MINISTRY OF HEALTH

UNIVERSITY OF HEALTH SCIENCES, FACULTY OF PUBLIC HEALTH

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MINISTRY OF EDUCATION AND TRAINING - MINISTRY OF HEALTH

HANOI UNIVERSITY OF PUBLIC HEALTH

RATTANAXAY INTHILATH

SELF-EFFICACY IN EXCLUSIVE BREASTFEEDING AMONG MOTHERS IN XAYTHANY DISTRICT, VIENTIANE CAPITAL, LAO PDR

MASTER THESIS

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HANOI, 2019

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ABBREVIATIONS

ANC	Antenatal Care
AOR	Adjusted Odds Ratio
BSE	Breastfeeding Self-Efficacy
BSES	Breastfeeding Self-Efficacy Scale
BSES-SF	Breastfeeding Self-Efficacy Scale-Short Form
CI	Confidence Interval
COR	Crude Odds Ratio
HUPH	Hanoi University of Public Health
ID	Identity Document
IRB	Institutional Ethical Review Board
LAK	Lao kip
OR	Odds Ratio
PDR	People’s Democratic Republic
SD	Standard Deviation
UNICEF	The United Nations Children's Fund
US	The United States
USA	The United States of America
USD	US dollar
WHO	World Health Organization

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ABSTRACT

Exclusive breastfeeding is the most efficacious form of infant feeding for the first six months of life. Many mothers in diverse countries prematurely discontinue breastfeeding and Lao mothers are not the exception. Maternal breastfeeding self-efficacy has been highlighted as an important psychometric factor for improving breastfeeding outcomes. However, self-efficacy in exclusive breastfeeding has not been extensively studied in Laos. As such, this study was carried out to assess self-efficacy and related factors on exclusive breastfeeding among mothers in Xaythany District, Lao PDR.

A cross-sectional study was conducted from November 2018 to April 2019. A sample of 151 mothers who have children under 12 months and living in Xaythany district agreed to participate in this study. The data were collected through face-to-face interviews with the mothers using a structured questionnaire. The data were analyzed using the STATA program. Descriptive statistics, univariate analysis, and multiple logistic regressions were used.

The average total score from the "taken BSES-SF" was determined as 56.52 ± 8.22, min = 31, max = 70. The multiple logistic regression model showed that the variance of the number of times attended ANC ($p<0.05$), mothers learning the benefits of exclusive breastfeeding ($p<0.001$), maternity leave ($p<0.01$) and the mothers' expectation to breastfeed exclusively ($p<0.05$) had statistically significant relationships with breastfeeding self-efficacy.

Exclusive breastfeeding self-efficacy amongst a sample of women in Xaythany district, Vientiane Capital, Lao PDR was influenced by ANC services, antenatal exclusive breastfeeding education, mother's working status and mother's expectation to exclusively breastfeed. The findings of this study showed the need to support antenatal exclusive breastfeeding education for mothers during pregnancy, especially the benefits of exclusive breastfeeding in an opportunity to improve their knowledge, attitude, expectation and exclusive breastfeeding self- efficacy.

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INTRODUCTION

Exclusive breastfeeding is the most efficacious form of infant feeding for the first six months of life. If the baby has been breastfed exclusively for six months the baby will be healthier because breast milk provides all the energy and nutrients for infant needs. Moreover, breastmilk increases immunity to disease and nutrient resistance, prevents disease and does not cause malnutrition or obesity while breastfeeding establishes a strong physical and emotional link between mother and baby (WHO, 2009). Breastfeeding is expected to reduce child mortality from preventable diseases by 13%, especially in children under five (Darmstadt et al., 2005). It's well documented salutary effects have resulted in international and national organizations promoting the initiation of breastfeeding and continuation exclusively to at least six months postpartum (WHO, 2001). According to evidence, it brings numerous benefits (Grummer-Strawn & Rollins, 2015) and indicates that exclusive practice is the most important preventive intervention with potentially the single largest impact on reducing child mortality. Sadly, only 41% of children aged under six months worldwide are exclusively breastfed (WHO, 2018).

In Lao PDR, the Government has launched several strategies and policies in an effort to improve exclusive breastfeeding since 2006. The Exclusive Breastfeeding Campaign was strongly promoted during 2009-2010 to improve child survival rates and enhance the development of children by increasing the proportion of mothers who exclusively breastfeed their new-borns for six months. Although Laos has made considerable progress toward improving the number of mothers who exclusively breastfeed their children up to six months of age, only 44.9% of babies receive this important good start in life (Lao Statistics Bureau, 2017), an increase of 4.5% compared to 2012. In 2017, Khammuane Province showed the lowest number (14.4%) of infants exclusively breastfed for six months, followed by Savannakhet Province (16.8%) and Vientiane Capital (21%) (Lao Statistics Bureau, 2017). Additionally, the mortality rate for children under one year of age is still very high, almost 57 per 1,000 live births (Lao Statistics Bureau, 2017).

Many mothers in diverse countries prematurely discontinue breastfeeding (C. L. Dennis, 2002; Mukuria, Kothari, & Abderrahim, 2006; Ryan, 1997), and Lao mothers are not the exception. Recently, maternal breastfeeding self-efficacy has been highlighted as an important psychometric factor for improving breastfeeding outcomes (Meedya, Fahy, & Kable, 2010). Self-efficacy in exclusive breastfeeding refers to maternal ability or confidence to breastfeed her newborn and influence her decisions regarding six months of breastfeeding or how she will tackle any breastfeeding issues (C.-L. Dennis, 1999). Maternal breastfeeding confidence or self-efficacy is a modifiable variable that has been shown to predict longer breastfeeding duration and increased exclusivity. The variable of self-efficacy can be modified and enhanced through prenatal breastfeeding education (Eidman, 2011).

Women discontinue breastfeeding exclusively not because of their intention to formula feed, but because they had low self-efficacy (C.-L. Dennis, 1999). In addition, researchers suggest that a lack of breastfeeding confidence is linked to discontinuing exclusive breastfeeding (Li, Fein, Chen, & Grummer-Strawn, 2008; Taveras et al., 2003; Taveras et al., 2004). However, few studies were found in this research of work conducted to investigate maternal self-efficacy in exclusive breastfeeding in Laos whereas there were many studies in different countries but with a different socio-economic context and culture to Laos. This study aims to assess breastfeeding self-efficacy and the factors associated with exclusive breastfeeding self-efficacy among mothers in Xaythany District, Lao PDR.

RESEARCH OBJECTIVES

1. To assess self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Lao PDR.
2. To analyze factors related to self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Lao PDR.

CHAPTER 1: LITERATURE REVIEW

1.1. Definition

1.1.1. Breastfeeding self-efficacy

Derived from Bandura's Social Learning Theory, self-efficacy is a cognitive process of an individual's confidence in their perceived ability to regulate their motivation, thought processes, emotional states, and social environment in performing a specific behavior (A. Bandura, 1977). Self-efficacy has been shown repeatedly, through correlational and causal associations, to be predictive of health behaviors. Based on Bandura's theory, self-efficacy scales have been developed to identify those with high or low confidence.

Self-efficacy is a pivotal factor in the performance of a specific behavior since it reflects individuals' perception of their abilities and not necessarily their true abilities (Albert Bandura, 1986). These self-efficacy perceptions are related to beliefs about the abilities to perform specific behavior in particular situations and do not refer to a personality characteristic that operates independently of contextual factors. Thus, an individual's self-efficacy expectations are situation-specific and diverse.

There are four main sources of self-efficacy: enactive mastery experiences (e.g., breastfeeding experiences); vicarious experience (e.g., watching other women breastfeed, peer counselling); social and verbal persuasion (e.g., encouragement from others such as friends, family, and lactation consultants); and perception of emotional and physical (somatic) reactions (e.g., pain, fatigue, anxiety, stress) (A. Bandura, 1977). These sources of self-efficacy have also been identified as important in breastfeeding research (C. L. Dennis & Faux, 1999).

Enactive mastery experiences

Enactive mastery experiences are those learned through personal experience. The interplay of several factors affects enactive mastery experiences. For example, pre-existing knowledge and task difficulty are two of these factors, with effort

expenditure and context also playing an important role (A. Bandura, 1977). Other factors affecting enactive mastery experiences involve the individual assessing their own performance before, during, and after the task. To do this, self-monitoring takes place, and reconstruction of enactive mastery experience by thoughtful reflection, allows the individual to assess the attainment of their goal. Attainment trajectories are the individual's interpretation of their success over time (A. Bandura, 1977). Enactive mastery experience in the context of this research is the woman actually undertaking the task of breastfeeding her infant. When the breastfeeding task is undertaken, the amount of effort expended on the task depends upon her pre-determined level of commitment, and she relies on her pre-existing knowledge of breastfeeding. She also assesses the difficulty of the task. She then cognitively monitors and judges her performance, both during and at the completion of the breastfeeding task. She assesses whether the outcome is as expected (healthy, settled infant). Attainment trajectory is her monitoring of the repeated breastfeeding task performance over time and her interpretation of success.

Enactive mastery experience requires active cognitive processing each time the task is undertaken and facets such as perception, memory, coping, motivation and learning contribute to that cognitive processing. Many non-modifiable demographic factors that shape the life experience of the mother inform the facets of cognitive processing including maternal age, formal education level, parity, and household income level (R. Blyth et al., 2002).

Vicarious experience

The second source of self-efficacy is gained through observation of others undertaking a task. This is known as modeling. Modeling involves the individual visualizing others who have similar attributes to themselves. In observing models succeed, especially those perceived as peers, self-efficacy in the form of vicarious experience is acquired. In the case of breastfeeding, women who see other mothers with similar attributes to themselves succeed at breastfeeding can vicariously experience positive outcomes from this behavior and thus be more likely to engage

in breastfeeding themselves. The knowledgeableness and credibility of the model is a vital factor in the degree of influence of vicarious experience. Modeling is further supported by verbal persuasion (A. Bandura, 1977). The structure of peer breastfeeding support to obtain better breastfeeding outcomes has been a topic of note in the literature (Battersby, 2008).

Social and verbal persuasion

Social and verbal persuasion is the third source of self-efficacy. This can be obtained in several ways. The supportive or unsupportive verbal persuasion of the partner, parents, friends, and peers can influence self-efficacy, and in the case of the breastfeeding task, so too can the verbal input of health professionals. Notably, if verbal and social persuasive efforts are unrealistic, this can lead to an over-inflated perception of self-efficacy, and result in disappointment which effectively undermines the person's self-efficacy (A. Bandura, 1977; Johnsen, 2003). In the context of breastfeeding education, the provision of visual media showing breastfeeding is a source of both social persuasion and vicarious experience.

It has been established in the literature that women's perception of breastfeeding advice or education can be positive or negative (Graffy & Taylor, 2005). Professional support is a form of social and verbal persuasion because it contributes to the individual's perception that breastfeeding is the cultural norm. In a study with 10 countries, the outcome of breastfeeding duration was found to increase with the provision of breastfeeding support services (Sikorski, Renfrew, Pindoria, & Wade, 2003). Breastfeeding education is a modifiable factor of breastfeeding self-efficacy because it has been shown in studies that levels can be raised with interventions (R. Blyth et al., 2002; Hauck, Hall, & Jones, 2007).

Somatic experiences

The fourth source of self-efficacy is physiological and affective states (somatic). Situations that are interpreted by the individual as stressful or demanding can debilitate performance and actually produce the results feared. This is because the perception of stress activates fear, anger, sorrow, or a mixture of these feelings.

The level of activation and the perception of that level impacts on physiological and affective states. A raised heart rate or blood pressure is a physiological state experienced by the individual. It is possible that individuals can misinterpret or exaggerate these feelings, depending on previous experiences, predominantly negative ones (A. Bandura, 1977). Concurrent clinical issues of pain as a result of the birth may also contribute to the general cognitive interpretation of the breastfeeding task. In the breastfeeding situation, an individual with a history of breastfeeding challenges such as nipple pain may react with fear of breastfeeding a subsequent infant. Alternately, if they are not prone to misjudging and being generally inefficacious, they may be significantly less stressed by the same degree of nipple pain and willing to continue pursuing their goal of breastfeeding. The subjective experience of pain is a maternal challenge that may lead to a decision to use alternative feeding techniques. It is widely accepted in the literature that pain in the post-partum period significantly affects new mothers and can continue for weeks (Andrews, Thakar, Sultan, & Jones, 2008).

1.1.2. Exclusive breastfeeding

Exclusive breastfeeding means that the infant receives only breast milk for 6 months; no other liquids or solids are given; not even water but the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines (WHO, 2009).

1.2. Background of breastfeeding self-efficacy

The concept of self-efficacy was first represented by Albert Bandura. According to Bandura (1977), self-efficacy is one's perceived belief to perform a specific task or behavior. Incorporating the self-efficacy theory, Dennis (1999) developed the breastfeeding self-efficacy concept (A. Bandura, 1977; C.-L. Dennis, 1999). Breastfeeding self-efficacy refers to a mother's confidence in her ability to breastfeed her infant. It is an important variable in breastfeeding outcomes as it predicts whether a mother chooses to breastfeed, how much effort she will expend,

whether she will have self-enhancing or self-defeating thought patterns and how she will emotionally respond to breastfeeding difficulties (C.-L. Dennis, 1999).

There are many factors that influence when a mother starts breastfeeding, breastfeeding duration and also the decision to continue breastfeeding. These factors include maternal age, education, socioeconomic status (Demirtas, 2012), smoking (C. L. Dennis, 2002; Peat et al., 2004; Wambach et al., 2005) and support resources (C. L. Dennis, 2002; Peat et al., 2004; Taveras et al., 2003). Furthermore, positive intentions, attitudes, and beliefs towards breastfeeding (C. L. Dennis, 2002), mother rooming-in together with her baby, and hospital policies such as early discharge (Demirtas, 2012), influence breastfeeding initiation and duration. Breastfeeding self-efficacy is another significant factor that influences breastfeeding (R. Blyth et al., 2002; Chezem, Friesen, & Boettcher, 2003; C. L. Dennis & Faux, 1999; Swanson et al., 2012).

Breastfeeding self-efficacy and confidence in breastfeeding are used synonymously. Breastfeeding self-efficacy is a modifiable factor that may increase breastfeeding success and duration. Mothers with low breastfeeding self-efficacy cease breastfeeding much earlier than the recommended time; however, mothers with high breastfeeding self-efficacy have fewer difficulties with breastfeeding initiation and continuation (C.-L. Dennis, 1999; C. L. Dennis & Faux, 1999; McQueen, Dennis, Stremler, & Norman, 2011). Breastfeeding self-efficacy and the negative factors associated with it can be changed by supporting education measures in the prenatal period (C.-L. Dennis, 1999; C. L. Dennis & Faux, 1999; McQueen et al., 2011; Tokat, Okumuş, & Dennis, 2010).

1.3. Benefits of exclusive breastfeeding

The benefits of breastfeeding for both mothers and infants are internationally recognized and consistently reproduced. These benefits are economic, physiological, and emotional (Fewtrell et al., 2007). Breast milk contains all the nutrients an infant needs in the first six months of life (Kramer & Kakuma, 2012). Breastfeeding protects against diarrhoea and common childhood illnesses such as

pneumonia, and may have longer-term health benefits for the mother and child, such as reducing the risk of being overweight and obesity in childhood and adolescence (Horta, Loret de Mola, & Victora, 2015; Weng, Redsell, Swift, Yang, & Glazebrook, 2012; Yan, Liu, Zhu, Huang, & Wang, 2014). Breast milk has been shown to be the most valuable form of child nutrition. In fact, there is no artificial formula that has replicated its unique properties. The literature is full-fledged with evidence that breastfeeding is the healthiest and preferred child feeding choice. Breastfeeding has been associated with being nutritionally, immunologically, psychologically, socially, and economically advantageous (US Breastfeeding Committee, 2002).

1.4. Factors related to self-efficacy in exclusive breastfeeding

Breastfeeding self-efficacy has been positively correlated with breastfeeding outcomes in the literature across various populations around the world.

In England, a study presented a significant correlation between breastfeeding self-efficacy, as measured by the Breastfeeding Self-Efficacy Scale-Short Form (BSES-SF) with Bristol Breastfeeding Assessment scores which looked at the position, sucking, swallowing and attachment behaviours of the new-born at the breast, indicating that the mother with a better breastfeeding technique had higher breastfeeding self-efficacy scores (Ingram et al., 2015). Other researchers found the women with high breastfeeding self-efficacy scores in the immediate post-partum period were significantly more likely to be exclusively breastfeeding at four weeks postpartum compared to women with low breastfeeding self-efficacy scores (Gregory, Penrose, Morrison, Dennis, & MacArthur, 2008).

In Spain, a study found BSES-SF scores to be predictive of exclusive breastfeeding at three weeks postpartum among women breastfeeding in-hospital. Furthermore, mothers with a higher number of children, those with previous breastfeeding experience of six months or more and those who rated their previous breastfeeding experience as “very positive” all had higher levels of breastfeeding self-efficacy (Oliver-Roig et al., 2012).

In Brazil, a study specifically investigated the association between sociodemographic and obstetrical variables and self-efficacy scores among an urban population, and they found many significant associations. The authors reported significant associations between mean maternal breastfeeding self-efficacy and age, marital status, maternal education, paternal education, income, number of people in household and receipt of government sponsorship. The authors also reported a link between self-efficacy and obstetrical variables such as no previous history of miscarriage, having two living children, multiparity, breastfeeding experience, multiple pregnancies, previous positive breastfeeding experience, mothers who themselves were breastfed as an infant and those who knew women who had breastfed (Uchoa et al., 2014).

Australian researchers investigated the link between maternal confidence, which is measured by the Breastfeeding Self-Efficacy Scale (BSES), and breastfeeding outcomes. They found a significant relationship between BSES scores and breastfeeding outcomes at both one week and four months postpartum. Women who were exclusively breastfeeding were significantly more likely to have high breastfeeding self-efficacy scores at both these stages (R. Blyth et al., 2002). Additionally, their later study investigated modifiable antenatal variables and their predictive effect on breastfeeding outcomes. It was found that intended breastfeeding duration and breastfeeding self-efficacy were the most significant modifiable variables linked to breastfeeding outcomes (R. J. Blyth et al., 2004). A similar study found that Australian women who scored higher on the BSES were more likely to be exclusively breastfeeding at 12 weeks post-partum compared to those with lower scores (Hauck et al., 2007). Furthermore, an investigating study on the effect of breastfeeding self-efficacy on the duration of breastfeeding also explored variables, which may confound the effect of breastfeeding self-efficacy, measured with both the BSES and the BSES-SF, and were found to be predictors of breastfeeding duration, independent of other factors including intention of breastfeeding duration, education level, smoking status, housing and mode of delivery (Baghurst et al., 2007).

In China, researchers assessed the effect of a breastfeeding self-efficacy intervention among primiparous women. The finding showed that Chinese women with higher BSES-SF scores were more likely to be exclusively breastfeeding at least six weeks post-partum (Loke & Chan, 2013; Wu, Hu, McCoy, & Efird, 2014). One study investigated the characteristics of breastfeeding self-efficacy among primiparous women and the finding showed that women who lived with their mother-in-law, with higher income and who had experienced a pregnancy loss had higher breastfeeding self-efficacy scores, as measured by the BSES. Women who decided to breastfeed later in pregnancy and women with higher maternal age had lower breastfeeding self-efficacy scores (C. M. Ku & S. K. Chow, 2010). In addition, a survey done in Cantoneseexploring the breastfeeding self-efficacy and breastfeeding outcomes among postpartum Chinese women in Hong Kong found that high levels of breastfeeding self-efficacy were significantly correlated with breastfeeding duration of six months as well as breastfeeding exclusivity at both one month postpartum and six months postpartum (Ip, Yeung, Choi, Chair, & Dennis, 2012).

In Japan, a study showed that women who had low breastfeeding self-efficacy scores were less likely to be exclusively breastfed as measured by the Japanese version of the BSES-SF. The study did not find a correlation between self-efficacy scores with age, marital status, education or household income. Instead, significant correlations were found in the BSES-SF scores: between primiparous and multiparous women, multiparous women had higher scores than primiparous women; in breastfeeding intention, women intending to exclusively breastfeed had higher scores; women who had a history of prior exclusive breastfeeding for longer than three months had higher self-efficacy scores; and mothers with low BSES-SF scores were more likely to report insufficient milk supply at four weeks post-partum (Otsuka, Dennis, Tatsuoka, & Jimba, 2008). Another study by Otsuka et al (2014) also found that the intervention of education on breastfeeding increased breastfeeding self-efficacy and was more effective among hospitals with a Baby-Friendly initiative in place (Otsuka et al., 2014).

According to the literature, self-efficacy can be affected by many factors including socio-demographic factors such as maternal age, educational level, training, the number of pregnancies, employment, family income and previous breastfeeding experience (Rodrigues, Padoin, Paula, & Guido, 2013) as well as obstetric factors such as the number of children, breastfeeding experiences and time and type of birth (Black et al., 2013; Burcu, Remziye, Seda, & Buket, 2018; Tokat et al., 2010). Breastfeeding knowledge and infant feeding practice factors such as breastfeeding experience, learning how to breastfeed, returning to work outside home, expectation to breastfeed exclusively, knowledge of expression and maintenance of breast milk (Bartle & Harvey, 2017; Chuang et al., 2010; Cottrell & Detman, 2013; Gill, Reifsnider, & Lucke, 2007; Kornides & Kitsantas, 2013; Ogbuanu, Glover, Probst, Liu, & Hussey, 2011; Wang, Lau, Chow, & Chan, 2014).

Maternal age

Maternal age is determined to be positively associated with breastfeeding initiation and duration in western countries (R. J. Blyth et al., 2004; Meedya et al., 2010). Age has been found to be important in predicting breastfeeding outcomes. One study shows that breastfeeding duration was significantly associated with increased maternal age (Bolton, Chow, Benton, & Olson, 2009). A study in northeast-Brazil found a significant correlation between BSES-SF scores and maternal age (Dodt, Ximenes, Almeida, Oria, & Oliveira, 2012). Conversely, a study reported that young maternal age adversely affects breastfeeding outcomes as does maternal age < 26 years ($p<0.04$; 95% CI 0.2. to 3.46) on univariate analysis (Narayan, Natarajan, & Bawa, 2005).

The educational level of the mother

Maternal education has been linked to increased levels of childcare. There are different findings showing that mothers with low educational levels had higher self-efficacy scores or that self-efficacy scores of mothers increased with an increase in their educational level. Higher maternal education has been found in the literature to be linked to a longer breastfeeding duration (Meedya et al., 2010). A positive

association between levels of education and levels of breastfeeding self-efficacy was found in a USA study, AOR 2.50 (Glassman, McKearney, Saslaw, & Sirota, 2014) while a study by Tokat et al (2010) has presented statistically significant differences in mean BSES-SF scores among mothers who had completed elementary school (mean 57.4, SD 8.8) and high school (mean 60.3, SD 8.8); F = 6.54, p = 0.002) (Tokat et al., 2010). From the above, the impact of maternal education on breastfeeding self-efficacy can be seen to be inconsistent across the literature.

Maternal occupation

Breastfeeding self-efficacy may be different among working mothers and non-working mothers. A study in Iran found a significant relationship between mothers' occupations and their self-efficacy scores in the sixth week after delivery (p=0.008), and that housewives had higher breastfeeding self-efficacy scores than employed mothers. Mother's occupation is also an influential factor in that housewives who were sure that they could spend all their time with their infants and can breastfeed them have increased breastfeeding self-efficacy scores (Poorshaban, Pakseresht, Bostani Khalesi, & KazemNejad Leili, 2017). Similarly, a study by Brandão et al (2018) found significant differences in the BSES-SF scores according to occupational status. Pregnant women who were unemployed reported higher scores on the BSES-SF than those who were currently employed (Brandão et al., 2018).

Ethnicity

Ethnicity is associated with nutrition and health outcomes through social, physical, behavioral, and biological mechanisms (Cheng & Goodman, 2015). A study in the U.K. has found ethnic differences in breastfeeding self-efficacy scores between White and Southeast Asian mothers (Gregory et al., 2008). Differences in BSES-SF scores based on ethnicity were also found by McCarter-Spaulding & Dennis (McCarter-Spaulding & Dennis, 2010). Studies of Chinese (Dai & Dennis, 2003) and Australian mothers (Creedy et al., 2003) have also demonstrated significant differences among the ethnicities.

Religion of the mother

Religion is something that people sometimes construe as spiritual well-being and religious practices. Many people achieve spirituality through religion. In addition, praying, reading spiritual books or participating in religious ceremonies are among sources of comfort which some religious people use to feel less hurt when confronted with high-strung events (Meraviglia, 1999). However, while some researchers have found that the religion of the mother is not a factor related to the level of self-efficacy in exclusive breastfeeding of the mother (Guimarães, Conde, Gomes-Sponholz, Oriá, & Monteiro, 2017; Rashid, Shamsuddin, Ridhuan, Amalina, & Sallahuddin), some researchers have found that the religious factor was a significant predictor of feeding method (Mora, Russell, Dungy, Losch, & Dusdieker, 1999). Therefore, in this study, self-efficacy on breastfeeding associated with the religious beliefs of the mothers about breastfeeding will be examined.

Family size

A positive correlation was reported between breastfeeding duration and family size in Northern Iran (Veghari, Mansourian, & Abdollahi, 2011). Another study also found that the women who intended to breastfeed had a smaller family size than women who did not intend to breastfeed (Mitra, Khoury, Hinton, & Carothers, 2004).

Household income

One literature review has presented the income factor to be positively associated with breastfeeding duration (Meedya et al., 2010). A study by Thomas found income to be inversely correlated with breastfeeding self-efficacy among a sample of women from rural Bangladesh (Thomas et al., 2015). Other studies from Brazil, Turkey, and China have also found income to be positively correlated with breastfeeding self-efficacy scores (Ching-Man Ku & Susan KY Chow, 2010; Tokat et al., 2010; Uchoa et al., 2014). Inconsistently, a study in Japan showed that income had no significant relationship with breastfeeding self-efficacy (Otsuka et

al., 2008). As such, this study will look for the association between income and the level of self-efficacy in exclusive breastfeeding.

Number of pregnancies

Self-efficacy can be affected by the number of pregnancies (Rodrigues et al., 2013). A study in Malaysia found that the number of pregnancies showed a positive association with breastfeeding self-efficacy: mothers who have more than one child had higher levels of breastfeeding self-efficacy than first-time mothers (Hamid, 2016). While evidence has shown the relationship between self-efficacy in breastfeeding and number of pregnancies, there are some researchers who have found no relationship between breastfeeding self-efficacy and number of pregnancies (Dodt et al., 2012; Göl, 2018). In this study, we will see whether the number of pregnancies has a statistical relationship with the level of self-efficacy or not.

Smoking behavior

Many studies have demonstrated that women who smoked were less likely to start breastfeeding and had a shorter length of breastfeeding than non-smoking women (Almqvist-Tangen, Bergman, Dahlgren, Roswall, & Alm, 2012; Horta, Kramer, & Platt, 2001; Kohlhuber, Rebhan, Schwegler, Koletzko, & Fromme, 2008). Smoking could lead to insufficient milk supply, and a decreased blood flow to the breast could reduce levels of circulating oxytocin, which would reduce the milk available to the infant (Amir, 2001). A study that measured maternal smoking and breastfeeding found that women who smoked were less likely to intend to breastfeed, less likely to initiate breastfeeding and likely to breastfeed for a shorter duration (Amir, 2001). In addition, women who smoked were less likely to breastfeed their infants than non-smoking women (Susan Donath & Amir, 2004). Another study found an association between maternal smoking status and baseline breastfeeding self-efficacy score such that mothers who gave up smoking when they discovered they were pregnant had higher self-efficacy scores than those who had never smoked (O'Sullivan et al., 2018). However, studies in Hong Kong and New

Zealand found that smoking was not associated with decreased duration of breastfeeding (Leung, Lam, & Ho, 2002; Vogel, Hutchison, & Mitchell, 1999). If smoking had a negative physiological effect on breastfeeding, we expect the effects of smoking to be seen in this study.

Attending antenatal care

The literature review suggests that breastfeeding self-efficacy is a significant modifiable variable influencing breastfeeding. In addition, breastfeeding antenatal education has also been found to be an important modifiable influence on breastfeeding self-efficacy, which in turn can positively affect initiation rates and duration of breastfeeding (R. Blyth et al., 2002; Creedy et al., 2003; C.-L. Dennis, Heaman, & Mossman, 2011). A study by Jackson has found a significant relationship between antenatal breastfeeding education and adolescent breastfeeding self-efficacy (Jackson, 2014). Another prospective cohort study of six hundred and fourteen first time mothers in Northern Spain also found that the risk of cessation of breastfeeding in the first month was twice as high amongst those attending one to four antenatal classes compared to those attending five or more (Artieta-Pinedo et al., 2013).

Learning the benefits of exclusive breastfeeding

The benefits of breastfeeding are well established in the literature and have been widely communicated to the public, resulting in an increasing trend of breastfeeding initiation. The finding of a study in Ahvaz, Iran has stated that intervention programs such as education on the importance of breastfeeding and the nutritional benefits of exclusive breastfeeding could increase the self-efficacy of mothers in breastfeeding and the duration of exclusive breastfeeding (Ansari, Abedi, Hasanpoor, & Bani, 2014).

Complications during pregnancy

Complications of pregnancy are health problems that occur during pregnancy. They can involve the mother's health, the baby's health, or both. Some women have

health problems that arise during pregnancy while other women have health problems before they become pregnant that could lead to complications. Mothers who did not have any complications during pregnancy may present greater confidence in breastfeeding when compared to those who had some type of complication in this period. A Brazilian study found that women with complications in pregnancy presented statistically significant associations; the finding showed that the adolescents who did not have any complications during pregnancy presented greater confidence in breastfeeding when compared to those who had some type of complication in this period (Conde, Guimarães, Gomes-Sponholz, Oriá, & Monteiro, 2017).

Mode of delivery

In the literature, mode of delivery was the strongest determinant of breastfeeding and exclusive breastfeeding initiation as well as of the continuation of breastfeeding at least up to the fourth month. Mothers with a vaginal birth were about three to four times more likely to initiate breastfeeding and to breastfeed exclusively. A study in Vietnam has shown that breastfeeding self-efficacy was related to the mode of delivery (Ngo, Chou, Gau, & Liu, 2019). A study by Nursan, Dilek, & Sevin (2014) has also found that the mothers who gave birth by cesarean section had higher scores for breastfeeding self-efficacy than those who had given birth vaginally (Nursan, Dilek, & Sevin, 2014). On the other hand, in studies by Dennis (2003) and Tokat, Okumuş and Dennis (2010), the women who gave birth vaginally showed higher BSES-SF scores than mothers who had a cesarean section (C. L. Dennis, 2003; Tokat et al., 2010).

Complications during delivery

Complications in labor or childbirth presented a statistically significant relationship to self-efficacy in breastfeeding. A study showed that adolescents who did not have any complications during delivery had a higher level of confidence in breastfeeding (Conde et al., 2017). Cesarean section and other obstetric complications during labor have been associated with not exclusively breastfeeding

at six weeks postpartum (Cato et al., 2019). Women undergoing a cesarean section might experience more pain postpartum affecting breastfeeding negatively (Karlstrom, Engstrom-Olofsson, Norbergh, Sjoling, & Hildingsson, 2007). Also, women undergoing a planned cesarean section for psychosocial reasons, for example, fear of childbirth, might be more vulnerable and possibly also have lower breastfeeding self-efficacy (Lowe, 2000).

Sex of the baby

The sex of the child could also play an important role in continued breastfeeding. The term sex refers to biological and physiological characteristics, normally male and female. A study presented that the exclusive breastfeeding of boys was significantly higher than for girls (70.8% vs 61.5%, $p<0.001$) (Jain, Tyagi, Kaur, Puliyel, & Sreenivas, 2014) and a study by Jayachandran and Kuziemko has shown that boys tend to be breastfed longer than girls (Jayachandran & Kuziemko, 2011).

Breastfeeding experience

Self-efficacy can be affected by previous breastfeeding experience (Rodrigues et al., 2013). Mothers who have experience in breastfeeding before tend to have high breastfeeding self-efficacy (Creedy et al., 2003). One study of peer counseling support showed that breastfeeding duration was significantly associated with increased maternal personal breastfeeding experience (Bolton et al., 2009). A study by Hamid, Jun, & Binns (2017) found that pregnant mothers were more likely to breastfeed their child if they had previous breastfeeding experience or exposure (Hamid, Jun, & Binns, 2017) and breastfeeding self-efficacy is more likely related to mothers who had breastfeeding experience (Bartle & Harvey, 2017).

Learning how to breastfeed

Knowledge of breastfeeding has been shown in the literature to improve breastfeeding outcomes (Cottrell & Detman, 2013; Kornides & Kitsantas, 2013). Breastfeeding skill is one of nine elements of breastfeeding knowledge (Handayani,

Kosnin, & Jiar, 2012). Several studies have reported that attendance of breastfeeding education is associated with increased initiation and duration of breastfeeding. A meta-analysis of five studies on sample populations with low incomes in the USA showed that breastfeeding education had a significantly positive effect on increasing initiation rates compared with standard care (Dyson, McCormick, & Renfrew, 2005). Higher knowledge in breastfeeding would influence the mother's intention to breastfeed (Wang et al., 2014) as well as increase the duration of breastfeeding (Kang, Choi, Hyun, & Lee, 2015).

Returning to work outside

Many mothers work outside the home and continue to breastfeed while some mothers discontinue breastfeeding after returning to work. In urban areas returning to work is the main reason for failure to exclusively breastfeed (Ma, 2015). In most studies, the mother returning to work was the major reason for not establishing breastfeeding or stopping breastfeeding (Chuang et al., 2010; Ogbuanu et al., 2011). The time of women returning to work is significantly and positively associated with longer duration of breastfeeding. An Australian cohort study found that mothers who had returned to work, especially to a full-time job, were less likely to continue breastfeeding at six months (Cooklin, Donath, & Amir, 2008).

The expectation to breastfeed exclusively

The prenatal intention appears to be a significant predictor of breastfeeding initiation and duration (SM Donath, Amir, & Team, 2003). A researcher determined that the participants who reported an intention to breastfeed scored higher on the breastfeeding self-efficacy scale than those without an intention to breastfeed (El Harit, 2015) and mothers who had positive breastfeeding intention prenatally were likely to practice a longer duration of breastfeeding (Wang et al., 2014).

Maintaining lactation

In order to continue to breastfeed when the mother is separated from her infant during the day, the use of a breast express by hand or pump to obtain breast milk is

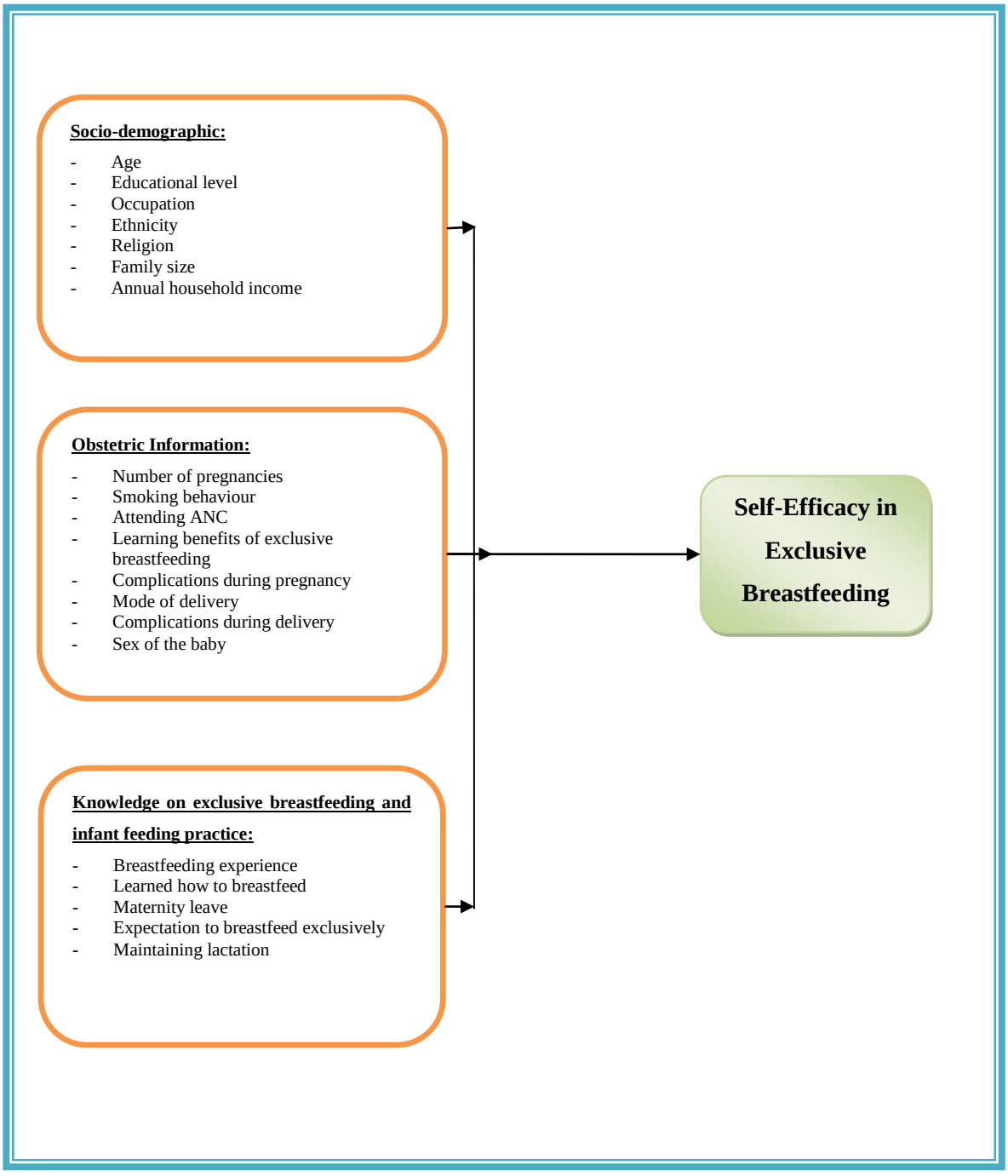
necessary. Gill et al demonstrated that supporting direct breastfeeding education about the use of breast pumps increased breastfeeding initiation among a group of lower socioeconomic women (Gill et al., 2007). An observation project showed that supporting daily access to a hospital-grade pump to encourage continued breastfeeding when the students returned to the school could lead to increased rates of self-efficacy and intention in breastfeeding (El Harit, 2015). Furthermore, women who did not intend to breastfeed were less likely to have reported receiving information prenatally regarding breastfeeding methods and pumping breast milk (Gurka et al., 2014).

1.5. Measurement of self-efficacy in exclusive breastfeeding

In 2003, Dennis reduced the Breastfeeding Self-Efficacy Scale (BSES) from 33 to 14 items and renamed it the BSES-Short Form (BSES-SF) (C. L. Dennis, 2003). The theoretical framework of the latter is the same as that of the BSES and uses the same 5-point Likert-type scale with scores ranging from 14 to 70. Dennis concluded that the breastfeeding self-efficacy scale in the short form was a valid tool for clinical research. According to Dennis, its usefulness extends beyond identifying mothers at high risk of early cessation of breastfeeding but would also be useful in assessing breastfeeding behaviors and perceptions. The BSES-SF was translated into many languages and several studies have confirmed the reliability and validity of the BSES-SF in various populations (Gregory et al., 2008; McCarter-Spaulding & Gore, 2009; Otsuka et al., 2014; Wutke & Dennis, 2007). The simple BSES-SF tool also has utility for both prenatal and postpartum mothers and can be used to evaluate the effectiveness of a prenatal intervention as well as provide an assessment of a mother’s confidence level in exclusive breastfeeding.

1.6. Conceptual Framework

This conceptual framework (see figure below), derived from the literature review of previous studies, includes the socio-demographic characteristics, obstetric profile, breastfeeding knowledge and infant feeding characteristics (Otsuka et al., 2014) to predict self-efficacy in the exclusive breastfeeding levels of the mothers (C. L. Dennis, 2003).



CHAPTER 2: METHODS

2.1. Study subjects

In this study, the subjects were mothers who had children aged less than 12 months and in accordance with the inclusion and exclusion criteria as follows:

Inclusion criteria

- Mothers who were 18 years old or older with under 12-month old healthy children
- Mothers with no maternal and child complications that interfere with breastfeeding
- Mothers willing to participate in this study and who could read and write the Lao language.

Exclusion criteria

- Mothers with children under 12 months but who were born before 37 weeks or after 42 weeks of gestation
- Mothers whose infants had a birth weight of less than 2.500 grams or greater than 5.000 grams

2.2. Study location and time

Xaythany District is one of the nine districts in Vientiane Capital lying to the north-north-east of the centre of the capital. It has 104 villages (48 Suburbans), 23,964 households with families and an average of 5 to 6 members per household. The total population is 196,565 people, including 98,350 women and an estimated 4,325 children under one year of age in 2017, according to the Crude Birth Rate of 22 births per 1,000 people recorded in Vientiane Capital (Lao Statistics Bureau, 2016). According to data obtained from Xaythany District Hospital, there were 3,120 children under one-year-old in 2018.

This study was conducted from November 2018 to April 2019 in Xaythany District, which has urban and rural areas located in Vientiane Capital of Laos.

2.3 Study design

This study is a cross-sectional study with quantitative techniques used.

2.4. Sampling

2.4.1. Sample size

The sample size was estimated using the following formula

$$n = \frac{Z^2_{1-\alpha/2} \times p \times (1-p)}{d^2}$$

,

where

- n is a minimum sample size required.
- p is the expected proportion of mothers who have good self-efficacy in exclusive breastfeeding. (Since we could not find any similar results in Laos, a p of 0.5 (50%) was used.)
- z is the confidence level, with 95% confidence, thus z = 1.96.
- d is absolute precision. (In this study, d=0.08 was used.)

Applying the formula, n=151 eligible mothers needed for the study.

2.4.2. Sampling procedure

We randomly selected three health centers (Dongbang, Xay, and Huaxieng community health centers) from 13 community health centers (Thangon, Vernkham, Dongdok, Xay, Koksivilay, Huaxieng, Xaysomboun, Dongbang, Thadindaeng, Huayjiem, Nakunthoung, Nangom, and Hadkiang community health centers) in Xaythany District. After that, we randomly selected 10 villages from among 21 villages in those areas (Nasala, Nontae and Phonetong villages from around the Dongbang community health center; Danxang, Xay and Dontiw villages from around the Xay community health center; and Huaxieng, Dongkuay, Phailom and Sanghuabor villages from around the Huaxieng community health center). 15 mothers were selected from nine villages and 16 from Sanghuabor village. The

participants were recruited in February 2019. The 151 mothers who were eligible for the study were selected as in the following:

- The lists of mothers who were eligible for the study were obtained from the community health centers' logbooks and came to a total of 452 eligible mothers in ten villages.
- From these 452 eligible mothers, 151 mothers were selected using a simple random sampling technique.

2.5. Data collection

2.5.1. Data collection procedure

Participants were interviewed face-to-face using a structured questionnaire on their socio-demographic profile, obstetric profile, breastfeeding knowledge, and infant feeding practice and including in the final part the BSES-SF.

2.5.2. Research instruments:

The questionnaire with 40 questions, consisting of the socio-demographic profile, obstetric profile, knowledge in exclusive breastfeeding, infant feeding practices and BSES-SF, was translated into the Lao language. We did a pretest for the reliability of the translated Lao version questionnaire with 30 mothers who took their under one-year-old children for vaccination at the Xaysettha District Hospital, deriving a score of 0.94 for Cronbach's alpha. The Lao version questionnaire contained questions that yielded specific data in the five main areas and included the BSES-SF (14 items) from Cindy-Lee Dennis (C. L. Dennis, 2003).

The participant information questionnaire form was adopted based on the information collected in the literature review. Socio-demographic factors, obstetrical information, knowledge in exclusive breastfeeding and infant feeding practices were covered in the questions to collect data from mothers. The socio-demographic questions dealt with the maternal age, educational level, occupation, ethnicity and religion of the mother, as well as family size and household income.

The obstetric history questions focused on aspects such as number of pregnancies, smoking behavior, attendance of antenatal care sessions, learning about the benefits of exclusive breastfeeding, complications during pregnancy, mode of delivery, complications during delivery and sex of the baby. The questions on the knowledge of exclusive breastfeeding and infant feeding practices asked about breastfeeding experience, learning of how to breastfeed, duration of care for the infant, the expectation to breastfeed exclusively and the knowledge of how to express and maintain breast milk.

The dependent variable of self-efficacy in exclusive breastfeeding was assessed using the BSES-SF tool (C. L. Dennis, 2003). Response options required participants to provide a rating on a Likert scale of 1 – 5 to reflect each participant's level of confidence in various aspects of breastfeeding. A response of 1 denoted a 'not at all confident' response and 5 denoted a 'very confident' response. When the 14 items were added together, the highest possible score was 70 and the lowest possible score was 14. If the score was above-average, it meant that the person had high breastfeeding self-efficacy (C. L. Dennis, 2003).

2.6. Study variables

The key variable of this study was self-efficacy in exclusive breastfeeding. We assessed the level of self-efficacy by using the exclusive BSES-SF. After we measured and classified the level of self-efficacy in exclusive breastfeeding into two groups, we analyzed the level of self-efficacy with the socio-demographic profile, obstetric profile, breastfeeding knowledge and infant feeding characteristics to find whether or not these factors were associated with the level of self-efficacy in exclusive breastfeeding. (See Annex 1)

2.7. Data analysis

Data entry was done in Epidata software. The data was then transferred to STATA software version 14 where the data was cleaned, analysed and presented descriptively (see Tables 3.1 to 3.5). The data on the socio-demographic and

obstetric profiles showed the numbers and percentages of respondents for each descriptor and the mean, median, minimum and maximum figures for the continuous numeric variables. The statistics on self-efficacy in exclusive breastfeeding were presented as descriptive statistics, with mean and SD and categorized into two groups, namely, high and low self-efficacy by mean of total scores of the dependent variable. High self-efficacy was when the mean score was above the total mean and Low self-efficacy was when the mean score was equal or less than the total mean. To find the factors that had an association with self-efficacy in exclusive breastfeeding, a Univariate analysis of each independent variable was performed. Any variable whose Univariate test had a p-value of less than 0.25 was incorporated and fitted into the multivariable model, in accordance with the purposeful selection theory (Bursac, Gauss, Williams, & Hosmer, 2008; D. W. Hosmer & S. Lemeshow, 2000; Paul, Pennell, & Lemeshow, 2013). The p-value of less than 0.05 was considered as significant association.

2.8. Ethical considerations

There was minimal to no risk to participants in this study. This study was applied and approved by the Ethical Committee of the University of Health Sciences Laos under ID number 111/19 and by the Institutional Ethical Review Board of Hanoi University of Public Health (IRB of HUPH) under ID number 474/2018/YTCC-HD3. Mothers were interviewed in their homes about their socio-demographic, and obstetric background, breastfeeding knowledge and infant feeding practices. Each participant received a small gift as compensation for her time. Participants were aware of their rights to withdraw from the study at any time. However, if a participant did withdraw, she was also aware that she would not receive compensation.

All data and questionnaires would be kept in private files; all data and questionnaires would be destroyed after completion of the study.

CHAPTER 3: RESULTS

The purpose of this study was to examine the level of self-efficacy in exclusive breastfeeding among mothers with healthy children under 12 months in Xaythany district, Vientiane Capital of Laos and sought to understand if there was a link between self-efficacy in exclusive breastfeeding scores and the related factors. Research questions focused on establishing what the breastfeeding self-efficacy score was for the subjects and looked at the relationship between breastfeeding self-efficacy in regard to the factors associated with a level of self-efficacy in exclusive breastfeeding. A sample of 151 subjects was collected over a two-week period of time from three community health centers in Xaythany District, Vientiane, Capital of Laos. Those who were found eligible and consented to participate were included in this study. No participants were excluded from data analysis and the total sample size by the end of the study remained at 151 subjects.

3.1. Socio-demographic characteristics

Table 3.1: Socio-demographic characteristics of mothers

Variables	n=151	Percent
Age (mean=26.9, median=26, min=18 max =43)		
< 26	69	45.7
≥ 26	82	54.3
Education		
Primary	36	23.9
Secondary	55	36.4
High school	60	39.7
Occupation		
Civil servant	19	12.6
Trader	31	20.5
Housewife	101	66.9
Ethnic group		
Lao	138	91.4
Hmong	13	8.6
Religion		
Buddhist	138	91.4
Animist	13	8.6
Size of family		
1-3 people	19	12.6
4-6 people	108	71.5
> 6 people	24	15.9
Household income/year		
< 10.000.000 kip	34	22.5
10.000.001 - 20.000.000 kip	40	26.5
20.000.001 - 30.000.000 kip	42	27.8
> 30.000.000 kip	35	23.2

The sample contained residents from ten villages in three community health centers in Xaythany District. In this study, the mean age of participants was 26 years old and the age range was 18 to 43 years old. Fewer than half of the mothers (46.7%) were aged between 18 to 25 years old and 54.3% were between 26 to 43 years old. The majority of the respondents were Lao (91.4%), with the remaining

8.6% Hmong, and all were literate in the Lao language. Most of them were Buddhist (91.4%) and had family sizes of 4 to 6 people (71.5%). 66.9% of the participants were housewives and 22.5% of them received a household income per year of less than 10,000,000 LAK (1,100USD) (Table 3.1).

3.2. Obstetric characteristics of the participants

Table 3.2: Obstetric characteristics of the participants

Variables	n=151	Percent
Number of pregnancies (mean=2, min=1 max =9)		
1 time	66	43.7
2 times	40	26.5
3 times	23	15.2
≥4 times	22	14.6
Smoking during pregnancy		
No	145	96.0
Yes	6	4.0
Attended ANC during last pregnancy		
< 4 times	7	5.0
≥ 4 times	144	95.0
Learned about the benefits of exclusive breastfeeding during ANC		
No	62	41.0
Yes	89	59.0
Complications during pregnancy		
No	137	91.0
Yes	14	9.0
Mode of delivery		
Vaginal	130	86.0
Caesarean	21	14.0
Complications during delivery		
No	128	85.0
Yes	23	15.0
Sex of baby		
Male	80	53.0
Female	71	47.0

In this study, 43.7% of mothers having children under one-year-old were first-time mothers. Mothers who had been pregnant four or more times accounted for 14.6%. Four percent of mothers smoked during pregnancy and 29% of them reported having family members smoking during pregnancy. About 95% attended

ANC four times or more and mean=6 ranked from 0 to 10 times. Higher than half (59.0%) of the participants reported joining a class about the benefits of exclusive breastfeeding during ANC. Nine percent of mothers reported having complications during pregnancy with hypertension, edema, bleeding, threatened miscarriage or threatened premature delivery; and 15.0% had complications during delivery with prolonged labor, heavy bleeding or premature rupture of membrane. 14.0% of participants had given birth by caesarean section. Slightly higher than half (53.0%) of the participants reported baby boys and 47% baby girls (Table 3.2).

3.3. Breastfeeding knowledge and infant feeding characteristics

Table 3.3: Breastfeeding knowledge and infant feeding characteristics

Variables	n=151	Percent
Breastfeeding experience		
No	3	2.0
Yes	148	98.0
Learned how to breastfeed during pregnancy		
No	81	54.0
Yes	70	46.0
Mother returned to work		
Not working outside	113	75.0
Before 4 months	10	7.0
4-6 months	12	8.0
After 6 months	16	10.0
Those who returned to work and thought they could continue breastfeeding (n=38)		
No	11	29.0
Yes	27	71..0
How long mother expected to give breast milk to baby		
Not decided	44	29.0
< 6 months	8	5.0
> 6 months	30	20.0
> 12 months	54	36.0
> 24 months	15	10.0
When mother breastfed baby		
Any time baby demanded	132	87.4
Followed schedule proposed by medical staff	17	11.3
Don’t know when she needed to breastfeed	2	1.3
Know how to maintain breastmilk production when apart from baby		
No	57	38.0
Yes	94	62.0

Table 3.3 shows the distribution of respondents with breastfeeding knowledge and infant feeding characteristics. 98.0% of them were experienced in breastfeeding and 46.0% had learned how to breastfeed during their pregnancy. A quarter (25%) of the mothers had to return to work; only 10.0% reported that they returned to work after their baby's age reached six months; and 71.0% of mothers who returned to work thought that they could continue exclusively breastfeeding. Regarding the expectation of giving breast milk to their babies, 20.0% of the participants expected that they could breastfeed exclusively, 29.0% were not decided and 5.0% were concerned they could not succeed in exclusive breastfeeding. 62.0% of mothers knew how to maintain breast milk production when separated from the baby (Table 3.3).

3.4. Exclusive breastfeeding self-efficacy

Table 3.4: Exclusive breastfeeding self-efficacy of mothers (n=151)

Variables	Likert scale				
	Not at all confident n (%)	**Not confident n (%)**	**Somewhat confident n (%)**	**Confident n (%)**	**Always-confident n (%)**
I could determine if my baby had enough breast milk	0	2 (1.4)	22 (14.6)	91 (60.0)	36 (24.0)
I could successfully cope with breastfeeding like other challenging tasks	4 (2.7)	16 (10.6)	26 (17.2)	69 (45.7)	36 (23.8)
I could breastfeed my baby without using formula or other liquids as a supplement	11 (7.3)	16 (10.6)	20 (13.2)	67 (44.4)	37 (24.5)
I could determine if my baby had a big open mouth for the whole feeding	1 (0.7)	10 (6.6)	44 (29.1)	70 (46.4)	26 (17.2)
I was satisfied with the breastfeeding situation	5 (3.3)	7 (4.6)	14 (9.3)	77 (51)	48 (31.8)
I could breastfeed even though my baby was crying	0	0	20 (13.3)	97 (64.2)	34 (22.5)
I could keep wanting to breastfeed my baby	3 (2)	11 (7.3)	12 (8)	82 (54.3)	43 (28.4)
I could feel comfortable breastfeeding in front of the family	0	1 (0.7)	1 (0.7)	79 (52.3)	70 (46.3)
I was satisfied with my breastfeeding experience	6 (4)	4 (2.7)	10 (6.6)	79 (52.3)	52 (34.4)
I could take time for breastfeeding	0	5 (3.3)	30 (19.9)	62 (41.1)	54 (35.7)
I could finish feeding my baby on one breast before going to the other breast	0	1 (0.7)	4 (2.7)	99 (65.5)	47 (31.1)
I could breastfeed my baby for every feeding	8 (5.3)	10 (6.6)	8 (5.3)	66 (43.7)	59 (39.1)
I could manage my baby's breastfeeding demands	4 (2.7)	8 (5.3)	13 (8.6)	72 (47.7)	54 (35.7)
I could tell when my baby finished breastfeeding	0	1 (0.7)	32 (21.2)	68 (45)	50 (33.1)

BSES-SF mean: 56.52, mode: 66, SD: 8.22, range 31 to 70, potential range 14 to 70; Cronbach's alpha= 0.9107, N = 151.

1 = Not at all confident 2 = Not confident 3 = Somewhat confident 4 = Confident 5 = Always confident

Table 3.4 presents the exclusive breastfeeding self-efficacy of mothers. Cronbach's alpha coefficient (internal reliability) for the general scale was 0.91. The mean score taken from the self-efficacy in exclusive breastfeeding scale was 56.52, SD: 8.22, minimum score 31 and maximum score 70 respectively. The question with the highest proportion (46.3%) of participants rating '5' (Always confident) was 'I could feel comfortable with breastfeeding in front of the family' while the question with the lowest proportion (17.2%) rating '5' was 'I could determine if my baby had a big open mouth for the whole feeding' (Table 3.4).

3.5. Level of exclusive breastfeeding self-efficacy

Table 3.5: Level of exclusive breastfeeding self-efficacy

Level of self-efficacy	N	Percentage
Low	65	43.0
High	86	57.0
Total	**151**	**100**

BSES-SF mean: 56.52, SD: 8.22, Range: 31 to 70, potential range 14 to 70; Cronbach's alpha = 0.9107, N = 151

Table 3.5 presents the level of exclusive breastfeeding self-efficacy. The mean of exclusive breastfeeding self-efficacy was 56.52, SD: 8.22, minimum score 31 and maximum score 70. High self-efficacy and Low self-efficacy were classified by the mean of the total score of the dependent variable. Low self-efficacy was considered when the mean score was equal to or less than the total mean and high self-efficacy was considered when the mean score was above the total mean. From the results, slightly higher than half of the participants (57%) had high levels of exclusive breastfeeding self-efficacy, which means that the proportion of mothers who had high confidence in exclusive breastfeeding was higher than for mothers who had lower confidence in exclusive breastfeeding (Table 3.5).

3.6. Association between self-efficacy in exclusive breastfeeding scores and socio-demographic characteristics

Table 3.6: Univariate analysis of exclusive breastfeeding self-efficacy with socio-demographic characteristics

Variables	Low (%)	High (%)	COR	p-value	95% CI
Age					
< 26	36(52.2)	33(47.8)	1		
≥ 26	29(35.4)	53(64.6)	2.0	0.039	(1.03 - 3.83)
Education					
Primary	14(38.9)	22(61.1)	1		
Secondary	26(47.3)	29(52.7)	0.7	0.431	(0.30 - 1.66)
High school	25(41.7)	35(58.3)	0.9	0.789	(0.38 - 2.07)
Occupation					
Civil servant	6(31.6)	13(68.4)	1		
Trader	9(29.0)	22(71.0)	1.1	0.849	(0.32 - 3.89)
Housewife	50(49.5)	51(50.5)	0.4	0.157	(0.16 - 1.33)
Ethnic group					
Lao	56(40.6)	82(59.4)	1		
Hmong	9(69.2)	4(30.8)	0.5	0.057	(0.29 - 1.01)
Religion					
Buddhist	57(41.3)	81(58.7)	1		
Animist	8(61.5)	5(38.5)	0.6	0.168	(0.36 - 1.18)
Size of family					
≤ 5 people	42(40.0)	63(60.0)	1		
> 5 people	23(50.0)	23(50.0)	0.6	0.255	(0.33 - 1.33)
Income per year					
≤ 20,000,000 kip	29(39.2)	45(60.8)	1		
> 20,000,000 kip	36(46.7)	41(53.3)	0.7	0.349	(0.38 - 1.40)

Table 3.6 illustrates the Univariate analysis of the socio-demographic characteristics and exclusive breastfeeding self-efficacy among study participants. When we compared the self-efficacy in exclusive breastfeeding by the mean age

group we found that the mothers who were older had better self-efficacy in exclusive breastfeeding than younger mothers by two times with COR=2, $p<0.05$ and 95% CI 1.03 - 3.83. Other factors like the ethnic minority, school level, occupation, religion, size of family and household income per year did not show a significant correlation but presented different proportions. Surprisingly, we found that the mothers who had finished secondary and high school had lower self-efficacy in exclusive breastfeeding than the mothers who finished primary school, COR= 0.7 and 0.9, $p>0.05$. We also found that Hmong mothers had lower self-efficacy in exclusive breastfeeding than Lao mothers by half, COR=0.5, $p=0.05$. In relation to occupation, mothers who had no job were likely to have lower self-efficacy in exclusive breastfeeding than civil servant mothers, but mothers who were traders had a better level of self-efficacy in exclusive breastfeeding than civil servant mothers by 10 percent. Furthermore, the mothers who believed in Animism showed lower self-efficacy in exclusive breastfeeding than Buddhist mothers. And the bigger family size group had lower self-efficacy in exclusive breastfeeding than mothers from smaller families COR=0.6, $p>0.05$. In economic status, the families with a household income of over twenty million LAK (2,500 USD) a year showed lower self-efficacy in exclusive breastfeeding than the families with income equal or less than twenty million LAK per year, COR=0.7, $p>0.05$ (Table 3.6).

3.7. Association between exclusive breastfeeding self-efficacy and obstetric characteristics

Table 3.7: Univariate analysis of exclusive breastfeeding self-efficacy with obstetric characteristics of mothers

Variables	Low (%)	High (%)	COR	p-value	95% CI
Number of pregnancies					
1 time	31(47.0)	35(53.0)	1		
> 1 time	34(40.0)	51(60.0)	1.3	0.391	(0.69 - 2.54)
Attended ANC during pregnancy					
< 4 times	9(25.7)	26(74.3)	1		
≥ 4 times	56(48.3)	60(51.7)	0.4	0.021	(0.15 - 0.85)
Learned the benefits of exclusive breastfeeding during ANC					
No	40(64.5)	22(35.5)	1		
Yes	25(28.1)	64(71.9)	4.6	0.000	(2.32; 9.33)
Complications during pregnancy					
No	59(43.1)	78(56.9)	1		
Yes	6(42.9)	8(57.1)	1.0	0.988	(0.33 - 3.06)
Mode of delivery					
Vaginal	58(44.6)	72(55.4)	1		
Caesarean	7(33.3)	14(66.7)	1.6	0.336	(0.61 - 4.25)
Complications during delivery					
No	53(41.4)	75(58.6)	1		
Yes	12(52.2)	11(47.8)	0.6	0.339	(0.26 - 1.57)
Sex of baby					
Male	35(43.7)	45(56.3)	1		
Female	30(42.2)	41(57.8)	1.0	0.853	(0.55 - 2.02)

Table 3.7 illustrates the Univariate Logistic regression analysis of the obstetric characteristics of the mothers and exclusive breastfeeding self-efficacy.

The results indicate a surprising finding that mothers who attended antenatal care equal and above four times had lower self-efficacy in exclusive breastfeeding than those who attended fewer times, COR=0.4, $p<0.05$, 95% CI 0.15 - 0.85. Besides, those mothers who had learned the benefits of exclusive breastfeeding during the ANC had self-efficacy in exclusive breastfeeding that was five times higher than mothers who had not learnt them, COR=4.6, $p<0.05$, 95% CI 2.32 - 9.33.

Multiparous respondents had higher self-efficacy in exclusive breastfeeding than primiparous ones, COR=1.3, $p>0.05$. Mothers who had complications during pregnancy were not different from mothers who had none, COR=1.0, $p>0.05$ and the complications during delivery affected the level of self-efficacy in exclusive breastfeeding, COR=0.6, $p>0.05$. Mothers who had caesarean births had 1.6 times higher self-efficacy in exclusive breastfeeding than those who gave birth naturally, COR=1.6, $p>0.05$. When comparing sex of the baby to the scale score, no significant differences were found, COR=1.0, $p>0.05$ (Table 3.7).

3.8. Association between exclusive breastfeeding self-efficacy with breastfeeding knowledge and infant feeding characteristics

Table 3.8: Univariate analysis of exclusive breastfeeding self-efficacy with breastfeeding knowledge and infant feeding characteristics of mothers

Variables	Low (%)	High (%)	COR	p-value	95% CI
Learned how to breastfeed during pregnancy					
No	41(50.6)	40(49.4)	1		
Yes	24(34.3)	46(65.7)	1.9	0.044	(1.01-3.79)
Mother returned to work					
Not working outside	43(38.0)	70(62.0)	1		
Before 6 months	10(45.5)	12(54.5)	0.7	0.516	(0.29 - 1.85)
After 6 months	12(75.0)	4(25.0)	0.2	0.009	(0.06 - 0.67)
How long mother expected to give breast milk to baby					
Not decided	20(45.5)	24(54.5)	1		
< 6 months	7(87.5)	1(12.5)	0.1	0.055	(0.01 - 1.05)
≥ 6 months	38(38.4)	61(61.6)	1.3	0.427	(0.65 - 2.74)
Knew how to maintain breast milk production when apart from baby					
No	26(45.6)	31(54.4)	1		
Yes	39(41.5)	55(58.5)	1.1	0.620	(0.60 - 2.29)

Table 3.8 illustrates the Univariate analysis of breastfeeding knowledge and infant feeding characteristics of mothers and exclusive breastfeeding self-efficacy.

Those who participated were asked about their breastfeeding knowledge and infant feeding characteristics and if they had ever learned how to breastfeed during pregnancy. Responses showed that those who had learned were nearly two times higher in self-efficacy than those who had not learned, COR=1.9, $p<0.05$, 95% CI 1.01-3.79. The results show that the mothers who had to return to work before and after six months had lower self-efficacy than the unemployed mothers, COR=0.7 and COR=0.2, respectively, but the mothers who returned to work after six months

showed a significant association, $p<0.05$ with 95% CI 0.06 - 0.67. In addition, the mothers who expected to breastfeed less than six months had lower self-efficacy in exclusive breastfeeding than the mothers who had not decided, COR=0.1, p=0.05, 95% CI 0.01 - 1.05, and the mothers who expected to give breast milk to babies above six months had higher self-efficacy, COR=1.3, $p>0.05$.

Factors like ‘knowledge on how to maintain breast milk production when apart from the baby’ did not show a significant association in this study (Table 3.8).

3.9. Factors associated with high self-efficacy in exclusive breastfeeding

Table 3.9: Multiple logistic regression analysis of factors related to high self-efficacy in exclusive breastfeeding

Variables	High BSE n 151 (%)	AOR	P-value	95% CI
Attended ANC during pregnancy				
< 4 times	26 (17.2)	1		
≥ 4 times	60 (39.7)	0.3	0.025	(0.12 - 0.86)
Learned the benefits of exclusive breastfeeding during the ANC				
No	22 (14.5)	1		
Yes	64 (42.4)	12.5	0.000	(4.43 – 35.67)
Mother returned to work				
Not working outside	70 (46.3)	1		
After 6 months	4 (2.6)	0.1	0.002	(0.02 - 0.41)
How long mother expected to give breast milk to baby				
Not decided	24 (15.9)	1		
≥ 6 months	61 (40.3)	3.5	0.015	(1.27 - 9.98)

Table 3.9 shows the significant association between factors and self-efficacy in exclusive breastfeeding. All variables with $p<0.25$ in the univariate analysis were incorporated into the multiple logistic regression model (D. Hosmer & S. Lemeshow, 2000). Purposeful selection was performed to determine the association between factors and self-efficacy in exclusive breastfeeding. The variables with $p<0.05$ were considered as significantly associated. The factors remaining in the final model are listed in the table.

In this study, the significant factors from multiple logistic regression results show that mothers who attended antenatal care equal or above four times were more likely to have lower self-efficacy in exclusive breastfeeding than mothers who

attended ANC less than four times, AOR=0.3, p<0.05, 95% CI 0.12 - 0.86. In addition, the mothers who had learned the benefits of exclusive breastfeeding during the ANC had higher self-efficacy than the mothers who had not learned those benefits, AOR=12.5, p<0.001, 95% CI 4.43 – 35.67. Furthermore, it was found that the mothers who always stayed with their babies had higher self-efficacy than mothers who had to return to work outside the house after six months, AOR=0.1, p<0.01, 95% CI 0.02 - 0.41. Moreover, this study also found that the mothers who expected to give breast milk to their babies for six months and above had a higher self-efficacy level than mothers who had not decided, AOR=3.5, p<0.05, 95% CI 1.27 - 9.98 (Table 3.9).

The results from this study show a significant relationship between the number of times attended ANC, mother learning the benefits of exclusive breastfeeding during the ANC, period of mother's stay with the infant after birth before returning to work and mother's expectation to breastfeed exclusively and the level of self-efficacy in exclusive breastfeeding.

Although the proportion of mothers with high self-efficacy was high (57%), this is most likely due to their persevering with breastfeeding even with the challenges. These findings will be discussed in Chapter 4.

CHAPTER 4: DISCUSSION

4.1. General information

Mothers in Xaythany district exhibited moderate to high self-efficacy as indicated by the self-efficacy in exclusive breastfeeding scores (Table 3.5). The mean of 56.52 from the BSES-SF scale approaches the maximum potential score of 70. The reliability of the questionnaire, translated from English to Lao, yielded a Cronbach's alpha coefficient of 0.94 when used with the 30 cases in the pretest and a Cronbach's alpha coefficient of 0.91 when used with the 151 cases in the actual study. These results approximate those of the original study in English by Dennis, which had a Cronbach's alpha coefficient for the BSES-SF scale of 0.94 and a mean score of 55.88 (C. L. Dennis, 2003). They are also close to the scores of two other studies, a Spanish study with a Cronbach's alpha coefficient of 0.92 and a mean score of 51.94 (Roig, 2012) and a Kiswahili language version, with a Cronbach's alpha coefficient of 0.90 and a mean score of 60.95 (Mituki, Tuitoek, Varpolatai, & Taabu, 2017).

This study found that the BSES-SF tool was a valid measure to use in this population and that antenatal exclusive breastfeeding education during pregnancy improved breastfeeding self-efficacy. It also found that the duration the mother had with the baby after birth and the expectation to give breast milk to her baby affected the level of self-efficacy on exclusive breastfeeding. Maternal demographic factors played a broad role in exclusive breastfeeding behavior. In the univariate analysis, we found a positive significant relationship between the BSES-SF score and increasing maternal age, which was consistent with the findings of Dennis (2003) where mothers who had experience in birthing and had breastfed before tended to have high breastfeeding self-efficacy (C. L. Dennis, 2003) and with the finding of Shorey, Chan, Chong, & He (2014) that older mothers tended to have higher parental self-efficacy than younger mothers (Shorey, Chan, Chong, & He, 2014), but when we recluded this factor into the multiple logistic analysis it became a confounding factor. Other maternal demographic variables such as level of

education, ethnic group, religion, family size, and household income did not show a significant association with the level of self-efficacy in exclusive breastfeeding.

This discussion examines the implications of the findings for future research.

4.2. Factors associated with self-efficacy in exclusive breastfeeding

Breastfeeding self-efficacy was a term invented by Dennis in 1999 and defined as the confidence a woman has in her ability to breastfeed her baby (C. L. Dennis & Faux, 1999). It is derived from Bandura's social cognitive theory and the concept of self-efficacy generally. Dennis (1999) found that mothers with high levels of breastfeeding self-efficacy were more likely to begin to breastfeed and to persist through challenges, seeking resources to help if the challenges were beyond their ability to resolve.

According to Bandura (1977), there are four main sources of self-efficacy: enactive mastery experiences, vicarious experiences, social and verbal persuasion and somatic experiences. The relationship between breastfeeding self-efficacy and these four aspects of antenatal education was applied in this study and identified. In other studies, the increased antenatal knowledge is strongly correlated with breastfeeding confidence (Chezem et al., 2003; Damstra, 2012; Jackson, 2014; Otsuka et al., 2014). However, in this study, it was found that the mothers who attended ANC equal or above four times presented lower breastfeeding confidence. This finding was inconsistent also with other studies in Spain, Singapore, Sweden and USA (Artieta-Pinedo et al., 2013; Persson, Fridlund, Kvist, & Dykes, 2011; Rosen, Krueger, Carney, & Graham, 2008; Su et al., 2007). The study in Northern Spain showed that the risk of cessation of breastfeeding was twice as high among those attending one to four antenatal classes compared to those attending five or more (Artieta-Pinedo et al., 2013). This is unlike the findings of this study as more than half of the mothers who had attended ANC equal or above four times had low self-efficacy on exclusive breastfeeding (Table 3.7). The respondents that had attended ANC more frequently might have received less supported education on exclusive breastfeeding by the health care provider. Moudi et al have shown that

supporting education provided by health care providers could increase the number of women who feed exclusively with breast milk and cause them to continue exclusive breastfeeding and to increase its duration (Moudi, Tafazoli, Boskabadi, Ebrahimzadeh, & Salehiniya, 2016). In the case of providing breastfeeding education, healthcare providers' skills are necessary to consider (Damstra, 2012).

The Breastfeeding Self-Efficacy Theory of Dennis (1999) maintains that having knowledge about the benefits of breastfeeding is only a small contributing factor within the four sources of information that influence a woman's confidence in her ability to breastfeed. In the form of social and verbal persuasion and in the context of antenatal education, it was found in this study that the mothers' perceptions of the benefits of exclusive breastfeeding sharply increased confidence in their ability to breastfeed exclusively. This is consistent with a finding in Iran that mothers with an awareness of the importance of breastfeeding and the nutritional benefits of exclusive breastfeeding had higher levels of breastfeeding self-efficacy (Ansari et al., 2014). Other studies in Australia, Canada and Japan also support the finding of this study of a significant association between breastfeeding self-efficacy and breastfeeding education intervention (Nichols, Schutte, Brown, Dennis, & Price, 2009; Noel-Weiss, Rupp, Cragg, Bassett, & Woodend, 2006; Otsuka et al., 2014).

In the literature, mothers' intention to exclusively breastfeed was significantly associated with mothers' working status, and returning to work was the main barrier to exclusive breastfeeding (Hmone, Li, Agho, Alam, & Dibley, 2017). In this study, one-tenth of the mothers who had to return to work showed a significant association with lower self-efficacy in exclusive breastfeeding than the mothers who always stayed with their children while two-thirds of unemployed mothers were more likely to have higher self-efficacy in exclusive breastfeeding. Unfortunately, only one-fourth of the mothers who had to return to work after six months had high self-efficacy. Similar to the finding in our study about work as a barrier to exclusive breastfeeding, other studies have found similar results that maternal work outside the home is a critical factor with a potentially strong

influence on breastfeeding intention and duration (Jiang et al., 2012; Senarath, Dibley, & Agho, 2010; Wen, Baur, Rissel, Alperstein, & Simpson, 2009). According to Article 98 Maternity Leave Before and After Giving Birth in the labor law of Laos No. 43/NA 2013, working women shall be entitled to at least one hundred and five days of maternity leave. After giving birth, for a period of up to one year, female employees have the right to one hour per day to rest or care for their child. The decrease in breastfeeding self-efficacy levels 105 days postpartum may be related to the return of these women to work. Considering that one-fourth of the women in this study had formal jobs and were on 105-day maternity leave benefits, this data reinforces the negative impact of returning to work on the maintenance of exclusive breastfeeding (Haga et al., 2012). A cohort study indicated that the longer women delayed returning to work after birth, the more likely they continued breastfeeding for at least four months (Hawkins, Griffiths, Dezateux, Law, & Group, 2007). Another study also found that housewives had higher breastfeeding self-efficacy scores than employed mothers. It also appears that the mother's occupation is an influential factor: housewives who were sure that they could spend all their time with their infants and could breastfeed them have higher breastfeeding self-efficacy scores (Poorshaban et al., 2017). While some studies similarly found a significant association, a study by Oriá, Ximenes, de Almeida, Glick, & Dennis (2009) presented a non-significant correlation between BSE and maternal occupation ($r=0.02$; $p=0.78$) (Oriá, Ximenes, de Almeida, Glick, & Dennis, 2009). Perhaps many working mothers may have planned in advance to stop breastfeeding and bring their babies to be cared for by someone else at another place rather than learn about how to combine breastfeeding and working, like the finding of a study in Thailand (Thussanasupap, Lapvongwatana, Kalampakorn, & Spatz, 2016).

The intention to breastfeed is a positive predictor for breastfeeding initiation and actual duration of breastfeeding (SM Donath et al., 2003; Li et al., 2008; Meedya et al., 2010), and the intention to breastfeed has been associated with positive breastfeeding outcomes (DiGirolamo et al., 2005; O'Campo et al., 1992;

Leger-Leblanc & Rioux, 2008). Bandura (1977) emphasized that enactive mastery experiences are a strong predictor of self-efficacy, and it is possible for past performance success to have strongly affected each woman's level of self-efficacy. Our finding showed that there was a significant association between exclusive breastfeeding self-efficacy and the mothers' expectation of the length of time they would be giving breast milk to their babies. A tripling in level of self-efficacy was found among mothers who expected to exclusively breastfeed their children compared to the undecided mothers. Slightly more than half of the mothers who had not decided were presented a higher level of self-efficacy. Interestingly, two-thirds of the mothers who expected to breastfeed exclusively for above six months presented higher self-efficacy in exclusive breastfeeding. Regarding predictors of breastfeeding self-efficacy, findings from our study are consistent with Hinic (2016) who found that intending to exclusively breastfeed and intending to breastfeed exclusively for six or more months were both significant predictors of prenatal breastfeeding self-efficacy (Hinic, 2016), and mothers who intended to breastfeed for less than six months were 2.4 times more likely to stop breastfeeding in four months than those who intended to breastfeed for more than 12 months (R. J. Blyth et al., 2004). Other studies have also shown that the effect of the intention to breastfeed is stronger when the decision to exclusively breastfeed is made before the birth compared to after the birth (O'Brien & Fallon, 2005; Scott, Landers, Hughes, & Binns, 2001). This finding is consistent with self-efficacy theory and the development of self-efficacy: the stronger the self-efficacy a woman has in her ability to be able to maintain exclusive breastfeeding, the higher her motivation is likely to be to initiate exclusive breastfeeding (A. Bandura, 1977; C. L. Dennis & Faux, 1999).

As a result, the WHO and UNICEF have recommended that children be exclusively breastfed until the age of six months (WHO & UNICEF, 2007).

Therefore, exclusive and successful breastfeeding is affected by many physiological and psychological factors in mothers. Breastfeeding self-efficacy is one of these factors, and it is an important psychological and motivational

determinant for the continuation of breastfeeding (Azhari, Baghani, Akhlaghi, Ebrahimzadeh, & Salehi, 2011; R. J. Blyth et al., 2004).

4.3. Limitations of the study

One of the limitations of our study is that due to its cross-sectional nature, the relationship between self-efficacy and socio-demographic variables is not necessarily one of cause and effect. Secondly, small sample size and representation from just ten villages in three community health centers in one geographic region limits the generalizability of study results. Thirdly, because the Khmu ethnic group was not represented even though they represented a significant portion locally and nationally of 30% of the population, the sample group studied might not be representative of all mothers for the whole country. Fourthly, the amount of time that passed between the mothers' decisions and our study could be recall biased. Finally, although existing studies regarding the educational level of the mothers found a significant association between education levels and breastfeeding self-efficacy, this study did not focus on mothers with higher education, such as college or university.

CONCLUSION

The main finding of this study demonstrates that only a little slightly higher than half of the mothers were high in self-efficacy in exclusive breastfeeding. Additionally, the majority of mothers have less confidence in determining whether the baby has a big open mouth for the feeding. However, most of them felt very confident and comfortable with breastfeeding in front of family members.

In addition, the main outcome is the significant association between exclusive breastfeeding self-efficacy and the number of times attending antenatal care during pregnancy and learning the benefits of exclusive breastfeeding during pregnancy. Exclusive breastfeeding self-efficacy increased following a routine antenatal breastfeeding education intervention. In this study, breastfeeding self-efficacy was found to be low among mothers who did not learn the benefits of breastfeeding. It indicates that support in the antenatal period appears to be an important factor in determining breastfeeding self-efficacy and duration and warrants further exploration.

Furthermore, the factor of mothers returning to work after six months was found to be significantly negatively associated with the level of self-efficacy in exclusive breastfeeding. However, among unemployed mothers, the exclusive breastfeeding self-efficacy was found to be high.

Moreover, the mother's intention to breastfeed exclusively showed a positive significant association with self-efficacy in exclusive breastfeeding. Among mothers who expected to exclusively breastfeed longer than six months was a higher level of self-efficacy than among mothers who had not decided.

These factors impact maternal confidence in the duration of breastfeeding. If low self-efficacy in exclusive breastfeeding occurs among the mothers, this will break up their confidence and they may finally cease breastfeeding.

RECOMMENDATIONS

Exclusive breastfeeding self-efficacy amongst a sample of women in Xaythany district, Vientiane Capital, Lao PDR was influenced by ANC services, antenatal exclusive breastfeeding education, mother's working status and mother's expectation to exclusively breastfeed. The findings of this study support the following recommendations involving caring for pregnant and maternity clients:

- The BSES-SF scale is a necessary tool for nurses and midwives at mother and childcare units to assess if mothers have low breastfeeding self-efficacy. Those thus identified can then be supported with antenatal exclusive breastfeeding education, especially regarding the benefits of exclusive breastfeeding and breast milk.
- Maternity leave extending beyond 105 days after birth and the provision of breastfeeding rooms at the workplace will encourage mothers and increase their breastfeeding self-efficacy and influence mothers to continue breastfeeding for at least six months.
- Practical programs can be developed to enhance the health workers' capacity to support women to become confident in exclusive breastfeeding.

The findings of this study can be the basis for further investigation of the gap in antenatal care services and the exclusive breastfeeding education program to improve the health care system in Laos, especially in improving the rate of infants who are exclusively breastfed.

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ANNEX 1: MEASUREMENT OF STUDY VARIABLES

	Variable	Description	Measurement
		Dependent variable	
1	Self-efficacy in Exclusive breastfeeding	Self-efficacy is defined as a mother's confidence in her ability to breastfeed her new infant and has been positively associated with breastfeeding duration and exclusivity. Self-efficacy has provided a significant perspective in understanding the complexity of successful breastfeeding.	5-point Likert-type scale
		Independent variables	
PART 1: Socio-demographic			
2	Maternal age	Age of the mother at the time of delivery Age in completed years	Continuous
3	Maternal educational level	Maternal schooling level	0-No schooling 1-Preschool 2-Primary 3- Secondary 4-Tertiary
4	Maternal occupation	Job or profession of mother	1-Civil servant 2-Trader 3-Schooling 4-Others
5	Ethnicity	A social group that shares a common and distinctive culture, religion, language, or	1-Lao 2-Khmu 3-Hmong

		the like, in particular, among the 49 ethnic groups in Laos	4-Others
6	Religion	The spiritual belief or religious faith of the participant	1-Buddhist 2-Christian 3-Animist 4-Others
7	Family size	The number of members living in the same household with the participant	Continuous
8	Household income per year	The combined income of all members in the household for the past year	Continuous
PART 2: Obstetric profile			
9	Number of pregnancies	Number of times pregnant including abortions, and miscarriages	Continuous
10	Smoking behaviour	Maternal smoking	1-Yes 2-No
11	Antenatal care	How many times antenatal care received during this pregnancy	Continuous
12	Learning the benefits of exclusive breastfeeding	Learned the benefits of exclusive breastfeeding during this pregnancy	1-Yes 2-No
13	Complications during pregnancy	Complications experienced during pregnancy	Hypertension Edema Diabetes Bleeding
14	Mode of delivery	Vaginal delivery refers to childbirth through the birth canal. Cesarean section is the surgical	1- Vaginal delivery 2- Caesarean section

		delivery of an infant through an abdominal incision.	
15	Complications during delivery	Asking whether the mother has any complications during labor or delivery	Prolonged labor Heavy bleeding Premature rupture of the membrane (water broke before labor)
16	Sex of the baby	Biological and physiological characteristics of the baby, normally male and female	1. Male 2. Female
PART 3: Breastfeeding knowledge and infant feeding practice			
17	Breastfeeding experience	Whether mother has ever breastfed her infant	1. Yes 2. No
18	Learn how to breastfeed	Whether mother has joined a class or attended a breastfeeding promotion activity	1. Yes 2. No
19	Returning to work outside home	When the mother returned to work after giving birth to her current child	1. Not working outside 2. Returned to work outside less than 4 months after delivery 3. Returned to work outside 4-6 months after delivery 4. Returned to work outside more than 6 months after delivery
20	Expectation to breastfeed exclusively	Expected duration of breastfeeding	1. Want to stop before the baby reaches 6 months. 2. Longer than 6 months. 3. Longer than 12 months. 4. Longer than 24 months. 5. Not decided

21	Knowledge of expressing and maintaining breast milk	Knows how to maintain her breastmilk production even though separated from baby or returning to work	1. Yes 2. No

ANNEX 2: QUESTIONNAIRE (ENGLISH VERSION)

Breastfeeding self-efficacy survey questionnaire

Interviewer name	_____									
Time and date of interview	Time (HH/MM)		DD		MM		YYYY			
Village (ID)	_____									

❖ Eligibility part

E.1	In which gestational stage did you give birth?	1. Less than 37 weeks of gestation 2. 37 to 42 weeks of gestation 3. More than 42 weeks of gestation	If the answer is 1 or 3, end the interview.
E.2	How many grams did the baby weigh at birth?	……..g	If the answer is less than 2,500g or more than 5,000g, end the interview.
E.3	How was your baby's health?	1. Healthy 2. Sick but could stay with the mother 3. Sick and separated from the mother for treatment	If the answer is 3, end the interview.
E.4	Did your baby have an abnormality?	1. Yes 2. No	If 2 "No", please skip to PART 2.
E.5	What was the abnormality?	1. Cleft palate 2. Heart malformation 3. Down's syndrome 4. Others (specify)	If the answer is 1 or 2, end the interview.

PART 1: Socio-demographic

B. 1	How old are you? (age in completed years)	_ _ _ _ _ _ years	
B. 2	What is your highest level of schooling?	0-No schooling 1-Preschool 2-Primary 3- Secondary 4-Tertiary	
B. 3	What is your occupation?	1-Civil servant 2-Trader	

		3-Schooling 4-Other	
B. 4	What is your ethnic group?	1-Lao 2-Khmu 3-Hmong 4-Others	
B. 5	What is your current religious affiliation?	1-Buddhist 2-Christian 3- Animist 4-Others	
B. 6	How many people are living in your house, including yourself and the new baby?	_ _ _ _ _ _ _ _ people	
B. 7	How much was your combined household income last year?	_ _ _ _ _ _ _ _ _ _ _ _Lao Kip	

PART 2: Obstetric profile

O.1	How many times have you ever been pregnant? (Including abortions, and miscarriages)	_ _ _ _ _ _ _ _times	
O.2	Did you smoke tobacco or chew betel nut during the last pregnancy?	1-Yes 2-No	
O.3	How many times did you receive antenatal care during this pregnancy?	…….. times	Enter "0" if she never received ANC.
O.4	During the ANC, did you learn the benefits of early initiation and exclusive breastfeeding?	1-Yes 2-No	
O.5	Did you have any complications during pregnancy? *Probe for the probable complications and check all answers given.*	Hypertension……1-Yes 2-No Edema……..1-Yes 2-No Diabetes……1-Yes 2-No Bleeding……...1-Yes 2-No	
O.6	In which mode did you deliver your baby, vaginal delivery or Caesarean section?	1- Vaginal delivery 2- Caesarian section	
O.7	Did you have any complications during delivery? *Probe for the probable complications and check all answers given.*	Prolonged labour…. 1-Yes 2-No Heavy bleeding….1-Yes 2-No Premature rupture of membrane (water broke before labor)…. 1-Yes 2-No	
O.8	What is the sex of your baby?	1. Male 2. Female	

PART 3: Breastfeeding knowledge and infant feeding practice

F.1	Have you ever breastfed your infant?	1. Yes 2. No	
F.2	Did you learn how to breastfeed your baby during pregnancy?	1. Yes 2. No	
F.3	When did you return to work outside the home?	1. Not working outside 2. Returned to work outside less than 4 months after delivery 3. Returned to work outside 4-6 months after delivery 4. Returned to work outside more than 6 months after delivery	If "1", go to F.5
F.4	Did you think that you could continue breastfeeding after returning to work?	1. Yes 2. Yes, probably 3. No	
F.5	How long did you expect you would be giving breast milk to your baby?	1. Want to stop before the baby reaches 6 months. 2. Longer than 6 months. 3. Longer than 12 months. 4. Longer than 24 months. 5. Not decided	
F.6	Did you know how to express and maintain your breastmilk even when separated from your baby (e.g. when returning to work)?	1. Yes 2. No	

PART 4: Breastfeeding self-efficacy

I will ask you 14 recall questions about breastfeeding. For each question, please answer how confident you were with breastfeeding your new baby before birth

BSE.1	I could determine if my baby had enough breast milk	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.2	I could successfully cope with breastfeeding like other challenging tasks	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.3	I could breastfeed my baby without using formula or other liquids as a supplement	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.4	I could determine if my baby had a big open mouth for the whole feeding	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.5	I was satisfied with the breastfeeding situation	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.6	I could breastfeed even though my baby was crying	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.7	I could keep wanting to breastfeed my baby	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.8	I could feel comfortable breastfeeding in front of the family	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.9	I was satisfied with my breastfeeding experience	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident

BSE.10	I could take time for breastfeeding	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.11	I could finish feeding my baby on one breast before going to the other breast	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.12	I could breastfeed my baby for every feeding	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.13	I could manage my baby's breastfeeding demands	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident
BSE.14	I could tell when my baby finished breastfeeding	1 = No, not at all confident 2 = No, not very confident 3 = Yes, sometimes confident 4 = Yes, confident 5 = Yes, very confident

This is the end of the interview. Please thank the mother and give a reward

ANNEX 3: QUESTIONNAIRE (LAO VERSION)

ແບບສອບຖາມສຳຫຼວດການຮັບຮູ້ຄວາມສາມາດຂອງແມ່ໃນການລ້ຽງລູກດ້ວຍນົມແມ່ຢ່າງດຽວ

ຊື່ຜູ້ສຳພາດ	_____										
ເວລາ ແລະ ວັນທີສຳພາດ	ເວລາ(ໂມງ/ນາທີ)		ວັນທີ		ເດືອນ		ປີ				
ບ້ານ (ລະຫັດ)	_____										

❖ ຄັດເລືອກຜູ້ເຂົ້າຮ່ວມ

E.1	ອາຍຸການຖືພາຂອງແມ່ຈັກອາທິດ?	4. ຖືພາໜຸ ້ 37 ອາທິດ 5. ຖືພາ 37 ຫາ 42 ອາທິດ 6. ຖືພາກາຍ 42 ອາທິດ	ຖ້າຄຳຕອບແມ່ນ 1 ຫຼື 3, ຈົບການສຳພາດ
E.2	ນ ້ ຳໜັກຂອງລູກຕອນເກີດ	……ກຼາມ	ຖ້າຄຳຕອບແມ່ນ ນ ້ ອຍກ ່ ວາ 2,500g ຫຼື ຫຼາຍກ ່ ວາ 5,000g, ຈົບການສຳພາດ
E.3	ສຸຂະພາບລູກຕອນເກີດເປັນແນວໃດ?	4. ແຂງແຮງດີ 5. ບ ່ ສະບາຍແຕ ່ ສາມາດຢ ່ ນ ຳ ແມ ່ 6. ບ ່ ສະບາຍ ແລະ ຖືກແຍກກັບແມ ່ ເພື ່ ອປ ່ ນປົວ	ຖ້າຄຳຕອບແມ່ນ 3, ຈົບການສຳພາດ
E.4	ລູກເກີດຜິດປົກກະຕິບ ່ ?	3. ຜິດປົກກະຕິ 4. ບ ່ ຜິດປົກກະຕິ	ຖ້າຕອບ 2 “ບ ່ ຜິດປົກກະຕິ”, ກະລຸນາຂ ້ າມໄປພາກທີ ່ 2
E.5	ອາການຜິດປົກກະຕິແມ ່ ນຫຍັງ?	5. ປາກແວ ່ ງ 6. ຫົວໃຈຜິດປົກກະຕິ 7. ດາວຊິນໂດມ 8. ອ ່ ນໆ (ລະບ ຸ)	ຖ ້ າຄ ຳ ຕອບແມ ່ ນ 1 ຫ ຼ ື 2, ຈ ົ ບການ ສ ຳ ພາດ

ພາກທີ 1: ປະຫວັດສ່ວນຕົວ

B. 1	ແມ່ອາຍຸຈັກປີ? (ອາຍຸເຕັມປີ)	_ _ _ _ _ _ _ ປີ	
B. 2	ການສຶກສາສາຍສາມັນທີ່ຮຽນຈົບ?	0-ບໍ່ໄດ້ເຂົ້າໂຮງຮຽນ 1-ອານຸບານ 2-ປະຖົມ 3-ມັດທະຍົມຕົ້ນ 4-ມັດທະຍົມປາຍ	
B. 3	ອາຊີບຂອງແມ່?	1-ລັດຖະກອນ 2-ຄ້າຂາຍ 3-ນັກຮຽນ 4-ອື່ນໆ	
B. 4	ຊົນເຜົ່າ?	1-ລາວ 2-ກຶມມຸ 3-ມົ້ງ 4-ອື່ນໆ	
B. 5	ສາສະໜາ?	1-ພຸດ 2-ຄຼິສຕຽນ 3-ເຊື່ອຜີ 4-ອື່ນໆ	
B. 6	ມີຈັກຄົນດຳລົງຊີວິດຢູ່ເຮືອນດຽວກັນ ລວມທັງທ່ານ ແລະ ລູກ?	_ _ _ _ _ _ _ _ _ ຄົນ	
B. 7	ລາຍໄດ້ໃນຄົວເຮືອນໃນປີຜ່ານມາໝົດປີໄດ້ຫຼາຍປານໃດ	_ _ _ _ _ _ _ _ _ _ _ _ _ ກີບ	

ພາກທີ 2: ຂໍ້ມູນດ້ານການຖືພາ

O.1	ທ່ານເຄີຍຖືພາຈັກຄັ້ງ? (ລວມທັງການຫຼູລູກ ແລະ ເອັດແທ້ງ)	_ _ _ _ _ _ _ _ _ ເທື່ອ	
O.2	ທ່ານໄດ້ສູບຢາໃນຊ່ວງເວລາທີ່ຖືພາບໍ່?	1-ສູບ 2-ບໍ່ສູບ	
O.3	ຊ່ວງຖືພາໄດ້ໄປຝາກທ້ອງຈັກຄັ້ງ?	……..ຄັ້ງ	
O.4	ໃນຊ່ວງເວລາໄປຝາກທ້ອງ ທ່ານໄດ້ຮຽນຮູ້ປະໂຫຍດຂອງການລ້ຽງລູກດ້ວຍນົມແມ່	1-ເຄີຍ 2-ບໍ່ເຄີຍ	

	ຢ່າງດຽວຈົນເຖິງ 6 ເດືອນບໍ່?		
O.5	ຊ່ວງເວລາຖືພາ ໄດ້ມີບັນຫາຫຍຸ້ງຍາກຫຍັງ ບໍ່ ເຊັ່ນວ່າ: (ຖາມ ແລະ ໝາຍຄຳຕອບດ້ານຂ້າງ)	ຄວາມດັນເລືອດສູງ 1-ມີ 2-ບໍ່ມີ ອາການບວມ……1-ມີ 2-ບໍ່ມີ ເບົາຫວານ……1-ມີ 2-ບໍ່ມີ ເລືອດອອກ……1-ມີ 2-ບໍ່ມີ ຄ້າຍໆວ່າຈະແທ້ງລູກ…1-ມີ 2-ບໍ່ມີຄ້າຍໆວ່າ ຈະເກີດກ່ອນກຳນົດ 1-ມີ 2-ບໍ່ມີ	
O.6	ທ່ານເກີດລູກດ້ວຍວິທີໃດ, ຊ່ອງຄອດ ຫຼື ຜ່າຕັດ?	1- ເກີດທຳມະຊາດ 2- ຜ່າຕັດເກີດ	
O.7	ເວລາເກີດລູກມີອຸປະສັກຫຍັງບໍ່? (ຖາມ ແລະ ໝາຍຄຳຕອບດ້ານຂ້າງ)	ແກ່ຍາວການເກີດ….1-ມີ 2-ບໍ່ມີ ເລືອດອອກຫຼາຍ….1-ມີ 2-ບໍ່ມີ ຖົງນ້ຳຄາວປາແຕກກ່ອນກຳນົດ 1-ມີ 2-ບໍ່ມີ	
O.8	ລູກຂອງທ່ານແມ່ນເພດຫຍັງ?	1. ຊາຍ 2. ຍິງ	

ພາກທີ 3: ຄວາມຮູ້ດ້ານການປ້ອນນົມ ແລະ ວິທີການລ້ຽງລູກ

F.1	ເຄີຍລ້ຽງລູກດ້ວຍນົມແມ່ບໍ່?	3. ເຄີຍ 4. ບໍ່ເຄີຍ	
F.2	ເຄີຍໄດ້ຮຽນວິທີການເອົານົມແມ່ໃຫ້ລູກດື່ມ ບໍ່ ຊ່ວງເວລາທີ່ທ່ານຖືພາ?	1. ເຄີຍ 2. ບໍ່ເຄີຍ	
F.3	ເມື່ອໃດທີ່ແມ່ໄດ້ກັບໄປເຮັດການ?	5. ຢູ່ບ້ານກັບລູກຕະຫຼອດ 6. ກັບໄປເຮັດການກ່ອນ 4 ເດືອນຫຼັງເກີດ 7. ກັບໄປເຮັດການຊ່ວງ 4-6 ເດືອນຫຼັງເກີດ 8. ກັບໄປເຮັດການຫຼັງຈາກເກີດໄດ້ 6 ເດືອນ	ຖ້າຕອບ “1”, ຂ້າມໄປ F.5
F.4	ຕອນນັ້ນຄິດວ່າຈະສາມາດສືບຕໍ່ປ້ອນນົມ ລູກຫຼັງຈາກກັບໄປເຮັດການໄດ້ບໍ່?	4. ໄດ້ 5. ໜ້າຈະໄດ້ 6. ບໍ່ໄດ້	
F.5	ແມ່ເຄີຍຄາດຫວັງວ່າຈະປ້ອນນົມລູກດ້ວຍ ນົມແມ່ຢ່າງດຽວຮອດຕົ້ນປານໃດ?	6. ກ່ອນລູກຮອດ 6 ເດືອນ 7. ລູກອາຍຸການ 6 ເດືອນ 8. ລູກອາຍຸການ 1 ປີ 9. ລູກອາຍຸການ 2 ປີ 10. ບໍ່ໄດ້ຄາດຫວັງ	
F.6	ທ່ານໄດ້ຮູ້ຈັກວິທີຮັກສານ້ຳນົມຂອງແມ່ໄວ້ ປ້ອນລູກເມື່ອທ່ານຢູ່ໄກລູກບໍ່ (ເຊັ່ນວ່າ ເວລາກັບຄືນໄປເຮັດການ)?	3. ຮູ້ 4. ບໍ່ຮູ້	

ພາກທີ 4: ການຮັບຮູ້ຄວາມສາມາດໃນການລ້ຽງລູກດ້ວຍນົມແມ່

ຂ້າພະເຈົ້າ ຈະຖາມ 14 ຄຳຖາມຄືນຫຼັງກ່ຽວກັບການລ້ຽງລູກດ້ວຍນົມແມ່, ກະລຸນາຕອບແຕ່ລະຄຳຖາມວ່າທ່ານມີຄວາມໝັ້ນໃຈໜ້ອຍຫຼາຍປານໃດໃນການລ້ຽງລູກດ້ວຍນົມຂອງແມ່ (ນະເວລາກ່ອນລູກເກີດ).

BSE.1	ຂ້ອຍສາມາດຮູ້ໄດ້ວ່າລູກດື່ມນົມແມ່ອີ່ມແລ້ວ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.2	ຂ້ອຍສາມາດປະສົບຜົນສຳເລັດໃນການລ້ຽງລູກດ້ວຍນົມແມ່ຢ່າງດຽວ ຄືກັນກັບວຽກງານທີ່ທ້າທາຍອື່ນໆທົ່ວໄປ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.3	ຂ້ອຍສາມາດລ້ຽງລູກດ້ວຍນົມແມ່ຢ່າງດຽວໂດຍປາສະຈາກການລ້ຽງປົນດ້ວຍນົມຝຸ່ນ ຫຼື ອາຫານເສີມອື່ນໆ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.4	ຂ້ອຍສາມາດກຳນົດໄດ້ວ່າເວລາທີ່ລູກອ້າປາກກ້ວາງແມ່ນເວລາສຳລັບການປ້ອນນົມ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.5	ຂ້ອຍສາມາດມີຄວາມພຶງພໍໃຈກັບສະຖານະການການປ້ອນລູກດ້ວຍນົມແມ່ໄດ້	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.6	ຂ້ອຍສາມາດປ້ອນນົມລູກໄດ້ ເຖິງວ່າລູກຈະກຳລັງໃຫ້ຢູ່ກໍ່ຕາມ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.7	ຂ້ອຍສາມາດຮັກສາຄວາມຕ້ອງການ ທີ່ຈະປ້ອນນົມແມ່ໃຫ້ລູກໄດ້	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ

		4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.8	ເວລາປ້ອນນົມລູກຢູ່ຕໍ່ໜ້າສະມາຊິກໃນຄອບຄົວ ຂ້ອຍສາມາດມີຄວາມຮູ້ສຶກສະບາຍໃຈ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.9	ຂ້ອຍສາມາດມີຄວາມພໍໃຈກັບປະສົບການການປ້ອນລູກດ້ວຍນົມຕົນເອງ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.10	ຂ້ອຍສາມາດໃຊ້ເວລາໃນການປ້ອນນົມລູກດົນທ່ໍໃດກະໄດ້	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.11	ຂ້ອຍສາມາດປ້ອນລູກຈົນນ້ຳນົມໝົດເຕົ້າເບື້ອງໜຶ່ງແລ້ວຈຶ່ງ ຍ້າຍໄປອີກເບື້ອງໜຶ່ງໄດ້	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.12	ຂ້ອຍສາມາດລ້ຽງລູກດ້ວຍນົມແມ່ໄດ້ທຸກໆຄັ້ງ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.13	ຂ້ອຍສາມາດຮັບມືກັບຄວາມຕ້ອງການຂອງລູກໃນການກິນນົມແມ່ໄດ້	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ
BSE.14	ຂ້ອຍສາມາດລະບຸໄດ້ເລີຍວ່າເວລາໃດທີ່ລູກອີ່ມນົມແລ້ວ	1 = ບໍ່ມີຄວາມໝັ້ນໃຈເລີຍ 2 = ບໍ່ໝັ້ນໃຈຫຼາຍປານໃດ 3 = ໝັ້ນໃຈບາງຄັ້ງ 4 = ໝັ້ນໃຈ 5 = ໝັ້ນໃຈຫຼາຍທີ່ສຸດ

ຕອນນີ້ແມ່ນສິ້ນສຸດການສຳພາດແລ້ວ, ຂອບໃຈແມ່ ແລະ ໃຫ້ຂອງຂັວນ

ANNEX 4: INFORMATION SHEET FOR PARTICIPANTS

Study Title: Self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR.

Investigator: Rattanaxay INTHILATH

Thank you very much for your participation.

The objective of this study is to assess the self-efficacy in exclusive breastfeeding and analyze factors related to exclusive breastfeeding self-efficacy among mothers in Xaythany District, Lao PDR 2018. In this study, we would like to ask you to answer questions in an interview one time. This interview takes about 20 to 30 minutes. If you agree to participate, we request to have your name and telephone number. In the interview, we will ask you about your socio-demographic data, obstetric profile, breastfeeding knowledge and infant feeding characteristics and what you felt about exclusive breastfeeding. Your identity as a participant will not be disclosed to the public.

What we learn from you will help us to understand the needs of lactating women so that we can support exclusive breastfeeding better.

This study has been approved by the Ethical Committee of the University of Health Sciences Laos and the Institutional Ethical Review Board of Hanoi University of Public Health (IRB of HUPH). Your participation in this study is voluntary and you may refuse to answer any of the questions. Further, you may withdraw your consent to participate in the study at any time without penalty. All the information we obtain will remain strictly confidential and your identity will never be revealed.

You may ask questions about the study at any time. If needed, please do not hesitate to contact:

Mr. Rattanaxay INTHILATH
Address: University of Health Sciences,
Samsenthai Road, Ban Kaognot,
Sisattanak District, Vientiane Capital,
Lao PDR
Tel: 856 20 5554 5656
E-mail: rattanaxay85@gmail.com

ANNEX 5: INFORMED CONSENT FORM FOR PARTICIPANTS

Lao People's Democratic Republic
Peace Independence Democracy Unity Prosperity

Informed Consent Form for Participants

To: Ethical Committee of the University of Health Sciences Laos and Institutional Ethical Review Board of Hanoi University of Public Health

Study Title: Self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR

Investigator: Rattanaxay INTHILATH

I, _____, after reading and having had the content of this study explained to me, understand what is expected of me as a participant in the study.

I understand:

1. The purpose and procedure of the study
2. The content of the questionnaire
3. That I will not be placed under any harm or discomfort
4. That I may refuse to answer any question if I don't want to answer
5. That I can withdraw from the study at any time without giving a reason
6. That I can withdraw from the study at any time during the interview without any harm or without the health service I receive being affected in any way
7. That any information I provide will be treated in a strictly confidential manner and that I will not be identified in the reporting of the result

Date: / /

_____
Signature of person giving consent

ANNEX 6: ETHICAL APPROVAL

MINISTRY OF HEALTH
HANOI UNIVERSITY OF PUBLIC HEALTH

No.:474/2018/YTCC-HD3
Subject: Ethical Approval

SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom - Happiness

Hanoi, December 21st , 2018

DECISION
On Ethical approval for research involving human subject participation

THE CHAIR OF THE ETHICAL REVIEW BOARD FOR BIOMEDICAL RESEARCH
HANOI UNIVERSITY OF PUBLIC HEALTH

- Based on decision No. 651/QĐ-ĐHYTCC by the Dean of Hanoi School of Public Health on the Issuing Regulation of the Institutional Ethical Review Board of Hanoi School of Public Health; 26 June 2015;
- Based on Decision No. 560/QĐ-ĐHYTCC by the Dean of Hanoi School of Public Health on Establishment of The Institutional Ethical Review Board of Hanoi School of Public Health; 16 May 2016;
- Based on Decision No. 58/QĐ-ĐHYTCC by the Dean of Hanoi University of Public Health about the member replacement of The Institutional Ethical Review Board of Hanoi University of Public Health; 15 January 2018;
- Based on the minutes of meeting to review ethics application No. **018-474/DD-YTCC** dated December 21st, 2018,

DECIDED:

Article 1. Grant ethical approval for ethnographic study project:

- Project Title**: Self-efficacy on exclusive breastfeeding among mothers in Xanthany District, Vientiane Capital, Lao PDR**
- Principal Investigator**: Rattanaxay INTHILATH,** Hanoi University of Public Health
- Supervisors: Assoc. prof. Pham Viet Cuong – Hanoi University of Public Health
  Dr. Khampheng Phongluxa
- Research site: Xaythany District, Vientiane Capital, Lao PRD
- Project time: from 01/09/2018 to 30/04/2019
- Data collection time: from 12/2018 to 01/2019
- Review type: Expedited review

Article 2. This decision is effective from **21/12/2018** to **30/04/2019**

Article 3. Principal Investigator has to send progress report once each year and a final report upon the study completion to the Institutional Ethical Review Board of Hanoi University of Public Health (IRB of HUPH).

Article 4. Principle Investigator should notify (IRB of HUPH) immediately of any adverse effects arising from this study (e.g. unexpected adverse outcomes, unexpected community/subject risk factors or complaints, etc.). Active research projects are subject to random audit by the IRB of HUPH.

CHAIR OF HUPH IRB
(Signature and full name)

Ha Van Nhu

SECRETARY
(Signature and full name)

Nguyen Thi Minh Thanh

Lao's People Democratic Republic
Peace Independence Democracy Unity Prosperity

Ministry of Health
University of Health Sciences
Ethic Committee

No: 1 1 1 /19

Tel: 021 245820

Vientiane, Date

Ethical Clearance

- According to the Ethic Committee's declaration of the University of Health Sciences Number: 3809/UHS.15, dated 1 Sep, 2015.
- According to the letter of request for Ethical Clearance of Mr Rattanaxay INTHILATH, Master of Public Health, faculty of Public Health, University of Health Sciences. for research entitled: **« Self-efficacy on exclusive breastfeeding among mothers in Xanthany District, Vientiane Capital, Lao PDR»**

The Ethic Committee of the University of Health Sciences approved the research proposal of this study before it is initiated. This study is committed in compliance with local requirements, to confirm that it is without the physical and psychological harm of the participants as well as the ethical issues for health research. However, we believed that this study/project will contribute to a great importance of health promotion; it will also be a direct and indirect participants' beneficial and to be a crucial database in the further research of the University of Health Sciences and Health sectors in the country.

Hence, the Ethic Committee of the University of Health Sciences sincerely agreed to approve in term of ethical clearance for this study/project.

President of the
University of Health Sciences

Dr. Phouthone VANGKONEVILAY

for **President of the**
Ethical research committee

Dr. Bansa OUPATHANA

HANOI UNIVERSITY OF PUBLIC HEALTH

THESIS COMMENT FORM OF MASTER PROGRAM
(For reviewer of thesis defence committee – Master Program)

Thesis topic:

Self-efficacy on exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR

Thesis code: *(Written on the right corner of thesis cover page)*

May 15th, 2019

1. Thesis topic has correct orientation and specialized codes (Master of public health applied science orientation/ Master of public health applied research orientation)

Yes.

2. **Thesis topic: Mother and Child Health (reproductive health)**
3. **Research summary:**

1.Comments:

- Not clear what is problem in the first paragraph.
- Not clear what is "Personal Information Form" and why select scale "Exclusive Breast-feeding Self-efficacy Scale-Short Form"
- Need to show clear direction of association in the findings
- Do not put key words in the summary
- Put the summary section after table of content as guideline?

4. **Introduction:**

- Concepts/definitions of exclusive breastfeeding need to be given clearer and revise information you presented more logically, such as important of exclusive breastfeeding, problem of practicing exclusive breastfeeding among mothers, important link between exclusive breastfeeding and self-efficacy of exclusive breastfeeding, measure of self-efficacy of exclusive breastfeeding, level of self-efficacy of exclusive breastfeeding found from research internationally and Lao PDR, factors associated with self-efficacy of exclusive breastfeeding found from studies internationally and Lao PDR

and statement of the research gaps, introduction of study setting and aim and implication of conducting this study

- put introduction in 2 pages and break objectives into separate page

5. Research Objectives:

Objectives are clear and appropriate

6. Literature review:

1. Comments: (structure and content of literature review are coherent with objectives and research topic, use updated reference and citation correctly, and other comments (if any):

- Generally, the literature review needs to improve, because you focus too much on concept/definition of self-efficacy and link with breastfeeding rather than on issues related to your study objective.
- You are missing three clear sections in the literature review:
    - Findings of breastfeeding self-efficacy of mothers from other studies internationally and Lao PDR.
    - Factors related to breastfeeding self-efficacy of mothers found from other studies. And you need to present them in the groups of factors corresponding with your logical framework.
    - Introduction of study setting/Xaythany District, Vientiane Capital
- You need to avoid plagiarism, for example you copied the section "1.3.2. Measurement of breastfeeding self-efficacy" from **Breastfeeding Self-efficacy: A Critical Review of Available Instruments (Emily L. Tuthill, 2016)** without paraphrase it is unacceptable. So you have to revise with your own words. It would be better if you provide information related to indicators of scale validity and reliability for all scales reviewed as well Conceptual Framework:
- Need to base on review more comprehensive not focus only on what you intend to study in your thesis
- Need to add arrow in the link among boxes.
- Need to list components of self-efficacy in the box
- Need some sentences to clarify where conceptual framework come from and which variables studied in your research.

7. Subjects and research methods:

1. Comments: (i) Subjects are suitable to objectives; (ii) Sample size and sample selection are appropriate and feasible; (iii) Variables/contents are suitable to objectives, orientation and specialized codes; (iv) Data collection is clear, feasible and appropriate with research content; (v) Data analysis and research ethic are written clearly and appropriately; (vi) Other comments (if any):

Structure of Method chapter should be revised following the guidelines of the HUPH, e.g.

2.1. Study subjects

Check your including selection and exclusion criteria to avoid duplication

2.2. Research place and time

Detailed information presented need to move to end of literature review.

Here you need to present short information of research place and time.

2.3…..

2.4….

Study design: Clear the model/purpose of using mixed methods?.

In other sections I do not see any information related to qualitative method and results in your thesis? Please check and correct the study design.

Sample size: Your study's objective 1 is to assess self-efficacy on exclusive breastfeeding among mothers so why do you use good knowledge to calculate sample size?

- No need to show all items in the scale in the methodology (page 27).
- There is no section on data collection? You need to add.
- Move study limitations to end of discussion chapter.
- Other my detailed comments you can see in your thesis file.

8. Research results:

1. Comments: (i) Research results are suitable with objectives, orientation and specialized codes; (ii) Research result is presented clearly and followed by objectives; (iii) Using data analysis appropriately and ensuring confidence of these methods; and other comments (if any):

Summary only key findings/results presented in each table is too long and describe again all information in the table. So please revise to emphasize on important finding only.

Some titles of sections should be revised (detailed comments on the thesis.

9. Discussion:

- No clear structure of the discussion chapter and not really follow the objectives.
- Better divide discussion chapter into three or four parts:
  - 4.1 General information….
  - 4.2 Level of self-efficacy on exclusive breastfeeding …
  - 4.3 Associated factors with self-efficacy on exclusive breastfeeding…
  - 4.4 Limitation of the study – (you can write this part in a separate para… at the end of Discussion chapter without numbering).
- Some more detailed comments included in thesis file.

10. Conclusion:

- Conclusions should be shortened and more concise.
- No more discussion in the conclusion.

11. Recommendations

- Recommendations should be based on the study results and provide more direct solutions/suggestions to improve self-efficacy of exclusive breastfeeding.
- No more discussion in the recommendation.

12. FINAL CONCLUSION: (NEED TO BE CLEARLY STATE):

[ ] Approval [x] Approval with some conditions [ ] Reject

- Revision and/or justifications for the comments given by reviewer.
- English should be edited.

Reviewer

Nguyen Thanh Huong

HANOI UNIVERSITY OF PUBLIC HEALTH

THESIS COMMENT FORM OF MASTER PROGRAM
(For reviewer of thesis defence committee – Master Program)

Thesis topic:

Self-efficacy on exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR

Thesis code: *(Written on the right corner of thesis cover page)*

21th MAY, 2019

13. Thesis topic has correct orientation and specialized codes (Master of public health applied science orientation/ Master of public health applied research orientation)

14. Thesis topic:

1. Comments
2. Which part need to be edited, (if any):

15. Research summary:

1. Comments: Could you interpret the mean score of self-efficacy on exclusive breastfeeding, the result from this study has the low or high self-efficacy. Please add one sentence about conclusion before recommendation.
2. Which part need to be edited, (if any):

16. Introduction:

1. Comments: OK
2. Which part need to be edited, (if any):

17. Research Objectives:

1. Comments No need to put 2018.
2. Which part needs to be edited, (if any):
   - To assess self-efficacy on exclusive breastfeeding among mothers in Xaythany District, Lao PDR
   - To analyze factors related to self-efficacy on exclusive breastfeeding among mothers in Xaythany District, Lao PDR.

18. Literature review:

1. Comments: (structure and content of literature review are coherent with objectives and research topic, use updated reference and citation correctly, and other comments (if any):

2. Which part need to be edited, (if any): Lack of literature on the factors affecting self-efficacy on exclusive breastfeeding as in the conceptual framework.

19. Subjects and research methods:

1. Comments: (i) Subjects are suitable to objectives; (ii) Sample size and sample selection are appropriate and feasible; (iii) Variables/contents are suitable to objectives, orientation and specialized codes; (iv) Data collection is clear, feasible and appropriate with research content; (v) Data analysis and research ethic are written clearly and appropriately; (vi) Other comments (if any): Why you exclude the mothers did not speak Lao, if they speak the dialet or ethnic language, You did not mention about independent variables and how to measure them as you put in the framework.

2. Which part need to be edited, (if any):

20. Research results:

1. Comments: (i) Research results are suitable with objectives, orientation and specialized codes; (ii) Research result is presented clearly and followed by objectives; (iii) Using data analysis appropriately and ensuring confidence of these methods; and other comments (if any):

2. Which part need to be edited, (if any): You did interpret the self-efficacy on exclusive breastfeeding not clear, higher a little bit. Univariate analysis should present as COR.

For the multiple logistic, please show the column of yes or higher efficacy with n and %, and please present only the significant variables if you used the backward or forward, please indicate.

21. Discussion:

1. Comments: (i) Structure/Content of this part are suitable to objective and research results; (ii) Reference citation is correct:

2. Which part need to be edited, (if any): Alpha Cronbach should be moved into the section of methods. There is a need to discuss, why this happened the contradictory of the result such as attending 4 ANC had low self-efficacy, then you could compare with other studies that found similar or different results.

22. Conclusion:

1. Comments: (The main research result are given in this part and suitable to objectives)

Need to revise conclusion as there are some parts as repetition of the results and discussion. Conclusion should be according to the objectives.

2. Which part need to be edited, (if any):

23. Recommendations

1. Comments: The recommendation is given appropriately and based on research results:

2. Which part need to be edited, (if any): You can't recommend to have 4 ANC based on the result, you need to explain and provide more information on the quality of ANC and the number of ANC not just 4 times, should be more specific, 1 time at the 1st, 1 time at 2nd, 2 time at the last trimester. Please read the obstetric information.

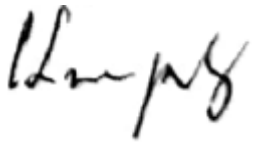
24. FINAL CONCLUSION: (NEED TO BE CLEARLY STATE):

[ ] Approval [x] Approval with some conditions [ ] Reject

Need to add the literature part

Need to edit the English as there are a lot of grammar errors

Reviewer



Vanphanom. Sychareun

MINISTRY OF HEALTH
HANOI UNIVERSITY OF PUBLIC HEALTH

MINUTES OF EXPLANATION
AFTER THESIS DEFENCE

Full name: Rattanaxay INTHILATH

Thesis title: Self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR

TT	**Comments** *(List all comments followed by outline/dissertation/thesis/thematic structure)*	**Student's explanations detail** *(Clearly state how, which part, page that student edits. if students disagree, reasons should be indicated)*
1	Orientation and specialized codes	
	MASTER OF PUBLIC HEALTH CODE: 8720701	
2	Thesis topic	
	Self-efficacy on exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR	Self-efficacy in exclusive breastfeeding among mothers in Xaythany District, Vientiane Capital, Lao PDR
3	Abstract	
	Revise abstract Need to be meet with the objective for the summary Should follow the format and measurement and explain the mean score. And Recommendation need to put key suggestion	Abstract is revised: Explain the mean score and inserted the key significant finding factors in result paragraph. Conclude the finding followed the study objectives and put keys suggestion in recommendations.
4	Introduction	
	Introduction needs to be revised ex: 1 paragraph need to follow the guideline. Problem statement need to mention if not self-efficacy BF	Revised sentences: Explained more on how the breastfeeding self-efficacy affected to the breastfeeding outcome and showed the need to conduct this study.

	what is the impact and put more why you need to do this research and could fill the gap of study or implementation And put more why you need to do this research and could be fill the gap of study or implementation	
5	Objectives	
	Objectives are ok	
6	Review of Literature/Theoretical framework	
	Literature: need to revise more, did not see review of efficacy of self-efficacy BF. Definition of exclusive breastfeeding and self-efficacy of Ex.BF or BF alone Literature review: Need to find the suitable review paper, no need to summary the review paper but need to find the key issue of the influencing factor. Need to be link between the thesis and review	The literature review section has been revised with some key points as following: Definition of breastfeeding self-efficacy and exclusive breastfeeding was separated Inserted factors related to the breastfeeding self-efficacy from existing studies. Link the reviewed factors to the outcome variable to be the conceptual framework.
7	Objects and research methods	
	Method was ok now, model for statistic using. Method: need to revise the measurement and valid and reliability and how to use model <0.1 and step of adapting SE scale and the process. Need to put the time of the study in case of cross sectional study	Validity and reliability of the translated version of the breastfeeding self-efficacy scale short-form was done a pretest with 30 mothers in Xaysettha District with the Cronbach's alpha result 0.94. Changed to use purposeful selection model <0.25 to find the fit model (Bursac, Gauss, Williams, & Hosmer, 2008; D. W. Hosmer & S. Lemeshow, 2000; Paul, Pennell, & Lemeshow, 2013) and re-analyzed data. Section 2.6: Study variables section has moved the table of the list of study variables to Annex 1. Put the time of the study in section 2.2. Study location and time.
8	Study results	

	Result: Acceptable but need to follow the format of the table and why put the model and cut some point. Social Demo is too long may shorter or considers pie or chart. Recommendation looks at the table then highlight the key result. Result: need to do the citation especially how to measurement of the DV and ID Univariate analysis need to put COR not only OR Result: need to adjust more easy to understand and suitable consider content then table….no need to long just main finding and put COR in univariate analysis. Revise SE practice point of 3.3. Factor associated to SEBF and put more sub-title.	Put COR in Univariate results and AOR in Multiple logistic results. Rewrite the finding paragraphs by cutting some information that seems to be interesting to make it shorter and change to show the table before result paragraph. In section 3.3 has changed to Breastfeeding knowledge and infant feeding characteristics
9	Discussion	
	Discussion: still need to revise not only result show but method should be mentioned. Discussion need to revise too weak and short.	Rewrite the discussion based on the objectives of the study by separated the mean finding of outcome variable and factors associated with the dependent variable. And the reliability of the tool discussed.
10	Conclusions	
	Conclusion: not give the exact number of women who had the self-efficacy BF. Conclusion: shorter and no need to put the result again it make too long. Conclusion: should base on main finding and put score Low or high by 14 items od SE which one is low or high scale.	Rewrite conclusion based on the objectives of the study and converted the exact number into words. Add the lowest and highest score of 14 items. Add an implication paragraph at the end of conclusion to be a link to recommendation section.
11	Recommendations	

	Recommendation: how to improve SEBF (Self-Efficacy of Breast Feeding) is very important if no what happen. Recommendation need to put how to increase	Recommendation is rewrite using the breastfeeding self-efficacy scale with pregnant women to assess their self-efficacy level on exclusive breastfeeding and then provide them education.
12	References	
	…	
13	Questionnaire	
	…	
14	Other comments	
	…	

Notes:

- Use lines to separate each comments and explanations. Comments and equivalent explanations stay at the same row.
- Explanations should be written by following thesis structure (if any). Students do not mention the examiners' name

01 August 2019

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