Health as an ingredient of postpartum woman's medicine (Department for the Development of Thai Traditional and Alternative Medicine, 2004). Finally, *wan thong boak* was used by one woman. Its name means "flatten, smaller, or lower abdomen". It is possible that those three herbs have an active agent affecting uterine contraction and that they could be the same herb with different names. There are three more medicinal bulbs applied to heal the body. Two were for curing or preventing phit kam symptoms and one was for the stomach. Those bulbs are presenting later in this section. The women in this study did not mention the supernatural power of these plants. "Ladda tells me if a woman takes enough hot drink, the uterus will go back faster to its normal place [involution]. The hot drink benefits both breast milk production and uterine involution, she concludes." (Ladda, Field notes of the participant observation # 1)

Along with other women, Ladda agreed with the actions of hot herbal drink to promote uterine involution and breast milk production. But, when she said "if a woman takes enough hot drink," it was difficult to determine when "enough" was reached. I wonder if enough hot drink means enough herbal medicine, and how this relates to nursing education about exercises, food, medicines, and supplements for postpartum recovery. As a nursing instructor I taught nursing students to coach women how to do postpartum exercises. In traditional practices, on the other hand, there was no exercise mentioned except squeezing the uterus for a few seconds during hot bath ritual.

Heal the perineal wound. Most women did a hot sitz bath to heal the perineal wound. In practicing hot herbal drink, most women said that it would heal their inside (which may

include the wound), but they could not explain how the drink repaired damaged tissues. As a nurse, I understood that active substances in an herb were absorbed during gastrointestinal passage into target organs and then caused physiological and chemical changes. Darin gave me an interesting explanation because her herbs acted after they were excreted in her urine.

> I drank [hot, herbal boiled water] and then urinated [it] out. After urination, the [perineal] wound would be better. The seniors said it would heal fast. Drinking and then urinating more were better. They said that doing so would be good. (Darin, Interview # 2)

I was surprised by what Darin told me. I could not figure out how the waste product of hot herbal concoction could heal the perineal wound. I wondered if it was possible that the perineal wound got better by being in contact with herbal medicine excreted in the urine as the woman was urinating. Ladda got almost the same instruction to care for her wound. Her caregivers told her to urinate during hot sitz bath or do hot sitz bath if she wanted to urinate.

Expel bad blood. After childbirth women's blood was perceived to have low quality. The worst one was considered bad blood which should be expelled from the body. The rest of the blood was weak; hence, the women had to take specific herbs to improve it. As Chumaan said "It will expel the [bad] blood. Yes, it actions like that. It will quickly heal our inside. … The senior people said so, but we don't really know about its actions." (Chumaan, Interview # 2) I understood that the (bad) blood to be expelled is lochia flowing from the uterus. The Thai term for lochia is *naam khaw pla*, but it is simply mentioned by Isan people as *leuad* which means blood. When Chumaan said, "It will quickly heal our inside," she did not explain what the "inside" was. She might have meant internal organs in general or specifically internal reproductive organs. A few women applied manufactured herbal medicines to discharge lochia. Thara used an herb with an image of a bat on its trademark. Its

trade name is *ya sang sawang tra kang kaw,* which will be referred later as a Bat medicine. She put a bit of it in hot water before drinking.

> [A Bat medicine] helps drive lochia. Lochia of some women who do not have this kind of medicine will not stop flowing for a month. If they have it, on the contrary, the lochia will be gone within less than a month maybe only two weeks. … Taking this Bat medicine is good because the lochia will stop flowing sooner. (Thara, Interview #2)

Women in this study looked at lochia as bad blood that needed to be discharged from the body. This belief conforms to allopathic medicine. From my experience as a maternity nursing instructor, staff in the labor room inject medicine and massage the fundus to stimulate uterine contraction. A woman will be instructed how to check her lochia, and massage her uterus but is not prescribed any oral medication to get rid of lochia. Obviously for the women, treatments given by the hospital staff were not enough. They needed daily, extra medicine to make sure that bad blood would not stay in the body. I interpreted that when lochia stopped, women thought that all bad blood was eliminated and their insides became clean and healed. Nisa explained to me about an effect of heat from the hot drink on blood and wind circulation as follows.

> The hot herbal drink is good for our body. We believe that drinking it will drive out the waste. It will prevent blood from being clotted. Blood and wind will circulate well because our blood will dissolve when it meets the heat. The blood will then be driven out. This is good for our body. (Nisa, Interview #2)

The explanation of dissolving blood clots to improve circulation partially conforms to allopathic medicine dealing with decreased blood volume in hypovolemia. Isan women drink hot water, while allopathic practitioners give patient intravenous fluid.

Break the wind. Like in a post-operational patient, a postpartum woman evaluated recovering abdomen from an ability to break the wind. Having too much wind in the gastrointestinal system may make her uncomfortable. An herb to help the woman drive out

the wind was *wan fai* (*Zingiber cassumunar Roxb*.), which acted on both mother and baby. Saijai was the only woman who used this herb she said "wan fai is for expelling wind from the abdomen. It helps us to break wind; hence, it prevents bloating." (Saijai, Interview #2) Wan fai is an Isan name for an herb in a family *Zingiberaceae*. A central Thai name is *plai* and a northern name is *pu luie*. The herb was employed for external and internal body conditions. For example, Saijai, used wan fai in her herbal concoction and also grated it and applied it on the baby's belly to break his wind. Saijai also decocted curcuma (*kee min, Curcuma longa Linn*) in her herbal pot. Curcuma is in the same family with wan fai. An expected internal effect was to cure a gastrointestinal condition, while topical effects were to beautify the skin and prevent rash.

Both wan fai and curcuma are two ingredients in approved Thai herbal medicines announced by the Ministry of Public Health (Department for the Development of Thai Traditional and Alternative Medicine, 2004). The Pharmaceutical Department of the Ministry of Public Health also commercially produced anti-inflammatory gel for topical use from an active agent found in wan fai. I am familiar with wan fai and kee min because my parents planted them around our house when I was a child. We ate them as vegetable and herb treating gastrointestinal conditions. I understood that the word *fai* meaning fire came from its hot taste. From my literature review, nam pu luie, a drink made from wan fai, was consumed by northern Thai postpartum women (Kaewvichien, et al., 1997; Liamputtong, 2004; Salguero, 2003). It was believed to cause jaundice in babies and anemia in the mothers, if it was taken internally.

Prevent phit kam. Another main herbal action expected was to prevent or cure phit kam. Defined by the women, phit kam was a group of symptoms occurring after smelling,

eating, or touching specific food or substances. It was mentioned by all women in the study. (Details of phit kam were presented earlier) Some women said that the hot herbal concoction prevented or treated phit kam, but could not specify which herbs had that action. Several herbs were clearly mentioned, including ya nang dang, thong lang, *wan kae kam*, a bulb for correcting karma, and wan jai dam or wan jai lare, a black-heart bulb. The first two were the most popular and effective; they were also believed to promote lactation.

> The herbal concoction will cure phit kam. If we are out of the fire, we will not have phit kam symptoms. [Pause] It will prevent us from phit kam. … [It] will prevent us from eating things and then suddenly fall on the back [*ngai teung teung*]. (Chumaan, Interview # 2)

The herbs in Chumaan's hot drinks were ya nang dang, wan jai dam, wan hua, and other unknown herbs. She gained knowledge about actions of the herbs from senior persons in her family and her in-laws. Her late grandfather was an herbalist, who taught Chumaan's mother and aunt how to identify and prepare herbs. Her mother-in-law is also an herbalist, who gave Chumaan some herbs and taught her how to use them. They all believed herbs could prevent or cure phit kam and even had long term effect after yuu fai was over. The word *ngai teung teung* means "suddenly falling on one's back", a sign of serious phit kam. She told me later it was a quick reaction of the women to harmful food. The women could prevent it by drinking the right hot herbal drink. She gave me an example of herself eating durian, a sweet tropical fruit with strong smell which was believed to cause death in postpartum women.

> For example, I ate durian meat. I could just eat it. Nothing happened. The other women may be harmed if they eat durian, but I didn't. However, we have to have the herbs that … are quite good. Like…the herbs that are right for us. When some women practiced yuu fai, they didn't have a full course of herbs. When they are out of the fire and eat this and that such as cha oam [a local vegetable], they will have phit kam symptoms. (Chumaan, Interview # 2)

The durian and cha oam were believed to be two of the most powerful foods capable of causing death in postpartum women. Although Chumaan was not sure about herbs medicinal actions, the fact that she had no symptoms after eating the durian gave her confidence in the herbs. Nonetheless, she thought the women had to have the "right" herbs with completed recipe to gain the preventive actions.

> Ladda said if a woman gets this herb [ya nang dang], she has no worry during postpartum period. Moreover, the herb will cure women who is feeling *mao* [intoxicated] or dizzy after exiting the fire. (Ladda, Field note of the participant observation # 1)

Ladda mentioned that a vine of ya nang dang could cure the feeling of *mao* or dizziness. I have known that dizziness was one of phit kam symptoms, but am not sure what she meant by mao. In general when used alone, mao means to be drunk. If used in front of some kinds of narcotics such as hashish or opium, it means "to be intoxicated with that". I understood from Ladda's context that mao for a postpartum woman was like feeling drunk or intoxicated with narcotics. These feelings might be tipsiness, dizziness, or daze, each of which could be one of phit kam symptoms. From an obstetric nurse's view, those symptoms could also occur from severe loss of blood and exhaustion. Udomwan, a woman who had severe phit kam symptoms, ate leaves of a medicinal herb to rule out the problem.

> At the time I had not known that I had phit kam. My hands and feet were cold; hence, mom, dad, and my husband massaged them for me. I did not feel any better. … So, my mom gave me herbal leaves to eat. I chew it. She said if I wanted to throw up, I should do so. Nothing happened after I swallowed the first leaf, but after the second I wanted to throw up so bad. … I felt weak at the arms and legs and tired. Senior persons realized that I had phit kam. So, they took me to the hospital. (Udomwan, Interview #2)

Udomwan had phit kam symptom during her first day of yuu fai. She was given an herb from her own garden which was a living medicine ready to use when needed. She had been drinking a lot of hot water in the hospital and taking hot herbal concoction after she

returned home. When she had the symptoms, taking the herb by itself was easier and faster to prepare. Or, it might have allowed the herb to act faster. Also, the senior persons knew that the herb was for diagnosis or basic treatment only. Therefore, when they realized that she had severe phit kam, they took her to the hospital for advanced care.

Effects in the energy essence. Energy essence is a force that connects the body and mind-heart together (Salguero, 2003). The energy is distributed all over the body via the meridians, a network of energy lines. However, discussion about energy essence in this study is not cleary differentiated from that in the body essence. The women used the word "sen", whose meanings cover both energy lines and tendons or ligaments, to explain an effect of the hot drink. Unlike the effect on the body which is local to specific organs, the effect on the energy is widespread like blood coursing through veins. The word sen in the following exemplar is more likely the energy line than the body organs.

> The hot herbal drink strengthens my body. It helps the body to distribute sen [*kra jaai sen*] and blood. The former eaters said so. … In the past, they didn't go to see a doctor. It prevented them from postpartum hemorrhage and distributed sen (Darin, the interview # 2)

For Darin, the hot drink affected sen and blood. I believe *sen* meant energy lines to her, proving by their quality to be able to be distributed through out the body. She perceived that the drink improved energy capacity and blood quality. As a result, her body was stronger. Sen in this context does not mean tendons or ligaments because those are unable to be distributed. They are solid and have fixed positions in the body. If the drink could "help the body to distribute sen [kra jaai sen] and blood," Darin might assume that the energy lines and blood were clustered or obstructed somewhere before the drink was taken. *Kra jaai sen* could be a technical term with more complicated meaning that needs more research in Thai Traditional Medicine.

Effects in mind-heart essence. The women mentioned a few herbs that made the drink smell good. Darin had several herbs including heartwood of *look ka tok rak* and *bak mor*. Her herbs made the water smell and taste good. It was easy to drink, not bitter. Hansa had fragrant herbs that promoted breast milk production.

> A *ton lok kok* made the drink red, *maak kan hai* make it smell good, and *maak* tong lang make it smell good and forced breast milk out. When boiled together, they promoted lactation. If I had one herb, the drink would not be complete. It would be like plain hot water. (Hansa, interview #2)

Herbs for the Baby

Babies in this study were affected by their mother's herbal use. The two main effects were to promote lactation and care for the stomach. The first two most popular herbs for increasing breast milk production were ya nang dang and tong lang. The other were *nom wua nom khwai*, which literally means"milk of an ox, milk of a water buffalo" and tamarind heartwood. The herbs used for the baby were wan fai and curcuma.

Lactation promoter. Ya nang dang was the most popular herb mentioned by the women. It prevented and cured phit kam symptoms in mother and promoted breast milk for baby.

> Ladda tells me that at first, her senior relatives prepared a variety of herbs such as a root of tong lang, a root of lok kok, and a vine of ya nang dang because they worried that she might be unable to produce enough milk for the baby. They found out later that only a vine of ya nang dang is enough for Ladda, who is now claiming that it is the best herb for a postpartum woman. She said if a woman gets this herb, she has no worry during postpartum period (Ladda, the field note of the participant observation # 1)

The importance of breast milk to infants is indisputable. Breast feeding has been promoted in developing countries such as Thailand for years. When Ladda said that her family "worried that she might be unable to produce enough milk for the baby", I thought, as a nurse and Isan woman, I understood the feeling. At first I did not realized that I lack a

perspective of being a mother until I heard stories of Ta, a healer who performed entering and exiting the fire ritual for Ladda.

> Ta, Ladda's healer, told me that his wife did not have enough breast milk for the babies. Her breast milk was gradually decreasing. He found many traditional remedies for her and also took her to the hospital where she got some medicine but nothing worked. Finally, she ran out of breast milk. The babies did not have enough milk, so they cried a lot. He had to feed them with condensed milk mixed with hot water. He knew that the condensed milk was not for feeding a baby, but he had no choice. He lost three kids from gastrointestinal problems at the age of 6-8 months old. (Ladda, Field note from the participant observation #3)

The above story shows the importance of breast milk, the difficulty of accessing biomedical health care, and how one man coped. When his wife's breast milk production was insufficient, the first treatment of choice was herbal medicine, but sadly it was not effective. It is unclear if the herbs used by Ta's wife were the same as the ones used by Ladda and if so why they were not effective. Condensed milk cans in Thailand bear a label warning that it is not for feeding the newborn baby. However, as in Ta's story, some parents may feed babies that milk anyway because they are not able to afford infant formula. The others may do so because of lack of knowledge.

Ladda and other postpartum women had more herbs than necessary. Having lots of herbs prepared demonstrated that hot herbal drink ritual was readily available. Ladda's comments evidence how much one herb brought confidence to a postpartum woman. Although current health care services provide breastfeeding education, lactation clinic, or lactation counseling, accessibility to those services may cost women time and money. Thus, having the herb to increase breast milk was a good alternative to promote lactation.

The action of the hot herbal drink on breast milk production was mentioned by all informants. I was not sure if those herbs were galactogogues (herbs or food that increase breast milk production), but it's known that drinking a lot of water after giving birth helps

with lactation. Udomwan told me that in terms of promoting lactation, hot water was more important than herbs.

> Udomwan: Hot water had no need to add [herbal] medicine as long as it was hot and we took it early to force breast milk.
> Researcher: That [the hot water only] yielded the same effectiveness?
> Udomwan: Yes, it did. If we did not drink hot water, we would have no breast milk. I felt, during drinking hot water, milk was running toward my breasts and letting down. (Udomwan, Interview #2)

In my interpretation, encouraging women to drink a lot of water after childbirth could be a senior's strategy to promote lactation and compensate for liquid loss from giving birth and yuu fai. Another effective way to promote lactation was from eating special soup. The most popular soup in Isan for this purpose was *kang hua plee* made from a banana's flower. Several women in this study had it and reported that they had more breast milk afterwards. *Kang leang*, a soup made from dried shrimp or fish with a variety of vegetables, is another item believed to promote breast milk. This soup was not mentioned by women in this study but is popular in the central region or in urban area of Thailand (Department for the Development of Thai Traditional and Alternative Medicine, 2004).

Stomach care. One woman Saijai mentioned two herbs wan fai and curcuma that were decocted to affect the stomach of both mother and baby. She said "Wan fai was also thrown into [the pot]. It prevents baby's belly from bloating. Yes, it was put into the boiling water. It was boiled together with curcuma and wan hoad." (Saijai, Interview #2)

Bloating in the baby was the most concerning issue. When it happened, the baby cried a lot, causing sleep disruption in the dyad. However, only Saijai drank herbs to prevent bloating in the baby. The most popular method to prevent bloating in the baby was following food practices. The women believed that certain food such as corn, spicy or sour food, and

dishes seasoned with ground grilled rice, caused bloating in the baby. Therefore, they avoided eating those items.

Attitudes Toward the Hot Drink Practice

Drinking hot herbal concoction has been widely practiced in Isan. Women during yuu fai were supported by family and community to prepare and boil herbs. Guests were welcome to drink if they would like to. Some of them drank more than the yuu fai woman herself.

> [Senior persons] said that drinking hot water was good. After drinking, they belched and said that they felt comfortable. Sometimes, they sat with me and drank a few bowls of hot drink at once. It was a big tra kai earthen bowl. I was not able to drink it all. [Laughing while talking] I could only take a small bowl. (Saijai, Interview #2)

Saijai suggests that the hot herbal concoction was shared and therefore was not specifically for the postpartum women. Logically, I think it might have effects on the body in general, not just on a postpartum woman. Regarding the overall hot herbal drink ritual, Chumaan had positive attitude toward it. She said before drinking the concoction, she felt dull inside the head. She felt like she didn't have enough sleep or had hangover from drinking alcohol. After drinking the hot herbal concoction, on the contrary, she felt comfortable and clear in the head and the body. She said the drink forced an unknown uncomfortable feeling inside the body out.

> Drinking hot water [slowly speaking] I felt spacious. I felt like the body was spacious and comfortable. The hot herbal concoction would force out something that made me feel uncomfortable inside the body. I didn't know what the thing inside me was, but it came out. Then, I felt spacious. My brain and head were clear. (Chumaan, Interview # 2)

The drink tasted different for each woman. Some said it was bland or bitter, while the other like Darin said it was good. I think the taste depends on specific herbs added. I tried a

sip of Ladda's herbal drink. It was bland but fragrant. Areya's did not like its taste, but she tried to drink it because she was told that it could heal the body.

> I don't want to drink it. It is bitter. [Laugh] However, I have to drink it because senior persons said that it would cure our intestine and help us recover. I have to drink it. [Laugh] I felt it was bitter at the first drink. I was used to its taste later. It was still bitter but not too much. When my mouth is used to it, it is a little bit salty. (Areya, Interview #2)

Health care providers could be confused when a postpartum woman said that the drink benefits the intestines. After months of studying women in this region, it's clear that Isan women have unique ways to group anatomical structures. Intestines, for example, were grouped into the same systems as internal reproductive organs. Wanta (19 years old) drank the herbal concoction because it was her responsibility as a mother with a newborn.

> My friend asked me why I could drink herbal concoction. I responded that it was not much bitter; it was bearable. … [I drank it] because it was good for my body. … A friend who has no kid asked me how come I was able to drink it. [I told her that] it was a nature of a new mother who has a newborn baby [*mae look on*]. We had to take it whatever it was [Laughing while talking] (Wanta, the interview#2)

Drinking a hot herbal concoction was to Wanta the embodiment of being a mother. After a few weeks postpartum including 9 nights of yuu fai, she assigned herself into a different group from her teenage peers. The sentence *"it was a nature of a new mother who has a newborn baby"* represented her new responsibility. Being a mother, *mae,* enabled her to tolerate the postpartum practices. She gained endurance and became an adult, and a mature mother by practicing yuu fai and drinking hot herbal concoction. Being *mae look on* in Isan means more endurance, responsibility, and vigilance. Women in this study participated in uncomfortable situations during yuu fai, had sleep disruption, and ate selected food. All were for regaining strength, having enough breast milk, and preventing conditions in both mother and baby.

Conflict and Suffering

Drinking hot herbal concoction was controlled closely by caregivers who added firewood to make sure the concoction was steaming hot, and urged the women to drink it often. The drink might be bitter and its hot temperature uncomfortable, but the women were forced to drink it as much as possible. A popular belief to increase the volume of hot drink consumed was applied. A caregiver brought a bowl of salt to her charge and nudged her to taste it with her finger. Although Chumaan appreciated drinking the concoction, she did not eat salt.

> No, I didn't eat salt. Don't tell my mom. [Laugh] She knew that I had never touched the salt. My mother-in-law told me that her Ya [a mother-in-law or paternal grandmother] ate a handful of it at a time. [Pause] It will make us feel thirsty. Thus, we want to drink more water. … I had never put my finger on it. Never ate. Who is going to eat it? It is such a salty salt. (Chumaan, the interview # 2)

She then blamed herself that her belly had not been flat because she did not take enough hot herbal concoction. Having a flat abdomen appeared to represent complete uterine involution.

> I couldn't drink much of the hot concoction, so that the abdomen rarely is flattened. My mother forced me to drink a lot….a lot…..a lot. She gave me a bowl of salt to smear it on my tongue. If we eat salt a little bit but very often, we will have a queasy feeling in the stomach that makes us want to drink more water. I didn't eat that salt. Instead, I let thirst naturally occur. (Chumaan, Interview # 2)

Chumaan also thought she lost her appetite because the taste buds were destroyed by the hot drink. It appeared that she did not care much about drinking a lot of hot herbal concoction. Moreover, Chumaan reviewed her experiences with laughter, telling me her mother rebuked her. When she said "don't tell my mom", I was not sure she meant that since her statements suggested her mother already knew she did not follow the instructions. Another woman, Ladda, told me she got ulcers in her mouth as shown in the field note "She

regulates herself to drink the herbal concoction in a very hot degree in which the herb benefits her more. She has some wounds (maybe aphthous ulcer), caused by the water's temperature, in the mouth." (Ladda, Field note of the participant observation # 2) Although Chumaan behaved against her mother's instructions, she had a positive attitude toward the ritual. She was now standing in the middle of traditional and biomedical practices.

> I am confused about teachings from senior persons and from the medical doctor. The hospital staffs told me not to drink hot water, but we sneakily drink hot water to promote breast milk flow. I wonder what the truth is. Knowledge from the past and the present are contradictory. (Chumaan, Interview # 2)

Chumaan's anti-instructional behavior was to a certain degree rebellious. In the hospital, when the staff told her not to drink hot water, she tried to drink it. Then when her mother told her to drink a lot of hot herbal concoction at home, she did not obey. When the conflict between two beliefs of care occurred, Chumaan automatically skewed her standpoint toward her clans' practices by using "we" as the first personal pronoun. I think she might included all postpartum women in the hospital into her "we".

> Like, the teachings from the past told us to drink hot water to force the milk out fast. It was true as they said. The milk has come fast. If we believed what hospital staffs said but don't believe in the teaching from the past, would I have the breast milk for my baby? If we believed in medical advice, our breast milk might be not coming yet. But, this was because we sneakily drank hot water. (Chumaan, Interview # 2)

I saw that the local hospital where Chumaan and most women gave birth provided warm water for patients, relatives, and guests. Darin said she drank warm water provided by the hospital during her two days of hospitalization, but some women said they did not drink it. I think Chumaan meant that the water provided was not what she wanted to drink. It might not conform to her traditional beliefs since the water was not hot and had no herbs. Therefore, she had to sneakily drink hot herbal concoction provided by her family. A feeling about hot water provided by the hospital was varied. For example, Udomwan and Wanta

drank a lot of it and felt that their milk came faster, while Yada complained to me that it was not hot enough. Saijai's mother contrasted traditional and allopathic beliefs underpinning the hot drink.

> Saijai's mother told me that after childbirth, senior persons told her to drink hot water to expel bad blood. She was fine and did not see anything wrong. Unlike villagers, doctors [*mhor*] today do not want a postpartum woman to drink hot water because they are afraid she will have a hemorrhage. The villagers, on the contrary, told her to drink hot water and practice yuu fai. She thinks the ideas from both parties are conflicting. The doctors believe in one thing, but the villagers believe in another. (Saijai, Field note from the interview #2)

Fear of hemorrhage was a reason for suggesting that postpartum women not drink hot herbal concoction. I do not know if there is a relationship between drinking hot herbal concoction and having a postpartum hemorrhage. While heat topically applied may relax the muscle, heat from the drink that already has gone through gastrointestinal system should not have any effect on the uterus. There may be other explanations for the providers to advice agains hot drinks. For example, they might worry that the drink was too hot or contained unknown herbs that could cause allergy.

A traditional practice might be changing over time. A healer in Ladda's yuu fai concluded today's situation of traditional hot herbal drink as follows.

> Ta said that some women may drink hot water when practicing yuu fai only, while the other do so for a few days, weeks, or months after exiting the fire. He notices that in his parent's generation a postpartum woman drinks hot water for a long time. A woman in younger generation, however, does so for a shorter time. The change will not be a problem because the woman has choices. If something happens because of improper practices, she can easily solve it by going to the hospital, buying medicine for herself, and buying infant formula for the baby. Going to the hospital is faster than before by riding a small motorcycle. In addition, medicine from the hospital acts faster than herbs. (Ladda, Field note of the participant observation # 3)

The healer was an experienced caregiver of yuu fai. He supported the ritual for his wife and daughters for more than 10 karma pots. He also performed rituals of entering the

fire and exiting the fire for women in the community. His stance is noteworthy because he engaged in the postpartum practices for years. He was not biased toward the traditional practice even though he was one of the healers. He objectively compared and contrasted outcomes of traditional and biomedical treatments. He accepted that a negative outcome originating from a traditional practice could be cured by knowledge from the allopathic medicine.

Summary

Hot herbal concoctions were liquids boiled with certain herbs and consumed in a very hot state. Women in this study believed that the concoction could heal internal organs such as the uterus and intestine, expel bad blood, prevent or cure phit kam symptoms, promote breast milk, and clear the body and stomach. Specific purposes were achieved from certain herbs added to the hot drink. For example, ya nang dang could increase breast milk, wan hoad could shrink the uterus, and wan jai dam could prevent phit kam symptoms. The herbs were boiled with certain herbs in an aluminum pot, a kettle, or an electric kettle. The women were supposed to drink the herbal concoction in a progressive degree of heat, but some consumed it with more bearable heat. The ritual suggested they should drink it as much as possible. This ritual lasted for a month after childbirth.

Knowledge about herbs was transferred mostly within the family or in-law family. Areya's mother-in-law, Chumaan's grandfather and mother-in-law, and Ladda's maternal younger uncle were herbalists. Although they had no formal training, the younger generation might inherit the knowledge by being told and through experience using the herbs. Darin's grandmother obtained knowledge about herbs from her parents. Saijai's caregivers gained the knowledge from their predecessors, labels of manufactured herbal products, and the herbal

sellers. The women learned about herbs and their qualities from their caregivers and from the observed effects of the herbs. Ladda, for example, found herself having a plenty of breast milk after drinking boiled ya nang dang. This evidence reinforced Ladda's beliefs about herbs and established a basis for transferring her knowledge to the younger generations in the family as well as other women in the community.

Traditional practices were accepted, improved, and still alive in the community where the woman was recovering from childbirth. Data from my study show that all postpartum women followed the ritual although they had some difficulties. Trends and details of the practice might be changing because of advancement in biomedical care services.

Chapter Five: Discussion

The purpose of this phenomenological study was to describe the lived experience of Thai mothers in following traditional practices after the birth of their first child. The research questions included:

1. What is the lived experience of Thai mothers who follow traditional practices after the birth of their first child?
2. How, and in what setting, do women perform the traditional practices?
3. How does a family generate and transmit the traditional practices to a new mother?

This chapter will address these questions by first synthesizing the study's findings with past knowledge about traditional postpartum practices. The concepts of family life course development theory and symbolic anthropology will be used to provide a reflection of the cultural meanings of women's postpartum practices. Specific nutritional behaviors and yuu fai will be discussed using the concepts of Traditional Thai Medicine (TTM). Finally, limitations and strengths will be presented, followed by a discussion of implications for practice and future research.

Synthesis of Findings

This study confirms that postpartum women in the Isan region of Thailand follow traditional practices. The prevalence of the four main postpartum practices identified in this study was higher than found by Kaewsarn and colleagues (2003). They found Isan women practiced hot drink (88%), hot bath (83%), food restriction (79%), and yuu fai (66%). They also found that younger (20-29 years old) or less educated women (primary school) were more likely to mention traditional practices. Findings from Kaewsarn and colleagues

conformed to results of another study of adolescent northern mothers (Neamsakul, 2008) and in my study where most women were also young (M = 21.5 ± 3.88 years). All of the women (100%) in my study practiced food restriction, hot drink, and hot bath, while 81% practiced yuu fai. Differences may also come from the setting where the participants lived. Kaewsarn et. al. (2003) conducted their study in all districts of Ubon, while I studied a remote, border district where traditions may be held more closely by the population.

While I grouped traditional postpartum care into four main rituals in my analysis, the previous researchers identified 20 activities, only some of which were mentioned by the women in my study (Kaewsarn, et al., 2003b). These included heat lamp on perineum, exercise, hot compression on breasts, squatting or kneeling, steaming bath, and covering the body from the neck to toes by wearing cloths, gloves, and socks. The activities observed by Kaewsarn's team may have been more varied because their participants came from both urban and rural areas, and displayed broad differences in socioeconomic status, education level, beliefs, and access to health care. Heat lamp and steaming bath, for example, need extra materials that may be unavailable in or unaffordable for residents in a rural, border community. Although the covering the body is a common dress practice in northern Thai women (Liamputtong, 2004; Neamsakul, 2008) and Cambodian (P. M. White, 2004), women in this study dressed otherwise. They wore short sleeves and an ankle-length sarong, trying to expose the body to the fire or hot bath as much as possible. Discarding colostrum was mentioned by women in both studies. However, the one woman who did this in my study did so because she lacked of knowledge, not because of her familial tradition.

Other activities, including sexual abstinence, staying at home, and stopping house work, were not mentioned in my study as traditional practices. It may be likely that the

women had to skip those activities because they were confined with yuu fai and new roles as a mother. Sexual abstinence was the most commonly cited among 20 postpartum activities in Kaewsarn et al.'s study. In contrast, unless the women brought it up, I did not ask about sexual activity in my study since it was not a focus of the research and is a sensitive issue. Only one woman mentioned that a caregiver watched over a yuu fai woman all night because she afraid that the woman might have sexual intercourse with the husband.

Findings also supported the previous studies that reported female seniors in the family or in-law families as the most influential caregiver (Kaewsarn, et al., 2003b; Whittaker, 1999). Isan tradition requires that a groom move in with a bride's family; however, most of women (75%) stayed at their parental families during yuu fai. This result differed from a study in China where most postpartum women were cared for by mothers-in-law (Chen, et al., 2007). Yuu fai is the most complicated traditional practice, requiring dedicated and knowledgeable caregivers, special materials and structures, and an isolated setting. Hence, it may not be feasible to be followed by women who reside in an urban area. Living in a remote area, being poor, less educated, and having more authoritative caregivers may also be factors that contribute to greater adherence to common traditional practices.

Although herbs used among women had unknown medicinal properties and side effects, there were no reports of allergies or complications directed to a specific herb other than rash or itching, which were mentioned as consequences of heat from the fire or water. The participants in this study noted that Village Thai medicine was practiced by the women of their family and could track this back through four generations. Through those generations, observation and trial-and-error in the practices led to methods that were passed down for safe use in present. A local herb wan fai (plai, pu leoi, *Zingiber cassumunar Roxb.*),

which was widely consumed by northern postpartum women and suspected to cause risk for jaundice and anemia in the mother and their newborn, was consumed by only one mother in this study without signs or symptoms of those conditions.

Eating fewer varieties of food may contradict biomedical nutritional education and may not be a healthy-nutritional behavior for a lactating mother. Superficially it could be interpreted that Isan people do not care about the baby's health and quality of milk, although both are actually focal points of care. Isan women do not eat a variety of food during yuu fai because of a belief that eating the wrong food may upset the belly of the baby will make the breast milk disappear, will cause serious symptoms called phit kam, and eventually might force her to discontinue yuu fai before completion. The concept of phit kam after consuming certain foods is the same as that of *bisa* in Malaysia (Laderman, 1984) and *toas* in Cambodia (P. M. White, 2004). Like Malay women who feared of bisa, Isan women who fear of phit kam limited their food to rice and grilled meat while lying by the fire. In contrast, postpartum Cambodian women tried to consume food as varied as possible. They believed foods that were not eaten while lying by the fire could cause toas if they ate them after exiting the practice. Interestingly, Kaewsarn et al. (2003) found pickled and spicy foods were encouraged, while they were discouraged in this study.

Breastfeeding is very important in poor families that typically struggle to make ends meet. Establishing and maintaining breast milk production is among the strongest priorities of traditional care. Several of the traditional postpartum practices potentially had a direct effect on promoting breast milk production including the encouragement of fluid intake and the use of herbs boiled for drink benefit the postpartum woman and the baby. Ya nang dang and tong lang are, for example, believed to promote breast milk production. The woman

drinks such herbs as much as possible and continues drinking a few weeks or months postpartum. After stopping yuu fai ritual, rules of food restrictions are loosened. Items believed to increase breast milk, such as soup of banana's flower, were encouraged, thus the restriction of food may actually enhance her ability to nourish her child. Many of the practices during this period, including close family support, are aimed at promoting the general health and well-being of the mother and infant and thus could be seen as having an indirect benefit of facilitating breast milk production and breast feeding.

Reflection of Cultural Meanings

The Isan strong family dynamics during a daughter's transition to motherhood demonstrate many of the foundational concepts of family life course development theory (R. H. Rodgers & White, 1993; J. M. White & Klein, 2002, 2008). A norm of an Isan postpartum mother is to follow traditional postpartum practices including food restrictions, yuu fai, a hot bath, and hot drink. Every woman in this study stayed in an extended family during the first postpartum month, considered to be a critical period. Most women received care from both her parents and her in-law family. Regardless of whether pregnancy and childbirth were planed, each family did their best to provide traditional care for a postpartum woman. Family members in every position were assigned to help in the practice. The most female senior family member became a main caregiver, manager, and regulator. Men were assigned to construct and deconstruct a place for yuu fai and prepare supplies such as firewood, charcoal, and water. Senior female members provided care with 24-hour monitoring programs, including adding firewood to the bonfire, giving a hot bath to the women, and encouraging them to drink hot herbal concoctions. Junior female or other young family members were assigned to run errands, provide basic child care, and wash baby clothes. A role of an

herbalist was played by knowledgeable seniors who were able to identify needed herbal plants among a variety of herbs in a forest or rice field. Unlike the research finding in northern families (Liamputtong, 2004), none of the Isan families needed to hire a person to assist them during the confinement period.

To return to Geertz's (2001) description of symbolic anthropology and the a analogy of the eye "twitcher" or "winker," the observations of traditional postpartum practices provided a thick description of what it meant to be cared for while lying by the fire. A hot bath after childbirth can be an example of thick or thin description in Isan traditional postpartum practices. The hot bath was done as described by Ratha in the following interview.

> Then, she [Ratha's mother] gave me a bath by pouring water on the knees and the abdomen. I pressed the abdomen. Next, she poured it on my breast and told me to press the breast to press lumps of milk powder [pang nom] (Ratha, Interview #2)

The meanings of taking a hot bath and each activity during the bath were mutually understood between Ratha and her mother. But an outsider may not understand this meaning. Looking at this scene employing thin description allows outsiders to see an older woman pouring water on a younger one. He or she may think that it is done just like a regular bath of any person. Using thick description, on the other hand, outsiders can see hidden meanings, which normally have been understood only by people in the same culture. These were revealed through the multiple interviews and participants observations and illustrated that for Isan women, a hot bath is done to regain health and ensure long term physical strength. Pressing the breast, just as in Thai massage, is a way to promote lactation by expecting an action on the energy lines. Completion of this practice means that an Isan woman has done a

minimum requirement of taking care of herself to prevent illness in the future. It reflects responsibilities for herself, the baby, and the family.

Traditional Thai Medicine and Postpartum Practices

Traditional Isan postpartum practices are based on TTM beliefs. The practices are a combination of Buddhism, *Ayurveda*, and Traditional Chinese Medicine (Department for the Development of Thai Traditional and Alternative Medicine, 2004; Salguero, 2003). A goal of care in this tradition is to rebalance the physical body, mind-heart, and energy, while a specific goal of healing is to restore the body to a balance of humoral elements (Earth, Water, Wind, and Fire). Diets and herbs are prescribed for bodily recovery. Because the woman excessively loses the Water and Fire elements during accouchement, this current study revealed that general concepts of restoration are found in the hot environment and in consuming hot things. Those concepts are operationalized as four main rituals: food practices and restrictions, yuu fai, drinking hot water, and taking a hot bath. Heat from the last three practices and massage during a hot bath also improve the energy lines. Spiritual practices developed from beliefs in animism and Buddhism were done to ensure the woman's spiritual health upon entering and exiting the fire.

According to TTM, childbirth is believed to derange the woman's self; therefore, treatments addressing those essences are needed. Care provided in a hospital, however, seems to focus merely on healing the physical body, leaving mind and heart and energy unattended. Moreover, a short hospitalization is not even enough to fully address physical recovery. The new mother is often discharged from the hospital with perineal wound and flow of lochia. As a result, her holistic self is imbalanced, weak, and vulnerable to disease. It is the woman's family that plays crucial roles in rebalancing the postpartum self. Led by

seniors in a family or clan, family members provide holistic care for her by employing rural-traditional Thai medicine that is passed down from previous generations, particularly in rural families.

The participants in the study believed that the postpartum woman regains physical health by controlling food practices after childbirth. To increase Air and Fire elements, foods allowed are hot in tastes such as galingale, garlic, and ginger. To improve Earth, Water, and Fire elements, salt is added as a main condiment for making grilled chicken, pork, and selected fishes during yuu fai. Besides beliefs in TTM, food avoidances were observed to avoid phit kam, symptoms caused by eating wrong or harmful food. The most harmful food such as a durian and a local vegetable *phak khaa* was believed to cause death, while herbal ingredients such as garlic and galingale are believed to improve maternal blood quality. One special dish soup of banana flower was encouraged because it was believed to increase breast milk.

The elders in the family also worked to implement postpartum healing through heat. Women laid on a plank and exposed the body parts to a burning bonfire. The face (or the front), wound, and back were main focuses to dry by the fire. They believed that heat from the fire compensated the Fire element depletion, healed damage muscles and tendons, and improve the skin. It also was thought to connect energy lines torn apart during labor processes. Before the women were exposed to the fire for the first time, a healer or the most senior person performed rituals to protect them from ghosts and overheating and to ask the God of Fire for a universal protection. He or she tied sacred white-cotton threads around the neck, wrists, and ankles of the new mother and baby to symbolically bind the soul into the body. On the last morning of exposure to the fire, the healer chanted mantras, asked for

protections from divinities, and finally blessed the new members to be healthy, happy, and rich.

Hot herbal baths were used for rebalancing the woman's blood and wind systems. A hot bath was done every few hours with hot water boiled with herbs such as tamarind leaves, *bai naad*, and *bai plaw.* The herbs are believed to improve skin health and blood circulation and to expel bad blood. The last two herbs are also aromatics soothing the woman, making her relaxed and comfortable. The women benefited from either herbs or heat in this practice. Some women mentioned that as long as the water was hot enough their bodies would recover, even if the herbs were not added. A cold bath or unstable temperature bath was prohibited because it might slow blood and wind circulations, causing a headache, shivering, dizziness, and a symptom called "going up blood"(leund keun), a cause of death in Isan superstition. Other activities forbidden during a bath were shampooing, soaping, rubbing and caressing the skin, tooth brushing, and toweling. A hot sitz bath and massage at the knees, abdomen, and breasts were done during bathing.

Hot herbal concoctions were used to promote lactation. The women drank hot herbal concoctions for their health and that of the baby. Herbs were boiled and drank as tonic for three purposes, including notifying and healing reproductive systems, preventing phit kam symptoms caused by eating wrong food, and promoting breast milk production. For example, an herbal bulb, wan hoad, was for shrinking the uterus; wan jai dam was for preventing and curing phit kam symptoms; and ya nang dang was for increasing breast milk. Cold or room-temperature drinks were not allowed during lying by the fire.

Strengths and Limitations

This study established trustworthiness via participant triangulation, data triangulation, and prolonged engagement. The data were collected primarily from postpartum women, but also included conversations with caregivers, during the postpartum period who were regulated lying by the fire practice. The data were also collected by multiple methods. Basic demographic data were collected by using a structured form. Information on some topics such as family members or expectation on a husband's role was confirmed by data obtained from interviews and participant observations. Likewise, the experiences of the women following traditional postpartum practices were observed during a several participant observations and followed up on during in-depth interviews. The multiple interviews before and after the birth also increased the credibility of the findings. All data and analytic memos were carefully organized and managed creating a strong audit trail.

Data were collected from women who established at least a 4-month relationship with the researcher. Prolonged engagement helped me to establish trust with women participating in the study. The total time of participating with each woman was 6-8 hours (average of 7 hours), including periods of time for explanation about the study, two interviews, 1-2 hospital visits, and 2-3 participant observations. During the study I shared some of my background with the women, which also helped to establish trust.

Reflexivity was used as a way to carefully examine my personal background and knowledge of the regional and culture with my observations. I was born to an Isan farm family and observed my sister follow the postpartum cares provided by her mother. My pre-understanding about the practice included two different perceptions: one as an Isan woman and the other as a nurse. Experience in two opposite sides of beliefs in health care may have

helped me to reduce personal bias toward one side or another. As an Isan native speaker, who speaks central-Thai for more than 25 years, my ability to understand both languages may have diminished misinterpretation of messages than if they had been heard through an interpreter. As a well trained novice qualitative researcher, I worked closely with two expert researchers and followed a protocol for data collection and analysis, with frequent meetings for interpretation of findings and reflection.

The study limits transferability of findings because the sample was a homogeneous group of women. They were primiparous northeast Thai mothers living in one district of a rural area bordering with Laos PDR, a country with a higher rate of women following traditional postpartum rituals. They were born to extended families, grew up in farming culture, and obtained secondary education. Their experience in postpartum practices may be dissimilar from that of multiparous mothers born and raised in nuclear families, not participating in agricultural activities, or living in an urban area. In addition, mothers with higher education, higher income, easier access to biomedicine, and no contact with other cultures may observe the practices differently. However, the rich descriptions of the women's experiences do provide a window of understanding of the postpartum period and practices for this subculture.

Implications

Although this was a qualitative study and not meant to specifically test causation, the depth and breadth of description of postpartum practices and its confirmation of findings from a prior study with a similar cultural group suggests the findings can be used to shape clinical practice and policy, education, and clinical research. This research revealed the experiences of new mothers in traditional care practices provided by a family and

community. The details of each practice, beliefs underpinning each ritual, and attitudes of parties involving in the care were illustrated through the field notes and interviews.

Clinical nursing. Findings from this research bring Isan wisdom in maternal and child health care into Thai health professional's consideration. Nurses may apply these findings to daily care and a discharge plan for a postpartum woman and her family. To provide effective care for the woman, nurses should assess the women's tradition of care with an open mind and in supportive manner. The nurses should first interact with the woman and her relatives with cultural sensitivity by approaching them without prejudices and preconceptions about their cultural practices. Nurses should also be aware that there could be differences between their culture of care and that of the families they serve.

Food practices. Nutritional beliefs are an illustrative example of the potential differences between a nurse's and woman's beliefs. The nurse will often advise the woman to eat varieties of food for their nutritious value. However, the woman's mother may forbid her to eat these foods because of their potential harm to the health of the new woman and to the baby's wellbeing. The woman may not trust or follow a nursing care plan if she feels that the nurses are insensitive to her beliefs. Therefore, a culturally-sensitive nurse should attempt to learn and apply new understandings to her protocol of care. The nurse can intervene to work with a postpartum woman and her family to assure the food served is culturally acceptable, while educating them with evidence based knowledge. Nutritional education should not intend to force changes, but rather to open a new possibility and options. For instance, if a postpartum woman does not eat food provided in a hospital because she believes the food will decrease breast milk, nurses may express her understanding in that issue and then encourage the woman's family to prepare customary food for her. Also, nurses may give the

woman options to promote breast milk by other techniques. Another example illustrates how a nurse can respond when faced with conflict between scientific and local wisdom. If a nurse learns that a postpartum woman avoids eating pickled or fermented foods because it could hurt her internal organs she could first try to gain a deeper understanding of those beliefs. Based on that knowledge she could educate the woman that those foods actually are preserved through a process that should not damage those organs, but actually might help in healing. The nurse could also inform the woman, who avoids eating fruits and vegetables perceived as deadly, that there is no report or evidence of death from eating such things. If the woman wants to try forbidden food such as milk, fruits, vegetables, and certain meat to add varieties of micronutrients to her cultural meals, the nurse could tell her to try a little bit of those and observe symptoms or irregular conditions. To ensure her safety after eating wrong food, the nurse may suggest them to have their cultural safety insurance such as a potent herbal prepared.

After the nurse assesses cultural food practices in the woman's family, he or she may apply knowledge from this study to the practices possible for them. If a woman believes phit kam is induced by strong smelling food, it should not be cooked close to her. Separate cooking and eating as found in Chumaan's, Ratha's, and Udomwan's families and bringing only non-phit kam food home as found in Areya's family are effective ways that the family can adapt its patterns to this belief. Postpartum women may continue eating plants such as garlic, galangal, and ginger because they have medicinal properties and are available in an Isan community with low cost. However, they should not eat or drink *wan fai* too much because it may cause jaundice in both a mother and her baby (Kaewvichien, et al., 1997; Liamputtong, 2004). According to their beliefs, removing rice or roasted rice from certain

soup and salad to prevent bloating in the baby could be advised. This will not cause nutritional problems because Isan women have rice with every meal.

Yuu fai and other approaches to heat. Unlike food practices that nurses can observe during a woman's hospitalization, approaches to heat are extensively practiced outside a hospital. Findings from this study provide general picture for nurses about how an Isan postpartum woman may practice yuu fai, drink hot water, and take a hot bath when she returns to her home after birth. Heat from the fire and hot water may cause itching, swelling, rashes, burn, redness, tiredness, and dehydration, and the actions and safety of herbs are not yet scientifically proven. During a woman's hospitalization, a nurse should assess who will control those practices in her family, how hot the fire and the water will be, and who will determine a degree of heat. The nurse should inform the family about possible discomfort and conditions and how to assess, prevent, and treat them. For example, they should be told that redness is a response of skin to overheating. When it occurs, they should protect the skin from further damage. Nurses may offer the family a few techniques discovered in this study such as putting a cloth curtain between the woman and the fire, using a wet blanket as a cushion, and applying a mixture made of curcuma, lemon juice, salt, and potas alum as effectively used by Chumaan. When signs of dehydration such as dry lips appear, the woman should drink more water. The nurses should show respect to the woman and family by telling them that the suggestions are optional, but helpful. If the family can prevent the woman from those complications, she will be more able to complete the traditional practices as they wish.

Use of herbs. Supported by the research findings, published documents about how to safely conduct postpartum traditional practices and prepare herbs and food may be produced for wider audiences. Nurses should educate the family to observe signs of general allergies

such as rashes, voice change, and breathing difficulty. Most of herbs used by women are local to their community. Nurses who work in the local settings may help fuse knowledge from village Thai medicine with that from allopathic medicine. Community nurses, for example, may learn about herbs from villagers, then search for scientific knowledge available from other sources such as textbooks, research reports, and human resources, and finally bring the knowledge back to villagers. Vague actions of herbs may become clearer. Allopathic health care providers may no longer be blind about herbs used among villagers, while lay people may know more about herbs they have been using for a long time but have not understood their pharmacological data. Data collected by the nurses can be primary information for further study about herbs by other profession such as an alternative medical practitioner or a pharmacist.

Family dynamics and adjustment to the maternal role. A period of practicing yuu fai or other traditional rituals is critical for the first time mother. The daughter in an Isan family often follows uncomfortable practices with many discrete details. As a new mother, she has to breastfeed her baby every few hours or listens to its crying. To help a woman adjust to the new role, a nurse should assess her plan in following traditional practices and her perceptions of the family dynamics. Nurses may design a postpartum maternal class that allows the woman's family to participate and discuss about how they are going to take care of the woman at home. Nurses should encourage senior family members to express their ideas. While listening, they should be sensitive to each family's cultural beliefs and any conflict that may occur. Finally, the nurses may offer options to the family to avoid conflict.

Health care system. A project evaluator and policy analyst should be aware that traditional care is worthwhile because it holistically addresses family-centered care of both

the mother and child, it promotes breastfeeding, and it not only heals the body, but also the spirit and energy important to human wellbeing. In addition, using safe herbs that thrive around the house and are readily available to families, instead of an expensive medicine in a faraway hospital, may be suitable for low income, rural, and remote populations.

Nursing education. In a country whose citizens observe traditional care, nurse educators should highly value local knowledge and integrate it into their curriculum. A provincial nursing college may address particular practices widely observed in a specific area to allow nursing students to gain a better understanding and better informed view of the culture. Knowledge about yuu fai in the Isan or in the north of Thailand, for example, should be added into courses in maternal and child health, community health, and health promotion for a nursing students in such areas. A nursing instructor may teach students how to assess family practices for safe yuu fai, how to avoid dangerous herbs, how to prevent the skin from being damaged by the heat, how to cure a rash and swelling, and how to assure the child is safe during the intensive postpartum period, and to help families know when to return for care if needed. In other words, the nursing community learns to work effectively with women and their families in the safe incorporation of these practices. Upon graduation, a new nurse should have learned enough to understand, communicate with, and effectively interact with a postpartum woman and her family members, who may come from different backgrounds and hold different values for care practices.

Future research. In the future, research about traditional postpartum practices in other regions of the country is needed to investigate their varieties and safety. Qualitative studies may deeply and thoroughly examine meanings of postpartum rituals from different perspectives such as those from a husband, seniors, and health care providers. Focusing on

family roles will provide information on how a family in marginalized areas managed during a transition to the next stage. In addition, the relationship between traditional rituals and psychosocial factors such as depression, anxiety, satisfaction, empowerment, social support, and maternal role adaptability may be useful to explore. A longitudinal study is necessary to assess if traditional practices cause complications such as wound infection and postpartum hemorrhage.

Clinical researchers may develop and implement an intervention program to promote healthy behavior of postpartum women, decrease potential harmful practices, or emphasize the role of the caregiver. For example, a nurse in a prenatal care unit may implement a randomized controlled trial to evaluate nutritional knowledge and behavior in women who attend nutritional class and women who do not. Obviously in this study, female senior family members played a crucial role in providing intensive care 24 hours a day during yuu fai period. In addition to the previous example, the nurse researcher could include a potential caregiver in the intervention group and then evaluate the woman's dietary behavior after childbirth comparing women whose caregiver attended a nutritional class with those who did not. The researcher may also design a program for safe traditional care by educating caregivers about heat control, yuu fai management, and early detection of and primary care for postpartum hemorrhage, hypertension, electrolyte imbalances, dehydration, skin problem, and allergy to herbs. The senior caregivers should be empowered to exercise a role as traditional healers, but also develop an understanding of danger signs and when to intervene.

Conclusion

Food practices, lying by the fire, hot drink, and hot bath are still popular practices in the northeast part of Thailand. The practices are likely rooted in Traditional Thai medicine

beliefs, which share the same main purpose with biomedical cares on healing physical body. TTM, however, simultaneously adds sub-practices to heal and promote energy and mind and heart into a regimen. Both traditions of care can be integrated to heal postpartum mother holistically not just addressing the physical body. In the present, there is no doubt that western biomedicine is prominent in Thai health care services, but little is known about how lay people enact their familial practices. Hospital staffs prepared in biomedicine may transfer some knowledge to patients, but a question remains about how much they know about TTM. While the postpartum women incorporate biomedicine into TTM, it is less clear that hospital staff incorporate knowledge of TTM into their care. Future research is needed to gain more knowledge about how to implement TTM in maternal health and to develop culturally sensitive programs of care that incorporate knowledge of traditional postpartum practices.

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Appendix A: Glossary of Selected Isan Terms

Isan Terms	Translation / Explanation
Aork dong	To exit the basket, a ritual performed when the baby is three days old to assure that he/she belongs to the human world
Aork fai	To exit the fire, a ritual performed on the last day of yuu fai to complete the practice
En	Tendons or ligaments. It is usually said together with the word "sen". Sen's meanings include "energy lines"
Isan	The northeast region of Thailand
Ka lam	Prohibited activities
Ka lam kin	To restrict the eating certain food
Kam	Karma
Kang fai	To dry (the body parts) by the fire
Kaw dong	To enter the basket, a ritual for the newborn baby to bless him/her for a good life
Kaw fai	To enter the fire, a ritual for a postpartum woman when she is exposed to the ritual fire of the yuu fai rites for the first time
Kaw jee	Sticky rice cake, a traditional food of Isan postpartum women
Kid tuan	To suddenly fall flat on the stomach, one of the severest symptoms of phit kam
Kin hon	To eat or drink hot things, a concept of Isan postpartum practices
Kin nam hon	To drink hot water, a concept of Isan postpartum practices
Kong dong	Pickled food which is prohibited for a postpartum woman
Kong mug	Fermented food which is prohibited for a postpartum woman
Kong phit	Wrong things or foods which are prohibited for a postpartum woman

Isan Terms	Translation / Explanation
Kong yen	Any cold thing, including food or fruits, which are prohibited for a postpartum woman
Leaud keun, fai keun hua	A condition which will occur after a postpartum woman has too much sleep, cooler baths, or too few baths. The word leaud keun literally means "blood is going up", and "fai keun hua" means "the fire is going up to the head"
Leuad lom	Blood and wind in the body
Ngai leui	To suddenly fall flat on the back, one of the severest symptoms of phit kam
Non mae sa nan	A concept of Isan postpartum practices. The word means to sleep on mae sa nan, a woody, narrow plank placed by the fire
Pap fai	Literally to suppress the fire, a ritual performed in the first day of yuu fai to control the power of the God/Goddess of Fire
Phaet phaen thai	Thai medicine, or Royal Thai medicine, a Thai tradition of care that has been systematically developed by educated practitioners
Phaet pheun baan	Village medicine, or rural-hill tribe medicine, a Thai tradition of care that has been informallyand varyingly developed by local people
Phit	Harmful, poisonous, wrong, by mistake, a fault, an error, a mishap, or to be unlike
Phit (kam) wai	Acute symptoms of phit kam
Phit (kam) yeum	Chronic symptoms of phit kam
Phit ka (kra) boon, phit ka ra boon	Symptoms such as dizziness and decreased breast milk which occur after a postpartum woman eats wrong or prohibited foods
Phit kam	Symptoms that develop after a postpartum woman consumes wrong or prohibited foods
Sai	Intestines, reproductive organs, or other viscera
Sai yoob	Intestines, reproductive organs, or other viscera are settled or sunken

Isan Terms	Translation / Explanation
Sen	Tendons, ligaments, or energy lines (meridians). Usually, it is said together with the word "en"
Seun	Refreshed, cheerful after a period of cheerlessness
Slang	Harmful
Tai kha fai	Maternal death during lying by the fire
Tai kha pak	Maternal death while food is in the mouth
Thok hon thok yen	Switching between the hot and cold states of the traditional practices, such as bathing with warmer water one time and then doing so with cooler water the next time
Ya kae kam	Herbal medicine used for curing phit kam symptoms. The word literally means a drug to rectify karma
Ya kae kam	Herbal medicines used to treat women who have phit kam conditions after eating certain foods
Ya kam hon	A boiled herbal concoction which will be drunk in a very hot state (temperature) during the yuu fai practice
Ya kam yen	A herbal concoction which will be drunk in a cold state (temperature) after a postpartum woman exits the yuu fai ritual
Yuu fai	Lying by the fire, or to stay with the fire, a postpartum traditional practice in the northeast part of Thailand
Yuu kam	Yuu kam is a synonym of yuu fai. The word itself literally means to stay with karma
Yuu hon	To live in hot environment, a concept of Isan postpartum practices

Appendix B: Letters of Support

The Letter of Support from the Director of Sirindhorn Hospital

November 19, 2008

Prawee Kamseesook
Director of Sirindhorn Hospital
84 Moo 10 Tambon Nikom
Amphur Sirindhorn
Ubon Rathchathani 34110, Thailand

Dear Ms. Tasanoa

The purpose of this letter is to offer my full support for the study entitled "Understanding the Lived Experience of Northeast Thai Women in Following Traditional Postpartum Practices". Sirindhorn Hospital has provided antenatal care for pregnant women at the antenatal care clinic for many years. Once you have obtained an approval from the Institutional Review Board at UCSF, you will have my full support to conduct this study. I will also introduce you to the Head Nurse of the antenatal clinic. She will provide facilities for you to recruit potential participants for your study. I hope the results of this study will provide new and important information regarding postpartum nutrition related to traditional beliefs for those of us at Sirindhorn Hospital.

If you require additional acknowledgement of my support for your study, please do not hesitate to contact me. I wish you well and success in completing this important study.

Sincerely,

Prawee Kamseesook, MD
Director of Sirindhorn Hospital

The Letter of Support from the Director of Sirindhorn District Public Health Office

January 20, 2009

Chinarong Suwannakood
Director of Sirindhorn District Public Health Office
Tambon Nikom
Amphur Sirindhorn
Ubon Rathchathani 34110, Thailand

Dear Ms. Tasanoa

The purpose of this letter is to offer my full support for the study entitled "Understanding the Lived Experience of Northeast Thai Women in Following Traditional Postpartum Practices". Sirindhorn Distric Public Health Office has provided antenatal care for pregnant women at the Primary Health Care Unit for many years. Once you have obtained an approval from the Institutional Review Board at UCSF, you will have my full support to conduct this study. The public health staff at Primary Health Care Unit will provide facilities for you to recruit potential participants for your study. I hope the results of this study will provide new and important information regarding postpartum nutrition related to traditional beliefs for those of us at Sirindhorn District.

If you require additional acknowledgement of my support for your study, please do not hesitate to contact me. I wish you well and success in completing this important study.

Sincerely,

Chinarong Suwannakood, Public Health Professional
Director of Sirindhorn District Public Health Office

OK. I agree to help you.

Appendix C: CHR Approval Letters

The CHR Approval Letter from University of California, San Francisco

COMMITTEE ON HUMAN RESEARCH
OFFICE OF RESEARCH, Box 0962
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
www.research.ucsf.edu/chr/Apply/chrApprovalCond.asp
chr@ucsf.edu
(415) 476-1814

CHR APPROVAL LETTER

TO: Catherine A. Chesla, R.N., DNSc
Box 0606

Prangthip Tasanga,
Box 0606,

RE: Understanding the Lived Experience of Northeast Thai Women in Following Traditional Postpartum Practices

The Committee on Human Research (CHR) has reviewed and approved this application to involve humans as research subjects. This included a review of all documents attached to the original copy of this letter.

Specifically, the review included but was not limited to the following documents:
Thai Consent Form, Dated 7/4/09
English Consent Form, Dated 7/4/09

The CHR is the Institutional Review Board (IRB) for UCSF and its affiliates. UCSF holds Office of Human Research Protections Federalwide Assurance number FWA00000068. See the CHR website for a list of other applicable FWA's.

Comment: Approval for this study expired on 8/15/09. After approval expires, no subjects may be enrolled until the renewal application has been approved. As CHR approval letters state, the Department of Health and Human Services and the University of California require at least annual review of all projects involving humans as subjects. Therefore, if any project activity involving human subjects occurred or continued after the expiration date, you were out of compliance with both federal regulations and university policy. If any study activity occurred while approval was expired, please submit a report of the activity and the steps you are taking to avoid this situation in the future.

APPROVAL NUMBER: H2269-29314-04. This number is a UCSF CHR number and should be used on all correspondence, consent forms and patient charts as appropriate.

APPROVAL DATE: September 24, 2009 **EXPIRATION DATE:** September 24, 2010 **Expedited Review**

GENERAL CONDITIONS OF APPROVAL: Please refer to www.research.ucsf.edu/chr/Apply/chrApprovalCond.asp for a description of the general conditions of CHR approval. In particular, the study must be renewed by the expiration date if work is to continue. Also, prior CHR approval is required before implementing any changes in the consent documents or any changes in the protocol unless those changes are required urgently for the safety of the subjects.

HIPAA "Privacy Rule" (45CFR164): This study does not involve access to, or creation or disclosure of Protected Health Information (PHI).

Sincerely,

Susan H. Sniderman, M.D.
Chair, Committee on Human Research

cc:

The CHR Approval Letter from Sappsithiprasong Medical Center, Thailand

เอกสารรับรองโครงการวิจัยในมนุษย์
คณะกรรมการจริยธรรมการวิจัยในมนุษย์
โรงพยาบาลสรรพสิทธิประสงค์ อุบลราชธานี

ชื่อโครงการ ความเข้าใจประสบการณ์ในการปฏิบัติตัวหลังคลอดตามธรรมเนียมโบราณของหญิงชาวไทยอีสาน

Understanding the Lived Experience of Northeast Thai women in following Traditional Postpartum Practices

คณะผู้วิจัย นางสาวปรางทิพย์ ทาเสนาะ

หน่วยงาน/สถาบัน วิทยาลัยพยาบาลบรมราชชนนี สรรพสิทธิประสงค์ อุบลราชธานี

รหัสโครงการ 001/2552

คณะกรรมการจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลสรรพสิทธิประสงค์ อุบลราชธานี ได้พิจารณารายละเอียดของโครงร่างการวิจัย เอกสารข้อมูลสำหรับผู้ป่วย เอกสารแสดงความยินยอมเข้าร่วมการวิจัยภาษาไทยแล้ว เมื่อวันที่ 15 มกราคม พ.ศ.2552

มีมติสมควรให้ดำเนินการวิจัยในขอบเขตของโครงการที่เสนอได้

และให้ส่งรายงานการวิจัยจำนวน 2 ชุด เมื่อสิ้นสุดการวิจัยแล้ว

(นายแพทย์วิศิษฏ์ สงวนวงศ์วาน)
ประธานคณะกรรมการการวิจัยในมนุษย์

(นายแพทย์มนัส กนกศิลป์)
ผู้อำนวยการโรงพยาบาลสรรพสิทธิประสงค์

Appendix D: Study Recruitment Flyer



- Are you a new mother over the age of 18?

If so, you may be interested in our study. We would like to better understand traditional postpartum practices of first time Isan mothers.

We would like to hear from you

By sharing your experiences, you may help health care providers better understand about postpartum practices related to the traditional beliefs among women in Isan.

If you participate, you will receive a gift for your baby for helping us with the study.

If you would like to learn more about this study

Please call Prangthip Thasanoh (Pla) at (045) 282-945 or email to or contact nursing staff at the prenatal care clinic, Sirindhorn Hospital

ประกาศรับสมัครผู้สนใจเข้าร่วมวิจัย



คุณกำลังจะเป็นแม่ที่มีอายุเกิน 18 หรือเปล่า ?

ถ้า ใช่ คุณอาจจะสนใจในการศึกษาของเรา ที่กำลังทำความเข้าใจมารดาครรภ์แรกชาวอีสานที่ปฏิบัติตัวหลังคลอดตามธรรมเนียมโบราณ

เราต้องการที่จะได้ยินเรื่องราวของคุณ

ด้วยการเล่าถึงประสบการณ์ของคุณ คุณอาจจะช่วยให้บุคลากรทางสาธารณสุขเข้าใจการปฏิบัติตัวหลังคลอดที่เกี่ยวข้องกับความเชื่อตามธรรมเนียมโบราณ ของหญิงชาวไทยอีสานได้ดีขึ้น

เพื่อเป็นการตอบแทนที่คุณช่วยเหลือเราในการศึกษาวิจัยครั้งนี้ คุณจะได้รับชุดของขวัญสำหรับทารกแรกเกิด จำนวน 1 ชุด

ถ้าคุณต้องการข้อมูลเพิ่มเติมเกี่ยวกับการวิจัยครั้งนี้ กรุณาโทรหาคุณปรางทิพย์ ทาเสนาะ (ปลา) ที่หมายเลขโทรศัพท์ (045) 282-945 (บ้าน) 087-798-6806 (มือถือ) หรือส่งจดหมายอิเล็กโทรนิคไปยัง หรือคุณอาจจะติดต่อพยาบาลประจำหน่วยฝากครรภ์ โรงพยาบาลสิริธร

Appendix E: Study Recruitment Letter

Northeast Thai Women's Experiences in Following Traditional Postpartum Practices

At the prenatal and postpartum units in Sirindhorn Hospital, there is a study going on that is exploring traditional practices of Thai mothers after the birth of their child. We are doing the study to learn how to best care for women during this time. The study is being conducted by Ms. Prangthip Thasanoh, RN with the support of Mr. Prawee Kamseesook, MD, the director of Sirindhorn Hospital. Ms. Thasanoh is a doctoral student at the University of California, San Francisco in the U.S. She is a student of Dr. Holly Powell Kennedy, who will be mentoring her in data collection and analysis. As a clinic nurse in the family clinic, I am telling you about the study because you have come to the prenatal clinic units at Sirindhorn Hospital and you might be able to give me information about your experience in the practices.

This letter has been given to you as someone who might be interested in taking part in the study. If you agree to be contacted, Ms. Thasanoh would either talk to you in the prenatal unit or by telephone to tell you more about the study. If you decide to participate in the study, Ms. Thasanoh would visit you several times. The following is what would happen during each visit.

A. Ms. Thasanoh will first contact you when you visit the prenatal clinic during 28-32 weeks of gestational age. She will give you a consent form and inform you about the purpose of the study, process of data collection, and ethical protection. Ms. Thasanoh will interview you at a time and place mutually agreed upon. Preferably, this will be a quiet place where you can have privacy for the interview. She will interview you for about 60-90 minutes about

your expectations about what will happen after the baby comes.

B. Ms. Thasanoh will visit you and your new baby during the 1-2 days while you are in the hospital or where you will be staying after giving birth. This is an informal visit which will give Ms. Thasanoh a chance to congratulate your new family, meet your relatives, learn your plans for your postpartum care after you go home with the baby, and get the directions to the place where you will stay during the first month postpartum for practicing traditional practices.

C. Ms. Thasanoh will make the several visits during your 4-8 weeks postpartum period. The date will be determined upon how many days you are going to yuu fai or get intense traditional postpartum care. She will observe the interaction between you and your family and visiting persons and observe the things that you and your family member do during this time. Many families participate in special food practices and yuu fai and she would be interested in observing these if they are part of your plans. She may ask clarifying questions and participate if allowed by you and your family. Ms. Thasanoh will take notes of your activities and take pictures if this is all right with you and your family. This procedure will last for about two hours.

D. At the end of the first or second month postpartum, Ms. Thasanoh will visit you at a time and place mutually agreed upon by both of you to conduct an interview about your experiences after you had the baby. Preferably this will be a quiet place where you can have privacy for the interview. She will interview you for about 60-90 minutes. You will be asked to describe your experiences with dietary practices during the postpartum period. Examples of questions you will be asked are what kinds of foods you could and could not eat and what were your reasons for following the traditional beliefs about foods. Ms. Thasanoh will make

a voice recording of the interview. If needed, she might ask you to do a follow up interview lasting the same amount of time, but the decision is up to you.

Data will be managed in a manner assuring your confidentiality. Your name will not be linked to the information you provide. After the interview and observation, Ms. Thasanoh will type up the notes and a transcript of the taped conversation, removing any mention to personal names. The recorded data will be kept in locked files at all times during the study. After completing the study, the original notes and recording will be destroyed, while the transcripts will be kept in locked files which can only be accessed by Ms. Thasanoh and her research team.

If you decide to participate in the study, Ms. Thasanoh will give you a baby gift set at the end of the second interview. Whether you participate or not, it will not affect your care at the antenatal care clinic or other related clinics at Sirindhorn Hospital. It is completely up to you. If you think you might be willing to be in the study you can:

- Return this sheet to me and let me (the clinic nurse) give her your name and telephone number. Ms. Thasanoh will call you to set up a time for giving you information about the study.
- Contact Ms. Thasanoh directly by phone or email (see contact information below).

Contact Information

If you have questions at any time about the study participation or the study procedures, please contact Ms. Thasanoh at 045-282-945 or 087-798-6806 or .

[ ] My name is ……I am interested in the study

( ) Ms. Thasanoh can call me at my telephone number……or

The most convenient way to contact me is that ……..……

…….....

( ) I will contact her

[ ] I am not interested in the study. Thank you for the invitation.

เอกสารคำชี้แจงการศึกษาวิจัย

เรื่องประสบการณ์ของหญิงชาวไทยอีสานในการปฏิบัติตัวหลังคลอดตามแบบแผนโบราณ

ที่แผนกฝากครรภ์ โรงพยาบาลสิรินธร ได้มีการศึกษาวิจัยเกี่ยวกับความเข้าใจประสบการณ์ของหญิงชาวไทยอีสานในการปฏิบัติตัวหลังคลอดตามแบบแผนโบราณ เพื่อช่วยให้เราเรียนรู้วิธีการให้การดูแลหญิงชาวไทยอีสานในช่วงหลังคลอดได้ดียิ่งขึ้น

การวิจัยครั้งนี้ดำเนินการโดย คุณปรางทิพย์ ทาเสนาะ พยาบาลวิชาชีพ และได้รับการสนับสนุนจาก นพ.ประวีร์ คำศรีสุข ผู้อำนวยการโรงพยาบาลสิรินธร คุณปรางทิพย์ ทาเสนาะ เป็นนักศึกษาปริญญาเอก ของมหาวิทยาลัยแคลิฟอร์เนียแห่งเมืองซานฟรานซิสโ ประเทศสหรัฐอเมริกา โดยมี รศ .ดร .ฮอลลี พาวล์ แคแนดี เป็นอาจารย์ที่ปรึกษาตลอดขั้นตอนการเก็บรวบรวมและวิเคราะห์ข้อมูล

ดิฉันในฐานะพยาบาลประจำคลินิกฝากครรภ์กำลังจะชี้แจงการศึกษาวิจัยในครั้งนี้แก่คุณ เพราะคุณเป็นผู้มารับบริการฝากครรภ์ที่ โรงพยาบาลสิรินธร คุณอาจมีคุณสมบัติตรงตามความต้องการของการศึกษาวิจัยนี้และสามารถให้ข้อมูลเกี่ยวกับประสบการณ์ในการปฏิบัติตัวหลังคลอดตามแบบแผนโบราณได้ เมื่อคุณตัดสินใจเข้าร่วมวิจัย คุณปรางทิพย์จะไปเยี่ยมคุณอย่างน้อย 5 ครั้ง ซึ่งมีรายละเอียดดังต่อไปนี้

ก. คุณปรางทิพย์จะเยี่ยมคุณครั้งแรกที่คลินิกฝากครรภ์ขณะคุณอายุครรภ์ 28-32 สัปดาห์ คุณจะได้รับแบบยินยอมเข้าร่วมการวิจัย คุณปรางทิพย์จะอธิบายให้คุณฟังเกี่ยวกับ วัตถุประสงค์ของการวิจัย ขั้นตอนการเก็บรวบรวมข้อมูล และการปกป้องสิทธิของคุณในฐานะผู้ร่วมวิจัย คุณปรางทิพย์จะสัมภาษณ์คุณเกี่ยวกับความคาดหวังของคุณหลังจากทารกคลอด คุณและคุณปรางทิพย์จะตกลงร่วมกันว่าจะสัมภาษณ์ที่ไหนและเมื่อไหร่ ทั้งนี้ควรเป็นสถานที่ที่เป็นส่วนตัวและเงียบ การสัมภาษณ์นี้ใช้เวลาประมาณ 60-90 นาที

ข. คุณปรางทิพย์จะไปเยี่ยมคุณและลูก ในช่วง 1-2 วันหลังคลอดขณะที่คุณยังอยู่ที่โรงพยาบาลหรือสถานที่ที่คุณคลอด การเยี่ยมครั้งนี้เป็นการเยี่ยมอย่างไม่เป็นทางการเพื่อแสดงความยินดีกับคุณและครอบครัวเนื่องในโอกาสต้อนรับสมาชิกใหม่ คุณปรางทิพย์จะถามคุณและครอบครัวเกี่ยวกับการวางแผน

ดูแลคุณหลังคลอดขณะอยู่ที่บ้าน และคุณปรางทิพย์จะถามถึงวิธีการเดินทางไปบ้านของคุณหรือสถานที่ที่คุณอาศัยอยู่ในช่วงการปฏิบัติตามธรรมเนียมโบราณ

ค. ในช่วง 1 เดือนหลังคลอด คุณปรางทิพย์จะไปเยี่ยมคุณ 2 – 3 ครั้ง วันเวลาที่แน่นอนจะขึ้นอยู่กับว่าคุณจะอยู่ไฟหรือปฏิบัติตามธรรมเนียมโบราณอย่างเคร่งครัดเป็นจำนวนกี่วัน การเยี่ยมครั้งนี้คุณปรางทิพย์จะสังเกตการมีปฏิสัมพันธ์ระหว่างคุณ ครอบครัวและผู้ที่มาเยี่ยม รวมถึงกิจกรรมต่างๆที่คุณทำร่วมกันระหว่างพิธีอยู่ไฟและงดเว้นอาหาร หากมีข้อสงสัยคุณปรางทิพย์จะถามคำถามเพิ่มเติม และถ้าหากได้รับอนุญาตคุณปรางทิพย์จะมีส่วนร่วมในกิจกรรมเหล่านั้น จดบันทึกการสังเกต และถ่ายภาพ การสังเกตแต่ละครั้ง ใช้เวลาประมาณ 2 ชั่วโมง

ง. เมื่อสิ้นสุดกระบวนการสังเกตในช่วงสัปดาห์ที่ 4 – 6 หลังคลอด คุณปรางทิพย์จะไปสัมภาษณ์คุณอีกครั้ง ในวัน เวลา และสถานที่ที่คุณและคุณปรางทิพย์ตกลงร่วมกัน หากเป็นไปได้ ควรเป็นสถานที่ที่เป็นส่วนตัวและเงียบ คุณปรางทิพย์จะสัมภาษณ์คุณเกี่ยวกับประสบการณ์ในการปฏิบัติตัวหลังคลอดตามธรรมเนียมโบราณโดยเฉพาะอย่างยิ่งเกี่ยวกับการคะลำหรือการจำกัดการรับประทานอาหารหลังคลอด การสัมภาษณ์ใช้เวลาประมาณ 60-90 นาที ตัวอย่างคำถามได้แก่ “อาหารชนิดใดที่คุณได้รับอนุญาตหรือไม่ได้รับอนุญาตให้กินในระยะหลังคลอด” และ “เหตุผลในการปฏิบัติตัวตามความเชื่อโบราณในการงดเว้นอาหาร (คะลำ) คืออะไรบ้าง” เป็นต้น คุณปรางทิพย์จะบันทึกการสัมภาษณ์ด้วยเครื่องบันทึกเสียงแบบดิจิตอล หลังจากนั้นจะพิมพ์ผลการสัมภาษณ์ลงในคอมพิวเตอร์โดยไม่มีการระบุชื่อของคุณ ในกรณีที่ข้อมูลจากการสัมภาษณ์ครั้งแรกไม่สมบูรณ์ คุณปรางทิพย์อาจจะขอสัมภาษณ์คุณอีกครั้ง ซึ่งใช้เวลาเท่ากับการสัมภาษณ์ครั้งแรก ทั้งนี้ขึ้นอยู่กับคุณว่าจะอนุญาตหรือไม่

คุณปรางทิพย์จะจัดการกับข้อมูลที่ได้โดยคำนึงถึงความเป็นส่วนตัวของคุณมากที่สุด ชื่อของคุณจะไม่เกี่ยวโยงไปถึงข้อมูลที่คุณให้แก่คุณปรางทิพย์ หลังจากการสังเกตและสัมภาษณ์คุณปรางทิพย์จะพิมพ์บันทึกย่อต่างๆลงในคอมพิวเตอร์และจะถอดแฟ้มบันทึกแสียง (Digital voice files) แบบคำต่อคำโดยไม่มี

การบันทึกชื่อของบุคคลที่ถูกอ้างถึงขณะสัมภาษณ์ คุณปรางทิพย์จะทำลายแฟ้มบันทึกเสียงและต้นฉบับบันทึกต่างๆจะเมื่อสิ้นสุดการศึกษา และเก็บบท (Transcripts) เป็นแฟ้มเอกสารไว้ในคอมพิวเตอร์โดยมีเพียงคุณปรางทิพย์และทีมวิจัยเท่านั้นที่สามารเปิดแฟ้มเหล่านี้ได้

ถ้าคุณตัดสินใจเข้าร่วมศึกษาวิจัยในครั้งนี้ คุณปรางทิพย์จะมอบชุดของขวัญสำหรับทารกแรกเกิดแก่คุณ 1 ชุด เมื่อสิ้นสุดการสัมภาษณ์ในการเยี่ยมครั้งสุดท้าย ไม่ว่าคุณจะตัดสินใจเข้าร่วมศึกษาวิจัยหรือไม่ก็ตาม จะไม่มีผลกระทบใดๆต่อการดูแลรักษาที่คุณจะได้รับจากแผนกฝากครรภ์ หรือแผนกอื่นๆในโรงพยาบาลสิรินธร ทั้งหมดนี้ขึ้นอยู่กับการตัดสินใจของคุณเอง ถ้าคุณตัดสินใจเข้าร่วมในการวิจัยครั้งนี้ คุณสามารถส่งแบบฟอร์มคำชี้แจงนี้ให้ดิฉัน (พยาบาลประจำคลินิกฝากครรภ์) และอนุญาตให้ดิฉันได้แจ้งชื่อและเบอร์โทรศัพท์ของคุณแก่คุณปรางทิพย์ หลังจากนั้นคุณปรางทิพย์จะติดต่อกับคุณเพื่อนัดวันและเวลาในการชี้แจงรายละเอียดอื่นๆในการวิจัยแก่คุณ หรือติดต่อคุณปรางทิพย์ โดยตรงตามตามเบอร์โทรศัพท์ หรือ จดหมายอีเล็กโทรนิคส์ ข้างล่างนี้

ข้อมูลสำหรับติดต่อกลับ

กรณีที่คุณมีคำถามใดๆก็ตามเกี่ยวกับการเข้าร่วมศึกษาวิจัยหรือขั้นตอนต่างๆ คุณสามารถติดต่อคุณปรางทิพย์ ทาเสนาะ ได้ที่หมายเลขโทรศัพท์บ้าน 045-282-945 หมายเลขโทรศัพท์มือถือ 087-798-6806 หรือทางจดหมายอิเล็กโทรนิกส์ ที่

[ ] ฉันชื่อ.....ฉันสนใจในการศึกษาครั้งนี้ โดยที่

( ) คุณปรางทิพย์ ทาเสนาะ สามารถติดต่อทางโทรศัพท์มาที่ฉันได้ ที่หมายเลข.....

หรือวิธีการติดต่อที่สะดวกสำหรับฉัน คือ .....

( ) ฉันจะติดต่อไปยังคุณปรางทิพย์ ทาเสนาะ เอง

[ ] ฉันไม่สนใจในการศึกษาครั้งนี้ ขอขอบคุณในคำเชิญ

Appendix F: Consent Form

University of California, San Francisco and Sirindhorn Hospital in Thailand Consent to Participate in a Research Study

Study Title: Northeast Thai women's experience in following traditional postpartum practices.

This is a-study about postpartum practices among Thai women. The study researchers are Ms. Prangthip Thasanoh, a doctoral student, and Dr. Holly Powell Kennedy in the Department of Family Health Care Nursing at the University of California, San Francisco. Ms. Thasanoh will explain this study to you.

The study includes only people who voluntarily choose to take part. Please take your time to make your decision about participating in the study, and discuss your decision with your family or friends if you wish. If you have any questions or concerns, you may ask the researcher. You are being asked to take part in this study because you are a healthy pregnant woman who may be experiencing changes in eating habits after giving birth.

Why is this study being done?

The purpose of this study is to describe the experience of Thai postpartum women in following traditional practices.

How many people will take part in this study?

About 20 people will take part in this study. Participants are postpartum women who live in Amphur Sirindhorn of Ubon Ratchathani province in Thailand.

What will happen if you take part in this research study?

If you agree to participate in the study, the following procedures will occur:

Informal Visit Procedures

The researcher will visit you and the new baby at the hospital where you will be hospitalized after giving birth or any place where you deliver the baby. This informal visit is for congratulations on your new family member. She will confirm that you and your family are comfortable to have her visit and participate in the place where you stay during 4-8 weeks postpartum period. Finally, she will ask you the directions to that place.

Interview procedures

A. You will be interviewed in the first visit, which will be conducted at around 28-32 weeks of gestational age. The researcher is going to briefly describe the study processes to you. After you sign the consent form, she will ask you to complete a demographic form. She will schedule an interview with you at a time and place mutually agreed upon by both. Preferably this will be a quiet place where you can have privacy for the interview. She will interview you for about 60-90 minutes about your expectations about after the baby comes.

B. The researcher will interview you, by yourself, for about an hour and a half in a place mutually agreed upon by both of you around 4-8 weeks after the birth of the baby. The researcher will ask you to describe your experiences with traditional practices during the postpartum period, including food practices and the yuu fai experience. Examples of questions you will be asked are what kinds of foods you could and could not eat, what were your reasons for following traditional beliefs about foods, how the traditional beliefs influenced your practices, and who influenced your decision-making about food.

C. The researcher will make a voice recording of your conversation. After the interview, she will type a transcript of the taped conversation and remove any mention of personal names. The recorded data will be kept in locked files at all times during the study. After completing the study, the recording will be destroyed, while the transcripts will be kept

in locked files which can only be accessed by the researchers and their research team.

Observation procedures

A. The researcher will observe the activities and relationships of you and your family members during the first two months after birth, including the yuu fai period. This procedure will be conducted at the place where you stay durring that period.

B. The researcher will take notes and/or pictures, if you agree, of what has been observed. After the observation, she will type up the notes and remove any mention of names. The original notes will then be destroyed.

Study location

The interviews will be conducted at a place mutually agreed upon by us both, such as your house or a private office at the hospital, health care station, or Primary Health Care Unit (PCU), the small health care unit in Thailand. The informal visit will happen where you deliver the baby, such as a hospital's postpartum ward, health care station, or a house. The observations will take place where you live durring the first two months after giving birth, such as your own house or your relatives' houses.

How long will you be in the study?

The total amount of time involved would be up to, but no more than 11 hours. Interviews will be conducted twice, each of which will last for about 1 hour and 30 minutes. If a third interview needed, it will take around the same amount of time. The informal visits shortly after birth will take about 30 minutes. Several observations will be conducted during the first two months. Each observation will take around 2 hours.

Can you stop being in the study?

Yes. If you do not want to continue to participate in the study, you can decide to stop at any time. Just tell the researcher right away if you wish to stop being in the study. Also, the researcher may stop you from taking part in this study at any time if she believes it is in your best interest or if the study has been completed.

What side effects or risks can you expect from being in the study?

The interview is time-consuming and may not be very interesting to you, but you can stop at any time. The participant observation may make you uncomfortable, but you are free to decline being observed at any time. For more information about risks, ask the researcher.

Are there benefits to taking part in the study?

There will be no direct benefit to you from participating in this study. However, the information that you provide may help health professionals better understand postpartum practices related to traditional beliefs among Thai women.

What other choices do you have if you do not take part in this study?

You are free to choose not to participate in the study. If you decide not to take part in this study, there will be no penalty to you. You will not lose any of your regular benefits, and you can still receive care from our institution the way you usually do.

Will information about you be kept private?

We will do our best to make sure that the personal information gathered for this study is kept private. If information from this study is published or presented at scientific meetings, your name and other personal information will not be used. However, we cannot guarantee total privacy. Your personal information may be given out if required by law. Organizations that may look at and/or copy your research records for research, quality assurance, and data analysis include UCSF's Committee on Human Research and the Ethical Review Committee

for Research in Human Subjects of the Ministry of Public Health (through Sappasithiprasong Medical Center), Thailand.

What are the costs of taking part in this study?

There will be no charge for taking part in this study.

Will you be paid for taking part in this study?

You will not be paid for taking part in this study. As a token of appreciation for your time and participation, you will receive a new baby gift set after the second interview is done.

What are your rights if you take part in this study?

Taking part in this study is your choice. You may choose either to take part or not to take part in the study. If you decide not to take part in this study, you may leave the study at any time. No matter what decision you make, there will be no penalty to you in any way. You will not lose any of your regular benefits, and you can still receive care from our institution the way you usually do.

Who can answer your questions about the study?

You can talk to the researcher about any questions or concerns you have about this study. Contact the researcher, Ms. Prangthip Thasanoh, at 045-282-945 and 087-798-6806 or Dr. Holly Powell Kennedy at UCSF, 001-1-415-476-0335.

If you have any questions, comments, or concerns about taking part in this study, first talk to the researcher (above). If for any reason you do not wish to do this, or you still have concerns after doing so, you may contact the following offices.

The Ethical Review Committee for Research in Human Subjects, Sappasitthiprasong Medical Center, Ubon Ratchathani, Ministry of Public Health, Thailand (a group of people who review the research to protect your rights) via telephone

numbers **045-244-973 Ext. 1395,** 8 am to 4 pm, Monday through Friday. Or, you may write to the Ethical Review Committee for Research in Human Subjects, Research Center, Ha Sip Pan Sa Mahawajiralongkorn Building, 5th Floor, Sappasithiprasong Medical Center, Tambon Naimeaung, Amphur Meaung, Ubon Ratchathani, 34000.

Committee on Human Research, UCSF's Institutional Review Board (CHR, a group of people who review the research to protect your rights). You can reach the CHR office at **001-1-415-476-1814**, 8 am to 5 pm, Monday through Friday. Or you may write to: Committee on Human Research, Box 0962, University of California, San Francisco (UCSF), San Francisco, CA 94143.

CONSENT

You have been given a copy of this consent form to keep.

PARTICIPATION IN RESEARCH IS VOLUNTARY. You have the right to decline to be in this study, or to withdraw from it at any point without penalty or loss of benefits to which you are otherwise entitled.

If you wish to participate in this study, you should sign below.

Date	Participant's Signature for Consent
Date	Researcher's Signature

แบบแสดงความยินยอมเข้าร่วมการวิจัย

โดยมหาวิทยาลัยแห่งแคลิฟอร์เนีย ซานฟรานซิสโก ประเทศสหรัฐอเมริกา และ

โรงพยาบาลสิรินธร ประเทศไทย

หัวข้อวิจัย ประสบการณ์ของหญิงชาวไทยอีสานในการปฏิบัติตัวหลังคลอดตามแบบแผนโบราณ

การศึกษาวิจัยนี้เป็นการทำความเข้าใจเกี่ยวกับประสบการณ์ของหญิงชาวไทยอีสานในการปฏิบัติตัวหลังคลอดตามแบบแผนโบราณผู้ทำการศึกษาวิจัยครั้งนี้คือคุณปรางทิพย์ ทาเสนาะ พยาบาลวิชาชีพ และนักศึกษาปริญญาเอก และ รศ. ดร. ฮอลลี พาวล์ แคแนดี จากภาควิชาการพยาบาลสุขภาพครอบครัว มหาวิทยาลัยแคลิฟอร์เนีย เมืองซานฟรานซิสโก โดย คุณปรางทิพย์ ทาเสนาะ จะเป็นผู้อธิบายขั้นตอนการศึกษาวิจัยแก่คุณ

การศึกษาครั้งนี้จะดำเนินการเฉพาะผู้ที่สมัครใจเท่านั้น กรุณาไตร่ตรองอย่างรอบคอบก่อนตัดสินใจเข้าร่วมการวิจัย โดยคุณอาจขอคำปรึกษาจากครอบครัวหรือผู้ที่คุณให้ความไว้วางใจ ถ้ามีข้อสงสัยประการใดคุณสามารถซักถามผู้วิจัยได้ทันที คุณได้รับเชิญให้เข้าร่วมในการศึกษาครั้งนี้ เนื่องจากคุณเป็นหญิงตั้งครรภ์แรกที่ไม่มีภาวะแทรกซ้อนระหว่างการตั้งครรภ์ เป็นผู้ที่อาจจะมีประสบการณ์ในการเปลี่ยนแปลงพฤติกรรมการกินในระยะหลังคลอด

เพราะเหตุใดจึงมีการศึกษาวิจัยครั้งนี้?

วัตถุประสงค์ในการดำเนินการวิจัยครั้งนี้ เพื่อทำความเข้าใจประสบการณ์ในการปฏิบัติตัวตามประเพณีโบราณของหญิงหลังคลอดชาวไทย

การศึกษาครั้งนี้มีผู้เข้าร่วมศึกษาวิจัยจำนวนเท่าใด?

ผู้เข้าร่วมการวิจัยครั้งนี้ คือ หญิงหลังคลอดที่อาศัยอยู่ในอำเภอสิรินธร จังหวัดอุบลราชธานี จำนวนประมาณ 20 คน

จะมีอะไรเกิดขึ้นแก่คุณเมื่อเข้าร่วมศึกษาวิจัยในครั้งนี้?

เมื่อคุณตัดสินใจเข้าร่วมวิจัย คุณจะมีกิจกรรมดังต่อไปนี้

กระบวนการเยี่ยมอย่างไม่เป็นทางการ

ผู้วิจัยจะไปเยี่ยมคุณและลูก ในช่วง 1-2 วันหลังคลอดขณะที่คุณยังอยู่ที่โรงพยาบาลหรือสถานที่ที่คุณคลอดลูก การเยี่ยมครั้งนี้เป็นการเยี่ยมอย่างไม่เป็นทางการเพื่อแสดงความยินดีกับคุณและครอบครัว ผู้วิจัยจะสอบถามเพื่อยืนยันว่าคุณและครอบครัวยินดีที่จะให้ผู้วิจัยไปเยี่ยมในสถานที่ที่คุณอยู่ไฟและอยู่อาศัยในช่วง 4-6 สัปดาห์หลังคลอด สุดท้ายผู้วิจัยจะถามถึงวิธีเดินทางไปยังสถานที่นั้น

กระบวนการสัมภาษณ์

ก. ผู้วิจัยจะสัมภาษณ์คุณครั้งที่ 1 เมื่อคุณมาที่คลินิกฝากครรภ์ระหว่างอายุครรภ์ 28-32 สัปดาห์ โดยผู้วิจัยจะ อธิบาย ขั้นตอนการวิจัยให้คุณฟังอย่างย่อๆ หลังจากคุณเซ็นยินยอมเข้าร่วมการวิจัยแล้ว ผู้วิจัยจะให้คุณตอบแบบสอบถามเกี่ยวกับข้อมูลพื้นฐาน และสัมภาษณ์คุณเกี่ยวกับประสบการณ์ในขณะตั้งครรภ์ตลอดจนความคาดหวังต่างๆหลังคลอด เวลาและสถานที่ในการสัมภาษณ์จะเป็นการตกลงร่วมกันระหว่างคุณและผู้วิจัย ซึ่งควรจะเป็นสถานที่ที่เป็นส่วนตัวและเงียบ ขั้นตอนนี้ใช้เวลาประมาณ 60-90 นาที

ข. ผู้วิจัยจะสัมภาษณ์คุณเป็นครั้งที่ 2 ในช่วงสัปดาห์ที่ 4-8 หลังคลอด ผู้วิจัยจะสัมภาษณ์เชิงลึกนานประมาณ 60-90 นาที สถานที่ในการสัมภาษณ์ควรเป็นสถานที่ที่คุณและผู้วิจัยสะดวกทั้งสองฝ่าย ผู้วิจัยจะขอให้คุณอธิบายเกี่ยวกับประสบการณ์ในการปฏิบัติตัวหลังคลอดตามธรรมเนียมโบราณ รวมถึงการอยู่ไฟและการจำกัดการรับประทานอาหารหลังคลอดหรือการคะลำ ตัวอย่างคำถามได้แก่ “อาหารชนิดใดที่คุณได้รับอนุญาตหรือไม่ได้รับอนุญาตให้กินในระยะหลังคลอด” “เหตุผลในการปฏิบัติตัวตามความเชื่อโบราณในการงดเว้นอาหาร (คะลำ) คืออะไรบ้าง” “ความเชื่อตามธรรมเนียมโบราณมีอิทธิพลต่อการปฏิบัติตัวของคุณอย่างไร” และ “ใครบ้างที่มีอิทธิผลต่อการตัดสินใจเกี่ยวกับอาหารของคุณ”

ค. ผู้วิจัยจะบันทึกเสียงตลอดการสัมภาษณ์ หลังจากนั้นจะพิมพ์บทสัมภาษณ์ลงในคอมพิวเตอร์โดยไม่มีการระบุชื่อของบุคคลใดๆที่ถูกอ้างถึง ผู้วิจัยจะเก็บข้อมูลบันทึกต่างๆไว้ในตู้ที่มีกุญแจล็อกตลอด

ระยะเวลาการศึกษา เมื่อสิ้นสุดการศึกษาผู้วิจัยจะทำลายแฟ้มบันทึกเสียง (Voice files) และเก็บบท (Transcripts) เป็นแฟ้มเอกสารไว้ในคอมพิวเตอร์โดยมีเพียงผู้วิจัยและทีมวิจัยเท่านั้นที่สามารถเปิดแฟ้มเหล่านี้ได้

กระบวนการสังเกตแบบมีส่วนร่วม

ก. ผู้วิจัยจะไปสังเกตการมีปฏิสัมพันธ์ระหว่างคุณ ครอบครัว และผู้ที่มาเยี่ยม รวมถึงกิจกรรมต่างๆ ที่คุณทำร่วมกันใน ช่วงของการอยู่ไฟหรือปฏิบัติตามธรรมเนียมโบราณอย่างเคร่งครัด และถ้าหากได้รับอนุญาตผู้วิจัยจะมีส่วนร่วมในกิจกรรมเหล่านั้น การสังเกตแบบมีส่วนร่วมนี้จะทำ 2-3 ครั้ง ในช่วงเดือนแรกหลังการคลอด

ข. ขณะสังเกตผู้วิจัยจะจดบันทึกและถ่ายรูปถ้าคุณอนุญาต หลังการสังเกตผู้วิจัยจะพิมพ์ข้อมูลรวมทั้งสำเนาภาพถ่ายลงในเครื่องคอมพิวเตอร์ที่เฉพาะทีมวิจัยเท่านั้นที่จะเปิดได้ ทั้งนี้จะไม่มีการระบุถึงชื่อบุคคลต่างๆที่กล่าวถึง หลังจากนั้นต้นฉบับบันทึกต่างๆจะถูกทำลาย

สถานที่ที่ใช้ในการศึกษา

การสัมภาษณ์ทั้ง 2 ครั้งจะทำในสถานที่ที่คุณและผู้วิจัยเลือกร่วมกัน หากเป็นไปได้ควรจะเป็นสถานที่ที่เป็นส่วนตัวและเงียบ ทั้งนี้อาจจะเป็นบ้านของคุณหรือห้องที่เป็นส่วนตัวในโรงพยาบาลสิรินธร สถานีอนามัย หรือหน่วยให้การบริการด้านสุขภาพขั้นพื้นฐาน (พีซียู) การเยี่ยมอย่างไม่เป็นทางการจะเป็นการเยี่ยมในสถานที่ที่คุณคลอดบุตร เช่น ตึกหลังคลอดในโรงพยาบาล สถานีอนามัย หรือบ้าน การสังเกตแบบมีส่วนร่วมจะทำในที่ที่คุณพักขณะอยู่ไฟและช่วง 1 เดือนหลังคลอด โดยอาจจะเป็นบ้านของคุณเองหรือบ้านของญาติ

ฉันจะต้องเข้าร่วมการศึกษาวิจัยนานเท่าใด?

รวมระยะเวลาการเข้าร่วมการศึกษาครั้งนี้อย่างมากที่สุดไม่เกิน 11 ชั่วโมง การเยี่ยมอย่างไม่เป็นทางการใช้เวลาประมาณ 30 นาที การสัมภาษณ์แต่ละครั้งใช้เวลาประมาณ 1 ชั่วโมง 30 นาที หากจำเป็นต้อง

มีการสัมภาษณ์ครั้งที่ 3 จะใช้เวลาเท่ากับการสัมภาษณ์ 2 ครั้งแรก ส่วนการสังเกตแบบมีส่วนร่วมจะทำ 2-3 ครั้ง ใช้เวลาครั้งละประมาณ 2 ชั่วโมง

ฉันสามารถที่จะยุติการเข้าร่วมการศึกษาวิจัยได้หรือไม่?

ได้ คุณสามารถยุติการเข้าร่วมในการศึกษาวิจัยเวลาใดก็ได้ โดยแจ้งให้ผู้วิจัยหรือเจ้าหน้าที่ทราบทันทีที่คุณประสงค์จะยุติการเข้าร่วมในการศึกษาวิจัย

อะไรคือผลข้างเคียงหรือความเสี่ยงในการศึกษาครั้งนี้ที่จะเกิดแก่ฉัน?

การสัมภาษณ์จำเป็นต้องใช้เวลาบ้างและอาจจะไม่น่าสนใจสำหรับคุณ แต่คุณสามารถที่จะยุติการให้สัมภาษณ์ได้ตลอดเวลา การสังเกตอาจทำให้คุณไม่สะดวกสบายหรือรู้สึกอัดอัด แต่คุณมีอิสระที่จะยุติการถูกสังเกตได้ตลอดเวลา หากคุณต้องการข้อมูลเกี่ยวกับความเสี่ยงในการวิจัยเพิ่มเติม โปรดถามผู้วิจัยได้ทันที

มีผลประโยชน์ใดหรือไม่ในการเข้าร่วมศึกษาวิจัย?

ในการศึกษาครั้งนี้ไม่มีผลประโยชน์โดยตรงกับตัวคุณ แต่คุณจะได้รับโอกาสในการพูดคุยแสดงความคิดเห็นและประสบการณ์ต่างๆของตัวคุณเอง อย่างไรก็ตามข้อมูลที่ได้รับจากคุณจะเป็นประโยชน์ต่อเจ้าหน้าที่สุขภาพในการทำความเข้าใจที่ดีขึ้นต่อการปฏิบัติตัวด้านโภชนาการหลังคลอดที่เกี่ยวข้องกับความเชื่อตามประเพณีของหญิงชาวไทย เพื่อนำมาวางแผนให้การดูแลรักษาอย่างมีประสิทธิภาพต่อไป

ฉันจะเลือกไม่เข้าร่วมในการศึกษาครั้งนี้ได้หรือไม่?

คุณมีอิสระในการตัดสินใจที่จะไม่เข้าร่วมศึกษาวิจัยครั้งนี้ กรณีที่คุณตัดสินใจไม่เข้าร่วมศึกษาวิจัยจะไม่มีผลเสียใดๆเกิดขึ้นกับคุณ คุณจะไม่สูญเสียผลประโยชน์ใดๆที่พึงจะได้รับและคุณยังคงได้รับการดูแลตามหลักมาตรฐานการรักษาพยาบาลของแผนกฝากครรภ์ โรงพยาบาลสิรินธร

ข้อมูลเกี่ยวกับตัวฉันจะถูกเก็บเป็นความลับหรือไม่?

ผู้วิจัยจะดำเนินการอย่างดีที่สุดเพื่อให้เกิดความมั่นใจว่าข้อมูลต่างๆที่ได้รับจากคุณจะถูกเก็บเป็นความลับ กรณีที่ข้อมูลในการศึกษาถูกตีพิมพ์หรือนำเสนอในที่ประชุม จะไม่มีการใช้ชื่อสกุลและข้อมูลส่วนตัวของคุณ อย่างไรก็ตามเราไม่สามารถรับประกันได้ทั้งหมด ข้อมูลส่วนตัวอาจจำเป็นต้องเปิดเผยถ้าเป็นไปตามความจำเป็นทางกฎหมาย

องค์กรที่จะรับทราบข้อมูลและทำสำเนาข้อมูล ประกันคุณภาพ และวิเคราะห์ข้อมูลของคุณ ได้แก่ คณะกรรมการพิทักษ์สิทธิมนุษยชนในการวิจัย แห่งมหาวิทยาลัยแคลิฟอร์เนีย ซานฟรานซิสโก ประเทศสหรัฐอเมริกาและคณะกรรมการรับรองจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลสรรพสิทธิประสงค์ อุบลราชธานี กระทรวงสาธารณสุข ประเทศไทย

ฉันต้องเสียค่าใช้จ่ายในการเข้าร่วมศึกษาวิจัยครั้งนี้หรือไม่?

ไม่ต้อง ในการศึกษาวิจัยครั้งนี้คุณไม่ต้องเสียค่าใช้จ่ายใดๆทั้งสิ้น

ฉันจะได้รับเงินในการเข้าร่วมวิจัยครั้งนี้หรือไม่?

ไม่ได้รับ ในการเข้าร่วมวิจัยนี้คุณจะไม่ได้รับค่าตอบแทนเป็นเงิน แต่เพื่อตอบแทนที่คุณได้เสียสละเวลาส่วนตัวอันมีค่ามาร่วมการวิจัยคุณจะได้รับชุดของขวัญสำหรับทารกแรกเกิด จำนวน 1 ชุด หลังจากการสัมภาษณ์ครั้งสุดท้ายเสร็จสิ้นลง

ฉันมีสิทธิใดบ้างในการเข้าร่วมศึกษาวิจัยนี้?

การเข้าร่วมศึกษาวิจัยนี้ขึ้นอยู่กับการตัดสินใจของตัวคุณเอง คุณอาจเลือกเข้าร่วมการวิจัยหรือไม่ก็ได้ กรณีที่คุณตัดสินใจเข้าร่วมศึกษาวิจัยคุณสามารถจะถอนตัวออกจากการวิจัยได้ทุกเวลา หรือแม้ว่าคุณตัดสินใจไม่เข้าร่วมศึกษาวิจัยก็จะไม่มีผลเสียใดๆกับตัวคุณ คุณยังคงได้รับการดูแลตามหลักมาตรฐานการพยาบาล จากแผนกฝากครรภ์โรงพยาบาลสิรินธรดังเดิม

ใครจะเป็นผู้ตอบคำถามต่างๆเกี่ยวกับการวิจัยต่อฉัน?

กรณีที่คุณมีข้อคำถามใดๆก็ตาม คุณสามารถซักถามผู้วิจัย คือ คุณปรางทิพย์ ทาเสนาะได้ทันที โดยติดต่อได้ที่หมายเลขโทรศัพท์บ้าน 045-282-945 โทรศัพท์มือถือ 087-798-6806 หรือผู้รับผิดชอบงานอนามัยแม่และเด็ก คือ คุณอ้อ พรมดี หมายเลขโทรศัพท์ 045-366-149 ต่อแผนกฝากครรภ์ หรือ คุณอาจติดต่อ รศ. ดร. ฮอลลี พาวล์ แคแนดี้ หมายเลขโทรศัพท์ 001-1-415-476-0335 (ประเทศสหรัฐอเมริกา)

กรณีที่คุณมีข้อสงสัย ความคิดเห็นหรือข้อคำถามใดๆก็ตาม ให้ซักถามจากผู้วิจัยเป็นลำดับแรก แต่ถ้าคุณไม่ต้องการถามผู้วิจัย ไม่ว่าเพราะเหตุผลใดก็ตาม คุณสามารถติดต่อหน่วยงานที่ทบทวนโครงการวิจัยเพื่อพิทักษ์สิทธิของคุณในการเข้าร่วมวิจัย ดังต่อไปนี้

คณะกรรมการรับรองจริยธรรมการวิจัยในมนุษย์ โรงพยาบาลสรรพสิทธิประสงค์ อุบลราชธานี หมายเลขโทรศัพท์ 045-244-973 ต่อ 1395 ในระหว่างเวลา 8.00-16.00 น. วันจันทร์ถึงวันศุกร์ หรือคุณอาจจะเขียนจดหมายไปที่ คณะกรรมการรับรองจริยธรรมการวิจัยในมนุษย์ ศูนย์วิจัย อาคาร 50 พรรษามหาวชิราลงกรณ ชั้น 5 โรงพยาบาลสรรพสิทธิประสงค์ ต.ในเมือง อ.เมือง จ.อุบลราชธานี 34000

คณะกรรมการพิทักษ์สิทธิมนุษยชนในการวิจัยแห่งมหาวิทยาลัยแคลิฟอร์เนีย ซานฟรานซิสโก หมายเลขโทรศัพท์ 001-415-476-1814 เวลา 8.00-17.00 น. วันจันทร์ ถึงวันศุกร์ หรือเขียนจดหมายส่งไปยัง Committee on Human Research, Box 0962, University of California San Francisco, CA 94143

คำยินยอมในการเข้าร่วมศึกษาวิจัย

คุณจะได้รับสำเนายินยอมเข้าร่วมการศึกษาวิจัยจำนวน 1 ชุด

การเข้าร่วมศึกษาวิจัยนี้ เป็นไปด้วยความสมัครใจ คุณมีสิทธิที่จะปฏิเสธการเข้าร่วมวิจัย หรือถอนตัวออกจากการวิจัยได้ทุกเวลาโดยไม่มีความผิดหรือสูญเสียผลประโยชน์ใดๆที่คุณจะได้รับ

ถ้าคุณประสงค์จะเข้าร่วมวิจัยนี้ กรุณาลงนามตามช่องว่างที่กำหนดด้านล่างนี้

_____ _____

วัน เดือน ปี ลายเซ็นผู้ให้ความยินยอมเข้าร่วมศึกษาวิจัย

_____ _____

วัน เดือน ปี ลายเซ็นผู้วิจัย

Appendix G: Interview Guide

The interviews will be conducted in the Isan dialect, particular to the Amphur Sirindhorn, Ubon Ratchathani, Thailand. The location and time of the interviews will be determined by the participants. The researcher, Ms. Prangthip Thasanoh, will ask the permission to record the interviews and write notes during the interview process. During the interview, opened-ended questions will be used by beginning with "As you know, I am a nurse and I am interested in traditional practices of Thai women after they have a baby. This interview guide is divided for two visits during the prenatal and postpartum periods.

Semi-structured questions and probes at the prenatal visit (28-32 week of gestational age)

1. Tell me about your pregnancy – how has it gone so far?
2. Tell me what you expect your postpartum period to be like after you have the baby? What do you think will happen for you when you go home?

   Probes:

   - Tell me more about that?
   - Could you give me an example?
3. Who will primarily take care of you during your intense postpartum care period? Tell me what you think about that.
4. Do you have any special concerns about the first few weeks after you have the baby? If so, could you share them with me?
5. Do your family and/or community follow traditional practices in the postpartum period? If so could you tell me about them?

Probes:

- Give me an example?
- What are specific practices related to eating foods?
- What are specific practices related to yuu fai?
- How have you seen these for members of your family?
- How have you seen these for members of your family? Could you describe them for me?

The researcher will ask additional questions related to information needed in the demographic form such as how many people are there in your family and who are they.

Informal meeting in the hospital (1-2 days after birth)

Tell me about your birth?

Probes:

- What did you like best, least?
- How did it reflect what you thought might happen?
- Give me an example of what you mean?

Semi-structured questions and probes at 4 to 8 week visit

1. Tell me about your postpartum period? What was it like?

   Probes:

   - What did you like best, least?
   - How did it reflect what you thought might happen?
   - Give me an example of what you mean?

2. Tell me about the foods you ate during this time?

   Probes:

- Give me specific examples
- What did you like best, least?
- Give me an example of what you mean?
- How did your eating change from when you were pregnant?

3. Who prepared food for you

   Probes:

   - Give me an example?
   - How did they select the foods?
   - How did they prepare the foods?
   - Why do you think they chose the foods they did?

4. Tell me about your experience of yuu fai?

   Probes:

   - Give me specific examples
   - What did you like best, least?
   - Give me an example of what you mean?
   - Who cared for you during this time?
   - What do you think was most important about yuu fai?

5. What would be most helpful for health professionals to know to help you prepare in becoming a mother?

   Probes:

   - Tell me more about that?
   - Could you give me an example?

6. What would be most helpful for health professionals to know to help you to prepare

for the intense postpartum care period (3-19 days) period?

Probes:

- Tell me more about that?
- Could you give me an example?

แนวทางการสัมภาษณ์

การสัมภาษณ์จะใช้ภาษาไทยอีสาน ซึ่งเป็นภาษาถิ่นของประชากรในอำเภอสิรินธร จังหวัดอุบลราชธานี ประเทศไทย สถานที่และเวลาในการสัมภาษณ์จะกำหนดร่วมกันระหว่างผู้วิจัยและผู้ร่วมวิจัย ผู้วิจัย คือ นางสาวปรางทิพย์ ทาเสนาะ จะขออนุญาตในการบันทึกเสียงการสัมภาษณ์และจดบันทึกย่อ การสัมภาษณ์ จะใช้คำถามแบบปลายเปิด เริ่มต้นด้วยประโยคว่า “ดังที่คุณทราบแล้ว ดิฉันเป็นพยาบาลที่สนใจเกี่ยวกับ การปฏิบัติตัวตามธรรมเนียมโบราณหลังการคลอดลูก…” แนวทางการสัมภาษณ์นี้ เป็นแนวทางสำหรับการสัมภาษณ์เชิงลึกสองครั้ง คือ ในระยะตั้งครรภ์ในไตรมาสที่ 3 และระยะหนึ่งเดือนหลังคลอด และแนวคำถามขณะเยี่ยมหลังคลอดอย่างไม่เป็นทางการที่โรงพยาบาล

คำถามกึ่งโครงสร้างและคำถามเจาะลึกที่ใช้ขณะเยี่ยมก่อนคลอด (อายุครรภ์ 28-32 สัปดาห์)

1. เล่าเกี่ยวกับการตั้งครรภ์ของคุณให้ฟังหน่อยค่ะ ที่ผ่านมาเป็นยังไงบ้างคะ
2. เล่าเกี่ยวกับความคาดหวังของคุณเกี่ยวกับระยะหลังคลอดหน่อยค่ะ เมื่อทารกคลอดแล้ว คุณคิดว่าระยะหลังคลอดของคุณจะเป็นอย่างไรบ้างคะ คุณคิดว่าอะไรจะเกิดขึ้นกับคุณบ้างเมื่อคุณกลับบ้าน

   คำถามเจาะลึก

   - เล่าเพิ่มเติมเกี่ยวกับเรื่องนั้นหน่อยนะคะ
   - กรุณายกตัวอย่างเกี่ยวกับเรื่องนั้นหน่อยนะคะ
3. ใครจะเป็นหลักในการดูแลคุณหลังคลอดในช่วงที่คุณต้องปฏิบัติตัวอย่างเคร่งครัด (เช่น ช่วงของการอยู่ไฟ) คุณคิดอย่างไรเกี่ยวกับผู้ที่จะดูแลคุณ
4. ในช่วง 2-3 สัปดาห์แรกหลังคลอด คุณจะเป็นห่วงเรื่องใดเป็นพิเศษบ้าง เล่าให้ฉันฟังบ้างได้มั้ย
5. มีคนในครอบครัวหรือชุมชนของคุณปฏิบัติตามธรรมเนียมโบราณในช่วงหลังคลอดหรือไม่ ถ้ามี เล่าเรื่องประสบการณ์ของพวกเขาให้ฉันฟังหน่อยได้มั้ยคะ

คำถามเจาะลึก

- ช่วยยกตัวอย่างหน่อยค่ะ
- มีการปฏิบัติอะไรบ้างคะที่เกี่ยวข้องกับการรับประทานอาหาร
- มีการปฏิบัติอะไรบ้างคะที่เกี่ยวข้องกับการอยู่ไฟ
- คุณมีความคิดเห็นเรื่องการรับประทานอาหารและการอยู่ไฟสำหรับสมาชิกในครอบครัวคุณอย่างไรคะ
- อธิบายเรื่องเล่านั้นให้ฉันฟังหน่อยได้มั้ยคะ

นอกจากนี้ผู้วิจัยจะถามคำถามเพิ่มเติมเกี่ยวกับข้อมูลที่จำเป็นในแบบสอบถามข้อมูลทั่วไป เช่นในครอบรัวของคุณมีคนกี่คน และเป็นใครบ้าง

การเยี่ยมอย่างไม่เป็นทางการที่โรงพยาบาล (1-2 วันหลังคลอด)

เล่าเรื่องการคลอดของคุณให้ฟังหน่อยค่ะ

คำถามเจาะลึก

- อะไรที่คุณชอบมากที่สุด อะไรที่คุณชอบน้อยที่สุด
- ประสบการณ์การคลอดได้สะท้อนสิ่งที่คุณคาดล่วงหน้าว่าจะเกิดขึ้นอย่างไรบ้างคะ
- คุณหมายความว่าอย่างไร ยกตัวอย่างหน่อยได้มั้ยคะ

คำถามกึ่งโครงสร้างและคำถามเจาะลึกที่ใช้ขณะเยี่ยมในระยะ 4 ถึง 8 สัปดาห์ หลังคลอด

1. เล่าถึงระยะหลังคลอดของคุณให้ฟังหน่อยค่ะ ในช่วงหลังคลอดเป็นอย่างไรบ้างคะ

คำถามเจาะลึก

- อะไรที่คุณชอบมากที่สุด อะไรที่คุณชอบน้อยที่สุด
- ประสบการณ์การคลอดได้สะท้อนสิ่งที่คุณคาดล่วงหน้าว่าจะเกิดขึ้นอย่างไรคะ
- คุณหมายความว่าอย่างไร ยกตัวอย่างหน่อยได้มั้ยคะ

2. เล่าเกี่ยวกับอาหารที่คุณรับประทานในระยะหลังคลอดให้ฟังหน่อยค่ะ

คำถามเจาะลึก

- ยกตัวอย่างในประเด็นนั้นให้ฟังหน่อยค่ะ
- ประสบการณ์การคลอดได้สะท้อนสิ่งที่คุณคาดล่วงหน้าว่าจะเกิดขึ้นอย่างไรคะ
- คุณหมายความว่าอย่างไรคะ ยกตัวอย่างหน่อยค่ะ
- การรับประทานอาหารหลังคลอดเปลี่ยนไปจากตอนตั้งครรภ์อย่างไรคะ

3. ใครเตรียมอาหารให้คุณคะ

คำถามเจาะลึก

- ยกตัวอย่างให้ฟังหน่อยค่ะ
- พวกเขาเลือกอาหารแต่ละชนิดอย่างไรคะ
- พวกเขาเตรียมอาหารแต่ละชนิดอย่างไรคะ
- คุณคิดว่าทำไมเขาจึงเลือกอาหารแบบนั้นคะ

4.เล่าประสบการณ์ในการอยู่ไฟของคุณให้ฟังหน่อยค่ะ

คำถามเจาะลึก

- ยกตัวอย่างนั้นๆให้ฟังหน่อยนะคะ
- อะไรที่คุณชอบมากที่สุดคะ อะไรที่คุณชอบน้อยที่สุดคะ
- คุณหมายความว่าอย่างไร ยกตัวอย่างหน่อยได้มั้ยคะ
- ใครจะดูแลคุณในช่วงนี้คะ
- สิ่งที่สำคัญที่สุดในขณะอยู่ไฟคืออะไรคะ

5.สิ่งที่เป็นประโยชน์ที่สุดที่บุคลากรทางสาธารณสุขควรรู้เพื่อช่วยคุณเตรียมตัวเป็นแม่คืออะไรบ้าง

คำถามเจาะลึก

- ช่วยเล่าเรื่องนั้นเพิ่มเติมหน่อยค่ะ
- ช่วยยกตัวอย่างหน่อยค่ะ

6. สิ่งที่เป็นประโยชน์ที่สุดที่บุคลากรทางสาธารณสุขควรรู้เพื่อช่วยคุณเตรียมพร้อมในช่วงที่ต้องได้รับการดูแลหลังคลอดอย่างเคร่งครัด (3-19 วันหลังคลอด) คืออะไรบ้างคะ

คำถามเจาะลึก

- ช่วยเล่าเรื่องนั้นเพิ่มเติมหน่อยค่ะ
- ช่วยยกตัวอย่างหน่อยได้ไหมคะ

Appendix H: Participant Observation Guide

The participant observations will be conducted several times at participants' places of residence during their first month postpartum. If the participants practice yuu fai (lying by the fire), the first observation will be conducted in that period, but the specific time will be determined by the participants. The researcher will ask the permission to record the conversations, write notes, and take pictures during the observation process. Isan spoken language will be used for conversations. Each observational process will last for about 2 hours.

1. Observations on physical and structural aspects of the environment.
    - The physical places such as the house or the place for performing yuu fai
    - The physical things such as cooking utensils, firewood, and baby's crib used during yuu fai
2. Observations of people involved in the ritual and their relationships to the mother and to each other.
    - The postpartum woman
    - The new baby
    - The caregiver(s)
    - The family members
    - The visiting relatives and friends
3. Observations of actions
    - A single action such as how a postpartum woman drinks hot water
    - A set of related actions such as process of cooking sticky rice

- The whole event such as how a postpartum woman carries out the yuu fai ritual

4. Observations of feelings expressed among people such as:
    - How the postpartum woman express her emotion to her caregiver
    - How the postpartum woman express her emotion to her new baby
    - - How visiting relatives and friends express their emotion to the new mother and baby
5. Observation of the general environment such as:
    - Weather
    - Air insulation/smoke from embers
    - Light1
    - Noise
    - Plants or herbs grown around the place
    - Animal or pet raised around the place

แนวทางการสังเกตอย่างมีส่วนร่วม

ผู้วิจัยจะการสังเกตอย่างมีส่วนร่วม 2-3 ครั้ง ในสถานที่ที่ผู้ร่วมวิจัยอยู่อาศัยในช่วงอยู่ไฟ การสังเกตครั้งที่ 1 จะทำในช่วงอยู่ไฟ ในเวลาที่ผู้ร่วมวิจัยสะดวก ผู้วิจัยจะขออนุญาตผู้ร่วมวิจัยในการบันทึกเสียงการสนทนา จดบันทึกย่อ และถ่ายรูปในระหว่างกระบวนการสังเกต การสนทนาทั้งหมดจะใช้ภาษาอีสาน การสังเกตแต่ละครั้งใช้เวลานานประมาณ 2 ชั่วโมง สิ่งที่จะต้องสังเกตได้แก่

1. การสังเกตสิ่งแวดล้อมทางกายภาพและโครงสร้าง
    - สถานที่ เช่น ลักษณะบ้าน หรือสถานที่ที่จัดไว้สำหรับอยู่ไฟ
    - สิ่งของ เช่น เครื่องครัว ฟืน หรือ อู่เด็ก
2. สังเกตบุคคลที่มีส่วนร่วมในพิธีอยู่ไฟและสังเกตสัมพันธภาพของพวกเขากับแม่หลังคลอดและสัมพันธภาพระหว่างพวกเขาเอง บุคคลที่จะถูกสังเกตได้แก่ ผู้หญิงหลังคลอด ทารกแรกเกิดผู้ดูแลหลังคลอด สมาชิกในครอบครัว ญาติและเพื่อนที่มาเยี่ยม
3. การสังเกตกิจกรรมต่างๆ
    - กิจกรรมเดี่ยว เช่น หญิงหลังคลอดดื่มน้ำร้อนอย่างไร
    - ชุดกิจกรรม เช่น กระบวนการนึ่งข้าวเหนียว
    - เหตุการณ์โดยรวม เช่น หญิงหลังคลอดประกอบพิธีอยู่ไฟอย่างไร
4. การสังเกตการแสดงอารมณ์ระหว่างผู้คน เช่น
    - หญิงหลังคลอดแสดงอารมณ์ต่อผู้ดูแล
    - หญิงหลังคลอดแสดงอารมณ์ต่อลูกแรกเกิด
    - เพื่อนและญาติที่มาเยี่ยมแสดงอารมณ์ต่อแม่หลังคลอดและทารกแรกเกิด
5. การสังเกตสิ่งแวดล้อมทั่วไป เช่น อากาศ การระบายอากาศ ควันจากถ่านไฟ แสง เสียง พืชหรือสมุนไพร ที่เกิดรอบๆบ้าน และสัตว์ หรือสัตว์เลี้ยงรอบๆบ้าน

Appendix I: Demographic Form

Instruction: We ask you to answer the following questions and statements. By doing so, you contribute to better scientific understanding nutritional practices in postpartum period among Thai women. Thank you in advance.

Your age …… years

Religion

[ ] Buddhist
[ ] Christian
[ ] Muslim
[ ] Other

Income

[ ] less than 1,000 baht/month
[ ] 1,000 – 3,000 baht/month
[ ] 3,001 – 6,000 bath/month
[ ] 6,001 – 9,000 baht/month
[ ] greater than 9,000 baht/month

Your occupation

[ ] Government officer
[ ] Trader
[ ] Employee
[ ] Home maker
[ ] Agriculture, land owner
[ ] Agriculture, laborer

Your level of education

[ ] Primary level or lower
[ ] Secondary level
[ ] High school
[ ] Vocational education
[ ] Undergraduate education
[ ] Graduate education

Marital status

[ ] Single, living alone
[ ] Single, living with partner
[ ] Married
  O with registration for a marriage certificate
  O without registration for a marriage certificate
[ ] Separated
[ ] Divorced
[ ] Widowed

With whom do you live? (check more than one if applicable)

[ ] Husband
[ ] Parents
[ ] Husband's parents
[ ] Sibling(s)
[ ] Husband's sibling(s)
[ ] Other relatives
  Specify ……..
  …….
  …….

Do you expect the father of the baby to be involved in the postpartum care?

[ ] Yes
[ ] No

Thank you for participating in the study

แบบสอบถามข้อมูลทั่วไป

<u>คำแนะนำ</u> กรุณาอ่านและตอบคำถามต่อไปนี้โดยทำเครื่องหมาย / หน้าข้อความที่ตรงกับข้อมูลของท่าน คำตอบที่ได้จะเป็นประโยชน์ต่อการทำความเข้าใจการปฏิบัติตัวตามแบบแผนโบราณของหญิงชาวไทยอีสาน

ปีนี้ท่านมีอายุครบ ..... ปี

ศาสนา

[ ] พุทธ

[ ] คริสต์

[ ] อิสลาม

[ ] อื่นๆ

อาชีพ

[ ] รับราชการ/พนักงานของรัฐ

[ ] ค้าขาย

[ ] รับจ้าง

[ ] แม่บ้าน

[ ] เกษตรกร (เป็นเจ้าของที่ดิน)

[ ] เกษตรกร (ไม่ได้เป็นเจ้าของที่ดิน)

สถานภาพสมรส

[ ] โสด O อาศัยอยู่คนเดียว

O อาศัยอยู่กับคู่ครอง

[ ] สมรส O จดทะเบียนสมรส

O ไม่ได้จดทะเบียนสมรส

[ ] แยกกันอยู่

[ ] หย่า [ ] หม้าย

ท่านคาดหวังว่าพ่อของลูกคนนี้จะมีส่วนร่วมในการดูแลคุณหลังคลอดหรือไม่

[ ] คาดหวัง

[ ] ไม่คาดหวัง

รายได้ต่อเดือน

[ ] น้อยกว่า 1,000 บาท

[ ] 1,000 – 3,000 บาท

[ ] 3,001 – 6,000 บาท

[ ] 6,001 – 9,000 บาท

[ ] มากกว่า 9,000 บาท

ระดับการศึกษา

[ ] ประถมศึกษาหรือต่ำกว่านั้น

[ ] มัธยมศึกษาตอนต้น (ม.3)

[ ] มัธยมศึกษาตอนปลาย (ม.6)

[ ] อาชีวศึกษา (ปวช. ปวส.)

[ ] ปริญญาตรีหรือเทียบเท่า

[ ] ปริญญาโทหรือสูงกว่านั้น

บุคคลที่ท่านอาศัยอยู่ด้วย (เลือกได้มากกว่า 1 ข้อ)

[ ] สามี

[ ] พ่อ-แม่ [ ] พ่อ-แม่ ของสามี

[ ] พี่-น้อง [ ] พี่-น้อง ของสามี

[ ] ญาติพี่น้องคนอื่นๆ ได้แก่

.....

.....

ขอขอบคุณผู้เข้าร่วมการวิจัยทุกท่าน

Appendix J: Study Procedures

Preoperational Procedure (Before CHR Approval) October-December 2008

- Request a letter of support from the director of Sirindhorn hospital
- Submit the dissertation project to UCSF's Committee on Human Research
- Submit the dissertation project (Thai version) to the Committee on Human Research of the Thai Ministry of Public Health
- Informally contact professional and personal networks in the study setting for cooperation, accommodation, and transportation
- Set up computer, internet, and bi-countries communication systems in the study site
- Gather data of the study setting related to its population, economy, demography, geography, facilities, and natural resources

Recruitment Procedure (after CHR approval) December 2008-March 2009

- Formally contact Sirindhorn hospital's director and personnel such as the head nurse, the family practitioner, the community health nurse, and nursing staff in emergency, labor, and postpartum units.
- Advertise the study project by word of mouth and flyers (Appendix A).
- Describe recruitment process including criteria for eligibility to nursing staff in the prenatal care unit and give recruitment letters to them.
- Cooperate with the family nurse to find potential participants from the prenatal visit registration book which contains the clients' name, obstetric history, gestational age, and date of the next visit.
- Have the family nurse give a recruitment letter to the potential participant and let

the researcher know if the pregnant woman would like to discuss participation in the study

- Contact potential participants or await their contact and screen to determine if they are eligible for the study

Data Collection Procedures December 2008-November 2009

- Communicate with participants by Isan spoken language, take notes in Central Thai written language, and type up field notes and memos in English
- Interview the participants at the first visit at the prenatal care clinic or their convenient place, obtain their informed consent, and have them complete a demographic form
- Visit the participant at the hospital or house where she delivers the baby
- Conduct several participant observations at the participants' place during their first month postpartum.
- Interview the participants at time and place her convenience between 4 and 8 month postpartum
- Directly observe foods provided in the local markets, food venders and restaurants and types of vegetables, animals, and edible wild plants which are available in the community

Data Management Procedures December 2008-November 2009

- Keep the signed consent form and completed demographic form in the locked cabinet
- Make notes during observation and type the information up in the same day
- Digitally record interviews and then transcribe verbatim as soon as possible

- Write filed notes and/or memo every day in the field
- Save transcripts and other computer files in the personal laptop with a password
- Destroy the original notes and recording after finishing the study

Data Analysis Procedures December 2008-November 2009

Data analysis begins when data collection begins by carefully listening to participants and other informants during the observations and interviews. After that, the procedures for analyzing data of the first participant will be;

1. Transcribe the interview verbatim from Isan to Central Thai language
2. Translate the transcript into English
3. Have the English transcript validated in term of compatible sense among three languages, Isan, Central Thai, and English
4. Read transcript to get the whole understanding of a participant's narrative and examine participant's important issues
5. Code data and write memos in English
6. Employ interpretive strategies including thematic analysis and and exemplars to analyze and present data
7. Validate the analysis processes with a doctoral adviser, Dr. Holly Powell Kennedy, based on the English transcripts

After we agree and are comfortable with data and analysis processes, the data will be analyzed based on the Central Thai transcripts. Translation will be done upon a request by the adviser and the committee and necessity for publication.

Data Analysis Completion and Writing of Dissertation and Manuscripts

Final analysis and writing up of results will take place November 2009-May 2010

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Pornpithip Thasarrah August 23, 2010

Author Signature Date