การวิจัยเชิงทดลอง ของการแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียวตลอดเวลาหลังคลอด 6 เดือนแรก

นางจุฑามาศ คุประตกุล

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาวิทยาศาสตรดุษฎีบัณฑิต
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A RANDOMIZED CONTROLLED TRIAL OF KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES IN PREGNANT WOMEN TO IMPROVE EXCLUSIVE BREASTFEEDING DURING THE FIRST SIX MONTHS AFTER DELIVERY

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จุฑามาศ คุประตกุล: การวิจัยเชิงทดลอง ของการแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก. (A RANDOMIZED CONTROLLED TRIAL OF KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES IN PREGNANT WOMEN TO IMPROVE EXCLUSIVE BREASTFEEDING DURING THE FIRST SIX MONTHS AFTER DELIVERY). อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ศาสตราจารย์นายแพทย์สุรศักดิ์ ฐานีพานิชสกุล, อ.ที่ปรึกษาวิทยานิพนธ์ร่วม: แพทย์หญิงนิพรรณพร วรมงคล, รองศาสตราจารย์นายแพทย์วรพงศ์ ภู่พงศ์, 220 หน้า.

การวิจัยเชิงทดลองครั้งนี้มีวัตถุประสงค์ เพื่อศึกษาผลของการใช้โปรแกรม การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์และกลยุทธ์ในการติดตามช่วยเหลือการเลี้ยงลูกด้วยนมมารดาภายหลังคลอด ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก เปรียบเทียบกับการได้รับความรู้ของการเลี้ยงลูกด้วยนมมารดาและการติดตามการเลี้ยงลูกด้วยนมมารดาภายหลังคลอดตามปกติ

โดยศึกษาในหญิงตั้งครรภ์ที่มีอายุครรภ์มากกว่า 32 สัปดาห์ ซึ่งจัดแบ่งกลุ่มตัวอย่างโดยวิธีการสุ่มเป็น 2 กลุ่มในจำนวนที่เท่ากันคือ กลุ่มทดลองและกลุ่มควบคุม กลุ่มละ 40 คน กลุ่มทดลองได้รับโปรแกรมการแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจพร้อมความรู้ของการเลี้ยงลูกด้วยนมมารดาตามปกติและกลยุทธ์ในการติดตามช่วยเหลือการเลี้ยงลูกด้วยนมมารดาภายหลังคลอด 6 เดือน ส่วนกลุ่มควบคุมได้รับเพียงความรู้ของการเลี้ยงลูกด้วยนมมารดา และการติดตามการเลี้ยงลูกด้วยนมมารดาภายหลังคลอดตามปกติ เครื่องมือที่ใช้ในการวิจัยคือ โปรแกรมการแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจ ในการอบรมก่อนคลอดและกลยุทธ์ในการติดตามช่วยเหลือการเลี้ยงลูกด้วยนมมารดาภายหลังคลอด 6 เดือน ซึ่งผู้วิจัยสร้างขึ้นตามแนวคิดและทฤษฎีการแลกเปลี่ยนเรียนรู้ ร่วมกับการเสริมสร้างพลังอำนาจของ Gibson's theory มาปรับใช้ในหญิงตั้งครรภ์ในการอบรมมารดาก่อนคลอดและการติดตามกระตุ้นพฤติกรรมเป็นระยะอย่างสม่ำเสมอเพื่อส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก สถิติที่ใช้ในการวิจัยคือ paired t-test, unpaired t-test, Chi-square test และ multivariate logistic regression analysis ผลลัพธ์หลักคือ อัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก ผลลัพธ์รองคือ อัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 7, 14 สัปดาห์, 1, 2, 3, 4 และ 5 เดือนแรก

ผลการวิจัยพบว่า อัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรกในกลุ่มทดลองสูงกว่ากลุ่มควบคุมอย่างมีนัยสำคัญทางสถิติที่ระดับ .05 ที่ 14 วันแรก (82.5% และ 52.6%, P=0.005), 1 เดือนแรก (77.5% และ 52.6%, P=0.021), 2 เดือนแรก (62.5% และ 36.8%, P=0.023), 4 เดือนแรก (35.0% และ 7.9%, P=0.008), 5 เดือนแรก (25.0% และ 2.6%, P=0.012) และ 6 เดือนแรกหลังคลอด (20.0% และ 0%, P=0.005) และคะแนนเฉลี่ยของความรู้ ทัศนคติและการรับรู้สมรรถนะการจัดการตนเองในการเลี้ยงลูกด้วยนมมารดาในกลุ่มทดลอง ภายหลังการให้โปรแกรมสูงกว่าก่อนให้โปรแกรม และคะแนนเฉลี่ยดังกล่าวภายหลังให้โปรแกรมในกลุ่มทดลองสูงกว่ากลุ่มควบคุม อย่างมีนัยสำคัญทางสถิติที่ระดับ .05 (P<0.001) เช่นกัน อีกทั้งปัจจัยที่เกี่ยวข้องต่ออัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียวคือ น้ำหนักแรกเกิด ทัศนคติ และชนิดของการคลอด ซึ่งคาเพิ่มของน้ำหนักแรกเกิดและ ทัศนคติมีผลในเชิงบวก และการคลอดชนิดผ่าตัดคลอด มีผลในเชิงลบต่ออัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก

ผลการวิจัยสรุปได้ว่าโปรแกรม การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในการอบรมก่อนคลอดและกลยุทธ์ในการติดตามช่วยเหลือการเลี้ยงลูกด้วยนมมารดาภายหลังคลอด สามารถส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก อย่างมีนัยสำคัญทางสถิติที่ระดับ .05

สาขาวิชา...วิจัยเพื่อการพัฒนาสุขภาพ... ลายมือชื่อนิสิต.....

ปีการศึกษา .....2552..... ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก.....

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์ร่วม.....

ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์ร่วม.....

4989727320: MAJOR RESEARCH FOR HEALTH DEVELOPMENT

KEYWORDS : BREASTFEEDING / EXCLUSIVE / KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES / STANDARD KNOWLEDGE / INTERVENTION.

JUTAMART KUPRATAKUL: A RANDOMIZED CONTROLLED TRIAL OF KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES IN PREGNANT WOMEN TO IMPROVE EXCLUSIVE BREASTFEEDING DURING THE FIRST SIX MONTHS AFTER DELIVERY. THESIS ADVISOR: PROFESSOR SURASAK TANEEPANICHSKUL, M.D., THESIS CO-ADVISORS: NIPUNPORN VORAMONGKOL, M.D., ASSOCIATE PROFESSOR VORAPONG PHUPONG, M.D., 220 pp.

This study aimed to investigate whether a knowledge sharing practices with empowerment strategies (KSPES) program on antenatal education and postnatal support strategies improves the rate of exclusive breastfeeding during the first six months after delivery compared with a standard knowledge of breastfeeding techniques.

The study using a randomized controlled trial was conducted. Pregnant women of more than 32 weeks' gestation were randomly assigned to receive a routine standard knowledge of breastfeeding techniques with KSPES on antenatal education and postnatal support strategies (study group) or to receive only a routine standard knowledge of breastfeeding techniques (control group) with 40 pregnant women in each group. Intra-group comparison of continuous variables was carried out using paired t-test and unpaired t-test for inter-group comparison. Compare the duration and rates of exclusive breastfeeding practices between the control group and the study group, by running the test on various groups, and calculated by Chi-square test. The relationship of factors that were associated with exclusive breast feeding was determined using the multivariate logistic regression analysis. The primary outcome was the rate of exclusive breastfeeding at 6 months after delivery. The secondary outcomes were the rates of exclusive breastfeeding at 7days, 14 days, 1, 2, 3, 4 and 5 months after delivery.

The result showed that the rates of exclusive breastfeeding in the study group were significantly higher when compared with those in the control group at 14 days (82.5% vs 52.6%, P=0.005), 1 month (77.5% vs 52.6%, P=0.021), 2 months (62.5% vs 36.8%, P=0.023), 4 months (35.0% vs 7.9%, P=0.008), 5 months (25.0% vs 2.6%, P=0.012) and 6 months after delivery (20.0% vs 0%, P=0.005). And the mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding after intervention were higher than those before intervention in the study group (P<0.001). Also those of them after intervention in the study group were higher than those in the control group (P<0.001).The factors that effect on exclusive breast feeding were infants' birth weight, attitude toward breastfeeding and mode of delivery. Increasing the infants' birth weight and increasing the attitude toward breastfeeding were positively effect on exclusive breastfeeding while cesarean section was negatively effect on exclusive breast feeding.

Conclusion: KSPES on antenatal education and postnatal support strategies significantly improves the rates of exclusive breastfeeding during the first six months after delivery with statistical significant at .05

Field of Study: Research for Health Development Student's Signature Jutamart Kupratakul

Academic Year:.....2009..... Advisor's Signature .....

Co-Advisor's Signature .....

Co-Advisor's Signature .....

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CONTENTS

Page

Page

Page

Page

LIST OF TABLES

Page

LIST OF FIGURES

LIST OF ABBREVIATIONS

AAP	American Academic of Pediatrics
WHO	World Health Organization
ADA	American Dietetic Association
UNICEF	United Nation Children's Fund
IQ	Intelligent Quotient
EQ	Emotional Quotient
WIC	Women, Infants, and Children
NHDP	Ninth National Health Development Plan
KSP	Knowledge Sharing Practices
KSPES	Knowledge Sharing Practices and Empowerment Strategies
EBF	Exclusive Breastfeeding
Non-EBF	Non-exclusive breastfeeding
PDBF	Predominant Breastfeeding
PBF	Partial Breastfeeding
NBF	No Breastfeeding
EBM	Expressed Breast Milk
BFHI	Baby Friendly Hospital Initiative
SIDS	Sudden Infant Death Syndrome
KM	Knowledge Management
PRECEDE	Predisposing, Reinforcing, Enabling Causes in Educational Diagnosis and Evaluation
HIV	Human Immunodeficiency Virus

RCT	Randomized Controlled Trial
OR	Odds Ratio
CI	Confidence Interval

CHAPTER I

INTRODUCTION

1.1 Background and Rationale

Feeding is crucial for sustaining health and also one of the most fundamentals in life cycle of every living organism. Breast milk has been nature's way of nurturing infants since time immemorial. Human milk is species-specific, and other alternative feeding preparations differ clearly from it, making human milk exclusively superior for infant feeding (Hambraeus, 1975). Exclusive breastfeeding is the reference or normative model against which all substitutes must be measured with regard to growth, health, development, and all other short- and long-term results. In addition, human milk-fed premature infants receive significant profit with esteem to whole host protection and improve developmental effects compared with formula-fed premature infants (Schanler, 2001). It has also been showed that breast milk is the exceptional form of infant food and easy to digest. Breastfed babies have far more advantages over formula-fed babies, including better overall health (Kaiser, 1995). Pure breast milk has correct proportions of fat, carbohydrates and protein. It also has the right temperature (American Academic of Pediatrics or AAP, 1997), and more than only charitable of nutrients for growth and development, which includes physiological, social psychological and learning interactions and communications between parents and infants (Bottorff, 1990). Infantile period is one of the most important periods in life cycle of human being as it is the main foundation of good health to achieve well-being in the future. The infant’s health refers to physical growth as well as development of ability on physical, intellectual, mental, emotional, and social

development. It covers the period of conception to pre-school age. For this reason, providing appropriate nutrition is important as it supports the infants' health (Somchai Durongdej, 1993:26).

For physiological benefit for infants, extensive research in various presents support that breastfeeding has clear health benefits for infants, reducing the risks of a large number of chronic diseases such as diabetes mellitus, multiple sclerosis, hypercholesterolemia celiac**,** eczema**,** inflammatory bowel disease, cancer, allergies, asthma, hypertension, osteoporosis, and obesity. Nowadays, many human babies are fed formula based on cow's milk; the nursing-sibling of many humans is the calf, not a human. Calves double in weight in a third of the time of humans (50 days). Not surprisingly, this kind of feeding can lead to obesity of babies. Besides, cow milk is not an appropriate nutrition for human babies (Peter Hartmann, 2006). Moreover, many studies show that breastfed infants have lower rates of acute infections such as gastrointestinal and respiratory tract infection, ear infections, eye infection, pneumonia, bacterial meningitis, bacteremia diarrhea, necrotizing enterocolitis, urinary tract infection, and late-onset sepsis in preterm infants**,** childhood leukemia, lymphoma and rheumatoid arthritis. In addition, there is the lower rate of Sudden Infant Death Syndrome or SIDS (Howie et al., 1990; Wang and Yu, 1996; Clemens et al., 1997; American Academy of Pediatrics, 1997). Some studies show breast milk protects baby against certain types of visual defect (Bloem et al., 1995), helps the infants' teeth and jaws healthy (Neeson and May, 1986), provides better speech development (Neiva et al., 2003) and enhances vaccine effectiveness (Han-Zoric, 1990). Moreover, breastfeeding decreases risk of morbidity from infection (Huffman and Combest, 1990) and increases infant immunity (Halken et al., 2000). Many more

researches pointed out that breastfeeding can reduce the risk of infant mortality (Marild et al., 1990; Pisacane et al., 1992), especially if the baby is fed exclusively for six months, followed by nutritious weaning foods and continued breastfeeding up to two years, which could prevent 1,301,000 deaths or 13% of child deaths less than five years in a hypothetical year (Annette Beasley and Lisa H Amir, 2007).

Majority of the health organizations such as the World Health Organization (WHO) and United Nation Children's Fund (UNICEF) have updated their recommendation that exclusive breastfeeding should be given until a baby is about six months old before offering other food, and partial breast feeding should be continued along with complementary feeding for at least the first 2 years of life (World Heath Organization, 1982). Exclusive breastfeeding consists of only breast milk being given to infants with no supplementation of any type of water, juice, nonhuman milk nor foods. Medicine, vitamins, and oral dehydration solution can be given but no formula or water (Lin-Lin Su et al., 2007). Supporting exclusive breastfeeding is one important policy, which has been implemented internationally, and it is better than other types of breastfeeding. Moreover it is the best if infants receives breastfeeding as the optimal feeding method used exclusively for at least six months and continued along with complementary feeding for on less than two years of life, that infants will have opportunity to get more benefits from exclusive breastfeeding than their counterparts using only predominant breastfeeding, partial breastfeeding or feeding formulas (World Health Organization, 1982) as the first six months of life is important phase of infant life, causing most of improvement and development (Semega et al, 2001).

Not only above mentioned advantages, breastfeeding is the best way to stimulate infant all of five sense development. For social psychological, learning interactions and communications, Rogan and Gladen (1993) studied that babies present more explorative behavior at the age of six month if their mothers use more time in talking, body contact, and visual contact with them. Hsao et al. (1994) found that mothers doing breastfeeding have better feeding interaction with their infant than their counterparts using feeding formulas. Also Brandt et al. (1998) noted that breastfeeding is the best way to increase infant-mother interaction, because breastfeeding needs body contact between mother and infant that helps infant feel more secure, warm and comforted (Department of Health and Human Services, 2000). In addition, it creates and strengthens the bonding between mother and babies, as a result that breastfeeding has been related with significantly higher attains for cognitive development than formula feeding(James et al., 1991) and associated with the enhancement of cognitive development (+3 points) that is present as early as at 6 months of age and educational ability in toddlers and children of preschool ages, as well that improved with Intelligent Quotient (IQ) and Emotional Quotient (EQ)(Rogan and Gladen, 1993; Campbell and Jones, 1996; Wang and Wu, 1996; Horwood and Fergusson, 1998; Dominique, 2007).

Furthermore, most of the previous studies supported that if the infants receive other kinds of food before four months of age, they are likely to increase physical, mental, and emotional problems. In terms of physical problems, they can develop allergy and contact infection easily, especially the infections of the digestive and respiratory systems, so breastfeeding that lasts less than two months is considered a serious condition for the infants (Hill and Aldag, 1991:11, cited in Chutchaporn,

2003:3). Besides, infants, who are breastfed for less than six months, are at a higher risk of diarrhea when compared to those who are breastfed for longer than six months. They can also experience from severe malnutrition. In addition to this, it has been found that infants younger than three months old who are not breastfed tend to have more ear infection than those who are exclusively breastfed. These occurrences cause burden on society and creates socioeconomic problems (Kistin, Abramson, and Dublin, 1994).In term of psychological problems, the relationship and bonding between the infants who are breastfed for barely a short period of time and their mother will decrease rapidly, and they tend to develop mental and emotional problem. Previous studies have revealed that infants who are not breastfed or who are breastfed for short period of time tend to grow up to be distrustful adults who lack trust in others (Wanpen, 1993:23, cited in Chutchaporn, 2003: 3).

Not only that the benefit to infants, there is also support of physiology and social psychology benefits from breastfeeding for mothers, for example, breastfeeding helps uterine involution, accelerating local discharge, decreasing a risk of postpartum hemorrhage (Bocar, 1997, cited by Natthacha, 2004), stabilizing progress of maternal endometriosis (Annie, 1995) and decreasing mother's risk of developing endometrial cancer (Rosenblatt, et al, 1993). Lactating mothers have weight loss as the fat accumulated during pregnancy is used to produce milk after delivery though long-term changes in maternal weight is complex and breastfeeding delays resumption of ovulation resulting in natural contraception and raise child caring period (Lawrenee, 1989; Gray et al., 1990; Kennedy and Visness, 1992; Dewey et al., 1993, and Denise, 2001). It can help decreasing insulin requirements in diabetic mothers (Davies, H.A., 1989), reducing the risk of deep vein thrombosis and preventing the urinary tract

infections in mothers. Breastfeeding appears to be protective against ovarian cancer (Rosenblatt and Thomas, 1993; Siskind et al., 1997) and lowers the risk of breast cancer (Wright and Anne et al., 1998). Breastfeeding has also been related with reduction in hip fracture and osteoporosis in the postmenopausal period. (Cumming and Klincberg, 1993; Melton et al., 1993). Additionally, it triggers an overflow of the feel-good hormone oxytocin that releases milk from the mammary gland and then provides that feeling of love and trust (Ivanhoe, 2008). Mothers are empowered by their ability to provide complete nourishment to their infants which helps mothers feel they have done their greatest and increases self-esteem in their roles. (Institute of medicine, 1991).

In addition to specific health advantages for infants and mothers, there are economical, familial, and socio-environmental benefits, for instance, the potential for decreased annual health care costs (Ball, TM. and Wright, 1999; Weimer, decreased costs for public health programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)(Tuttle and Dewey, 1996), decreased parental employee absenteeism and associated loss of family income; more time for attention to siblings and other family matters as a result of decreased infant illness, decreased environmental burden for disposal of formula cans and bottles and decreased energy demands for production and transport of artificial feeding products (Cohen et al., 1995; Jarosz, 1993; Levine, and Huffman,1990), etc. These savings for the countries and for families would be offset to some unknown extent by increased costs for physician and lactation consultations, increased office-visit time, and cost of breast pumps and other equipment, all of which should be covered by insurance payments to providers and families. Expect, all about breast milk, formula milk related more

problems, that China, milk (infant formula) is being blamed for the death of some infants, incidence of kidney stones in another 13,000 and currently mild illness in about 54,000 others. At the present, 104 babies are in serious condition. The disaster is being blamed on the toxic substance Melamine which was found in a number of milk products in China. (Copyright © 2008 Wazzupmanila.com).

As WHO recognized the significant decrease in breastfeeding both in developed and developing countries, the policy or guideline to encourage breastfeeding was introduced since 1979, and the policy that focal pointing on protecting, encouraging and supporting breastfeeding globally was publicized. From a past to present, even though breast milk is the best food for babies, and has always been the criterion standard for infant feeding, there is a significant decrease in breastfeeding both its percentage and its duration all over the world. From the late 1960s to beginning of 1970s, the formula feeding is significantly increasing, but rate of breastfeeding in countries has been noticeably decreasing (Cohen et al., 1991). From the report in the United States showed that the rate of the infants cared by breastfeeding for six weeks period was 32% in 1985, and decreased to 24% in 1992 (Janke,1992). Data from the national survey in 2004 also demonstrated that only 30.5% and 11.3% of mothers exclusively breastfed at three and six months, respectively (WHO, 2002). A study in the United Kingdom reported that infants who were breastfed for three and six months were 53% and 31% in 1986 and became to 29% and 13% in 1989 respectively (Jones and West, 1986:141-146; Lefebure and Ducharm, cited in Chutchaporn Hengsiri, 2003). In Australia in 1996, the breastfeeding rate in mothers who breastfed before discharging from the hospital was

80%; nevertheless, the breastfeeding rate decreased to 10% when the infant was at three months of life (Nicholson, and Yuen, 1995).

Furthermore, from the National Breastfeeding Survey 2001 of Singapore, only 7% of mothers' breastfed exclusively at four months, and this rate fell to nearly zero at six months. Besides, the data from Singapore in 2005 illustrated that about 94.5% of the mothers attempted breastfeeding, 71.6% were still breastfeeding at one month, 49.6% continued to do so at two months, 29.8% persisted till four months and by six months, the breastfeeding occurrence rate fell to 21.1% (L.L.FOO et al, 2005). Not only that, other research in Sri Lanka in 2007, presented that the median duration of exclusive breastfeeding was four months, the rates of exclusive breastfeeding at four and six months were 61.6% and 15.5% respectively (Suneth et al., 2007). In Hong Kong, only 10% and 2% of mothers had exclusively breastfed up to three and six months, respectively (Wong et al., 2007).

In Thailand, the National Breastfeeding Project began in 1989. Its major target is to promote postpartum mothers to exclusively breastfeed for the first six months and continue breastfeeding with supplementary food until the infants are 2 years old. The main activities have been the promotion of the Baby-Friendly Hospital Initiative; legislation on maternity leave; and the Code of Marketing of Breast milk Substitutes and related products. The development of the Baby - Friendly Hospital Initiative may in part explain the increase in the prevalence rate of breastfeeding. However exclusive breastfeeding has not shown a favorable increase. Other survey in 2005 found exclusive breastfeeding at 6 months was 14.5% while the national target of the Ninth National Health Development Plan (NHDP) had been set at 30% (Hangchaovanich,

and Voramongkol, 2006). Recently, the prevalence of exclusive breastfeeding at six months in Bangkok was still low (11%) (Laisiriruangrai, 2008). There are many factors affecting the success of breastfeeding promotion.

There have been many studies regarding intervention or instruments to increase the rates of exclusive breastfeeding for the recommended duration of six months (Su LL, 2007). Some research found limitations such as small sample sizes, other methodological problems that not using a randomized controlled trial study and not efficient or effective intervention programs. The results from a study of Esther HY Wong et al., (2007) “Evaluation of a peer counseling programmed to sustain breastfeeding practice in Hong Kong” found no significant differences between the groups. The lack of effect of peer counseling intervention may reflect the low baseline breastfeeding rate, and there was no evidence to suggest that peer counseling intervention prolonged breastfeeding duration. Also Lin-Lin Su et al.(2007) studies antenatal education and postnatal support strategies for improving rates of exclusive breast feeding to investigate whether antenatal breast feeding education alone or postnatal lactation support alone improves rates of exclusive breastfeeding compared with routine hospital care. They found no significant difference in improvements in the rate of exclusive breast feeding and no significant among the three groups at discharge from hospital, two weeks, three week, and six month after delivery. Some studies could not conduct for long period due to limitation of study time frame - the researcher studied, followed up and evaluated the exclusive breastfeeding within short period like a study of Natthacha Charoonsuk, 2004 “Promoting breastfeeding through participatory learning: Case study at Nayong District, Trang province, Thailand”, a four-month study of Esther HY Wong et al (2007) “Evaluation of a peer counseling

program to sustain breastfeeding practice in Hong Kong" and a study of Kirkpatrick (1998) which proposed that the effectiveness of an intervention program was assessed at four different levels: reaction, learning, behavior, and result, but in reality the results were evaluated at one and two months postpartum periods only.

However, globally, the rates of exclusive breastfeeding for the first six months are still lower than the international recommendation (WHO, 2002). Therefore, an additional special important strategy and technique for educating and promoting the exclusive breastfeeding during the first six months among pregnant women is needed. From the compilation and review of various Knowledge Sharing Practices and Empowerment Strategies (KSPES), this has been found to be the most appropriate method to change and motivate behavior in the pregnant women. KSPES is never applied with promoting exclusive breastfeeding during the first six months of life. The objective of this study was to compare the effectiveness of KSPES on antenatal education and postnatal support strategies versus the routine standard knowledge of breastfeeding techniques on the rates of exclusive breastfeeding during the first six months after delivery.

At present, King Chulalongkorn Memorial Hospital is located in Bangkok province. It is about 1,479-bedded university hospital, which serves populations mostly from the inner city, peripheral districts, and nearby provinces in Thailand. On the other hand, 80-bedded Theptarin hospital is also located in Bangkok province which is private and serves mostly middle-income to high-income pregnant women who are from different socio-economic class from those admitting at King Chulalongkorn Memorial Hospital. However both of them have become aware of the

value of breastfeeding, participate in the assessment of exclusive breastfeeding and promote exclusive breastfeeding for the first six months in accordance with the WHO, AAP, ADA, as well as with the agreement from the Ninth National Health Development Plan or NHDP (2002-2006). The operation goal is to make at least 30% of postpartum mothers exclusively breastfeed their infants for at least four months, as follow the Tenth National Health Development Plan (2007-2011). The number of postpartum mothers in both hospitals who exclusively breastfeed their infants for at least six months of life, has not reached the target, as evidenced by following-up six-month-old babies who sought services at King Chulalongkorn Memorial Hospital and found out that it was just above 10% (King Chulalongkorn Memorial Hospital Report, 2008) and that at Theptarin Hospital was 7% (Hospital Pediatrics Clinic Report, 2008). A comparison was conducted and it revealed that the newborns were breastfed before hospital discharge, but the number stridently decreased during the first six months of life after discharge. This implies that the present plan of encouraging in breastfeeding cannot improve the rate of exclusive breastfeeding in postpartum women to achieve the defined target.

Therefore, this study was conducted in King Chulalongkorn Memorial Hospital and Theptarin Hospital in Bangkok province in Thailand, and used a randomized controlled trial study design in pregnant women to compare the effectiveness of KSPES to improve exclusive breastfeeding (EBF) during the first six months. Researcher will report the study which was from the beginning of year 2009 to the end of year 2009.

1.2 Research Questions

1.2.1 Is the rate of exclusive breastfeeding during the first six months after delivery significantly different between the pregnant women receiving Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies and those receiving the standard knowledge of breastfeeding techniques alone?

1.2.2 Does the Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies in pregnant women improve the rate of exclusive breastfeeding during the first six months after delivery by 30%?

1.3 Research Hypotheses

1.3.1 The rate of exclusive breastfeeding during the first six months after delivery is significantly different between the pregnant women receiving Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies and those receiving the standard knowledge of breastfeeding techniques alone.

1.3.2 Before the intervention, pregnant women who participate in the Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies will have the same mean score of the knowledge, the attitude and self-efficacy for self-management towards exclusive breastfeeding during the first six months after delivery, as those who do not.

1.3.3 Pregnant women who obtain the standard knowledge of breastfeeding techniques will have the same mean score of the knowledge, the attitude and self-efficacy for self-management towards exclusive breastfeeding during the first six months after delivery as before.

1.3.4 Pregnant women who participate in the Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies will have higher score of the knowledge, the attitude and self-efficacy for self-management toward exclusive breastfeeding during the first six months after delivery, than before.

1.3.5 After intervention, pregnant women who participate in the Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies will have a higher mean score of the knowledge, the attitude and self-efficacy for self-management toward exclusive breastfeeding during the first six months after delivery, than those who do not.

1.4 Research Objectives

1.4.1 Primary Objective

To investigate whether the knowledge sharing practices with empowerment strategies (KSPES) program on antenatal education and postnatal support strategies improve the rates of breastfeeding practices during the first six months after delivery compared with the standard knowledge of breastfeeding techniques.

1.4.2 Secondary Objectives

1.4.2.1 To compare the difference of the mean scores for perceived knowledge, the attitude and self-efficacy for self-management towards exclusive breastfeeding in pregnant women during the first six months after delivery before intervention between a group of receiving Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies, and a group of receiving the standard knowledge of breastfeeding techniques alone.

1.4.2.2 To compare the difference of the mean scores for perceived knowledge, the attitude and self-efficacy for self-management towards exclusive breastfeeding in pregnant women during the first six months after delivery before and after receiving the standard knowledge of breastfeeding techniques.

1.4.2.3 To compare the difference of the mean scores for perceived knowledge, the attitude and self-efficacy for self-management toward exclusive breastfeeding in pregnant women during the first six months after delivery before and after receiving Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies.

1.4.2.4 To compare the difference of the mean scores for perceived knowledge, the attitude and self-efficacy for self-management toward exclusive breastfeeding in pregnant women during the first six months after delivery after intervention between a group receiving Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies, and a group receiving the standard knowledge of breastfeeding techniques alone.

1.4.2.5 To study the associated between breastfeeding practices and predisposing factors, enabling factors, reinforcing factors, and physiological factors.

1.4.2.6 To develop the concept of Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies in pregnant women in order to improve rate of exclusive breastfeeding during the first six months after delivery.

1.4.2.7 To study of the new instrument to encourage exclusive breastfeeding in pregnant women during the first six months after delivery.

1.5 Research Outcomes

1.5.1 The primary outcome was the rate of exclusive breastfeeding at 6 months after delivery.

1.5.2 The secondary outcomes

The rates of exclusive breast feeding at 7 days, 14 days, 1, 2, 3, 4 and 5 months after delivery, rates of predominant breastfeeding, partial breastfeeding and no breastfeeding, scores of knowledge about breastfeeding, the attitude toward breastfeeding and the self-efficacy for self-management toward breastfeeding.

1.6 Scope of this study

Between January and March 2009, healthy pregnant women more than 32 weeks' gestation who were attending antenatal care clinics at Department of Obstetrics and Gynecology, King Chulalongkorn Memorial Hospital, Faculty of Medicine, Chulalongkorn University and Theptarin Hospital, Bangkok, Thailand were recruited.All the women in the study group were followed up with regard to exclusive breast feeding by telephone interviews at 7 days, 14 days, 1, 2, 3, 4, 5, and 6 months after delivery and by home visits in cases that had problems with exclusive breastfeeding until October, 2009.

1.7 Operational Definitions

Brink and Wood (1994) suggested that every variable state in the purpose of the study should be operationally defined. The following terms were defined as:

1.7.1 Breastfeeding practices referred the breast milk as the most vital way to nurse an infant. Followings are different types of breastfeeding:

- Exclusive breastfeeding (EBF) referred that the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution.

- Non-exclusive breastfeeding (Non-EBF) consisted of predominant breastfeeding, partial breastfeeding and no breastfeeding

- Predominant breastfeeding (PDBF) referred that the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula

- Partial breastfeeding (PBF*)* referred that the infants are fed with the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids.

- No breastfeeding (NBF) referred that the infants are fed no breast milk and only formula milk and other liquids or food.

1.7.2 Antenatal education referred antenatal breastfeeding education class that is included in KSPES model by researcher to promote the behavior of mothers regarding exclusive breastfeeding, with the aids of handouts compromising of the benefits of breastfeeding, demonstration of correct breastfeeding position, and breast care etc.

1.7.3 Postnatal support strategies included two sessions of postnatal care. In the first session, mothers were visited by researcher or staff within the first three postnatal days prior to discharge from the hospital with breastfeeding printed guides. Second session was the follow up session by means of telephone interview at day 7, 14, months 1, 2, 3, 4, 5 and 6 of postpartum women, and home visit on the case having problem on exclusive breastfeeding.

1.7.4 Knowledge Sharing Practices with Empowerment Strategies (KSPES) refer using Knowledge Sharing Practices with Empowerment Strategies that based on

Gibson theory (1991), on antenatal education and postnatal support strategies to improve exclusive breastfeeding practice during the first six months after delivery. Based on the concept of the knowledge, the attitude; self-efficacy expectation for the self-management, of Bartholomew (1993), about exclusive breastfeeding, it was modified into Knowledge Sharing Practices with five aspects of program content: acceptance of exclusive breastfeeding for the first six months, coping, communication, judgment and compliance.

1.7.5 Standard knowledge of breastfeeding techniques refer routine checking up of nipple care and the knowledge of breastfeeding in the nursing care unit at Department of Obstetrics and Gynecology in the hospital, by group discussion or individual interview before and after delivery in the hospital. They were followed up in routine visit at 1, 2, 4 and 6 months after delivery at Pediatrics Clinic.

1.7.6 Effectiveness refers to the result of KSPES on antenatal education and postnatal support strategies in pregnant women for motivation of breastfeeding behaviors to improve rate of exclusive breastfeeding during the first six months, and measurement as follow:

1.7.6.1 Knowledge about breastfeeding refers to mothers' ability to memorize the values and benefits of breastfeeding which she can reapply and their breastfeeding practice would be measured by the questionnaire constructed by the researcher.

1.7.6.2 Attitudes towards breastfeeding refer to belief, feeling, and intention to uniformly practice breastfeeding as measured by the Attitude Survey Form developed by the researcher using the Likert scale.

1.7.6.3 Perceived self-Efficacy for self-Management towards breastfeeding refers a critical determinant of learning and performance of self-

management behavior derived from the social cognitive theory of Bandura (1989), that is, the mothers' confidence upon their ability to perform the specific behavior. The meaning of perceived self-efficacy of self-management is derived from the study on knowledge to manage themselves in 5 aspects by Bartholomew (1993).

- Aspect 1- Perceived self-efficacy of acceptance: the mothers' perceived ability to control their feeling to take care of their infants by exclusive breastfeeding for the first six months of life.

- Aspect 2 - Perceived self-efficacy of coping: the mothers' perceived ability in reduction of stress in order to make themselves feeling better when they have to face with any problem or distress.

- Aspect 3 - Perceived self-efficacy of communication: the mothers' perceived ability to communicate with the researcher and the personal from Public Health officials.

- Aspect 4 - Perceived self-efficacy of judgment: the mothers' perceived ability to judge the exclusive breastfeeding practice for the first six months of life.

- Aspect 5 - Perceived self-efficacy of compliance: the mothers' perceived ability to perform caring and assisting the children when abnormality is observed.

1.7.6.4 Successful breastfeeding refers to exclusive breastfeeding throughout the first six months after delivery according to WHO's, UNICEF's, and the Ministry of Public Health's guidelines, which is the goal of the Baby Friendly Hospital. Infant should be breastfed exclusively and continuously, anywhere, about 6-14 times a day until six months of age. If infants cannot be breastfed, or if the mother is away, an alternative caregiver feeds the baby with expressed breast milk (EBM) provided that the mothers have to express breast milk with engorgement to feed the infant by clean glass or spoon, or keep it to feed the infant later, that should not stop

more than one day, because both of hormone Prolactin and Oxytocin were not to stimulate for construct and released breast milk, as the result cannot to be continues exclusive breastfeeding or difficult return to exclusive breastfeeding.

1.7.7 Determinants of the exclusive breastfeeding refers to using the PRECEDE Framework, the various individual and environmental factors influencing exclusive breastfeeding in pregnant women during the first six months after delivery, are analyzed in terms of:

1.7.7.1 Predisposing factors refer to the factors motivating mothers to breastfeed including demographic characteristics (age, religion, education status, occupation, family income, and parity), intention to breastfeed, plan towards breastfeeding, knowledge about breastfeeding, attitude towards breastfeeding and self-efficacy for self-management towards breastfeeding.

1.7.7.2 Reinforcing factors refer to factors promoting and supporting breastfeeding behavior and practice of the mothers such as support from supporter or husband's approval, social norm, religious norms, and peer influence.

1.7.7.3 Enabling factors refer to factors which are resources and skills enabling the mothers to breastfeed including experience of exclusive breastfeeding, family's status characteristics, techniques of suckling successful and duration allowed to absent from work and convenient to keep breast milk.

1.7.7.4 Physiological factors refer to factors related to promote breastfeeding behavior such as mode of delivery, health status of mother and infant, infant's birth weight, current weight and problems and obstacles in breastfeeding.

1.8 Expected Outcomes and Benefits

1.8.1 Service Sector

1.8.1.1 This research aims to provide the program which encourages exclusive breastfeeding during the first six months after delivery or to improve the quality of services in order to make maternal and child care more effective and beneficial.

1.8.1.2 This research can be applied as nursing activities guideline for the mothers to practice and to learn their own abilities to manage themselves. This can improve exclusive breastfeeding during the first six months after delivery, including those experiencing exclusive breastfeeding problems.

1.8.2 Education Sector

This research can be used as the guideline in providing health education or for nursing students how to apply KSPES construction program in pregnant women to improve exclusive breastfeeding during the first six months after delivery.

1.8.3 Research Sector

The idea and guideline for building up KSPES can be use for further research works in other population group.

CHAPTER II

LITERATURE REVIEW

This research was to investigate whether knowledge sharing practices with empowerment strategies (KSPES) program on antenatal education and postnatal support strategies improves the rate of exclusive breastfeeding during the first six months after delivery compared with a standard knowledge of breastfeeding techniques. Researcher studied and reviewed the theories related to this study from textbooks, journals, and articles and constructed the important facts which can be summarized as follows:

2.1 Breastfeeding

2.1.1 Significance of breastfeeding

2.1.2 History of breastfeeding

2.1.3 Breastfeeding in Thailand

2.1.4 Public healthcare providers' policy to promote breastfeeding

2.1.5 Benefit of breastfeeding

2.1.6 Exclusive breastfeeding

2.1.7 Techniques of successful in breastfeeding

2.2 Possible Strategies to increase exclusive breastfeeding

2.2.1 Knowledge Management

2.2.2 Knowledge Sharing Practices

2.2.3 Empowerment Strategies

2.2.4 Gibson's theory of empowerment

2.2.5 Antenatal education

2.2.6 Postnatal support strategies

2.3 The PRECEDE Framework

2.4 Determinants of the exclusive breastfeeding

2.4.1 Predisposing Factors

2.4.1.1 Demographic characteristics (age, religion, education status, occupation, family income, and parity)

2.4.1.2 Intention to breastfeeding

2.4.1.3 Plan to breastfeeding

2.4.1.4 Knowledge about breastfeeding

2.4.1.5 Attitude toward breastfeeding

2.4.1.6 Self-efficacy for Self-management toward breastfeeding

2.4.2 Reinforcing Factors

2.4.2.1 Supporter or Husband's approval

2.4.2.2 Social Norm

2.4.2.3 Religious Norms

2.4.2.4 Peer Influence

2.4.3 Enabling Factors

2.4.3.1 Experience of exclusive breastfeeding

2.4.3.2 Family's status and characteristic

2.4.3.3 Techniques of suckling successful

2.4.3.4 Duration allowed for work absence and convenient to keep breast milk

2.4.4 Physiological Factor

2.4.4.1 Mode of delivery

2.4.4.2 Health status of mothers and infants

2.4.4.3 Infants' birth weight and current weight

2.4.4.4 Problems and obstacles in breastfeeding

2.5 Knowledge Sharing Practices with Empowerment Strategies (KSPES)

2.6. Conceptual Framework of the study

2.1 Breastfeeding

2.1.1 Significance of breastfeeding

Breastfeeding is the feeding of an infant or young child with milk from a woman breast. Babies have a sucking reflex that enables them to suck and swallow milk with virtually no exceptions, human breast milk is the best source of nourishment or human infants. Infant is one of the most important periods in a human being's life because it is a basic of good health in the future. The infant' health refers of physical growth as well as development of ability and physical, intelligence, mental, emotional, and social development. It covers the period since conception to pre-school age, for this reason, giving appropriate nutrition is basic as it supports the infants' health (Somchai Durongdej, 1993: 26). However, experts disagree about how long to breastfeed to gain the greatest benefit, and how much more risk is involved in using artificial formulas.

A mother may breastfeed her infant, or another infant, e.g., as a wet nurse. While there are conflicting studies about the relative value of artificial feeding, including infant formula, it is acknowledged to be inferior to breastfeeding for both full term and premature infants .In many countries, including the First World, artificial feeding is associated with more deaths from diarrhea in infants.

National governments and international organizations promote breastfeeding

as the best method of feeding infants in their first two years and beyond. The World Health Organization (WHO) and the American Academy of Pediatric (AAP) also promote breastfeeding. Regulating authorities recognize the superiority of breastfeeding but also try to make artificial feeding safer.

2.1.2 History of breastfeeding

Before the last few hundred years, alternatives to breastfeeding were unusual. Attempts in 15th century Europe to use cow or goat's milk were not very positive. In the 18th century, flour or cereals mixed with broth were introduced as substitutes for breastfeeding, but this did not have a favorable outcome, either. True commercial infant formulas appeared on the market in the mid 19th Century but their use did not become widespread until after WWII. As the superior qualities of breast milk became better-established in medical literature, breastfeeding rates have increased and countries have enacted measures to protect the rights of infants and mothers to breastfeed.

2.1.3 Breastfeeding in Thailand

More than the past two decades, there have emerged a number of factors which adversely affected breastfeeding including medical services of the hospital regulations child delivery and separation of mother and child after birth, mothers working outside the house, advertisements of manufacturers and distributors of supplementary baby food, economic and social situations, as well as marketing mechanisms of baby food companies. The rate of breastfeeding has markedly reduced. The resulting problems include higher mortality rate of children younger than five years old, malnutrition, and increased incidences of infection. These problems make UNICEF and WHO simulate different countries to promote breastfeeding.

In Thailand, the National Breastfeeding Project began in 1989, after that, the Baby Friendly Hospital initiative has been established to promote breastfeeding since 1991. The main goal is to encourage postpartum mothers to exclusive breastfeeding for at least four months and then breastfeeding together with giving supplementary food until the infants are two years old. All public hospitals were able to comply with this initiative in 1995, and all health centers were encouraged to carry out the ten-step operational plan to become Baby Friendly Health Centers at the end of the Eight National Public Health Development Plan (1997-2001)(Office of Policy and Planning, Ministry of Public Health, 1998). In the Ninth National Public Health Development Plan (2002-2006), promotion of breastfeeding is still emphasized as an important means to promote the health of children. The goal is to encourage at least 30 % of postpartum mothers to exclusively breastfeed their infants for at least four months. Also, enabling factors of breastfeeding are enhanced, changing the advertising criteria for supplementary baby food 1984 to the criteria for marketing food for babies and small children. An establishment of a nursery or childcare center in the workplace is promoted as well (The Subcommittee for Nutrition Planning, 1996). Finally, the law was charged to allow a 90-day maternity leave with full pay (Bandit Thanachaisethwut, 1999).

A faculty member of the Faculty of Public Health, Mahidol University, conducted a study in 1997 and found that only 2.08% of postpartum mother exclusively breastfed their infants for at least four months, (Somchai Durongodej, 1998) while the predominant breastfeeding rate was equal to 30 %. In addition, the finding revealed that as high as 30% of the postpartum mothers gave water to their infants during their hospital stay. Among these, 51% were afraid that the infants would be thirsty, 38% wanted to ensure their infants' good health, and 11% prevented

their infants from having a day mouth. Finally, when it came to the reasons why they stopped breastfeeding, 51% of the postpartum mothers had to return to work, whereas 32% had problems concerning breastfeeding.

2.1.4 Public healthcare providers' policy to promote breastfeeding

Accord to the various benefit of breastfeeding, World Health Organization recognized the significant decrease in breastfeeding both in developed countries and developing countries. Therefore, a joint WHO/UNICEF statement "Protecting, promoting and supporting breastfeeding was announced in 1979. To promote breastfeeding globally, WHO also stipulated the International Code on the Marketing of Breast milk Substitutes in 1989. Further, baby Friendly Hospital Initiative (BFHI) was founded to enable leaders and specialists in health care from both the public sector and the private sector of different countries to take action to create an environment facilitating successful exclusive breastfeeding for at least four to six months after childbirth. Infants should receive breast milk together with supplementary diets until they are at least two years of age. The practical guideline for hospitals the world over is called Ten Steps to Successful Breastfeeding. Thailand is one of the twelve countries selected as the leader of the Baby Friendly Hospital Initiative.

The Ministry of Public Health has declared that any hospital or organization which is able to completely comply with the criteria will be recognized and awarded by WHO and UNICEF (Kannikar Wichitsukhon, 1992:3), with detail as follows:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff;
2. Train all health care staff in skills necessary to implement this policy;
3. Inform all pregnant women about the benefits and management of breast

feeding;

4. Help mothers initiate breast feeding within a half hour of birth;
5. Show mothers how to breast feed and how to maintain lactation even if they should be separated from their infants;
6. Give newborn infants no food nor drink other than breast milk, unless medically indicated;
7. Practice rooming-in, allow mothers and infants to remain together 24 hours a day;
8. Encourage breast feeding on demand;
9. Give no artificial teats or pacifiers to breastfeeding infants; and
10. Foster the establishment of breast feeding support group and refer mothers to them on discharge from the hospital or clinic.

The Baby Friendly Hospital Initiative is in congruence with the policy of the Ministry of Public Health which has promoted breastfeeding since the Fifth National Economic and Social Development Plan (1982 - 1986) to the present.

2.1.5 Benefit of breastfeeding

Breast milk is the best gift that a mother can offer her child. Its benefits are overwhelming and well documented for both. These benefits include:

2.1.5.1 Good for Baby

- Nutrition

Breast milk is the most complete form of nutrition for infants. It is the source of nourishment recommended by the American Academy of Pediatrics.

- Cognitive Development

Results from some studies suggest that breastfeeding enhances cognitive development.

- Emotional Development

Breastfeeding helps mothers bond with their babies. Physical contact is important to newborns and helps the baby feel more secure, warm and comforted.

- Decreased Risk for Diseases

Many studies show that breastfed infants have:

- Lower rates of chronic childhood diseases and conditions such as diabetes, celiac disease, inflammatory bowel disease, cancer, allergies, and asthma

- Lower rates of acute childhood diseases such as diarrhea, ear infections, pneumonia, meningitis, childhood leukemia and obesity.

- Lower rates of Sudden Infant Death Syndrome (SIDS)

- Better responses to immunizations.

2.1.5.2 Good for Mom

- Ease Breastfeed

- Bonding

Breastfeeding mothers may have increased self-confidence, enhanced self esteem and bonding with their infants, and breastfeeding feels good for the mom, if done properly.

- Boost to mother's IQ (Kinsley and Lambert, 2006). Mother and breastfeeding unleashes a flood of hormones in mothers' brain, these make mothers more vigilant and nurturing and provide great pleasure. (Peter Hartmann, 2006)

- Spatial memory and learning show long-term improvement.

- Suppression of maternal fertility

- Enhanced mineralization of bone, and thus less risk of osteoporosis later in life.

- Cholesterol control, and thus a reduced risk of diabetes.

- Cancer Risk Reduction

Breastfeeding lowers the risk of breast cancer and may lower the risk of ovarian cancer in mother who breastfeed.

- Weight Loss

Breastfeeding uses extra calories, making it easier to lose those pregnancy pounds and faster recovery after childbirth, including quicker weight loss.

Breastfeeding also helps the uterus get back to its original size and lessens any bleeding a woman may have after giving birth.

2.1.5.3 Good for Father and Family

- Healthier Baby and Mother

Breastfeeding reduces anxiety caused by having a child or parent who is sick.

- Economic Benefits

Breastfeeding helps maximize the family budget by reducing the amount of money spent annually on formula.

- Reduced Health care Costs

Breastfeeding reduces the number of work days lost due to a child's illness and medical costs associated with a sick child.

2.1.5.4 Good for Society

- Reduced Infant Mortality Rates

Studies reveal that communities with higher breastfeeding rates exhibit a lower morbidity and mortality rate for infants because of the protective effects of breast milk.

- Healthier Community and Workforce

Breastfeeding leads to healthier babies and by reducing anxiety concerning a sick child, allow parents to be more productive at work and in the community.

- Reduced National Health care Costs

Breastfeeding trust hormone

Scientists have for the first time shown how a "trust or love" hormone is released in the brains of breastfeeding mothers. It is further proof that breastfeeding promotes the maternal bond through a biochemical process. The team at Warwick University said the hormone oxytocin was known to be released during breastfeeding but the mechanism in the brain was unclear.

Oxytocin also produces contractions during labor and causes milk to be "let down" from the mammary glands. The hormone is produced in the hypothalamus - the part of the brain that controls body temperature, thirst, hunger, anger and tiredness. It has been shown to promote feelings of trust, relaxed contented, confidence and to reduce fear, anxious.

2.1.6 Exclusive breastfeeding

Exclusive breastfeeding is when an infant receives no other food or drink, or even water, besides breast milk. National and international guidelines recommend that all infants be breastfed exclusively for the first six months of life. It is generally accepted that newborns should be exclusively breastfed for around six months. Breastfeeding may continue with the addition of appropriate foods, for two years or more. Exclusive breastfeeding has dramatically reduced infant deaths in developing countries by reducing diarrhea and infectious diseases.

Exclusively breastfed infants feed anywhere from 6 to 14 times a day. Newborns consume from 30 to 90 ml (1 to 3 US fluid ounces). After the age of four weeks, babies consume about 120ml (4 US fluid ounces) per feed. Each baby is different, but as it grows the amount will increase. It is important to recognize the baby's hunger signs. It is assumed that the baby knows how much milk it needs and it is therefore advised that the baby should dictate the number, frequency, and length of

each feed. The supply of milk from the breast is determined by the number and length of these feeds or the amount of milk expressed. The birth weight of the baby may affect its feeding habits, and mothers may be influenced by what they perceive its requirements to be. For example, a baby born small for gestational age may lead a mother to believe that her child needs to feed more than if it larger; they should, however, go by the demands of the baby rather than what they feel is necessary.

While it can be hard to measure how much food a breastfed baby consumes, babies normally feed to meet their own requirements. Babies that fail to eat enough may exhibit symptoms of failure to thrive. If necessary, it is possible to estimate feeding from wet and soiled nappies (diapers): 8 wet cloth or 5–6 wet disposable, and 2–5 soiled per 24 hours suggests an acceptable amount of input for newborns older than 5–6 days old. After 2–3 months, stool frequency is a less accurate measure of adequate input as some normal infants may go up to 10 days between stools. Babies can also be weighed before and after feeds.

2.1.7 Technique of successful in breastfeeding

Recommended practices to improve infant nutrition during the first six months

2.1.7.1 Initiate breastfeeding within about half to one hour of birth

Early initiation:

- Takes advantage of the newborn's intense suckling reflex and alert state.
- Stimulates breast milk production.
- Serves as the baby's first immunization. The infant will immediately benefit from the antibodies present in colostrums (the first milk).
- Minimizes maternal postpartum hemorrhage.
- Keeps newborn warm through skin-to-skin contact.
- Fosters mother-child bonding.

2.1.7.2 Establish good breastfeeding skills (positioning, attachment, and effective feeding).

* Good attachment is important to enable the infant to suckle effectively, remove milk efficiently, and stimulate an adequate milk supply.

- More areola (dark area around nipple) is visible above the baby's mouth than below.

- Baby's mouth is wide open and the lower lip curled outwards.

- Baby's chin touches the breast.

- Baby takes slow, deep sucks, sometimes pausing.

- Suckling is comfortable and pain free.

* To ensure good attachment, the baby needs to be well positioned.

- Baby's head and body are straight, not bent or twisted.

- Baby faces the breast and reaches up to take the breast (baby should be able to look up at the mother's face, not flat to her chest or abdomen).

- Baby is close to the mother.

-Baby's whole body is supported, not just the head and shoulders.

* To encourage effective suckling and to prevent the introduction of contaminants, no bottles or pacifiers (dummies or artificial teats) should be used. If a mother has to miss a breastfeed, she can maintain her supply by expressing milk when she would have breastfed. Expressed breast milk can be fed by cup at a later time.

2.1.7.3 Practice frequent, on-demand breastfeeding, including night feeds. Babies should be fed on demand, as often as they want, day and night. This is usually 8– 12 times in 24 hours, though there may be intervals between feeds that are longer or shorter than 2– 3 hours.

- An infant's stomach is small and needs to be refilled often. Breast milk is perfectly adapted to the baby's small stomach size because it is easily digested.

- Frequent feedings help maintain the mother's milk supply, maximize the contraceptive effect, and provide immune factors at each feeding. They also help to prevent problems, such as breast engorgement, that might discourage a woman from breastfeeding.

- If a baby urinates at least six times in 24 hours, this is a sign that breast milk intake is adequate. If not, more breastfeeding is necessary, or breastfeeding technique should be assessed.

2.1.7.4 Offer second breast after infant stops feeding from the first breast. Infants should continue feeding until they release the breast. This way, they get the water and nutrient-rich "fore milk" at the start of the feed and the fat, rich "hind milk" at the end of the feed. When offered the second breast, infants should be left to decide whether to continue feeding.

2.1.7.5 Continue breastfeeding when the mother or infant is sick. Breast milk protects infants against illness. A mother who is sick with a cold, flu, or diarrhea does not pass the germs to her infant through breast milk. When an infant is sick, the mother should breastfeed more frequently. Breast milk replaces water and nutrients lost through frequent loose stools.

2.1.7.6 In areas where vitamin A deficiency occurs, lactating women should take a high-dose vitamin A supplement (200,000 IU) as soon as possible after delivery, but no later than 8 weeks postpartum, to ensure adequate vitamin A content in breast milk.

- The concentration of vitamin A in breast milk depends on a woman's vitamin A status and the changing needs of her growing infant. Preterm infants and infants

born in areas where vitamin A deficiency is prevalent are at particular risk of vitamin A deficiency.

- The earlier the single high-dose vitamin A supplement is given to a lactating woman, the sooner the vitamin A status of her breastfed child will improve.

- Beginning around eight weeks after childbirth, women are not fully breastfeeding

. Because a high-dose vitamin A supplement can be harmful to a fetus, women should not be given the high-dose supplement any time after eight weeks postpartum.

2.1.7.7 Continue on-demand breastfeeding and introduce complementary foods beginning at 6 months of age (see Facts for Feeding: Guidelines for Appropriate Complementary Feeding of Children 6-24 Months of Age).

2.2 Possible Strategies to increase exclusive breastfeeding

2.2.1 Knowledge Management

Knowledge Management (Davenport and Prusak, 1998; Allee, 1997; Alavi and Leidner, 1999; Hsiangchu and Tsai-hsib, 2000) is the process of managing the organization's knowledge by means of systematic and organizational specific processes for acquiring, organizing, sustaining, applying, sharing and renewing both tacit and explicit knowledge by pregnant women to enhance the organizational performance and create value. The true value is created by fostering innovation in the organization. This indicates that there are two important aspects in KM. First, the organization must consider knowledge as a strategic asset. Second, capitalize on existing organizational knowledge to build up an intellectual asset base to gain competitive advantage.

2.2.2 Knowledge Sharing Practices

The main objective of Knowledge Management (KM) (Davenport and Prusak, 1998; Allee, 1997; Alavi and Leidner, 1999; Hsiangchu and Tsai-hsib, 2000) is to manage organizational knowledge to create new knowledge. The new knowledge is created by combining existing knowledge pieces or by generation of novel concepts through knowledge sharing. The KM and innovation is linked by knowledge sharing as depicted in **Figure 2.1.**

Figure 2.1 The link between KM and Innovation

Top management support has been very effective in the organization under study as indicated by the existence of KM technologies such as collaborative tools. Communication is almost instant, even across a wide geographical spread. An important factor in the effective knowledge diffusion depends on the degree of information and communication technologies in the organization. The explicit and tacit knowledge in the organization is shared through knowledge sharing practices as;

1) Explicit Knowledge Sharing

Explicit knowledge in an organization is represented in the form of databases, documents, best practices or processes in the organizations. The knowledge sharing is encouraged by creating 'knowledge repository' where pregnant women contribute their expertise electronically to the organization in a way that can be accessed by other pregnant women. The organization believes that it is better to learn from past and the success in breastfeeding provides valuable guidelines for future endeavors. This

knowledge repository can be accessed at the convenience of pregnant women, and well suited even for the busy pregnant women. Management of explicit knowledge is done through content and document management system and using data-mining techniques for retrieval.

The explicit knowledge differs from organization to organization. This leads to the development of organizational specific knowledge repository. The explicit knowledge is managed through knowledge repository, which is developed in-house.

2) Tacit Knowledge Sharing

Tacit knowledge is not structured and more concrete in invisible form. It resides in the knowledge worker's head and is more difficult to transfer. In this case, the transmission of sensations, feelings or values plays an important role. This knowledge can be quickly and effectively harvested in a conversation with the experts. Face to face interaction is then usually required since it provides a 'broader bandwidth' that can accommodate all types of non-verbal communications. The tacit knowledge is subconsciously understood and applied, difficult to articulate, developed from direct experience and action. Usually, shared through highly interactive conversation, story-telling and sharing of experiences. The knowledge directories help in locating the experts in the organization. Also, it helps to identify the existence, location, and means of retrieval of information held by group of individuals, and connect the knowledge owners and user. Knowledge acquired is appropriately categorized and tagged. There is a clear map of different categories of knowledge stored in the repository. Knowledge directories are particularly important when linking personal expertise, as tacit knowledge cannot be easily codified and accessed

independent of knowledge contributors. It is observed that the tacit knowledge is shared through the events like-

- Innovation Day – this is an internal annual event and a platform for knowledge sharing across various divisions in the organization. The technologies those are currently in use and those are going to be adopted in the future are displayed and demonstrated.

- Organization's internal conference – the papers selected for conference go through a review process like any academic conference. Pregnant women's present novel concepts, insights, and experience gained in organization in the form of technical papers. It also encourages intra-division interaction among pregnant women. All the technical papers are disseminated through conference proceedings with other subsidiaries.

- Storytelling – this session gives emphasis on knowledge sharing. Both external and internal knowledge is shared in this event. The external knowledge is imported through external speaker while internal knowledge is disseminated by the pregnant women. Interesting topics on technical and non-technical subjects are covered in storytelling.

- Technology show – this is a technology event. It presents the future of organization's research and development activities. The speakers are invited from an organization along with its worldwide subsidiaries.

- Best practices are shared through a dedicated repository. Pregnant women share their achievements and experiences with best practices.

- Internal Trainers conduct training sessions for the pregnant women. This leads to the development of mentors one of the objectives of which is to make fresh

recruit to be project-ready with domain knowledge and process expertise relevant to their roles.

2.2.2.1 Knowledge Sharing

Ideas are the critical input in the production of more valuable human and non-human capital (Cummings, 2003). Garvin (2003) opines that ideas carry maximum impact when they are shared broadly rather than held in few hands. Further, an interesting characteristic of knowledge is that its value grows when shared. During knowledge sharing; feedback questions, amplifications, and modifications add further value for the original ideas. This creates exponential growth in the knowledge of the original sender if done effectively. The knowledge shared among pregnant women includes expertise on breastfeeding, best practices, process improvement discoveries, and knowledge about the pregnant women's need, habits and attitudes (Chua, 2001). According to Trussler (1998) interactions between the pregnant women are aligned to strategic objectives of the organisation; the actual content of the knowledge shared will be very much influenced by the nature of breastfeeding of the pregnant women. Hence, knowledge sharing is the most important ingredient of innovation.

2.2.2.2 Knowledge Sharing Barriers

In the course of the study some of the notable barriers are found in knowledge sharing. The important properties of knowledge are its invisibility and intangibleness. These two properties hinder in the knowledge sharing. Knowledge is information in action. This makes it difficult to know who knows what.

Despite the fact that stakeholders play a vital role in the success of KM program, not all the stakeholders are serious in knowledge sharing until they see some benefits. In addition, the middle management that is responsible for encouraging

knowledge sharing, do not see immediate benefits through KM, and hence, this acts as a major barrier in KM program.

2.2.2.3 The study of knowledge sharing

The study of knowledge sharing has its roots within the technology transfer and innovation literature. The research in this area has focused on explanations for different nations' successes or failures in fostering economic growth through technological development. While some theorists argue that high investment rates in physical and human capital drive national innovation and growth rates (Young, 1993; Kim and Lau, 1994; Krugman, 1994), 'assimilation theorists' instead argue that entrepreneurship, effective learning, and innovation are separate, but equally important variables affecting development (OECD, 1971; Freeman, 1982; and Kim and Nelson, 2000). Central to both approaches, nonetheless, is an understanding of the importance of the sharing of ideas.

In this literature, successful knowledge sharing results in firms mastering and getting into practice product designs, manufacturing processes, and organizational designs that are new to them (Nelson, 1993). As evidenced by the title of Richard Nelson's recent volume on technology transfer, Technology, Learning, and Innovation (Kim and Nelson, 2000), knowledge sharing is seen as occurring through a dynamic learning process where organizations continually interact with customers and suppliers to innovate or creatively imitate. Consider the case of technology transfer as articulated by Lall (2000:15).

2.2.3 Empowerment strategies

While empowerment means many things to many people, the following definition formulated by Nina Wallerstein and Edward Bernstein (1988:380), has guided my discussion:

Empowerment is a social action process that promotes participation of people, organizations, and communities in gaining control over their lives in their community and larger society. With this perspective, empowerment is not characterized as achieving power to dominate others, but rather power to act with others to effect change. Empowerment also commonly denotes outcomes of empowering activities, such as achieving power, improved self-esteem, or increased control over personal income.

Empowerment and self-efficacy are closely correlated. Self-efficacy is a belief that one can effectively perform a given behavior that will result in desired outcomes (Bandura, 1997). Motivation and perseverance in performing behaviors is dependent on the individual's evaluation of his/her self-efficacy. If the individual does not believe that he/she can perform such a behavior, motivation and perseverance in performing the behavior will be decreased. This sense of competency is the anticipated outcome of the empowerment process.

Characteristics of the concept of empowerment

Empowerment can be viewed either as a process or as an outcome. In a broad sense, empowerment is a process by which people, organizations and communities gain mastery over their own lives. Empowerment is a transactional concept, because its process involves relationships with others. Although empowerment involves an individual demand, it is nurtured by the effects of collaborative efforts. In addition, the literature review disclosed the following information: Kieffer (1984 cited by Gibson, 1991: 355) conceptualized empowerment in a developmental sense, as a process of becoming. He considered this a long-term process of ordered and progressive development of participatory skills and political understanding. Empowerment focuses more on solutions than on problems. It addresses people's strengths, rights

and abilities rather than their deficits and needs. Wallerstein and Bernstein (1988 cited by Gibson, 1991: 355) stated that empowerment involves much more than increasing one's self-esteem and self-efficacy or promoting positive health behaviors in the individual. It involves environmental changes, too. Gibson (1991: 359) suggested that empowerment is a social process of recognizing, promoting and enhancing people's abilities to meet their own needs and resources in order to feel themselves in control of their own lives. Even more simply defined, empowerment is a process of helping people to assert control over the factors that affect their health. The Random House Webster's College Dictionary (1991 cited by Rodwell, 1996: 306) defined 'to empower' as to give official or legal power or authority; to endow with an ability or to enable. The suffix 'ment' is defined as a result, act or process. Thus by adding the suffix 'ment' to the verb 'empower', empowerment becomes a noun defined as the process or result of empowering. Spreitzer (1995: 1443) considered empowerment as the motivation concept of self-efficacy. Empowerment is, therefore, regarded as a process of transferring power and includes the development of positive self-esteem and recognition of self-worth and the work of others, by increasing resources, capabilities and effectiveness.

2.2.4 Gibson's theory of empowerment

Researcher choose Gibson's theory of empowerment for apply in this study because one result of, this theory suggested that empowerment is a social process of recognizing, promoting and enhancing people's abilities to meet their own needs and resources in order to feel themselves in control of their own lives and a process of helping people to assert control over the factors that affect their health. And it composed of 4 steps in process of Gibson's theory which revealed that the mothers' commitment to, bond with, and love for, their child which motivated and sustained the

process of empowerment. There are discovering reality, critical reflection, taking charge and holding on, They are steps in process of changing and motivation on behavior in step by step until successfully.

2.2.4.1 The process of empowerment

Gibson (1991) studied the mothers' commitments were related to strong bonding and deep love towards their children, which in turn motivated and sustained the process of empowerment. Frustration was a powerful force that permeated the process and was a critical factor in helping the mothers to discover reality. Furthermore, frustration evoked ongoing cycles of critical reflection, which subsequently enabled the mothers to take charge of their situation, and then to hold on to their sense of power even during changing circumstances. Participatory competence was the outcome of the process.

2.2.4.2 Components of the empowerment process

Gibson (1991) revealed that the mothers' commitment to, bond with, and love for, their child which motivated and sustained the process of empowerment.

1). Discovering reality: In the first: phase of empowerment process: discovering reality, the mothers responded emotionally by accepting the situation and realizing that crucial aspects of the situation could not be changed. Cognitive responses then embarked upon a quest for information in order to understand their situation. They strongly needed information and explanation about exclusive breastfeeding, plans and rationale for exclusive breastfeeding, and what they could do. In behavioral responses, the mother's own feelings of worry, afraid were channeled into the described attitude.

2). Critical reflection: it was necessary for them to be able to take charge of their situation in a proactive manner and to develop a sense of personal power.

Through the process of critical reflection, mothers became aware of their strengths, abilities and resources.

3). Taking charge: once the mothers were aware of their strengths and were confident in their knowledge concerning their exclusive breastfeeding, they took charge of the situation. Taking charge entailed (a) advocating for the infant, (b) learning the roles to interact efficiently with the health care system, (c) learning to persistently get the attention needed for the infant, (d) negotiating with health care professionals so that opinions and requests were recognized, and (e) establishing a partnership to develop mutual respect and open communication between the professionals of breastfeeding and the mothers, as well as commitment to a common goal.

4).Holding on: as a result of the mothers' awareness of their strengths, competencies and capabilities, they were able to maintain their own sense of power even during changing circumstances. In addition, they developed a sense of personal control in terms of regulating their own responses.

2.2.5 Antenatal education

Pregnant women who visit antenatal care at the antenatal care unit of the hospital will be given breastfeeding education both individually and in groups at least twice. At the first time antenatal check-up, their breasts and nipples will be checked, and any abnormality will be corrected such as by using Hoffman's maneuver or using breast cups to cover the nipples. At the second and subsequent antenatal check-ups, pregnant women will receive advice on breastfeeding education such as benefits of breastfeeding, significance of exclusive breastfeeding, techniques in successful of exclusive breastfeeding, importance of breastfeeding immediately, disadvantages of formula milk and water, and ways to make sure for breastfeed when mothers have to

return to work outside the house. Also document on breastfeeding will be provide, that affects breastfeeding behavior of postpartum mothers. This is because receiving information support from hospital staff enables mothers to have more options in performing healthcare behaviors.

2.2.6 Postnatal support strategies

Mother and infants who have no complications and health will be sent to the postpartum ward together. In case of natural childbirth, mothers will be stimulated by nursing staff to begin breastfeed their infants immediately after arriving at the ward. In cases of C-section, the healthcare staff will bring the babies to the mothers as soon as they gain consciousness or within one hour after that, the mothers will be taught breastfeeding education concerning how to breastfeed appropriate to each individual mother. The staff from the lactation clinic will also provide advice and suggestions on breastfeeding to every mother everyday. And mothers were provided during their first routine postnatal visit after delivery, also follow up on day 7,14 and month 1,2,3,4,5, and 6 of postpartum mothers by telephone interview with home visit when have problems. During these two encounters, telephone interview and home visit, the mothers received health education about breastfeeding that content of breastfeeding education consists of technique in successful of exclusive breastfeeding, how to express breast milk, feeding with a cup, disadvantages of water and formula milk, prevention, and frequently found problems, also received hands on instructions in latching on, proper positioning, and other techniques to avoid complications.

2.3 The PRECEDE Framework

Lawrence W. Green et al. (1980:7) of The John Hopkins Hospital in the United State were the first persons who developed the PRECEDE Framework with an

aim to use it in research studies and in assessment of behavioral projects and other health promotion projects.

The PRECEDE Framework is a systematic planning framework has considers health behavior to be a complex, multi-factorial phenomenon. The model facilitates the consideration of both the individual and environmental factors that influence health and health behavior. The planning process outlined in the model offers a guideline for priority setting effect use of resources and is based on the principles of participation that active participation pg people is essential in defining the problem and goal and in developing and implementing the solution. The proceed component of the model highlights the developmental factors as the determinant of health behavior (Green and Kreuter, 1991)

In the present study, the PRECEDE Framework (Predisposing, Reinforcing, Enabling Causes in Educational Diagnosis and Evaluation) was employed. This means using predisposing factors, reinforcing factors, and enabling factors in diagnosing and assessing individuals' behaviors.

There are important factors influencing the exclusive breastfeeding for the first six months. Also included is the physiological factor as follow:

- Predisposing factors are fundamental factors leading to motivation to show certain behaviors including knowledge, attitudes, values, perception, self-efficacy for self - management, behavioral intention or planning, and demographic, social, and economic data.

- Reinforcing factors are factors which indicate that how much health practice or behavior is supported such as support and encouragement from family members, other individuals, and medical team.

- Enabling factors are necessary resources and skills which enable individuals to perform such behavior as well as ability to gain access to such enabling factors.

- Physical factors are factors refer to factors from physiological which related and influences to promote breastfeeding behavior such as promote the exclusive breastfeeding for the first six months among pregnant women.

2.4 Determinants of the exclusive breastfeeding

Using the PRECEDE Framework , the various individual and environmental factors influencing exclusive breastfeeding in pregnant women during the first six months after delivery, are analyze in terms of predisposing, reinforcing and enabling factors(Green and Kreuter,1991), including physical factors. For this study;

2.4.1 Predisposing factors: The predisposing factors are the individual's personal factors that affect exclusive breastfeeding for the first six months. The important predisposing factors that can influence exclusive breastfeeding for the first six months among pregnant women, which composed with demographic characteristics

- Age: It is believed that age make mature mentally and physically. The finding of Utaiwan Treratpan (1996:76) which revealed that age was a factor that affected breastfeeding. However, the finding of Pornpen Patumwiwattana and Chantira Wachirapakorn (1996:44) which indicated that age was not associated with postpartum mothers' breastfeeding practices. The same, Winikoff et al. (1988:14-15) conducted a study in four communities in Bangkok Metropolis and found that the age of the mothers was not related to breastfeeding.

- Religion: It is mothers' religious belief about exclusive breastfeeding. A study of Kritaporn Muangprom (1997:58) which discovered that religion was a factor which was not associated with breastfeeding practices.

- Education status: Education is a strong force in influencing women's control over their decision making. There are many reason believe this, educated women are more likely to be employed in income generation activities with less duration of exclusive breastfeeding, educated women tend to be more aware of exclusive breastfeeding practice than uneducated women. Kesara Sripitchayakarn and Kannikar Kantharaksa (1992:37) found that educational background was correlated with breastfeeding, and the subjects with a lower level of education breastfed their infants for a long period when compared with those who were higher educated.

- Occupation: The study of Pensri Kanchanatithiti et al. (1986:67-101) which found that the mothers' career or their working outside the house to help earn family income is the most frequently cited reason that leads to weaning. This means that the mothers' career is an obstacle for breastfeeding. When the mothers return to work, they breastfeed their babies less frequently; thus, their lactation is lessened and becomes insufficient for the babies. As a result, exclusive breastfeeding is also lowered.

- Family income: Family income was associated with breastfeeding practice as the mothers who had lower family income breastfed their infants for a period longer than that of the mothers who had higher family income (Kesara Sripitchayakarn and Kannikar kantharaksa, 1992:37). In contrast, the family income was not associated with breastfeeding practices (Utaiwan Treratpan, 1996:77 and Wah Wah Aung, 2000:70).

- Parity: parity also plays an important role in breastfeeding. Experience of multiparous may has influence for exclusive breastfeeding more than primiparous.

- Intention to breastfeed: Intention to breastfeed was associated with breastfeeding, as same as, Kesara Sripitchayakarn and Kannikar kantharaksa, 1992:39) discover that the mothers who had an intention to breastfeed their infants since their pregnancy were able to exclusively breastfeed at least four months. And that breastfeeding could be successfully practiced for more than four months despite the abnormality of the mothers' nipples or the mothers' chronic illness if the mothers had intended to practice breastfeeding since they become pregnant (Ubol Taweesri, 1992).

- Plan to breastfeeding: Plan to breastfeeding was one part of mothers' decision making for breastfeeding practice. In contrast, mothers may easily charge their plan to breastfeed their infants if they encountered obstacles or problems as a study of Chutchaporn Hengsiri, (2003).

- Knowledge about breastfeeding: This is the develop step to extend the current knowledge or enhance the new knowledge. Learner will go through the learning process which includes learning, understanding and applying to real situation.

- Attitudes toward breastfeeding: It is the adjustment or nourishment of learners' attitude in order to have their mindset for a certain subject. The right attitude will be likely to bring about decent behavior. Also it is belief, feeling, and intention to uniformly on the behavior

- Self-efficacy for self-management toward breastfeeding: Social cognitive theory is a broad theoretical approach to explaining human behavior. Within this perspective, individuals are neither driven by inner forces nor automatically controlled by external stimuli. Human behavior is explained in terms of triadic reciprocal

determinism, in which behavior, cognition and other personal factors, and environmental events, all operate as interacting determinants of each other. Basic human capabilities under girding the regulation of behavior include symbolization, forethought, vicarious learning, self-regulation, and self-reflection. Self-efficacy, a form of self-knowledge, is a central concept in the theory (Bandura, 1989:2). Bandura (1989: 391) described self-efficacy as a person's confidence in his/her ability to perform specific behaviors in particular situations. Perceived self-efficacy is thought to be a predictor of an individual's choice of behaviors, the amount of effort that will be expended and the degree of persistence that will occur in the face of difficulty. It seems logical to expect that individuals who perceive them to be empowered in their work environments also would have high levels of self-efficacy for performing their roles in these environments. Locke, Frederick, Lee and Bobko, 1984; Schunk, 1984 cited by Bandura (1989:391) perceived self-efficacy as a significant determinant of performance, that operates partially independently of underlying skills. Perceived self-efficacy is a judgment of one's ability to accomplish a certain level of performance in executing a specific behavior. Efficacy expectations (judgment of personal efficacy) are distinct from outcome expectations (judgment concerning behavioral consequences). Efficacy expectations were proposed by Bandura as a primary determinant of behavior (Bandura, 1989: 390-399).

The self-efficacy appraisals in routine activities normally prove highly successful. If people have to judge their capabilities, they do so in accordance with what they know they can or cannot do without giving the matter much further thought. Perceived self-efficacy is an important construct related to the self-management of, because the patients and their families must learn and perform complex self-care skills over long periods. Because it is possible to enhance a person's belief in his/her own

self-efficacy via a variety of interventions, a reliable measure of this construct could be important for planning and evaluating interventions to promote self-management. Improving perceived self-efficacy regarding self-management behavior by cystic fibrosis patients and family members may be a key factor leading to improved care for children. This instrument was used to evaluate the confidence of parents or caretakers in 5 domains: medical judgment and communication, coping, communication, compliance and acceptance of exclusive breastfeeding; their responses were analyzed by factor analysis. One of the most interesting aspects of the factor analysis was that the items were loaded according to cognitive and behavioral processes of self-management, rather than to strict health and social problem domains.

2.4.2 Reinforcing factors: The reinforcing factor although important in determining the possibility of the particular behavior, they are often difficult to investigate and generalize because they vary from culture to culture. They are presented below.

- Supporter or husband's approval: Promotion of exclusive breastfeeding for the first six months can not be successful without a mutual understanding between the support, husband and wife. In a Thai society, supporter and husbands have more decision power than wives do, in all matters including exclusive breastfeeding for the first six months. Therefore, the supporter and husband's preference are likely to be an important factor, the supporter and husbands' reasons for opposing for exclusive breastfeeding for the first six months from wanting his wife work out the house, uncomfortable of breastfeeding, including cultural or belief.

- Social Norm: Norms are socially accepted informal rules that guild the behavior of its members. Social norm also prescribe an important and consciousness

of exclusive breastfeeding. In a social exclusive breastfeeding norms are affected by the occupational, educational etc.

- Religious Norm: Buddhism, Islam and Christian are three major religions in Thailand. There religious are believe that breastfeeding is help and support the babies, which it is a responsibility of parent to babies.

- Peer Influence: Peers are friends, neighbors, co-workers or people of the same age group, who share a similar lifestyle, education, and socio-economic status and whom the person trust and believes. Peer interaction can be a powerful force in increasing the rate of exclusive breastfeeding. (Bongaarts and Watkins, 1996).Peer can influence in a positive or negative way the attitude and intention of exclusive breastfeeding.

2.4.3 Enabling factors: The enabling factors are the service related factors that composed of the experience of exclusive breastfeeding, family's characteristic, the technique of sucking successful (early breastfeeding, frequency and correct latching on), and the duration allowed for work absence and convenience to keep breast milk.

- Experience of exclusive breastfeeding: Mothers who have breastfed their firstborn child tended to breastfeed their next child (Chutchaporn Hengsiri, 2003). Experience of exclusive breastfeeding of previous child was associated with the decision to breastfeed the next child (Susanha Yimyam, 2002).However, other study found that mothers' experience with breastfeeding was not an enabling factor to promote breastfeeding practices (Jeerawan Wannaro and Pravit Wannaro, 2003).

- Family's status and characteristic: Family's status and characteristic is one factor that influence on exclusive breastfeeding. Family's status composed married and divorced. Family's characteristic composed single and extended family. Single

family composes only father, mother and child. Extended family composes father, mother, child include grandmother, grandfather or cousins who are consultation and influence for decision of mother about breastfeeding.

- Technique of suckling successful:

1. Early breastfeeding: Initiate breastfeeding within about half to one hour of birth, the baby's suckling reflex is the strongest, and the baby is more alert, so it is the ideal time to start breastfeeding.

2. Practice frequent, on-demand breastfeeding, including night feeds: Babies should be fed on demand, as often as they want, day and night. This is usually 8–12 times in 24 hours, though there may be intervals between feeds that are longer or shorter than 2– 3 hours.

3. Correct latching on: When the nipple strokes the baby's cheek the baby will open its mouth and turn towards the nipple. So that the baby will latch on well, the nipple should be pushed into its mouth so that the baby has a mouthful of nipple and areola. The nipple should be at the back of the baby's throat, with the baby's tongue lying flat in its mouth.

4. Offer second breast after infant stops feeding from the first breast: Infants should continue feeding until they release the breast. This way, they get the water and nutrient-rich "fore milk" at the start of the feed and the fat, rich "hind milk" at the end of the feed. When offered the second breast, infants should be left to decide whether to continue feeding.

- Duration allowed for work absence and convenient to keep breast milk: This is one factor that influences the exclusive breastfeeding which means comfortable to breastfeeding practice and convenient to keep breast milk. One of the reasons for

weaning was that the mothers had to work outside their home and had little lactation (Chutchaporn Hengsiri, 2003).

2.4.4 Physiological factor. There are mode of delivery, health status of mothers and infants, infants' birth weight, the problems and obstacles in breastfeeding.

- Mode of delivery: In general, in cases of abnormal child delivery, the doctor will use a tool such as vacuum or forceps to pull the baby out. In case of C-section, complications such as pain or exhaustion caused by blood loss may result. From a study of Prawit somboon (1994:19), mode of delivery affected natural breastfeeding and normal childbirth makes mother readier to breastfeed their infants.

- Health status of mothers and infants: For health status of mothers, the finding of Sithiporn Horharitanon et al. (1994:42) showed that the health status of postpartum mothers was not related to their breastfeeding practices. In contrast, Kanchana Kumdee (1992:109) found out that the postpartum mothers' sicknesses were obstructing factors preventing them from breastfeeding their infants. For health status of infants, the finding of Sithiporn Horharitanon et al. (1994:42) discovered that the infants' health status at birth was not related to breastfeeding practice. On the contrary, Kanchana Kumdee (1992:104); Saowapa Homsuwan and Santit Boonyasong(1999: 8) found that the health problems of the infants at birth were associated with breastfeeding. Due to the infants' health problems during exclusive breastfeeding period such as illness, weak, exhausted, infants are unable to suck their mothers' nipples leading to losing the chance to be breastfed.

- Infants' birth weight and current weight: The infants' weight has effect to exclusive breastfeeding .The infants with low weight did not have enough energy to suck their mothers' breasts as much as the normal weight infants did (Sithiporn

Horharitanon et al. 1994:41).The heavier the infants' current weight, the longer the duration of breastfeeding. (Kritaporn Muangprom, 1994:41). Also, Lindenberg (1990:35-41) found that infant who weaned faster were those whose weight was lower.

- Problems and obstacles in breastfeeding: This is one important factor that affects the exclusive breastfeeding for the first six months.

2.5 Knowledge Sharing Practices with Empowerment Strategies (KSPES)

The proposed of this dissertation is to develop and examine KSPES on antenatal education and postnatal support strategies in pregnant women (Fig.2.2) to improve exclusive breastfeeding during the first six months after delivery. In this study, researcher designed the model for knowledge sharing practices with Empowerment based on Gibson theory (1991). This education consisted of:

Knowledge sharing practices model as follow:

- Communication is almost instant, even across a wide geographical spread. An important factor in the effective knowledge diffusion depends on the degree of information and communication technologies in the organization. The explicit and tacit knowledge in the organization is shared through knowledge sharing practices.

- Demonstration and displaying are the technologies which are currently in use and are going to be adopted in the future will become a platform for knowledge sharing across various divisions in the organization.

- Best practices are shared through a dedicated repository. Pregnant women share their achievements and experiences with best practices.

- Storytelling is the session that gives emphasis on knowledge sharing. Both external and internal knowledge is shared in this event. The external knowledge is imported through external speaker while internal knowledge is disseminated by the

pregnant women. Interesting topics on technical and non-technical subjects are covered in storytelling.

Empowerment model as follow:

Pregnant women are initially in a period of high anxiety, especially fearful to care the baby by exclusive breastfeeding for the first six months. Pregnant women who have not yet accepted the seriousness of their practices may be inclined to make plans for the baby that the baby cannot possibly realize. Pregnant women are holding on to the hope that their baby will restored to full health by exclusive breastfeeding. Sometimes, this level of denial is essential to the pregnant women' ability to cope but can become stretched beyond its limits. The negative emotions caused by problems in caring for their baby with exclusive breastfeeding decrease their perceived knowledge, attitude, and self-efficacy for self-management.

- Perceived self-efficacy is a critical determinant of the learning and performance of self-management behavior, a construct derived from the social cognitive theory of Bandura (1997: 195-198; 1989: 399-401) that it is the mothers' confidence about their ability to perform a specific behavior. This means the decision on one's ability to manage their behaviors to reach the goals. The process of empowerment to building up perceived self-efficacy consists of 4 steps as follow:

Step One: 'Discovering reality' this was the direct exchange of experience with one another. In doing so, the subjects were enabled to explore themselves in terms of knowledge, understanding, thoughts, and feelings, as well as their past actions. Having a chance to engage them in a discussion in a relaxing and friendly atmosphere helped to create a trust. The researcher facilitated and motivated them to talk and to link their different ideas, enabling the subjects to compare themselves with others and perform self-assessment. Besides, the subjects also had a chance to receive

accurate information from the researcher; thus, some of their misunderstandings could be clarified.

Step Two: 'Critical reflection' pregnant women had a chance to understand the situation that took place. Exchange of experience reflected different ideas toward the same situation, leading to learning new ideas. Each pregnant women of the group also had opportunity to use reasons to carefully consider their problems, so they developed new perceptions about the situation they were facing contributing both the advantages and disadvantages of such situation. They can also use others' similar experiences to solve their own problems.

Step Three: 'Taking charge' pregnant women had a chance to learn what they should do for themselves and the environment so as to respond to their own needs. The subjects shared their experiences with pregnant women who had different experiences. Meanwhile, the researcher helped them by using words to increase their self-confidence and by demonstrating appropriate behavior, providing the subjects with opportunity to receive the information necessary in their decision-making. The encouragement and moral support received made the subjects feel that they were able to do the activities by themselves and could perform appropriate behaviors when the situation required.

Step Four: 'Holding on' the subjects developed the feelings that they were able to handle themselves and the environment. They received encouragement, moral support, and good relationship with others. Thus, their self-confidence increased. Besides, the researcher was present to further motivate them, create the linkage between their ideas, provide accurate information they needed, and support them. The researcher also constantly observed the subjects' emotions and responded to the subjects' feelings.

The process of empowerment to build up motivation is the processional concept in leading to intrinsic and extrinsic development of the individuals in order to gain potential in accepting the situation and to gain experience, so that later on self-confidence and self-management ability to control the situations efficiently will develop. Finally, it is expected that mothers having children with congenital heart disease will gain more knowledge, attitude and self-efficacy for self-management to lessen the impact of exclusive breastfeeding for the first six months of life: as follow

Figure 2.2

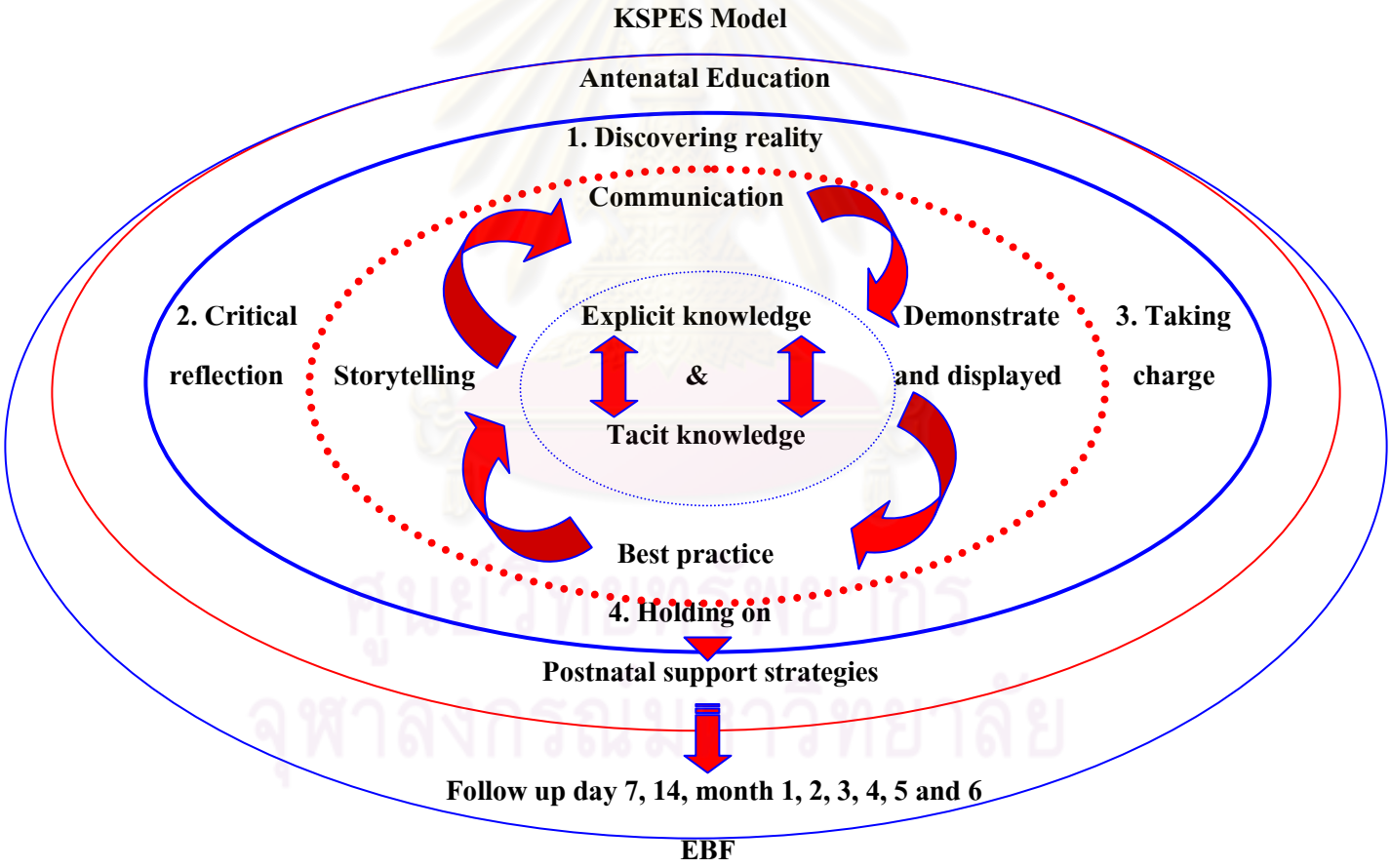
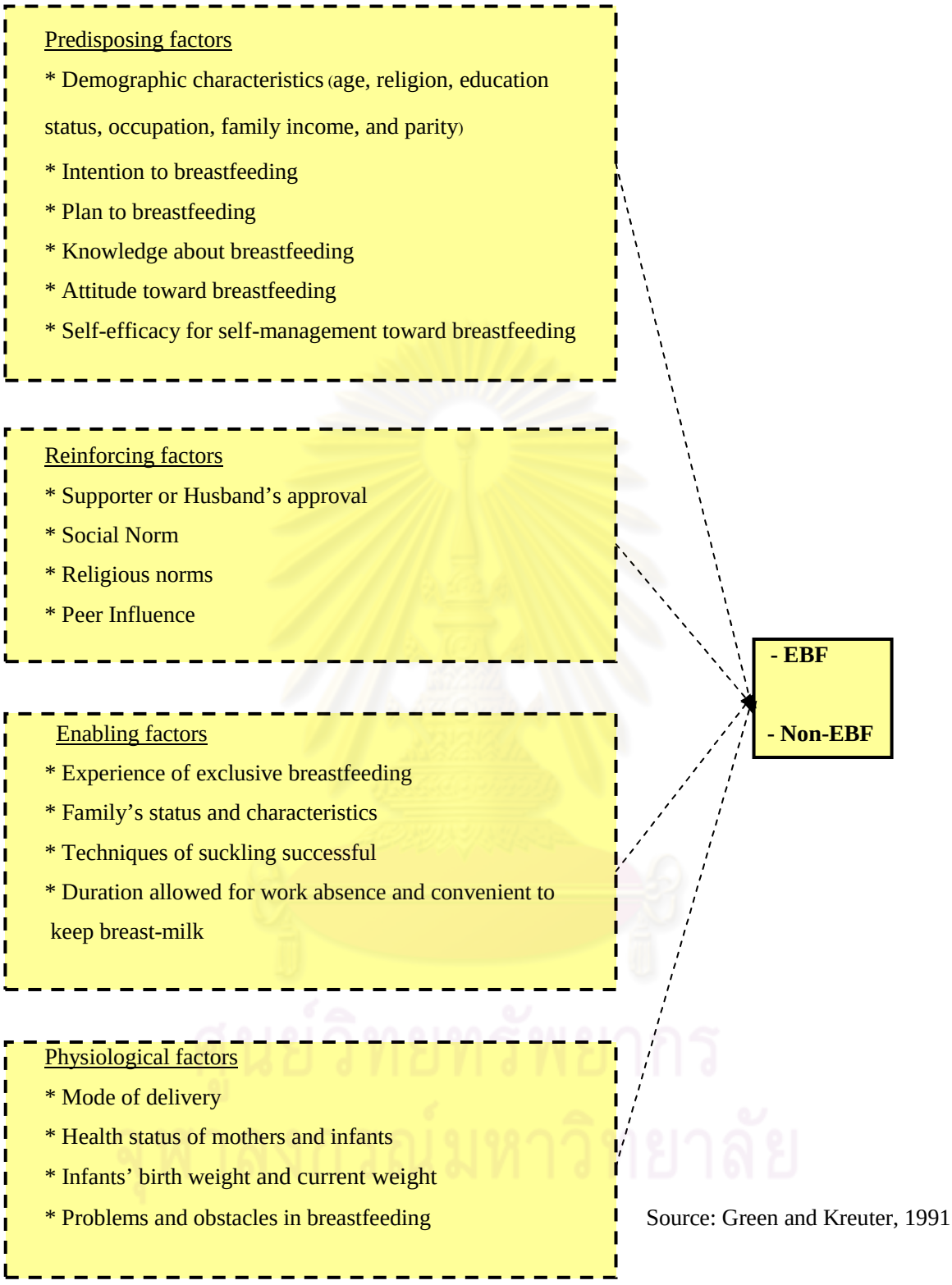


Figure 2.2: A Model for KSPES

2.6 Conceptual Framework of the study

The framework in this study is based on the literature, in which linkages among variables found in previous studies will be discussed. The framework is portrayed in this **Figure 2.3**, reveals that the predisposing as well as the enabling factor, particularly the knowledge and beliefs of the mothers regarding exclusive breastfeeding during the first six months after delivery and their access and acceptability to service can be improved by KSPES and plan strategies for dealing with the reinforcing factors and physical factors.



Source: Green and Kreuter, 1991

Figure 2.3: The PRECEDE Framework of determinants in the exclusive breastfeeding

CHAPTER III

RESEARCH METHODOLOGY

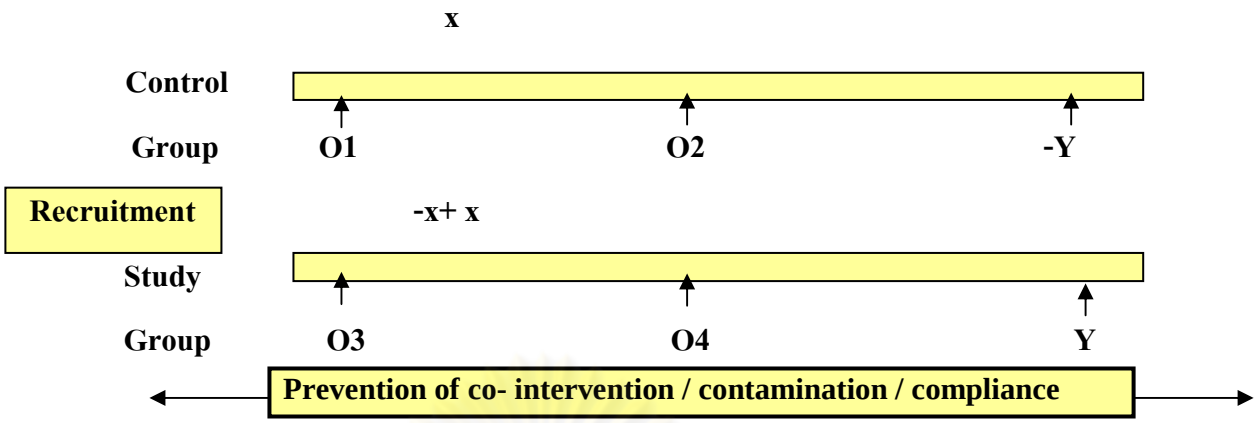
This chapter obtained 6 parts. Firstly- conceptual framework of research design consisted of target population, study population, sampling technique and sample size. Secondly - research instruments consisted of the Knowledge Sharing Practices with Empowerment Strategies Program (KSPES) on antenatal education and postnatal support strategies designed, data collection instrument and data collection period, thirdly - contained validity and reliability of the instruments, fourthly - data collection procedures and finally- data analyses. Moreover, this chapter also presented ethical considerations.

3.1 Conceptual Framework of Research design

This study used a Randomized Controlled Trial (RCT) study design with two comparable groups: study group and control group. The group that received KSPES on antenatal education and postnatal support strategies was called study group while group underwent the standard knowledge of breastfeeding technique was the control group.

This study designed to evaluate the effectiveness of KSPES on antenatal education and postnatal support strategies in pregnant women to improve the rate of exclusive breastfeeding during the first six months after delivery.

Figure 3.1: **The format of research design study**



O1, O3 refers to the scores for perceived knowledge, attitude and self-efficacy for self–management of the control group, and the study group, respectively, prior to participation in KSPES.

X refer to Knowledge Sharing Practices with Empowerment Strategies Program (KSPES)

-X refer to Routine standard knowledge of breastfeeding techniques

Y refer to Day 7, 14, months 1, 2, 3, 4, 5, and 6 follow up

-Y refer to Routine month 1, 2, 4, and 6 follow up at Pediatrics Clinic

O2, O4 refers to the scores for perceived knowledge, attitude and self-efficacy for self–management of the control group, and the study group, respectively, after participation in KSPES.

Adapted from Wood and Haber, 1998

Target Population

The target population was the pregnant women.

Study Population

Between January and March 2009, healthy pregnant women of more than 32 weeks' gestation who were attending antenatal care clinics and delivery at Department of Obstetrics and Gynecology, King Chulalongkorn Memorial Hospital, Faculty of

Medicine, Chulalongkorn University and Theptarin Hospital, Bangkok, Thailand.

Sample

The sample consisted of 80 pregnant women at more than 32 weeks' gestation receiving antenatal care between January due to February 2009 for delivery in February to March 2009 and completed six months of follow- up until August and September 2009 at King Chulalongkorn Memorial Hospital and Theptarin Hospital, Bangkok Province. Characteristics among the two randomize groups (the study group and the control group) were similar. Pregnant women were eligible for participation as they were selected according to the following:

* They expressed an intention to breast feed.

* They were healthy mothers of full term healthy infants.

* They did not have any disease or contraindications to breastfeeding such as

- Active untreated tuberculosis disease or human T-cell lymphotropic virus type I–or II–positive (Ando et al, 1989)

- Receiving diagnostic or therapeutic radioactive isotopes or have had exposure to radioactive materials (Gori et al, 1988)

- Receiving anti-metabolites or chemotherapeutic agents or a small number of other medications until they clear the milk (Egan et al, 1985)

- Herpes simplex lesions on a breast

- Infected with human immunodeficiency virus (HIV); and

- Using drugs of abuse (American Academy of Pediatrics; 2003).

* They are not multiple pregnancies.

* They and their infants had no complications or high risks during pregnancies and after deliveries

* They had no nipple abnormalities like nipple adenoma, nipple calcifications, supernumerary nipples etc.

* Their infants who did not have problem on sucking such as cleft lips cleft palate.

* They were able to communicate with others.

* They had a telephone line.

* They were willing to participate by giving informed consent to the study.

Eighty mothers were recruited according to the above criteria. Then, the researcher asked each of them to complete the general information.

Sampling Technique

After the study was approved by the Ethical Review Committee for Research Involving Human Research Subjects, the Health Science Group, the Ethics Committee of Faculty of Medicine, Chulalongkorn University, Thailand and the Ethics Committee on Researches Involving Human Subjects of Theptarin Hospital, eligible women who signed an informed consent were randomized into two treatment groups, the study and control groups. A randomization scheme was generated using a random number table. The co-investigator generated the allocation sequence, and principal investigator enrolled participants and assigned participants to their groups. When a woman met the study inclusion criteria, the principal investigator picked a sequentially numbered opaque envelope which contained a ticket identifying the group. The woman was then assigned to either a study or control group according to the ticket. Neither the provider nor the woman knew the treatment regimens.

Sample Size

Sample Size Calculation

The sample size calculation was based upon the estimated rates of exclusive breastfeeding at six months 5% in the control group (from pilot survey) and 30% in the study group. Two independent proportions, equal treatment group: control group (1:1)

$$n = \frac{2\,\bar{pq}\,(Z\alpha + Z\beta)^2}{(pc-pt)^2}$$

When n = number of sample size in each group (study and control groups)

$\bar{pc}$ = assumed event rate (expressed as a proportion) for the outcome of interest in the control group (0.05)

$\bar{pt}$ = assumed event rate (expressed as a proportion) for the outcome of interest in the study group(0.3)

p = ½ ($\bar{pc}$ + $\bar{pt}$) (a weight average of the 2 event rates)

q = 1- p

Z α and Z β = standard normal distribution follow α type I error and type II error Z α/2 in two – side test

(α = 0.05, so Zα/2 = 1.96, β = 0.2, so Zβ = 0.84)

$$n = \frac{2\,\bar{pq}\,(Z\alpha + Z\beta)^2}{(pc - pt)^2}$$

$$n = \frac{2\,(1.96+0.84)^2\,(0.825)\,(0.175)}{(0.05-0.3)^2}$$

$$n = \frac{2.2638}{0.0625}$$

n = 36.2 (36)

Thus, we needed 36 women in each group to detect statistical difference (α = 0.05, β = 0.2). With adjustments for a withdrawal rate of 10%, a minimum of 40 women in each group were required.

Forty subjects in the study group were then assigned to participate in the designed KSPES on antenatal education and postnatal support strategies, as well as a standard knowledge of breastfeeding techniques.

3.2 Research Instruments

This study was a Randomized Controlled Trial (RCT) study design. The research instruments used were

3.2.1 The KSPES on antenatal education and postnatal support strategies designed,

3.2.2 Data collection Instrument, and

3.2.3 Data Collection Period

3.2.1 The KSPES on antenatal education and postnatal support strategies designed

1) Review of the textbooks, journals and research works concerning the theoretical concepts of the Knowledge Sharing Practices with Empowerment based on Gibson theory (1991), of empowerment education, which consisted of four steps and each step consisted of four steps of KSP. All of these were done through communication, sharing discussion of their knowledge by storytelling, experience by best practices, demonstration and display the thoughts and feelings. In this way, the persons discovered their own success in managing themselves to breastfeeding and also learnt about others' experiences. In this way, it was the processional concept in

leading to intrinsic and extrinsic development of the individuals to gain potential in accepting the situation and to gain successful experience of exclusive breastfeeding and people could discover their own success in managing themselves to breastfeeding and could also learn about others' experiences, which were the most appropriate methods to change and motivate behavior in the pregnant women for improving exclusive breastfeeding during the first six months. The mothers then evaluated and compared their own standard themselves as well as by taking information from the group.

Four steps of KSPES Program as follows:

Step 1- Discovering reality: helping the pregnant women with breastfeeding to evaluate them about:

- Their knowledge and understanding of exclusive breastfeeding, compliance with exclusive breastfeeding plan.

- Understanding of their emotions, thoughts and behaviors.

- Understanding the reason why they are not prepared to communicate directly with the health professionals.

Step 2- Critical reflection: helping the pregnant women with breastfeeding practices reconsidering the evidence of what had happened to them in order to make decisions and manage the problems appropriately. The mothers uncovered/discovered their own abilities from sharing experiences with the others. They could find useful methods for themselves from the other mothers' experiences, for example, the emotional experience of each mother, as well as the method and problem-solving while caring of their children by exclusive breastfeeding, by observing and learning from the other mothers who were in similar situations.

Step 3- Taking charge: developing the abilities of the mother with breastfeeding to control and make own decision by providing them necessary information, such as how to cope with stress; effective communication; knowledge about breastfeeding; the care and assistance to be given to the child for exclusive breastfeeding. This was performed by demonstrating and letting the mothers follow the method, making sure that they could do it themselves, and also by encouraging and supporting them to overcome the problems.

Step 4- Holding on: assuring self-confidence, strength and ability of the mothers having exclusive breastfeeding for the first six months, by letting them practice until they gained confidence. Through this friendly two-way discussion on problems they faced, stress and worry were reduced so that their positive thoughts were maintained.

2) The KSPES on antenatal education and postnatal support strategies, based on the concept of the knowledge, the attitude, self-efficacy expectation for the self-management, of Bartholomew (1993), toward exclusive breastfeeding was then modified into five aspects of program content: acceptance of excusive breastfeeding for the first six months, coping, communication, judgment and compliance.

3) Provision of group treatment, by means of meeting 5-8 pregnant women per group once a day every day, from 13.00 P.M to 16.00 P.M. Each meeting took 70-80 minutes with a break between 2 times so that it included 6 sessions with four following stages:

Stage 1: Group organizing for introduction and objectives, the followings is to be done every time:

1. Breathing in slowly and deeply for 4 seconds, then holding on for 1 second, and then breathing out slowly within 4 seconds.

2. Building the relationship by the group leader, as follows:

Verbal language:

- Greeting.

- Asking each member to introduce them by telling their first and nick names, family name, residential province (for the first time only).

- Introductory talking and encouraging the group members.

- Agreement on the learning objectives, topic for assignment, time used confidentiality level, the roles of the leader and the members.

Non-verbal:

- Friendly attitude.

- Appropriate distance between each member sitting on soft cushion arranged in a circle without any table at the center, so that each member can face every group member in a warm and friendly atmosphere.

- Suitable eye contact. (The time required is 10 minutes)

Stage 2: Antenatal education phase: the designed Knowledge Sharing Practices with Empowerment Strategies (KSPES) had the following main contents: - Knowledge – Attitude – Acceptance – Coping – Communication –Medical judgment and Compliance.

The program contained 6 sessions: 1) Importance and Advantages of breastfeeding 2) Exclusive breastfeeding for the first six months 3) Technique of successful in breastfeeding 4) Expressing and store breast milk 5) Common breastfeeding Difficulties 6) Communication with Public Health officials training .Each session, consisting of 4 steps of empowerment strategies and each step of those consisted of four steps of KSP, taking 70-80 minutes each time of 2 times.

Stage 3: Closing the group: Before the end of programmed activities, the following were to be done:

- Allowing the mothers to ask their questions or to give their additional opinions.

- Letting the group members make conclusions on the discussed matters

-Making an appointment for the next meeting, this included the time, the place and the topic to be discussed.

- Saying thanks to all group members for their attention and cooperation.

(The average time required was 10 minutes)

Stage 4: Postpartum support strategies phase: the mothers in postpartum period placed in two sessions.

Session one: Postpartum women who were visited by the researcher or lactation consultant within the first three postnatal days before discharge from hospital were provided with some printed guidelines or handout of exclusive breastfeeding, purposely the problems and obstacles including solving methods.

Session two: This session was provided during their first routine postnatal visit after delivery. During these two encounters, the women received hand on instructions in latching on, proper positioning, and other techniques to avoid common complications. And researcher followed up by telephone interviewing at day 7, 14, month 1, 2, 3, 4, 5, and 6 with home visit depending on problem case.

All of these steps were done through communication, sharing, and discussion of their knowledge by storytelling, experience by best practices, demonstration and display with thoughts and feelings.

Session 1: Importance and Advantages of breastfeedingwith handout (20-25 Minutes)**

1. Discovering reality: allowing pregnant women to communicate, story telling and share their ideas, attitude, knowledge and feelings of the importance and advantages of breastfeeding while caring for their infants by exclusive breastfeeding.

2. Critical reflection: allowing pregnant women to express their thoughts, attitude, knowledge and feelings about the importance and advantages of breastfeeding to other pregnant women in group, thus, each member reflected her idea.

3. Taking charge: educating pregnant women to know about the definition, importance and advantages of breastfeeding.

4. Holding on: letting pregnant women ask questions and review their knowledge about congenital heart disease, and encouraging the pregnant women.

Session 2: Exclusive breastfeeding for the first six months**with handout **(20-25 Minutes)**

1. Discovering reality: letting pregnant women share their ideas of exclusive breastfeeding for the first six months.

2. Critical reflection: letting pregnant women understand the reason of exclusive breastfeeding for the first six months, and reflecting its related impact on themselves and how they could exclusively breastfeed for the first six months.

3. Taking charge: educating pregnant women about exclusive breastfeeding for the first six months

4. Holding on: letting pregnant women ask and review knowledge about exclusive breastfeeding for the first six months; and also encouraging pregnant women.

Session 3: Technique of successful in breastfeeding**with handout **(20-25 Minutes)**

1. Discovering reality: letting pregnant women share their ideas about failure in exclusive breastfeeding for the first six months.

2. Critical reflection: letting pregnant women be aware of the stressful situation and reflect upon their ideas.

3. Taking charge: educating pregnant women about the impact of stress and then reducing the stress by using technique of successful in breastfeeding.

4. Holding on: letting pregnant women ask, review knowledge and demonstrate the technique of successful breastfeeding with best practices

Session 4: Expressing and store breast milk**with handout

(20-25 Minutes)

1. Discovering reality: letting pregnant women share their ideas about expressing and storing breast milk in a situation that cannot breastfeed or work outside.

2. Critical reflection: letting pregnant women reflect their knowledge and the methods to solve any problem resulting from their experience on expressing and storing breast milk.

3. Taking charge: letting pregnant women review their knowledge about expressing and storing breast milk.

4. Holding on: letting pregnant women ask questions, demonstrate and review their knowledge about expressing and storing breast milk.

Session 5: Common Breastfeeding Difficulties**with handout

(20-25 Minutes)

1. Discovering reality: allowing pregnant women to share their ideas, emotions and feelings about their common breastfeeding difficulties.

2. Critical reflection: allowing pregnant women to express their feeling and knowledge of common breastfeeding difficulties to other pregnant women in group. Then each member gave individual reflection and idea.

3. Taking charge: letting pregnant women know that they could deal with the problem to a certain degree of common breastfeeding difficulties and educating pregnant women about common breastfeeding difficulties.

4. Holding on: making pregnant women realize their abilities to continue managing the situation by themselves and increasing their self-confidence. Also letting pregnant women ask and review knowledge about common breastfeeding difficulties; and also encouraging pregnant women.

Session 6: Communication with Public Health officials training**with handout **(20-25 Minutes)**

1. Discovering reality: letting pregnant women share their ideas about communication with the professional team and the family; and also the reasons why they could not do so.

2. Critical reflection: letting pregnant women reflect upon their understanding about communication with doctors and nurses or the professional team and the family; and also the reason why they could not do so.

3. Taking charge: building pregnant women self-efficacy in communication with doctors and nurses, and letting pregnant women practice communication.

4. Holding on: encouraging pregnant women to try to communicate with the medical personnel and the family since they were capable of doing so. Also letting pregnant women practice and try to communicate with others, and encouraging them until they could do so.

3.2.2 Data collection Instrument

3.2.2.1 Instrument for Quantitative Data collection was questionnaire.

First, an anonymous self-administered questionnaire that consisted of general information, knowledge about breastfeeding, attitudes toward breastfeeding and self-efficacy for self-management toward breastfeeding was completed. Secondly, after receiving the knowledge education, the self-administered written questionnaire was completed and after delivery, last self-administered anonymously written questionnaire consisting of general information, dealt with encouragement and support for breastfeeding practices, was completed together with the recorded information of exclusive breastfeeding for the first six months which would be continued recording at home. The entire instrument had been developed by the researcher. It was prepared by compiling the related literature and reviewing pertinent with the subject and existing researches which covered the contents and the objectives of the present research. It was divided into six parts (use 20-30 min/questionnaire) as follows:

Part 1: Elicited information regarding the maternal factors included age, religion, education status, occupation, family income, parity, intention to breastfeeding, plan to breastfeeding, experience of exclusive breastfeeding, family's status and characteristic, techniques of sucking successful, duration allowed for work absence, mode of delivery, and health status of the mothers. It also covered the infant factors which were birth weights, current weights and health status.

Part 2: Concerned the pregnant women' knowledge and understanding about exclusive breastfeeding .The sample needed to choose between three options, "yes" or "no", or "not sure". The scores were given as follows:

The question with "yes" answer, if the sample groups answer "yes"	1 point
The question with "yes" answer, if the sample group answer "no"	0 point

The question with “no” answer, if the sample group answer “no”	1 point
The question with “no” answer, if the sample group answer “yes”	0 point
The question with “yes” answer, if the sample groups answer “not sure”	0 point
The question with “no” answer, if the sample group answer “not sure”	1 point

Part 3: Regarded the postpartum mothers’ attitudes toward breastfeeding practice including beliefs, feelings, and intention to breastfeed. The questions used the 5-point Likert scale as follows:

	Positive attitudes	**Negative attitudes**
Strongly agree	5 points	1 point
Agree	4 points	2 points
Undecided	3 points	3 points
Disagree	2 points	4 points
Strongly disagree	1 point	5 points

Part 4: Perceived self-efficacy for self-management questionnaire

The perceived self-efficacy for self-management questionnaire was developed from the perceived self-efficacy for self-management in breastfeeding mothers as follow: Acceptance – Coping - Communication - Judgment – Compliance.

The subjects were asked to rate their perceived self-efficacy for self-management in relation to each item on a five-point scale as follows

Level of confidence	**Score**
Not confident	1 point
Least confident	2 points
Moderately confident	3 points
Very confident	4 points
Most confident	5 points

These scores were used to determine the effectiveness of perceived self-efficacy for self-management.

Part 5: Dealt with encouragement and support for breastfeeding practices. The questions elicited individual's information of supportive exclusive, activities promoting breastfeeding conducted by supporter or husband's approval from family during antepartum, interpartum, postpartum period, and that of follow up period after discharging from the hospital which included social norms, religious norms, and peer influence. The answers were rated in a five-rating scale and scored as follows:

All true: interviewee agreed with the statement the most	5 points
Mostly true: interviewee agreed with the statement almost all of it	4 points
Half true: interviewee agreed with the statement only half of it	3 points
Partial true: interviewee agreed with the statement only little	2 points
False: interviewee disagreed with all of the statement	1 point

Part 6: Recorded information of exclusive breastfeeding for the first six months such as duration and the pattern of breastfeeding by mothers on day 7, 14, months 1, 2, 3, 4, 5, and 6, which was prepared for the pregnant women to record at their homes. The questionnaires were applied from the guidebook of baby nursing of Dietetics section, Health department of Ministry of Public Health.

3.2.2.2 Instruments for Qualitative Data collection were observation and telephone Interview

1) Observation

The observation technique was structured to be non- participant observation through home visit on case problem about exclusive breastfeeding. The observation adopted the principle of Lofland (1971): cite in Nisa Chooto, (1999) with six points as follows:

Acts: The research observed mother's behavior while breastfeeding and soothing their babies.

Activities: The researcher observed the sample distribution of formula, the activities that reflected the relationship of related parties as well as the process and pattern of a baby rising.

Meaning: The researcher observed and analyzed the meaning underlying activities or speech from the group samples such as, the activities of participatory learning that guided family's supporter to help breastfeeding a child, obstacles and problems occurring while breastfeeding with the solutions, and how to nurse a child constantly by breastfeeding.

Participation: The researcher observed the participants' behaviors while conducting the interviews.

Relationship: The research observed the relationship between mother and family's supporter responsible to support breastfeeding.

Settings: The researcher observed the pattern of everything in the field that could use as an analysis unit such as, the house features, environments that supported breastfeeding such as equipment for formula mixing, concept and role model of breastfeeding including community's norm of breastfeeding.

2) In-depth Interview by telephone

The researcher gathered data from various groups with different status. In-depth interview by telephone was conducted so as to receive the most accurate data from the interviewee. The interview was conducted via a constructive relationship, in such a way, that the interviewee felt easy and comfortable. This helped the interviewee having confidence and agreed to reveal the data as much as possible. The in-depth interview by telephone went smoothly as the interviewee felt familiar with

the researcher from time after time for six months and with the interviewee's kind cooperation, the data was naturally provided.

Summary of the field data collection in one mother	
Questionnaire	: 3 times
In-depth Interview by telephone (only study group)	: 8 times
Home visit observation (only study group)	: at least 1 time and up to problem about exclusive breastfeeding

3.3 Content Validity and Reliability of the Instruments

Data Validity and Reliability for Quantitative data were as follows:

3.3.1. Content validity was conducted by asking the following five experts to validate the breastfeeding questionnaire:

* A pediatrician

* An ob-gynecologist

* A nursing instructor who was a specialist in pediatrics

* A nurse in the Lactation Clinic who was a specialist in breastfeeding

*A health education academic who was a specialist in Knowledge management (KM) and Empowerment Theory

The experts reviewed the content validity of the questionnaire as well as language appropriateness that related with the objective and gave comments and recommendation for revision of the instrument.

3.3.2. Reliability The questionnaire which had been revised to ensure content validity was tested with 30 subjects who had characteristics similar to those of the study sample. The Kuder-Richardson 20 was used to determine the reliability of the

questionnaire investigation postpartum women' knowledge of breastfeeding, while Cronbach's alpha coefficient was used to determine the reliability of the questionnaire measuring the postpartum mothers' attitudes toward breastfeeding and the reliability of perceived self-efficacy for self-management toward breastfeeding, using the SPSS/PC program version 13 for statistical analysis (SPSS Inc, Chicago, IL, USA). Test-retest reliability was used for confirmation of the validity of the questionnaire.

The Kuder-Richardson (K-R20) reliability coefficient was as follows:

$$rtt = \frac{K}{K-1}\left(\frac{1-pq}{S}\right)$$

The Cronbach's alpha coefficient was as follows:

$$= \frac{K}{K-1}\left(\frac{1-S1}{S1}\right)$$

3.4 Data Collection Procedures

The data collecting procedures were performed in the following sequences:

1. The introduced letter with detail information and asking for permission to conduct this research study was requested from the Faculty of Graduate Studies, Chulalongkorn University and then asking for permission to collect data and for cooperation from staff members was sent to the Department of Obstetrics and Gynecology Care Units under the network of King Chulalongkorn Memorial Hospital, Faculty of Medicine and Theptarin Hospital, Bangkok Province.

2. After the study was approved by the Ethical Review Committee for Research Involving Human Research Subjects, the Health Science Group, the Ethics Committee of Faculty of Medicine, Chulalongkorn University, Thailand and the Ethics Committee on Researches Involving Human Subjects of Theptarin Hospital,

eligible women who signed an informed consent were randomized into two treatment groups, the study and control groups. The pregnant women were informed about the purpose, nature and procedures of the study, including the protection of their human rights in participating in this research. A positive human relationship was offered and open discussion or questions were welcomed to promote trustworthy rapport. Pregnant women were asked to participate as subjects in the study.

3. The study samples were recruited from the pregnant women with eligible for participation who conformed to the inclusion criteria in the study and control groups, by collecting data from the controlled group first to avoid co-intervention, contamination and compliance.

4. Assignments were given to the subjects for the following purposes:

4.1 The pregnant women in both groups were asked to complete the general information form and the perceived knowledge, attitude, and self-efficacy for self-management toward breastfeeding questionnaire (as a pre-test).

4.2 Pregnant women in the study group were asked to participate in the KSPES on antenatal education and postnatal support strategies.

4.3 After the final session of the KSPES, the pregnant women in the study group and a standard knowledge of breastfeeding techniques in the control group were asked to answer both questionnaires for the second time (as post-test).

4.4 Followed up during the first six months after delivery by telephone interviews and home visit on problem case about exclusive breastfeeding in the study group, and routine followed up in the control group and they were asked to answer both questionnaires for the third time (as post-test at six months after delivery).

5. The researcher collected and processed the data ready for further analysis.

Data Collection Period

Period of data collection started from 32 weeks of gestation to competed six months follow-up, i.e., 24 weeks or six months postpartum of each mothers by conducting a questionnaire, in-depth interview, and home visit observation on problem case. The detail may be illustrated in **Figure 3.2**

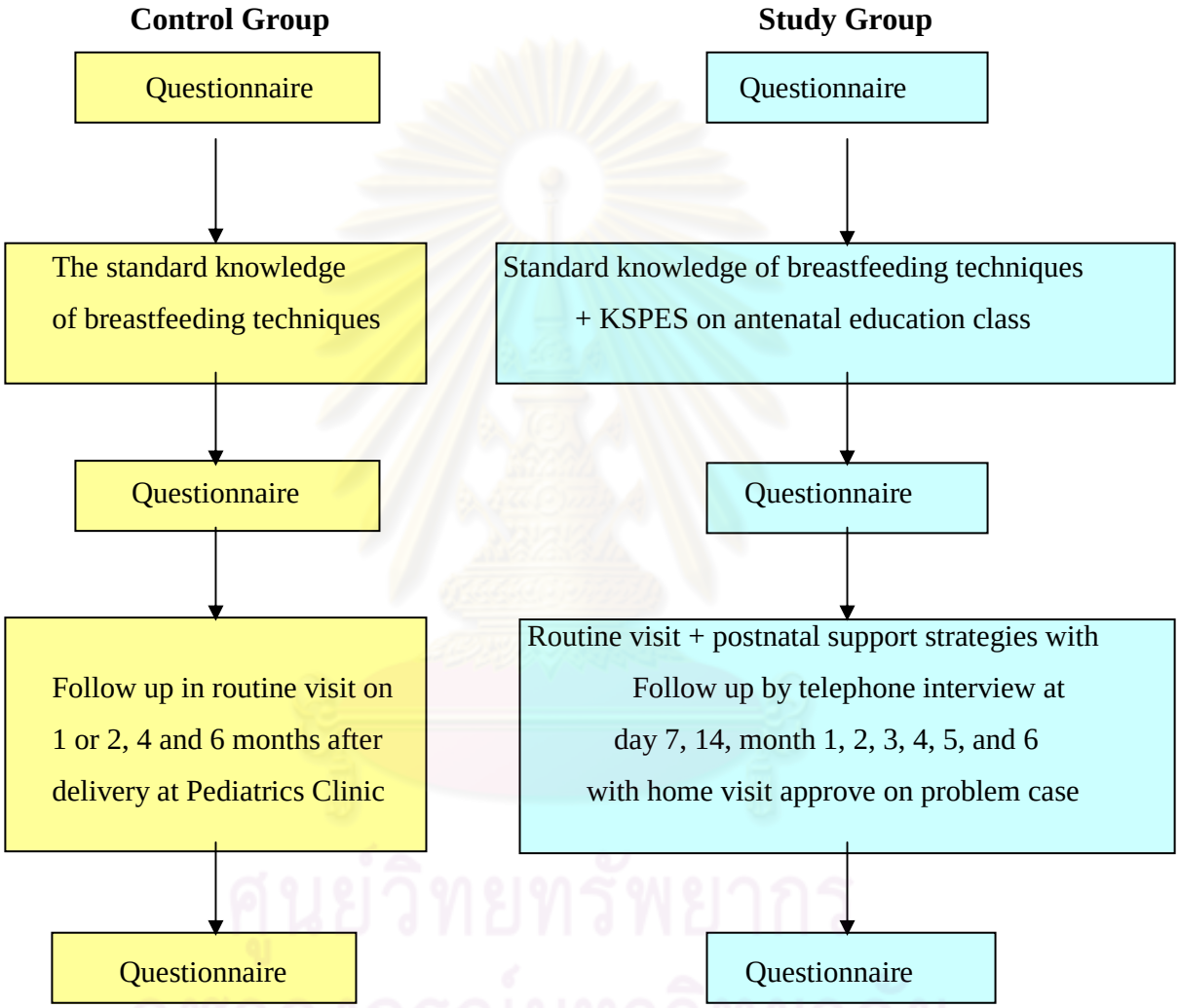


Figure 3.2: Comparing the period of data collection in both group

3.5 Data Analyses

Data analysis consisted of quantitative and qualitative data analysis which could be detailed as follows:

3.5.1 Quantitative Data Analysis

The researcher analyzed the compiled data by using SPSS version 13 for statistical analysis (SPSS Inc, Chicago, IL, USA). Results were presented as adjusted odds ratio (OR) with 95% confidence interval (CI). P-value< 0.05 was considered to be statistically significant.

3.5.1.1 Conducting data coding and data entry

3.5.1.2 Checking and cleaning data

3.5.1.3 Analyzing data using descriptive statistics and inferential statistics

3.5.1.3.1 Categorical data was expressed by percentage and comparison was made by the chi square test. Continuous variables were expressed as mean and standard deviations and compared by student t test.

3.5.1.3.2 Descriptive statistics were derived for the percentage; means and standard deviation of the perceived knowledge, attitude, and self-efficacy for self-management toward breastfeeding mean scores of the sample.

3.5.1.3.3 Compare the duration and rates of exclusive breastfeeding practices between the control group and the study group, by running the test on various groups, and calculated by Chi-square test with statistically significant at 0.05.

3.5.1.3.4 Test of difference between mean scores of the perceived knowledge, attitude, and self-efficacy for self-management toward breastfeeding before the intervention between the control and the study group, or inter-group comparison of continuous variables was carried out by using unpaired t-test.

3.5.1.3.5 Test of difference between mean scores of the perceived knowledge, attitude and self-efficacy for self-management toward breastfeeding before and after the intervention in the control group, or intra-group comparison of continuous variables was carried out by using paired t-test.

3.5.1.3.6 Test of difference between mean scores of the perceived knowledge, attitude, and self-efficacy for self-management toward breastfeeding before and after the intervention in the study group and intra-group comparison of continuous variables was carried out by using paired t-test.

3.5.1.3.7 Test of difference between mean scores of the perceived knowledge, attitude, and self-efficacy for self-management toward breastfeeding after the intervention between the control and the study group or inter-group comparison of continuous variables was carried out by using unpaired t-test.

3.5.1.3.8 The relationship between factors that were associated with exclusive breast feeding was determined by using the multivariate logistic regression analysis. Results were presented as relative risk with 95% confidence interval (CI). A P-value < 0.05 was considered statistically significant.

3.5.1.3.9 For the women who were lost to follow-up, an intention-to-treat analysis was used, counting all lost to follow-up women

3.5.2 Qualitative Data Analysis

- Data Analysis

After implementing the full field note on a daily basis, the researcher reviewed and stressed the interested and related materials to the study subject, with the subject's writing to categorize the materials on cards, i.e., supporting factors, obstacles from breastfeeding, and the solutions. The researcher would at times find the opinion and

summary point and put them aside as a remark. The researcher also arranged the data as a group file so as to be convenient for searching purpose as well as for data review.

- Data Validation

Data validation for qualitative analysis was to obtain the valid and reliable data needed for triangulation as time source, location source and personal source from key informants by inquiry, observing behaviors as well as interacting with the community.

The qualitative study began with recording all summary points that obtained from observation and in-depth telephone interview in order to create an overview situation from small details which determined as an inductive approach. The data regarding encouragement and support for exclusive breastfeeding during the first six months were collected by visiting the postpartum mothers who were on problem case of exclusive breastfeeding. This was followed by writing a descriptive report in analytical description style. The researcher analyzed the aligning purpose and supportive factor for exclusive breastfeeding supports to indicate the supportive factors for both the breastfeeding supports and obstacles.

3.6 Ethical Considerations

The Ethical Review Committee for Research Involving Human Research Subjects, Health Science Group, the Institutional Review Board of the Faculty of Medicine, Chulalongkorn University, Thailand and the Ethics Committee on Researches Involving Human Subjects, of Theptarin Hospital approved the research protocol. All participants were given adequate information, and consent was obtained from each participant that they could withdraw from the study at any time with no effect to their treatment. The confidentiality of patients, her families and health personnel were respected.

CHAPTER IV

RESULTS

Findings of this study comprised of both descriptive and analytical findings. Descriptive findings illustrated the results from each study phase which covered the effectiveness of Knowledge Sharing Practices with Empowerment Strategies (KSPES) in pregnant women to improve exclusive breastfeeding during the first six months after delivery, focus group discussion, and the results from observation, in-depth telephone interviews and home visit on problem case. The analytical findings also explained the relationships between various factors and the rates and the duration of exclusive breastfeeding. The quantitative and qualitative results were shown partly with a discussion that integrated both findings together. That the questionnaire had 6 parts for pretest, posttest and posttest at six months after delivery of study group and control group as follow:

Part 1: The maternal and infant factors (For pretest & Posttest at six months after delivery)

Part 2: Knowledge of breastfeeding (For pretest & posttest)

Part 3: Attitude toward breastfeeding (For pretest & posttest)

Part 4: Self-efficacy for self-management toward breastfeeding (For pretest & posttest)

Part 5: Support for breastfeeding practices (For posttest at six months after delivery)

Part 6: Record information of exclusive breastfeeding for the first six months (Posttest at six months after delivery)

4.1 Descriptive findings and association between various factors and breastfeeding pattern

Descriptive findings of determinants of exclusive breastfeeding

4.1.1 Predisposing factors

4.1.1.1 Demographic characteristics

4.1.1.2 Intention to breastfeeding

4.1.1.3 Plan to breastfeeding

4.1.1.4 Knowledge about breastfeeding

4.1.1.5 Attitude toward breastfeeding

4.1.1.6 Self-efficacy for self-management toward breastfeeding

4.1.2 Reinforcing factors

4.1.2.1 Supporter or husband's approval

4.1.2.2 Social norm

4.1.2.3 Religious norms

4.1.2.4 Peer influence

4.1.3 Enabling factors

4.1.3.1 Experience of exclusive breastfeeding

4.1.3.2 Family's status and characteristic

4.1.3.3 Techniques of suckling successful

4.1.3.4 Duration allowed for work absence and convenient to keep breast milk

4.1.4 Physiological factors

4.1.4.1 Mode of delivery

4.1.4.2 Health status of mothers and infants

4.1.4.3 Infants' birth weight and current weight

4.1.4.4 Problems and obstacles in breastfeeding

4.2 Result from effective of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in pregnant women to improve exclusive breastfeeding during the first six months after delivery.

4.2.1 Qualitative results of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program

4.2.1.1 Knowledge Sharing Practices with Empowerment Strategies (KSPES) Process

4.2.1.2 Focus group discussion, participant observation, in-depth telephone interviews and home visit on problem case data

4.2.2 Quantitative results of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program

4.2.2.1 Mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding before and after intervention within the study group and within the control group.

4.2.2.2 Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group.

4.3 Results of multivariate logistic regression analysis of factors influencing decision on exclusive breastfeeding during the first six months

4.1 Descriptive findings and association between various factors and breastfeeding pattern

Descriptive findings of determinants of exclusive breastfeeding

Descriptive findings related to demographic characteristic describes the general data and the characteristic of 40 pregnant women in the study group (50 per

cent) and 40 pregnant women in the control group (50 per cent), 80 pregnant women in total**.**

The subjects consisted of 80 pregnant women at more than 32 weeks' gestation receiving antenatal care between January due on February 2009 for delivery and February on March 2009 and completed six months of follow- up until August and September 2009 at King Chulalongkorn Memorial Hospital, Faculty of Medicine, Chulalongkorn University and Theptarin Hospital. The largest group of subjects was 60 pregnant women from King Chulalongkorn Memorial Hospital (75 per cent). Characteristics among the two randomized groups, 30 of the study group and 30 of the control group were similar, and 20 pregnant women from Theptarin Hospital was the smallest group of the subjects (25 per cent). Characteristics among the two randomized groups, 10 of the study group and 10 of the control group were similar too as **Table 4.1**

The follow-up was completed in October 2009. Seven women were lost to follow-up (3 in the study group and 4 in the control group). Two women in the control group were excluded; one had a dead fetus in utero and one had a neonatal death from heart disease at 1-month of age. A total of 71 (88.8 per cent) women (37 in the study group and 34 in the control group) completed six months of follow-up. Since 7 women were lost to follow-up, counting all lost to follow-up women were counted as non-exclusive breast feeding and low mean scores were performed according to an intention-to-treat analysis. Screening, randomization, discontinuation and loss to follow-up were summarized in **Figure 4.1**

Table 4.1: Number and percentage of the subjects at King Chulalongkorn Memorial and Theptarin Hospital.

Hospital	Subjects group				Total	
	Study group		Control group			
	Number	%	Number	%	Number	%
King Chulalongkorn Memorial	30	75.0	30	75.0	60	75.0
Theptarin	10	25.0	10	25.0	20	25.0
Total	**40**	**100.0**	**40**	**100.0**	**80**	**100.0**

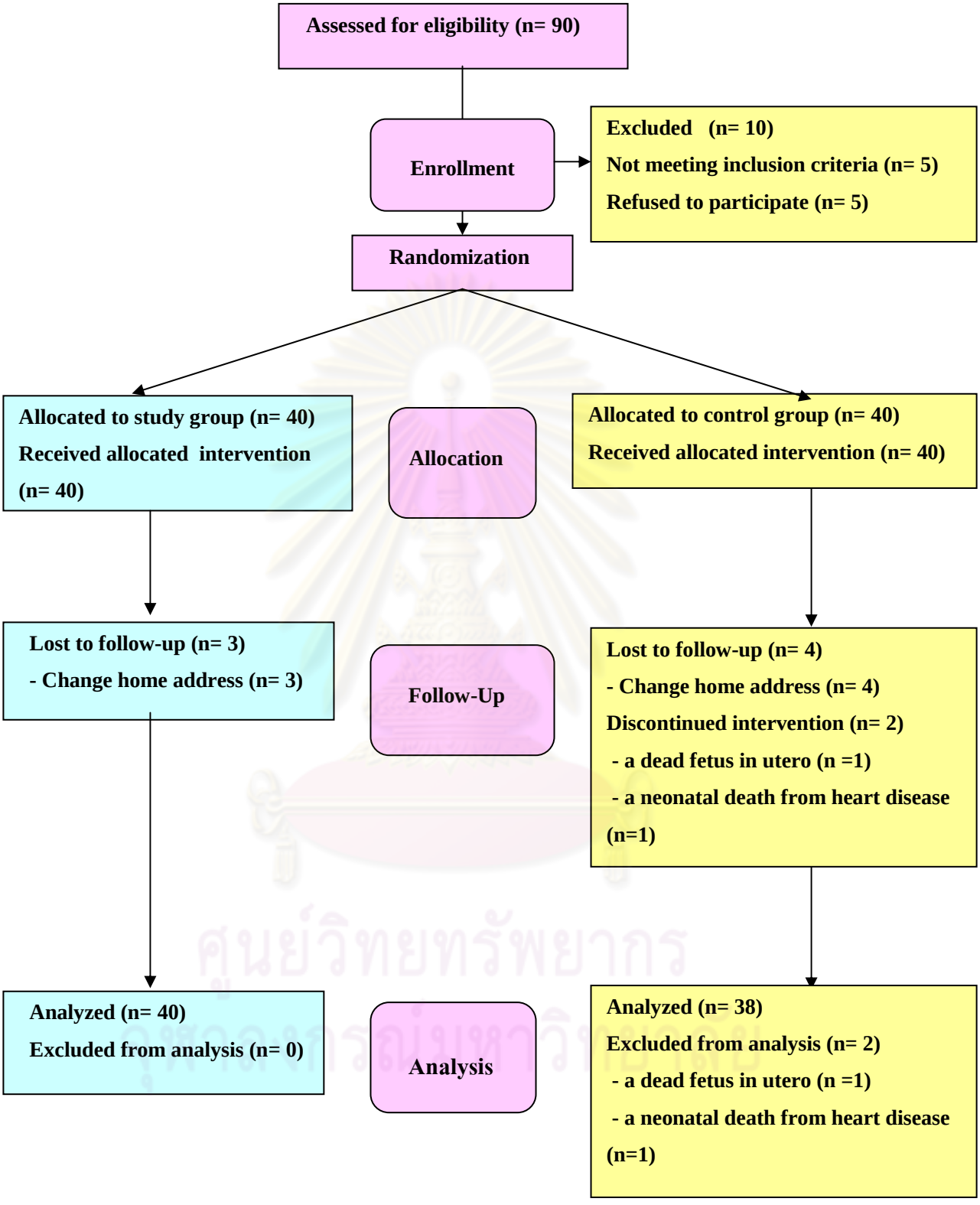


Figure 4.1: Screening, randomization, discontinuation and loss to follow-up

4.1.1 Predisposing factors

4.1.1.1 Demographic characteristics

Predisposing factors related demographic characteristics **(Table 4.2)**

Age: Most pregnant women in the study group were between 26-30 years of age (32.5 per cent), followed by the middle age group of pregnant women between 31-35 years (22.5 per age (45 per cent) which was the same as in the study group, followed by those of age between 21-25 years which was also the same as the older group of pregnant women aged 36 years and above (17.5 per cent), then that of pregnant women between 31-35 years of age (12.5 per cent), and lastly the younger group who were not older than 20 years old (7.5 per cent).

The average age of pregnant women of the study group was 27.8 years old. The youngest pregnant woman was 17 years old, and the oldest was 44 years old. Majority of the pregnant women in the study group were 28 years old. Much not differently, the average age of pregnant women in the control group was 28.8 years old. The youngest pregnant women of the control group were 15 years old, and the oldest is 42 years old. Majority of pregnant women in the control group were 28 years old.

After calculating the statistical significant at 0.05 by comparing between the study and control groups at six months after delivery, there was no statistical difference between groups regarding age (p-value=0.508).

Religion: Buddhism, Islam and Christianity are three major religions. According to their religions, it is believed that breastfeeding helped and supported the babies, and it is also the responsibility of parents to their babies. A large amount of pregnant women in the study group were Buddhists (100 per cent), and 97.5 per cent of the control group was Buddhists and the rest 2.5 per cent was Muslims.

Calculating statistical significant at 0.05 and comparing between the study and control group at six months after delivery, there was no statistical difference between groups regarding religion (p-value=0.314).

Education status: Nearly half of the study group was from Secondary school level and the remaining half from Bachelor or higher level (40 per cent each) followed by those completed Primary school level i.e., 20 per cent.

In the same manner, nearly half of the numbers of pregnant women in the control group who completed Secondary school level was calculated to be 42.5 per cent, the numbers of those who finished Bachelor or higher level was 30 per cent, and the numbers of those who finished Primary school level was 17.5 per cent. Finally**,** those who attended the vocational education became the least numbered group with 10.0 per cent.

When statistical significant at 0.05 was calculated by comparing between the study and control group at six months after delivery, there was no statistical difference between groups regarding education status (p-value=0.198).

Occupation: Pregnant women from both study and control groups were employees, 27.5 and 42.5 percents respectively, followed by the same percent of private officials and housewives, i.e., 20.0 per cent in each group both in the study and control groups.

Calculating the statistical significant at 0.05 in the study and control groups at six months after delivery, there was no statistical difference between groups regarding occupation (p-value=0.376).

Work place: Most pregnant women in both study and control groups were working outside their house; the percentages are 67.5 and 72.5 respectively. Only 32.5

per cent of pregnant women from study group and 27.5 per cent of those from control group were working at their house.

Calculating the statistical significant at 0.05 in the study and control group at six months after delivery, there was no statistical difference between groups regarding work place (p-value=0.626).

Family income: The largest of the study group, or 45.0 per cent, had family income lower than 10,000 bahts per month so as the same in the control group, or 30 percent. Secondly, 22.5 per cent of the study group had the family income more than 25,000 bahts per month, so did the control group which accounted for 30 per cent. The medians of the family income of both the study group and control group were 12,500 and 16,000 bahts per month respectively.

After calculating the statistical significant at 0.05, there was no statistical difference between the study group and control group at six months after delivery regarding family income (p-value=0.151).

Parity: More than half of pregnant women in both the study and control groups were primiparous, the former, 57.5 per cent and the latter, 52.5 per cent and multiparous were 42.5 per cent and 47.5 per cent respectively.

Calculating the statistical significant at 0.05 by comparing the study and control groups at six months after delivery, there was no statistical difference between groups regarding parity (p-value=0.653).

4.1.1.2 Intention to breastfeeding

Predisposing factors related intention to breastfeeding **(Table 4.2)**

Intention to breastfeeding: Nearly all of the pregnant women in both the study and control groups had an intention to breastfeeding; the percentages were 95.0 per cent and 92.5 per cent respectively. Contradictorily, those who did not have

intention to breastfeeding were only 5.0 per cent and 7.5 per cent respectively, with the reasons of working outside and doing business.

After calculating the statistical significant at 0.05 by comparing the study and control groups at six months after delivery, there was no statistical difference between groups regarding intention to breastfeeding(p-value=0.644).

4.1.1.3 Plan to breastfeeding

Predisposing factor related plan to breastfeeding **(Table 4.2)**

Plan to breastfeeding: Most of the pregnant women in both study and control groups had plans to breastfeeding: the percentages were 77.5 per cent in both groups. Not having plan to breastfeeding were 22.5 per cent each in both groups.

After calculating the statistical significant at 0.05 by comparing the study and control groups at six months after delivery, there was no statistical difference between groups regarding plan to breastfeeding (p-value=1.000).

Table 4.2: Number and percentage of demographic characteristic data, intention and plan to breastfeeding of the study and the control group.

Demographic characteristic Data, intention and plan to breastfeeding	Study group		Control group		p-value
	Number	Percentage	Number	Percentage	
Age group (Year)					**0.508**
<= 20	7	17.5	3	7.5	
21-25	7	17.5	7	17.5	
26-30	13	32.5	18	45.0	
31-35	9	22.5	5	12.5	
>=36	4	10.0	7	17.5	
	Mean=27.83 SD=6.50 Mode=18.00 Min=17.00 Max=44		Mean=28.78 SD= 6.27 Mode=28.00 Min=15.00 Max=42		
Religion					**0.314**
Buddhists	40	100.0	39	97.5	
Muslims	0	0.0	1	2.5	
Education status					**0.198**
Primary school level	8	20.0	7	17.5	
Secondary school level	16	40.0	17	42.5	
Bachelor or higher level	16	40.0	12	30.0	
Other: the vocational education	0	0.0	4	10.0	

Table 4.2: Number and percentage of demographic characteristic data, intention and plan to breastfeeding of the study and the control group.(Cont.)

Demographic characteristic Data, intention and plan to breastfeeding	Study group		Control group		p-value
	Number	Percentage	Number	Percentage	
Occupation					
Housewives	8	20.0	8	20.0	**0.376**
Employees	11	27.5	17	42.5	
Private officials	8	20.0	8	20.0	
Government officials	4	10.0	4	10.0	
Business owners	3	7.5	0	0.0	
Trade	6	15.0	2	5.0	
Other: a student	0	0.0	1	2.5	
Work place					
At their house	13	32.5	11	27.5	**0.626**
Outside their house	27	67.5	29	72.5	
Family income (Bahts/month)					**0.151**
<= 10,000	18	45.0	12	30.0	
10,000-14,999	3	7.5	3	7.5	
15,000-19,999	5	12.5	6	15.0	
20,000-24,999	5	12.5	7	17.5	
>=25,000	9	22.5	12	30.0	
	Median=12,500		Median=16,000		

Table 4.2: Number and percentage of demographic characteristic data, intention and plan to breastfeeding of the study and the control group. (Cont.)

Demographic characteristic Data, intention and plan to breastfeeding	Study group		Control group		p-value
	Number	Percentage	Number	Percentage	
Parity					
Primiparous	23	57.5	21	52.5	**0.653**
Multiparous	17	42.5	19	47.5	
Intention to breastfeeding					**0.644**
Having Intention	38	95.0	37	92.5	
Not having intention	2	5.0	3	7.5	
Plan to breastfeeding					
Having plan	31	77.5	31	77.5	**1.000**
Not having plan	9	22.5	9	22.5	
	40	**100.0**	**40**	**100.0**	

4.1.1.4 Knowledge about breastfeeding

Predisposing factors related knowledge about breastfeeding in **Table 4.3**

The questionnaire concerned the pregnant women's knowledge and understanding about exclusive breastfeeding and consisted of 20 items covering the topics of benefits of breastfeeding as well as methods, duration of exclusive breastfeeding until solving the problem of exclusive breastfeeding. Each item required an answer between three options, "yes", if the sample group answered "yes", scored 1 point, or "yes" , if the sample group answered "no", got the score 0 point, or "no", if

the sample group answered “no”, got the score 1 point, or “no” , if the sample group answered “yes”, got the score 0 point, or “yes”, if the sample group answered “not sure”, got the score 0 point, or “no” , if the sample group answer “not sure”, got the score 1 point.

The total scores were then calculated into percentage and compared between the study and the control group and the total scores were divided into three levels: scores higher than 80 to be good level of knowledge of breastfeeding, that between 60-79 to be moderate level and 0-59 to be poor level.

While comparing between the study and the control groups according to their knowledge about breastfeeding before and after the intervention, it was found out that most of the study group before the intervention (KSPES), or 77.5 per cent, had mean score at poor level of knowledge about breastfeeding, and after the intervention (KSPES), full or 100.0 per cent, had mean score at good level of knowledge about breastfeeding. On the other hand, more than half of the control group (65.0 percent) had mean score at poor level of knowledge about breastfeeding before the routine standard knowledge, and after the routine standard knowledge, 77.5 per cent still had the poor level of knowledge about breastfeeding.

When taking the average scores of knowledge about breastfeeding before intervention in the study group and routine standard knowledge in the control group, they were found to be 8.75 and 9.68 respectively, and mostly were 10.00 and 9.00. Minimum scores were 3.00 and 4.00 and maximum monthly scores were 14.00 and 16.00 in the study and the control group, respectively.

The average scores of knowledge about breastfeeding after intervention in the study group and routine standard knowledge in the control group were 18.73 and 9.50 respectively, and most of the scores were 19.00 and 11.00. They also had the

minimum scores of 16.00 and 4.00 with maximum monthly scores of 19.00 and 15.00 in the study and the control groups respectively.

Moreover, when statistical significant at 0.05 was calculated by comparing before intervention between the study and control group at six months after delivery, it was no statistical difference between groups regarding knowledge about breastfeeding (p-value=0.175). The details were described as below in **Table 4.4**

4.1.1.5 Attitude toward breastfeeding

Predisposing factors related attitude toward breastfeeding in **Table 4.3**

The questionnaire eliciting the attitude toward breastfeeding included the beliefs, feelings, and intention to breastfeed using the 5-point Likert scale with 15 positive and negative items. As for the positive items**, '**strongly agree' got the score of 5 points, 'agree' got the score of 4 points, 'undecided' got the score of 3 points, 'disagree' got the score of 2 points, and 'strongly disagree' got the score of 1 point; and reverse scoring was made for the negative items. The mean scores were calculated from the total scores and then separated into three levels: 3.67-5.00 as the high level of attitude toward breastfeeding; 1.34 -3.66 as the moderate level of attitude toward breastfeeding, and 1.00-1.33 as the low level of attitude toward breastfeeding.

Comparing before and after intervention between the study and the control groups according to their attitude toward breastfeeding, it was found that the large group of the study group before the intervention (KSPES), or 62.5 per cent, had mean score at moderate level of attitude toward breastfeeding, and after the intervention (KSPES), nearly full or 95.5 per cent, had mean score at high level of attitude toward breastfeeding. Reversely, more than half of the control group, i.e., 55.0 percent, before the routine standard knowledge had mean score at high level of attitude toward

breastfeeding, and after the routine standard knowledge, 52.5 per cent had decreased the mean score to moderate level of attitude toward breastfeeding.

When taking the average scores of attitude toward breastfeeding before intervention in the study group and routine standard knowledge in the control group, they were found to be 3.26 and 3.49 respectively, and most of the scores were 2.47 and 3.80. They had the minimum scores of 2.13 and 2.73 with maximum monthly scores of 4.33 and 3.93 in the study and the control group respectively.

The average scores of attitude toward breastfeeding after intervention in the study group and routine standard knowledge in the control group were 4.45 and 3.48 respectively, and most of the scores were 4.53 and 3.67. Also they had the minimum scores of 3.13 and 2.67 with maximum monthly scores of 5.00 and 4.33 in the study and the control group respectively.

When calculating the statistical significant at 0.05 by comparing the study and control groups at six months after delivery before intervention, which was so called the mean score of 'attitude toward breastfeeding', there was no statistical difference between groups regarding attitude toward breastfeeding(p-value=0.054). The details were described as below in **Table 4.4**

4.1.1.6 Self-efficacy for self-management toward breastfeeding

Predisposing factors related self-efficacy for self-management toward breastfeeding in **Table 4.3**

The questionnaire eliciting self-efficacy for self-management toward breastfeeding was developed from the perceived self-efficacy for self-management in breastfeeding mothers. They were acceptance, coping, communication, judgment and compliance. The subjects were asked to rate their perceived self-efficacy for self-management in relation to each item on a five-point scale with 22 positive items. The

levels of confidence were as follow; ‘Not confident’ got the score of 1 point, ‘Least confident’ got the score of 2 points, ‘Moderately confident’ got the score of 3 points, ‘Very confident’ got the score of 4 points, and ‘Most confident’ got the score of 5 points. The mean scores were also calculated from the total scores and then separated into five levels: as 4.21-5.00 mean scores as the highest level, 3.41-4.20 mean scores as the high level, 2.61-3.40 mean scores as the moderate level, 1.81-2.60 mean scores as the low level, and 1.00-1.80 mean scores as the lowest level of self-efficacy for self-management toward breastfeeding.

While comparing the study and the control groups according to their self-efficacy for self-management toward breastfeeding before and after intervention, it was found that the large portion of the study group (72.5 percent) had mean scores at moderate level of self-efficacy for self-management toward breastfeeding before the intervention (KSPES), and after the intervention (KSPES), 75.0 percent got increased mean scores attaining the highest level of self-efficacy for self-management toward breastfeeding. Majority of the control group (65.0 per cent) before the routine standard knowledge had mean scores at the high level of self-efficacy for self-management toward breastfeeding, and after the routine standard knowledge, 50.0 percent had same level as before achieving the moderate level of self-efficacy for self-management toward breastfeeding.

The average scores of self-efficacy for self-management toward breastfeeding before intervention in the study group and routine standard knowledge in the control group were 3.22 and 3.38 respectively, and most of the scores were 3.29 and 3.71. Also they had the minimum scores of 2.38 and 2.14 with maximum monthly scores of 4.14 and 3.71 in the study and the control group respectively.

The average scores of self-efficacy for self-management toward breastfeeding after intervention in the study group and routine standard knowledge in the control group were 4.40 and 3.28 respectively, and majority of the scores were 4.14 and 2.62. Minimum scores were 4.00 and 2.62 and maximum monthly scores were 5.00 and 4.19 in the study and the control group respectively. Also, there was no statistical difference between groups regarding self-efficacy for self-management toward breastfeeding (p-value=0.056). The details as described below in **Table 4.4**

Table 4.3: Number and percentage of before and after intervention (KSPES) in the study group and routine standard knowledge in the control group categorized according to level of knowledge of breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding.

Level of questionnaires	Study group				Control group			
	Before the intervention (KSPES)		After the intervention (KSPES)		Before a standard knowledge technique		After a standard knowledge technique	
	Number	%	Number	%	Number	%	Number	%
Level of knowledge of breastfeeding								
Good (scores >= 80%)	0	0.0	**40**	**100.0**	1	2.5	0	0.0
Moderate (scores=60-79%)	9	22.5	0	0.0	13	32.5	9	22.5
Poor (scores =0-59%)	**31**	**77.5**	0	0.0	**26**	**65.0**	**31**	**77.5**
	Mean=8.75 SD=2.8 Mode=10.00 Min=3.00 Max=14.00		Mean=18.73 SD=.68 Mode=19.00 Min=16.00 Max=19.00		Mean=9.68 SD=3.21 Mode=9.00 Min=4.00 Max=16.00		Mean=9.50 SD=2.65 Mode=11.00 Min=4.00 Max=15.00	

Level of questionnaires	Study group				Control group			
	Before the intervention (KSPES)		After the intervention (KSPES)		Before a standard knowledge technique		After a standard knowledge technique	
	Number	%	Number	%	Number	%	Number	%
Level attitude toward breastfeeding								
High (mean scores 3.67-5.00)	15	37.5	**39**	**95.5**	**22**	**55.0**	19	47.5
Moderate(mean scores=1.34-3.66)	**25**	**62.5**	1	2.5	18	45.0	**21**	**52.5**
Poor(mean scores =1.00-1.33)	0	0.0	0	0.0	0	0.0	0	0.0
	Mean=3.26 SD=.66 Mode=2.47 Min=2.13 Max=4.33		Mean=4.45 SD=.39 Mode=4.53 Min=3.13 Max=5.00		Mean=3.49 SD=.37 Mode=3.80 Min=2.73 Max=3.93		Mean=3.48 SD=.53 Mode=3.67 Min=2.67 Max=4.33	
Level self-efficacy for self-management toward breastfeeding								
Highest (mean scores 4.21-5.00)	0	0.0	**30**	**75.0**	0	0.0	0	0.0
High(mean scores 3.41-4.20)	9	22.5	10	25.0	**26**	**65.0**	**20**	**50.0**
Moderate (mean scores 2.61-3.40)	**29**	**72.5**	0	0.0	12	30.0	**20**	**50.0**
low (mean scores1.81-2.60)	2	5.0	0	0.0	2	5.0	0	0.0
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	0	0.0	0	0.0
	Mean=3.22 SD=.349 Mode=3.29 Min=2.38 Max=4.14		Mean=4.40 SD=.23 Mode=4.14 Min=4.00 Max=5.00		Mean=3.38 SD=.41 Mode=3.71 Min=2.14 Max=3.71		Mean=3.28 SD=.48 Mode=2.62 Min=2.62 Max=4.19	

Table 4.4: Mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding before intervention (KSPES) between in the study group and a standard knowledge of breastfeeding in the control group.

Questionnaires	Study group		Control group		p-value
	X	S.D.	X	S.D.	
Knowledge about breastfeeding	8.75	2.83	9.68	3.21	**0.175**
Attitude toward breastfeeding	3.26	0.66	3.49	0.37	**0.054**
Self-efficacy for self-management toward breastfeeding	3.22	0.35	3.38	0.40	**0.056**

4.1.2 Reinforcing factors

4.1.2.1 Supporter or husband's approval

Reinforcing factors related supporter or husband's approval in **Table 4.5**

The questionnaire containing supporter or husband's approval was the information regarding individuals with supportive exclusive activities promoting breastfeeding conducted by supporter or husband's approval from family during antenatal care, interpartum, postpartum period, and follow up after discharge from the hospital. The subjects were asked to rate their perceived supporter or husband's approval in relation to each item on a five point scale of 3 parts of 'Taking care of the infant by feeding enough milk', 'Giving assistance to the mother' and 'Supporting mental health', with 14 positive items of level of confidence as follows, in 'All true' statements, the interviewees agreed with the statement the most, got the score 5 points, in 'Mostly true' statements, those agreed with the statement almost all of it, got the score 4 points, in 'Half true', those agreed with the statement only half of it, got the score 3 points, in 'Partial true', those agreed with the statement only little, got the

score 2 points, in ‘False’ statement, those disagreed with all of the statement, got the score 1 point.

The mean scores were calculated from the total scores and then divided into five levels: 4.21-5.00 scores as the highest level, 3.41-4.20 scores as the high level, 2.61-3.40 scores as the moderate level, 1.81-2.60 scores as the low level, and 1.00-1.80 scores as the lowest level of Supporter or Husband’s approval.

After comparing between the study and the control group according to supporter or approval, as first part, it was found that the largest of the study group, 52.5 per cent, had mean score of ‘Taking care of the infant by feeding enough milk’, the highest level, while the rest or 37.5 per cent had mean score of the high level. On the other hand, most of the control group, or 63.1 per cent, had mean score of the moderate level, while the rest or 26.3 per cent had mean score of the high level. It explained that majority of pregnant women in the study group had mean score of ‘Taking care of the infant by feeding enough’ i.e., clearly higher level than those in the control group.

The average mean scores of ‘taking care of the infant by feeding enough milk’ in the study group and control group were 4.34 and 3.45, respectively, and mode of mean score of them were 5.00 and 3.40 respectively. Also they had minimum mean scores of 3.40 and 2.40, and maximum mean scores of 5.00 which was the same in the study and the control groups.

Similarly, in the second part, after comparing between the study and the control groups, the largest of the study group, or 65.0 per cent, had mean score of ‘Giving assistance to the mother’, i.e., the highest level, while the rest or 35.0 per cent had mean score of the high level. Alternatively, most of the control group, or 42.1 per cent, had mean score of the high level, while the rest or 34.2 per cent had mean score

of the moderate level. It can be clarified that most of the pregnant women in the study group had mean score of ‘Giving assistance to the mother’ which was higher level than those in the control group undoubtedly.

The average mean scores of ‘giving assistance to the mother’ in the study group and control group were 4.41 and 3.44 respectively, and the modes were 5.00 and 3.00 respectively. They had the minimum mean score of 3.50 and 2.00 and maximum mean score of 5.00 and 4.50 in the study and the control group respectively.

In the third part, comparing between the study and the control, it was found the largest of the study group, or 57.5 per cent, had mean score of ‘Supporting mental health’, at a highest level, while the rest or 37.5 per cent had mean score of the high level. In contrast, most of the control group, or 52.6 per cent, had mean score of the moderate level, while the rest or 21.1 per cent had mean score of the high level. Majority of the pregnant women in the study group had higher level than those in the control group obviously.

The average mean scores of ‘supporting mental health’ in the study group and control group were 4.33 and 3.19 respectively. The modes of the mean scores were 5.00 and 3.00 respectively and minimum mean scores were 3.33 and 2.00 and maximum mean scores were 5.00 and 4.33 in the study and the control group respectively.

‘Supporter or Husband’s approval’ in the study group had higher level than those in the control group, or ‘Supporter or Husband’s approval’ in the study group had more influence upon supportive exclusive activities promoting breastfeeding during the first six months of life than the control group obviously. When calculating the statistical significant at 0.05 by comparing the study and control group at six

months after delivery, there was statistical difference between groups regarding ‘Supporter or Husband’s approval’ (p-value<0.001at all).

4.1.2.2 Social norm

Reinforcing factors related social norm in **Table 4.5**

Social norm: Norms are socially accepted informal rules that guild the behavior of its members. Social norm also prescribes an important and consciousness of exclusive breastfeeding.

The questionnaire obtaining social norm’s approval was the information regarding individuals with supported exclusive, activities promoting breastfeeding during the first six months of life conducted by people in social during antenatal care, interpartum, postpartum period, and follow up after discharge from the hospital. The subjects were asked by only one questionnaire on a five point scale item and the levels of confidence were as follow, in ‘All true’ statements, the interviewee agreed with the statement the most, got the score 5 points, in ‘Mostly true’, those agreed with the statement almost all of it, got the score 4 points, in ‘Half true’, those agreed with the statement only half of it, got the score 3 points, in ‘Partial true’, those agreed with the statement only little, got the score 2 points, in ‘False’ statement, those disagreed with all of the statement, got the score 1 point.

Also, the mean scores were calculated from the total scores and then divided into five levels: as 4.21-5.00 scores as the highest level, 3.41-4.20 scores as the high level, 2.61-3.40 scores as the moderate, 1.81-2.60 scores as the low level, and 1.00-1.80 scores as the lowest level social norm.

After comparing the social norm between the study and the control group, it was found out that the largest portion of the study group, or 52,5 per cent, had mean score of ‘social norm’ at the highest level, while the rest or 40.0 per cent had mean

score of that at the high level. On the other hand, most of the control group, or 63.1 per cent, had mean score of those as the moderate level, while the rest or 31.6 per cent had mean score of those at the high level. It explained that most pregnant women in the study group had higher level of social norms than those in the control group. In other words, social norm in the study group had higher influence on supported exclusive, activities promoting breastfeeding during the first six months of life than the control group obviously. The average mean score of 'social norm' in the study group and control group were 4.43 and 3.28, respectively, and the modes of mean scores of them were 5.00 and 3.00 respectively. They had the same minimum mean score of 2.00 and maximum mean score of 5.00 and 4.00 in the study and the control group respectively.

Moreover, when calculating the statistical significant at 0.05 comparing the study and control group at six months after delivery, there was statistical difference between groups regarding social norm (p-value<0.001).

4.1.2.3 Religious norms

Reinforcing factors related religious norms as same as in **Table 4.2**

4.1.2.4 Peer influence

Reinforcing factors related peer influence **in Table 4.5**

Peer influence: Peers are friends, neighbors, co-workers or people of the same age group, who share a similar lifestyle, education, and socio-economic status and whom the person trust and believes.

The questionnaire of peer influence's approval was the information of the individuals with supported exclusive, activities promoting breastfeeding during the first six months of life conducted by peer influence during antenatal care, interpartum, postpartum period, and follow up after discharge from the hospital. The subjects were

asked by only one questionnaire on a five point scale items as level of confidence follows, for ‘All true’ questions, interviewee agrees with the statement the most, got the score 5 points, for ‘Mostly true’, interviewee agrees with the statement almost all of it, got the score 4 points, for ‘Half true’ interviewee agrees with the statement only half of it, got the score 3 points, for ‘Partial true’ interviewee agrees with the statement only little, got the score 2 points, for ‘False’ interviewee disagrees with all of the statement, got the score 1 point.

Also, the mean scores were calculated from the total scores and then divided into five levels: 4.21-5.00 scores as the highest level, 3.41-4.20 scores as the high level, 2.61-3.40 scores as the moderate level, 1.81-2.60 scores as the low level, and 1.00-1.80 scores as the lowest level of peer influence.

After comparing the peer influence between the study and the control group, major portion of the study group, or 54.1 per cent, had mean score of ‘peer influence’, at the highest level, while the rest or 37.8 per cent had mean score of that as the high level while most of the control group, or 63.2 per cent, had mean score of that as the moderate level, while the rest or 26.3 per cent had mean score of that as the high level. It explained that most pregnant women in the study group had higher level of ‘peer influence’ than those in the control group clearly, or peer influence in the study group had more influence on supported exclusive, activities promoting breastfeeding during the first six months of life than the control group obviously. The average mean score of ‘peer influence’ in the study group and control group were 4.50 and 3.18 respectively, and the modes of the mean scores of them were 5.00 and 3.00 respectively. Minimum mean scores were 3.00 and 2.00 and maximum were 5.00 and 4.00 in the study and the control groups respectively.

When the statistical significant at 0.05 was calculated by comparing the mean score of 'peer influence' between the study and control group at six months after delivery, there was statistical difference between groups. (p-value<0.001).

Table 4.5: **Number and percentage of mean scores of the study and the control group categorized according to reinforcing factors**.

Reinforcing factors	Study group		Control group		p-value
	Number	Percentage	Number	Percentage	
Supporter or Husband's approval 'Taking care of the infant by feeding enough milk'					**<0.001***
Highest (mean scores 4.21-5.00)	21	52.5	2	5.3	
High (mean scores 3.41-4.20)	15	37.5	10	26.3	
Moderate (mean scores 2.61-3.40)	4	10.0	24	63.1	
low (mean scores1.81-2.60)	0	0.0	2	5.3	
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	
	Mean=4.34 SD=0.56 Mode=5.00 Min=3.40 Max=5.00		Mean=3.45 SD=0.56 Mode=3.40 Min=2.40 Max=5.00		
'Giving assistance to the mother'					**<0.001***
Highest (mean scores 4.21-5.00)	26	65.0	5	13.2	
High(mean scores 3.41-4.20)	14	35.0	16	42.1	
Moderate (mean scores 2.61-3.40)	0	0.0	13	34.2	
low (mean scores1.81-2.60)	0	0.0	4	10.5	
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	
	Mean=4.41 SD=0.49 Mode=5.00 Min=3.50 Max=5.00		Mean=3.44 SD=0.61 Mode=3.00 Min=2.00 Max=4.50		
'Supporting mental health'					
Highest (mean scores 4.21-5.00)				7.9	**<0.001***
High(mean scores 3.41-4.20)	23	57.5	3	21.1	
	15	37.5	8		

Moderate (mean scores 2.61-3.40)	2	5.0	20	52.6	
low (mean scores1.81-2.60)	0	0.0	7	18.4	
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	
	Mean=4.33 SD=0.53 Mode=5.00 Min=3.33 Max=5.00		Mean=3.19 SD=0.60 Mode=3.00 Min= 2.00 Max=4.33		
Social norm					
Highest (mean scores 4.21-5.00)	21	52.5	0	0.0	**<0.001***
High (mean scores 3.41-4.20)	16	40.0	12	31.6	
Moderate (mean scores 2.61-3.40)	2	5.0	24	63.1	
low (mean scores1.81-2.60)	1	2.5	2	5.3	
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	
	Mean=4.43 SD=0.71 Mode=5.00 Min=2.00 Max=5.00		Mean=3.28 SD=0.55 Mode=3.00 Min=2.00 Max=4.00		
Peer influence					
Highest (mean scores 4.21-5.00)	23	54.1	0	0.0	**<0.001***
High (mean scores 3.41-4.20)	14	37.8	10	26.3	
Moderate (mean scores 2.61-3.40)	3	8.1	24	63.2	
low (mean scores1.81-2.60)	0	0.0	4	10.5	
lowest (mean scores 1.00-1.80)	0	0.0	0	0.0	
	Mean=4.50 SD=0.64 Mode=5.00 Min=3.00 Max=5.00		Mean=3.18 SD=0.60 Mode=3.00 Min=2.00 Max=4.00		
	40	**100.0**	**38**	**100.0**	

4.1.3 Enabling factors

4.1.3.1 Experience of exclusive breastfeeding

Enabling factors related experience of exclusive breastfeeding in **Table 4.6**

Experience of exclusive breastfeeding: A little more than half of the multiparous in the study are having experience of exclusive breastfeeding with 58.8

per cent that it is the same in the control group as 78.9 per cent. And, multiparous in the study and in the control group are not having experience of exclusive breastfeeding with 41.2 per cent and 41.2 per cent, respectively. It explained that most of multiparous in both of the study and the control groups had among of experience of exclusive breastfeeding or have breastfed their firstborn child tended to breastfeed their next child practically.

When calculating the statistical significant at 0.05 comparing experience of exclusive breastfeeding between the study and control groups, there was no statistical difference between groups regarding experience exclusive breastfeeding (p-value=0.191).

4.1.3.2 Family's status and characteristic

Enabling factors related family's status and characteristic **in Table 4.6**

Family status and characteristic was one factor that influenced on exclusive breastfeeding. Family status was composed of the marital status, i.e., married or divorced. The majority of pregnant women in both study and control groups lived together with husbands every day; the percentages were 87.5 per cent and 82.5 per cent, followed by some days which were 10.0 per cent in both groups and the smallest group or Separate from husband (Widow /Divorce) was only 2.5 and 7.5 per cent in the study and the control group respectively.

When calculating the statistical significant at 0.05 comparing the Family status between the study and control group, there was no statistical difference between groups regarding family status (p-value=0.589).

Family's characteristic was composed of single and extended family. Single family consisted of father, mother and child only. Extended family consisted of father, mother, child plus grandmother, grandfather or cousins who could interfere or

influence the decision of mother about breastfeeding. When looking at the subject group, pregnant women in the study groups who came from single family (composed the woman and her husband) and extended family (composed the woman, her husband and their relatives) were equal in number, both were 50 per cent. Similarly, 60 percent of pregnant women in the control group had single family (compose the woman and her husband) and 40 percent had extended family (compose the woman, her husband and their relatives).

Furthermore, when calculating the statistical significant at 0.05 by comparing the family's characteristic between the study and control group, there was no statistical difference between groups regarding family's characteristic(p-value=0.369).

4.1.3.3 Techniques of suckling successful (Early breastfeeding)

Enabling Factors related techniques of suckling successful (Early breastfeeding) in **Table 4.6**

Techniques of suckling successful consisted of four techniques. They were- first technique of 'Early breastfeeding': in the half hour after birth, the baby's suckling reflex is the strongest, and the baby is alert, so it is the ideal time to start breastfeeding. When compared between both study and control groups, it is found out that the infant's sucking in half an hour after birth were 77.5 and 15.8 per cents, respectively which showed that regarding the infant's suckling in half an hour after birth, infants of the pregnant women in the study group had five times more than those from the control group undoubtedly.

Second technique of 'Frequency': breastfeeding at least once every two to three hours helps to keep up the milk production. The study resulted that the infants' suckling at least once every two to three hours in the study and the control groups were 95.0 and 42.1 per cent, respectively which meant infants in the study group had

more frequency of feedings, i.e., at least once every two to three hours than those in the control group certainly.

Third technique of ‘correct Latching on’: when the nipple strokes the baby’s cheek the baby will open its mouth and turn towards the nipple so that the baby will latch on well. The nipple should be pushed into its mouth so that the baby has a mouthful of nipple and areola. The nipple should be at the back of the baby’s throat, with the baby’s tongue lying flat in its mouth. Women who had the correct latching on were 87.5 and 42.1 per cents in the study and the control group respectively which indicated that women in the study group had more correct latching on than those in the control group.

Fourth technique of ‘smooth and enough suckling’: baby should suckle smoothly and enough amounts from both sides of the breasts every time because breast milk is the most complete form of nutrition and hind milk includes fat for infants and is the source of nutrition. Smooth and enough suckling from both breasts every time was found to be 87.5 and 28.9 per cent in the study and control group respectively. That represented that the study group had more infants’ smooth and enough suckling from both sides each time than the control group certainly.

After analysis, the study group had more techniques of suckling successful (Early breastfeeding) than the control group, undoubtedly. After calculating the statistical significant at 0.05 comparing of techniques of sucking successful (Early breastfeeding) between the study and control group, there was statistical difference between groups regarding techniques of suckling successful (Early breastfeeding) (p-value<0.001 at all).

4.1.3.4 Duration allowed for work absence and convenient to keep breast milk Enabling factors - duration allowed for work absence and convenient to keep breast milk in **Table 4.6**

Duration allowed for work absence and convenient to keep breast milk was one factor that influenced on exclusive breastfeeding contributing comfortableness to breastfeeding practice and convenience to keep breast milk. Women who worked in the study and control groups were 27 and 29 respectively.

When looking in the restart working of mothers; most of the study and the control group had nearly restarted working on the third months after delivery or 59.3 and 58.6 per cent, respectively, that it is one reason to relate with government's policy to suspend mothers from their duties about three months.

When calculating the statistical significant at 0.05 comparing the study and control groups, there was no statistical difference between groups regarding nearly restarted working (p-value=0.208).

Regarding taking the places for keeping the milk and convenient to keep the women's breast milk at her workplace, both the study and control groups had same percentage, 92.8 and 44.8 per cents.

When calculating the statistical significant at 0.05 comparing of those between the study and control group, there was statistical difference between groups regarding 'the places for keeping the milk and convenient to keep the women's breast milk at her workplace' (p-value<0.001).

Table 4.6: Number and percentage of the study and the control group categorized according to enabling factors.

Enabling factors	Study group		Control group		p-value
	Number	Percentage	Number	Percentage	
Experience of exclusive breastfeeding (Multiparous)					**0.191**
Having experience	10	58.8	15	78.9	
Not having experience	7	41.2	4	21.1	
	17	**100.0**	**19**	**100.0**	
Family's status					
Stay with husband (Every day)	35	87.5	33	82.5	**0.589**
Stay with husband (Some day)	4	10.0	4	10.0	
Separate from husband (Widow /Divorce)	1	2.5	3	7.5	
Family's characteristic					
Single family (Compose you and husband)	20	50.0	24	60.0	**0.369**
Extended family (Compose you, husband and relatives	20	50.0	16	40.0	
	40	**100.0**	**40**	**100.0**	
Technique of suckling successful (Early breastfeeding)					
The infant's suckling in the half-one hour after birth?					**<0.001**
Yes	31	77.5	6	15.8	
No	9	22.5	32	84.2	
Did the infant's suckling at least once every two to three hours?					**<0.001**
Yes	38	95.0	16	42.1	
No	2	5.0	22	57.9	

Did the nipple should be pushed into its mouth so that the baby had a mouthful of nipple and areola?					**<0.001**
Yes	35	87.5	16	42.1	
No	5	12.5	22	57.9	
Did the infant's suckling as smooth and enough sucking on both of each time?					**<0.001**
Yes	35	87.5	11	28.9	
No	5	12.5	27	71.1	
	40	**100.0**	**38**	**100.0**	
Duration allowed for work absence and convenient to keep breast milk					**0.208**
When would mother expect to restart working?					
Second months	4	14.8	8	27.6	
Third months	16	59.3	17	58.6	
Fourth months	7	25.9	4	13.8	
Duration allowed for work absence and convenient to keep breast milk					
Are there the places for keeping the milk at mother's workplace?					**<0.001**
Yes	25	92.6	13	44.8	
No	2	7.4	16	55.2	
Referring to mother's occupation, are mother convenient to keep your breast milk?					**<0.001**
Yes	25	92.6	13	44.8	
No	2	7.4	16	55.2	
	27	**100.0**	**29**	**100.0**	

4.1.4 Physiological factors

4.1.4.1 Mode of delivery

Physiological factors related mode of delivery in **Table 4.7**

Mode of delivery: In general, in cases of abnormal child delivery, the doctor will use a tool such as vacuum or forceps to pull the baby out. In case of caesarean section, complications such as pain or exhaustion caused by blood loss may result. In this study, most pregnant women had normal delivery, 62.5 per cent in the study group and 45.0 per cent in the control group. 37.5 per cent in the study group and 55.0 per cent in the control group underwent caesarean section. Cesarean section was performed more often in the control group than in the study group.

When calculating the statistical significant at 0.05 comparing the mode of delivery between the study and control group, there was no statistical difference between groups regarding mode of delivery (p-value=0.116).

4.1.4.2 Health status of mothers and infants

Physiological factors health status of mothers and infants in **Table 4.7**

Majority of the health status of mothers and infants in both study and control groups are similar. In order to categorize the health problems at birth, mothers both in study and control groups who did not have any infant's health problems at birth were 95.0 and 100.0 per cent, respectively. Only 2 cases in the study group had low fevered infants. 90.0 percent of study group and 100.0 percent of the control group did not experience the infant's health problems during the first six months. Only 4 cases in the study group had low fevered infants. Neither of them experienced maternal health problems.

When calculating the statistical significant at 0.05 comparing 'any infant's health problems at birth' and 'any infant's health problems during the first six months'

between the study and control groups, there was no statistical difference between groups regarding ‘any infant’s health problems at birth’ (p-value=0.163) but there was statistical difference between groups regarding ‘any infant’s health problems during the first six months’ (p-value=0.045) correspondingly.

4.1.4.3 Infants’ birth weight and current weight

Physiological factors infants’ birth weight and current weight **in Table 4.7**

Majority or more than half of infants in the study group 72.50 percent and the control group 60.0 percent had birth weights between 3,001-4,000 grams. The average mean scores of ‘infant’s birth weight’ in the study group and control group were 3.07 and 3.15 respectively, and most frequently found mean score was similar in both group and found to be 3.20. They had minimum mean score of 2.77 and 1.70 and maximum mean score of 3.90 and 3.80 in the study and the control group respectively.

When calculating the statistical significant at 0.05 comparing the infant’s birth weight between the study and control groups, there was no statistical difference between groups regarding infant’s birth weight (p-value=0.221).

Nearly all or more than half of infant’s current weight in the study and the control group is 8,001-10,000 grams, or 52.5 and 78.9 per cent, respectively. Although, taking the average mean score of ‘infant’s current weight’ in the study group and control group had 8.41 and 9.44, respectively, and most mean score of those had 7.80 and 10.00, respectively . Also they had minimum mean score of those as 6.00 and 6.09 and maximum mean score of those as 11.20 and 11.60 in the study and the control group, respectively.

Also, when calculated of statistic significant at 0.05 comparing of infant’s current weight between the study and control group, there was statistical difference between groups regarding infant’s current weight (p-value = <0.001).

And, when calculated of statistic significant at 0.05 comparing of infant's weight gain between the study and control group, there was statistical difference between groups regarding infant's weight gain (p-value = 0.000). (**Table 4.8**)

4.1.4.4 Problems and obstacles in breastfeeding

Physiological factors problems and obstacles in breastfeeding

Problems and obstacles in breastfeeding: This was one important factor that affected on exclusive breastfeeding for the first six months. Most of the problems and obstacles in breastfeeding in the study and control groups were working outside (39.7 and 38.6 per cent), insufficient amount of milk on lactation (25.0 and 33.3 per cent), infant refusing to suck (14.7 and 15.8 per cent), having someone else taking care of infants (14.7 and 8.8 per cent) and finally, innutritious breast milk (5.9 and 3.5 per cent) respectively.

Table 4.7: **Number and percentage of the study and the control group categorized according to physiological factors.**

Physiological factors	**Study group**		**Control group**		**p-value**
	Number	**Percentage**	**Number**	**Percentage**	
Mode of delivery					
Normal delivery	25	62.5	18	45.0	**0.116**
Caesarean Section & Instrumental	15	37.5	22	55.0	
	40	**100.0**	**40**	**100.0**	
Health status of mothers and infants					
Did the infant have any health problems at birth?					**0.163**
Having	2	5.0	0	0.0	

Not having	38	95.0	38	100.0	
Did the infant have any health problems during the first six months?					**0.045**
Having	4	10.0	0	0.0	
Not having	36	90.0	38	100.0	
Did you have any health problems during the first six months?					-
Having	0	0.0	0	0.0	
Not having	40	100.0	38	100.0	
	40	**100.0**	**38**	**100.0**	
Infants' birth weight(grams					
1.000-2,000	0	0.0	1	2.5	**0.221**
2,001-3,000	11	27.5	15	37.5	
3,001-4,000	29	72.5	24	60.0	
	Mean=3.07 SD= 0.33 Mode=3.20 Min= 2.77 Max=3.90		Mean=3.15 SD=0.50 Mode=3.20 Min= 1.70 Max=3.80		
	40	**100.0**	**40**	**100.0**	
Current weight (grams)					
6,000-8,000	16	40.0	2	5.3	**<0.001***
8,001-10,000	21	52.5	30	78.9	
10,001-12,000	3	7.5	6	15.8	
	Mean=8.41 SD=1.38 Mode=7.80 Min=6.00 Max=11.20		Mean=9.44 SD=0.95 Mode=10.00 Min=6.90 Max=11.60		
	40	**100.0**	**38**	**100.0**	

* Significant at the 0.05 level

Table 4.8: **Compare of mean scores and S.D. of the study and the control group categorized according to infant's weight gain.**

Infant's weight gain	$\bar{x}$	S.D.	t-value	p-value
The study group	5.15	1.26	-4.706	0.000
The control group	6.32	0.92		

4.2 Result from effective of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in pregnant women to improve exclusive breastfeeding during the first six months after delivery.

The results of the study of exclusive breastfeeding through Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in pregnant women to improve exclusive breastfeeding during the first six months after delivery included qualitative and quantitative result which were demonstrated as below;

4.2.1 Qualitative results of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program

4.2.1.1. The qualitative results were discovered from Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in antenatal education class (January to February, 2009) and postnatal support strategies in pregnant women to improve exclusive breastfeeding during the first six months after delivery (May to October, 2009). It was implemented for 40 pregnant women in the study group during their 32 gestational weeks and delivery until six months follow up with 30 pregnant women at King Chulalongkorn Memorial and 10 pregnant women at Theptarin Hospital.

Staff carrying out this action program included researcher and four health care staffs in charge of maternity and children care from each special health care unit. Researcher explained all of the processes in the program to the staffs of each special

health care unit who had previous experiences regarding to this programs in other health promotion activity and were able to carry out the program to its completion. In addition, they were evaluated by head nurse to have possible skill to handle the tasks as a team. They also had the ability to have good partnership from other health care staffs and community. Finally, all health care staffs cooperated well in all processes in both hospitals.

Pregnant women will be given health education both individually and in groups at least twice. At the first time antenatal check-up, their breasts and nipples will be checked, and any abnormality will be corrected such as by using Hoffman's maneuver or using breast cups to cover the nipples. At the second and following antenatal check-ups, pregnant women will receive suggestion on routine standard knowledge of breastfeeding. Additionally, Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program composed with antenatal education class and postnatal support strategies were provided to those pregnant women by researcher, who constructed KSPES program.

Antenatal education class of this program applied the process of KSPES with antenatal education and handbooks of breastfeeding during this class. Handbooks of breastfeeding contained the importance and advantages of breastfeeding, significance of exclusive breastfeeding for the first six months, disadvantages of formula milk and water, techniques of successful in breastfeeding, expressing and store breast milk and ways to make sure for breastfeed when mothers have to return to work outside the house, common breastfeeding difficulties, and communication with Public Health officials' training. Moreover, all documents on breastfeeding which affected breastfeeding behavior of postpartum mothers were provided ensuring that receiving

information support from hospital staff enabled mothers to have more options in performing healthcare behaviors.

Furthermore, they subsequently received routine intrapartum, and postnatal obstetric cares, for example, they were visited by a lactation consultant nurse in the first three postnatal days before discharge from hospital, plus contraction at least eight times - day 7, 14, month 1, 2, 3, 4, 5, and 6 with in-depth telephone interviews by the researcher. In a completed six month after delivery, three pregnant women in the study group were loss to contact.

4.2.1.2 Focus group discussion, participant observation, in-depth telephone interviews and home visit on problem case data

The KSPES on antenatal education class design used focus group discussion as qualitative research methods using ‘multi method’ studies, where combination of several approaches was used to collect information. They could also be used to combine the information from in-depth interviews and participant observation (Morgan, 1997:3).

Pregnant women in antenatal class consisted of different pregnant woman who were young, some were older; some had experiences about breastfeeding to their infants but some did not. They were gathered together in several groups to discuss their perceptions and experiences of infant feeding beliefs and practices. In each group, there were six to eight pregnant women and two facilitators (a moderator and a note-taker). It took 3 hours per class in which 3 stages were consisted. Each stage included discovering reality, critical reflection, taking charge, and holding on. All of them were done through communication, sharing their knowledge by storytelling and discussion, their experience by best practices, demonstration and displaying their thoughts and feelings. In this way, the persons discovered their own success in

managing themselves to breastfeeding and also learnt about others' experiences. The mothers then evaluated and compared their own standard themselves by taking information from others in the group. The researcher acted as a moderator of each antenatal class, being sensitive to the need of the participants, non-judgmental about the responses from the pregnant women, respected to all pregnant women, had open-minded, had adequate knowledge of breastfeeding, had good listening skills, had good leadership skills, had good observation skills, and was patience and flexibility. Note-taker or assistant moderator recorded the information in written notes and with tapes throughout the classes. The detailed results of each stage were described below:

Stage 1: group organization for introduction and objectives:

Most pregnant women cooperated well in all processes of this stage, such as relaxing exercise; building good relationship and friendly attitude by smiling, good participation, telling their first and nicknames, family name, residential province and suitable eye contact. They understood learning objective, topic for assignment, time used confidentiality level, the roles of the leader and the members.

Stage 2: Antenatal education phase:

The designed Knowledge Sharing Practices with Empowerment Strategies (KSPES) had the following main contents: The program contained 6 sessions: 1) Importance and Advantages of breastfeeding 2) Exclusive breastfeeding for the first six months 3) Technique of successful in breastfeeding 4) Expressing and store breast milk 5) Common breastfeeding Difficulties6) Communication with Public Health officials training;

Most pregnant women of study group in this class could describe their perceptions, thoughts, feelings, and impressions in their own words. They could also explore member's explicit and tacit knowledge, experiences, and clarify their points of

views, their different social and cultural backgrounds (age differences, occupations and education status differences) when there was little information in the group. Some of them could tell not only what they thought but also how and why they thought in such way. Moreover they felt more relaxed and comfortable when they saw that others had similar experiences or views as they did. The following examples were the statements from pregnant women in each group:

Pregnant woman A: “At first time, I do not understand, instead feel confused all the processes. Later I realize that this class has benefited for me. After I have participated in this group, I gain knowledge and understand about the exclusive breastfeeding, and compliance with exclusive breastfeeding plan.” (The 1st antenatal class on May 18, 2009)

Pregnant woman B: “I think that I have been participating in this group for a long time. But in reality, when we get to talk, have conversation, exchange our knowledge and experiences and respective norms, I come to know it’s just cheering our exclusive breastfeeding. When problems arise, I can ask other group members or health staff so that I can observe, learn and know how to solve that problem appropriately by myself. In this way, I come to know about the correct practice of exclusive breastfeeding which I can practice by myself and is not very difficult.” (The 2nd antenatal class on May 20, 2009)

Pregnant woman C: “I believe that exclusive breastfeeding for six months makes my infant well-nourished. I feel that I have increased my self-esteem, can take my role as a mother greatly but on the other hand, I must work again at 3rd month after delivery. So, I am afraid that I can’t exclusively breastfeed my baby. Participating in antenatal class and having chance to see the demonstration of milk expression, I can solve my problem on how to express the breast milk when I have to leave my infant.

They also let me practice and make sure if I can do it myself." (The 3rd antenatal class on May 22, 2009)

Pregnant woman D: At first, I have less self-confidence upon my strength and ability to practice exclusive breastfeeding for six months, because nobody around me practices it for 6 months. My friends and other mothers breastfeed her infants only for a couple of months. Because of the practice session in class, I feel that I can do my best and increase the self-esteem to take a role of motherhood." (The 4th antenatal class on May 25, 2009)

Pregnant woman E: "I feel very happy and enjoy joining with other pregnant friends in this class. I had good attitude for exclusive breastfeeding during the first six months, but I doubted if I can do it successfully. But now I believe that I can do it effectively." (The 5th antenatal class on May 27, 2009)

Stage 3: Closing the group:

Before the end of the program activities, the pregnant women were encouraged to ask the questions or to give their additional opinions and suggestions. After that, conclusions on the discussed matters were made.

Stage 4: Postpartum support strategies phase: the mothers in postpartum period were placed in two sessions. The KSPES on postpartum support strategies phase used in-depth telephone interviews and home visits on problem cases of exclusive breastfeeding as qualitative research methods.

Session one: Postpartum women who were visited by the researcher or lactation consultant within the first three postnatal days before discharging from the hospital. They were provided with some printed guides or handouts of exclusive breastfeeding, mainly the problems and obstacles together with methods of solution.

Session two: This session was provided during their first routine postnatal visit after delivery. During these two encounters, the women received handouts with instructions on latching on, proper positioning, and other techniques to avoid common complications. And researcher followed them up by telephone interviews at day 7, 14 months 1, 2, 3, 4, 5, and 6 and home visits to those who had problems on exclusive breastfeeding.

Mothers and infants who had no complications and were healthy were sent to the postpartum ward. Women who underwent normal delivery were encouraged to begin breastfeeding their infants immediately after arriving at the ward by the nursing staffs. In cases of C-Section, the healthcare staff brought the babies to the mothers as soon as they regained consciousness or within one hour after that. The mothers were health educated appropriately and individually concerning how to breastfeed. The staff from the lactation clinic also provided advices and suggestions on breastfeeding to every mother every day and also at their first routine postnatal visit after delivery, follow-up sessions on day 7, 14 and months 1, 2, 3, 4, 5, and 6 of postpartum periods by telephone interviews together with home visits when they had problems about exclusive breastfeeding. This process was conducted from May to October 2009. During these two encounters of telephone interview and home visit, the mothers received health education about breastfeeding i.e., breastfeeding education consists of technique in successful exclusive breastfeeding, how to express breast milk, feeding with a cup, disadvantages of water and formula milk, prevention, and frequently found problems, also received hands on instructions in latching on, proper positioning, and other techniques to avoid complications. The qualitative study results were as described below:

In-depth telephone interviews

In-depth telephone interview method was used to collect data at least eight times per case on day 7, 14 and months 1, 2, 3, 4, 5, and 6 of postpartum and home visit on problem case about exclusive breastfeeding. In early days after delivery, most of the mothers in the study group fed their babies by exclusive breastfeeding followed by predominant breastfeeding, partial breastfeeding and no breastfeeding respectively, which was the same as the quantitative results. A few examples of telephone interviews were as below:

Mothers A: “I can exclusively breastfeed my infant for six months, and I feel happy and found so easy to breastfeed my baby exclusively. I believe that I can make it for six months. I think breast milk gives my baby more than just good nutrition.” (telephone interview at 1st month after delivery, on June 2, 2009)

Mothers B: “I feel that I have done my best and increased the self-esteem as a mother. I felt a lot of pressure to participate in exclusive breastfeeding intervention program. But now I can understand the problems and obstacles of not exclusive breastfeeding when working outside.” (telephone interview at 3rd month 3 after delivery, on August 23, 2009)

Mothers C: “I can solve the problem of nipple such as clogged, snort nipple or nipple cracks**.** I can notice the symptoms and signs of sore or cracked nipple and give the correct information to the doctor and nurse. (telephone interview at 4th month after delivery, on September 15, 2009)

The problems arose from exclusive breastfeeding found out during telephone interviews were working outside, insufficient lactation, having someone else taking care of infants, infant refusing to suck, innutritious breast milk and infants being sick.

The following statements are the examples from mothers who encountered problems in exclusive breastfeeding:

Mothers D: “I am working at chemical substance factory. I think it’s impossible for me to practice exclusive breastfeeding for long times.” (telephone interview at 1st month after delivery, on May 20, 2009)

Mothers E: “I could exclusively breastfeed for only two months because I have to work again at month three after delivery. My workplace does not have convenient place to keep my breast-milk.” (telephone interview at 3rd month after delivery, on July 6, 2009)

Mothers F: “I could exclusively breastfeed for only three months because my baby was sick with high fever. I will give predominant breastfeeding only after.” (telephone interview at 4th month after delivery, on August 21, 2009)

Mothers G: “I tried the exclusive breastfeeding but my baby cried a lot and refused to suck. So, I gave formula milk in predominant breastfeeding, partial breast feeding or non-exclusive breastfeeding.” (telephone interview at 4th month after delivery, on August 21, 2009).

Observation during home visit

Observation by home visit approach was done with the problem cases in the study group. It was the evaluation process after implementation of KSPES program, conducted from May to October, 2009. The visit was made during the first six months after delivery, only on problem cases, with the purpose to follow up, evaluate, support and furthermore, help to solve their problems of exclusive breastfeeding. The evaluation process contained not only the group member’s capability to breastfeeding their children, but also the health conditions of mothers and babies.

In the case study, the first problem of exclusive breastfeeding was infant refusing to suck at 1 month after delivery. Though the mother tried exclusive breastfeeding, infant persisted crying and refused to suck. Researcher observed and in-depth interviewed during home visit, and helped solving the problem by using the technique of successful breastfeeding. As a result, the mother could do it by herself to solve that problem and continued exclusive breastfeeding. She lived together with her husband (every day), had single family (composed of the woman and her husband) and was staying near the market with clean environments. She was a primiparous woman. Her husband worked outside. She took hygienic care of herself and baby and had appropriate maternal behaviors such as looks, actions, speech, the essential maternal needs during breastfeeding like breast changing, how to bring the nipple out from baby's mouth, and response to baby reaction during the feed. From family supporters, she also recieved assistances and supports such as encouragement, motivation, mutual supports and chores helping. In general, based on home-visit observation, the supporters cooperatively worked with mothers and developed their breastfeeding skills throughout the process.

The second problem came out from case study was the mother could not solve her problem on how to express the breast milk when she needed to separate from her baby and work outside, at 3rd month. The information was given through conducting the interview. This was the usual period when the majority of mothers needed to get back to their respective work. So this was the usual period that mothers needed to well-prepare for such change. The changes made the supporters give full support to the nursing mothers who were about to away from home and their babies and could not feed their babies during daytime. Therefore, supporters needed to help preparing milk expressing, storing milk, preparing feeding equipments and nursing the baby

instead. They tried to do it successfully for exclusive breastfeeding during the first six months.

4.2.2 Quantitative results of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program

4.2.2.1 Mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding before and after intervention within the study group and within the control group.

Significance of mean scores were analyzed in knowledge of breastfeeding, attitude toward breastfeeding, self-efficacy for self-management toward breastfeeding and breastfeeding practices during the first six months of life before and after Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in pregnant women to improve exclusive breastfeeding during the first six months after delivery in the study group and a standard knowledge of breastfeeding in the control group. The results were as follows:

Before intervention of KSPES program in the study group and that of a standard knowledge of breastfeeding in the control group, the mean score of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding were no statistically different at 0.05 ($p= 0.175$, $p= 0.054$ and $p= 0.056$, respectively). The details were described in **Table 4.9**

After intervention, i.e., KSPES in the study group and a standard knowledge of breastfeeding in the control group, the mean score of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding from the intervention KSPES were higher than that of a standard knowledge of breastfeeding in the control group. It was statistically significant at 0.05 ($p<0.001$ at all).The details were described in **Table 4.9**

Table 4.9: Mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding before and after intervention between in the study group and the control group.

Questionnaires	Study group (N=40)		Control group (N=40)		P-value
	X	S.D.	X	S.D.	
Knowledge about breastfeeding					
Before	8.75	2.83	9.68	3.21	0.175
After	18.73	.68	9.50	2.65	**<0.001**
Attitude toward breastfeeding					
Before	3.26	.66	3.49	.37	0.054
After	4.45	.39	3.48	.53	**<0.001**
Self-efficacy for self-management toward breastfeeding					
Before	3.22	0.35	3.38	0.40	0.056
After	4.40	0.23	3.28	0.48	**<0.001**

When comparing the mean scores of the knowledge about breastfeeding, attitude toward breastfeeding and Self-efficacy for self-management toward breastfeeding before and after a standard knowledge of breastfeeding in the control group**,** it was shown that the mean scores were no statistical significantly different at 0.05 (p= 0.617, p= 0.819 and p= 0.059, respectively). The details were described in **Table 4.10**

But, when comparing the mean scores of knowledge about breastfeeding, attitude toward breastfeeding and Self-efficacy for self-management toward

breastfeeding before and after intervention of KSPES in the study group**,** the mean scores after intervention (KSPES) were higher than those before intervention (KSPES) in the study, as statistical significant at 0.05 ($p < 0.001$ at all).The details were as described in **Table 4.10**

Table4.10: Mean scores and difference of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding before and after intervention within the study group and within the control group.

Questionnaires	Study group (N=40)		Control group (N=40)	
	Mean ± SD of difference	P- value	Mean ± SD of difference	P- value
Knowledge about breastfeeding	10.0±2.8	**<0.001**	0.18±2.2	0.617
Attitude toward breastfeeding	1.2±0.7	**<0.001**	0.01±0.3	0.819
Self-efficacy for self-management toward breastfeeding	1.2±0.5	**<0.001**	0.1±0.3	0.059

4.2.2.2 Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group.

Quantitative results in this study included significant mean scores of knowledge about breastfeeding, attitude toward breastfeeding, self-efficacy for self-management toward breastfeeding and breastfeeding practices during the first six

months of life before and after Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program in pregnant women to improve exclusive breastfeeding during the first six months after delivery in the study group and a standard knowledge of breastfeeding in the control group and also the rate and duration of breastfeeding practices during the first day 7, 14, months 1, 2, 3, 4, 5 and 6 of life between the study and the control group**s.**

The relationship of breastfeeding practices during the first day 7, 14 and month 1 till month 6 between the study and the control groups was compared by running the test on various groups, and calculated by using the Chi-square test with statistically significant at 0.05.

The results regarding the rates of any breastfeeding practices at the various time points, i.e., the first day 7, 14, month 1, 2, 3, 4, 5 and 6 between the study and the control group were summarized as followed in **Table 4.11**

At first day 7: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 92.5, 7.5, 0.0 and 0.0 percents respectively while the percentages of those in the control group were 76.3, 7.9, 5.3 and 10.5 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had no significantly higher rates of exclusive breastfeeding, predominant breastfeeding, partial breastfeeding and no breastfeeding at 7 days (P-value=0.095, 1.000, 0.234 and 0.051, respectively).

At first day 14: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 82.5, 12.5, 5.0 and 0.0 percents respectively while the percentages of those in the

control group were 52.6, 21.1, 15.8 and 10.5 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding at 14 days (P-value=0.005). Rates of predominant breastfeeding, partial breastfeeding and no breastfeeding were not different between groups (P-value=0.311, 0.148 and 0.051, respectively).

At first month 1: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 77.5, 17.5, 5.0 and 0.0 per cent respectively. The percentages of those in the control group were 52.6, 18.4, 18.4 and 10.5 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding at 1 months(P-value=0.021). Rates of predominant breastfeeding, partial breastfeeding and no breastfeeding were not different between groups (P-value=0.915, 0.083 and 0.051, respectively).

At first month 2: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 62.5, 25.0, 12.5 and 0.0 per cents, respectively. The percentages of those in the control group were 36.8, 13.2, 13.2 and 36.8 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding and no breastfeeding at 2 months (P-value=0.023 and

<0.0001, respectively). Rates of predominant breastfeeding, partial breastfeeding were not different between groups (P-value=0.184 and 0.931, respectively).

At first month 3: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 50.0, 32.5, 17.5 and 0.0 percent, respectively while the percentages of those in the control group were 34.2, 10.5, 21.1 and 34.2 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had no significantly higher rates of exclusive breastfeeding and partial breastfeeding at 3 months(P-value=0.158 and 0.691, respectively). Rates of predominant breastfeeding and no breastfeeding were different between groups (P-value=0.018 and < 0.001 respectively).

At first month 4: The rated of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 35.0, 27.5, 25.0 and 12.5 percents, respectively. The percentages of those in the control group were 7.9, 13.2, 26.3 and 52.6 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding and no breastfeeding at 4 months(P-value=0.008 and <0.0001, respectively). Rates of predominant breastfeeding, partial breastfeeding were not different between groups (P-value=0.116 and 0.894, respectively).

At first month 5: The rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 25.0, 30.0, 25.0 and 20.0 per cent, respectively while the percentages of those in the

control group were 2.6, 5.3, 26.3 and 65.8 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding, partial breastfeeding and no breastfeeding at 5 months (P-value=0.012, 0.004 and <0.001, respectively). Rates of partial breastfeeding was not different between groups (P-value=0.894).

At first month 6: The illustrated rates of exclusive breastfeeding, predominant breastfeeding, partial breast feeding and no breast feeding for the study group were 20.0, 40.0, 15.0 and 25.0 per cents respectively. The percentages of those in the control group were 0.0, 5.3, 15.8 and 78.9 respectively. Compared with the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding, partial breastfeeding and no breastfeeding at 6 months(P-value=0.005, 0.0002 and <0.001, respectively). Rates of partial breastfeeding was not different between groups (P-value=0.923).

To summarize the relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group, women who received routine standard knowledge of breastfeeding techniques with the knowledge sharing practices and empowerment strategies (KSPES) program on antenatal education and postnatal support strategies had significantly higher rates of exclusive breastfeeding at 14 days, 1, 2, 4, 5 and 6 months. Rates of predominant breastfeeding were also higher in the study group than those in the control group at 3, 5 and 6 months. But the rates of partial breastfeeding were not different between

groups. Rates of “no breastfeeding” were higher in the control group than those in the study group at 2, 3, 4, 5 and 6 months.

Despite the rates of exclusive breastfeeding decreased on monthly basis, the rates in the study group was still higher than those in the control group at 6th month as described in **Table 4.11, Figure 4.1, and 4.2**

Table 4.11: Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group

Sample group	Breastfeeding practices			
	EBF N/%	**PDBF N/%**	**PBF N/%**	**NBF N/%**
7 days				
Study group	37/92.5%	3/7.5%	0	0
Control group	29/76.3%	3/7.9%	2/5.3%	4/10.5%
P value	**0.095**	**1.000**	**0.234**	**0,051**
14 days				
Study group	33/82.5%	5/12.5%	2/5.0%	0
Control group	20/52.6%	8/21.1%	6/15.8%	4/10.5%
P value	**0.005***	**0.511**	**0.148**	**0.051**
1 month				
Study group	31/77.5%	7/17.5%	2/5.0%	0
Control group	20/52.6%	7/18.4%	7/18.4%	4/10.5%
P value	**0.021***	**0.915**	**0.083**	**0.051**
2 month				
Study group	25/62.5 %	10/25.0%	5/12.5%	0
Control group	14/36.8%	5/13.2%	5/13.2%	14/36.8%
P value	**0.023***	**0.184**	**0.931**	**<0.0001***

Table 4.11: Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group. (Cont.)

Sample group	Breastfeeding practices			
	EBF N/%	**PDBF N/%**	**PBF N/%**	**NBF N/%**
3 month				
Study group	20/50.0%	13/32.5%	7/17.5%	0
Control group	13/34.2%	4/10.5%	8/21.1%	13/34.2%
P value	**0.158**	**0.018***	**0.691**	**<0.0001***
4 month				
Study group	14/35.0%	11/27.5%	10/25.0%	5/12.5%
Control group	3/7.9%	5/13.2%	10/26.3%	20/52.6%
P value	**0.008***	**0.116**	**0.894**	**<0.0001***
5 month				
Study group	10/25.0%	12/30.0%	10/25.0%	8/20.0%
Control group	1/2.6%	2/5.3%	10/26.3%	25/65.8%
P value	**0.012***	**0.004***	**0.894**	**<0.0001***
6 month				
Study group	8/20.0%	16/40.0%	6/15.0%	10/25.0%
Control group	0	2/5.3%	6/15.8%	30/78.9%
P value	**0.005***	**0.0002***	**0.923**	**<0.0001***

*Significant at the 0.05 level

EBF = Exclusive breastfeeding PDBF = Predominant breastfeeding

PBF = Partial breastfeeding NBF = No breastfeeding

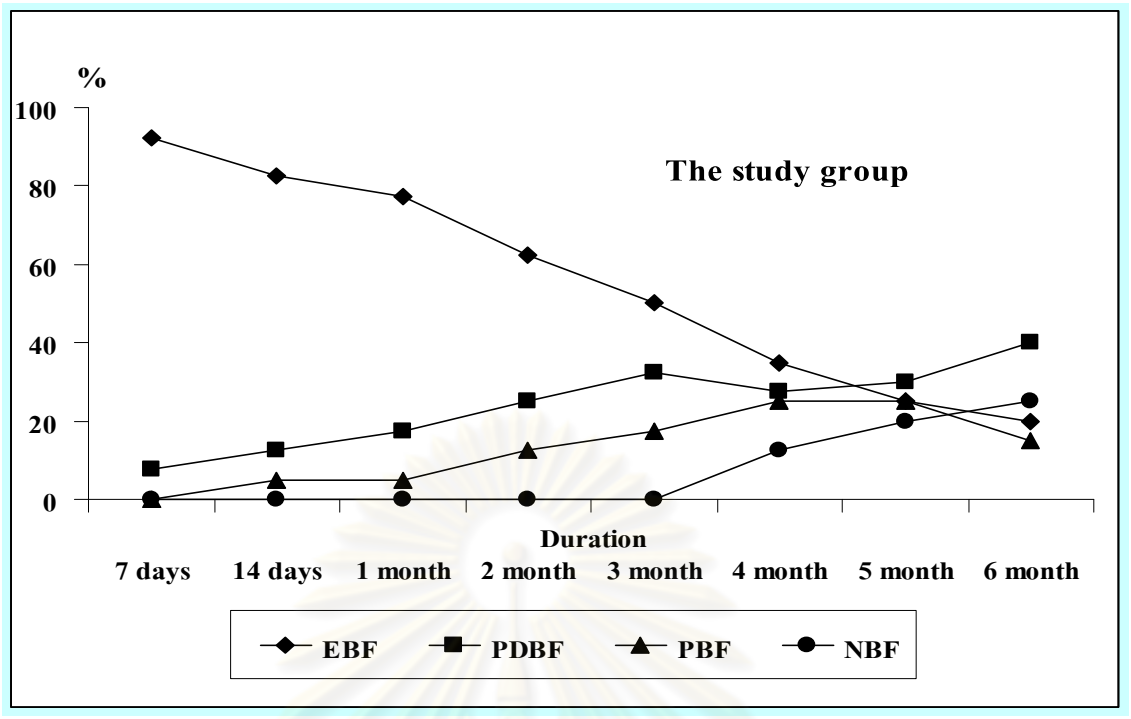


Figure 4.2: Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery of the study group

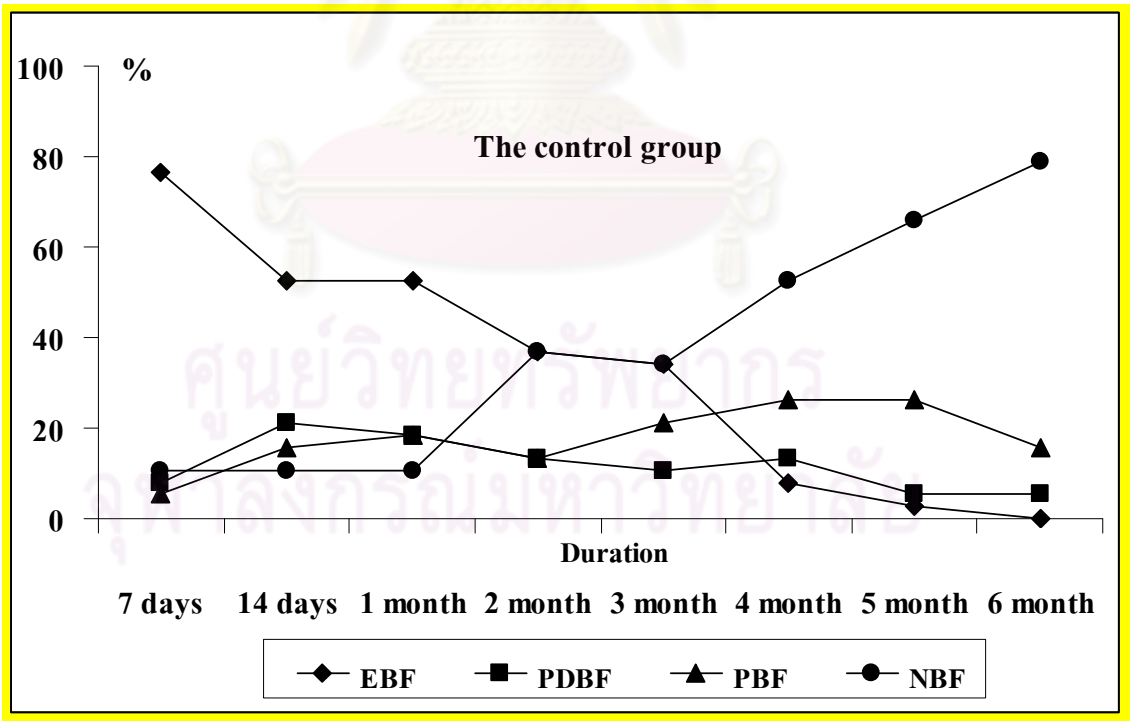


Figure 4.3: Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery of the control group.

4.3 Results of multivariate logistic regression analysis of factors influencing decision on exclusive breastfeeding during the first six months of life

Hypothesis of this study was Knowledge Sharing Practices with Empowerment Strategies on antenatal education and postnatal support strategies had an effect to improve the rate of exclusive breastfeeding during the first six months after delivery which was in accordance with the goal of Ministry of Public Health and WHO. Nevertheless there were various factors associating with breastfeeding practices (exclusive breastfeeding) during the first six months after delivery. They were predisposing factors, reinforcing factors, enabling factors and physiological factors. This was confirmed by analyzing using logistic regression.

The results of multiple logistic regression analysis in this study showed that various factors contributed to exclusive breastfeeding. The factors that affected on exclusive breastfeeding were infants' birth weight with RR=8.9, 95%CI=1.3, 61.7, attitude toward breastfeeding with RR=8.5, 95%CI=1.3, 55.2, and mode of delivery with RR=12.6, 95%CI=1.3, 120.3. Increasing the infants' birth weights and increasing the attitude toward breastfeeding positively affected on exclusive breastfeeding while cesarean section negatively affected on exclusive breastfeeding. It showed infants' birth weights as one physiological factor, followed by; attitude toward breastfeeding that was another factor resulting from KSPES on antenatal education and postnatal support strategies program to improve the rate of exclusive breastfeeding during the first six months after delivery. Lastly, if the mode of delivery was caesarean section, it decreased the rates of exclusive breastfeeding during the first six months after delivery. The detailed results were described in **Table 4.12**

Table 4.12: Results of multivariate logistic regression analysis of factors influencing decision on exclusive breastfeeding during the first six months of life.

Various factors	Relative risk	95.0% CI
Attention toward breastfeeding	8.5	**1.3, 55.2**
Mode of delivery (Normal delivery)	12.6	**1.3, 120.3**
Infants' birth weight	8.9	**1.3, 61.7**

CHAPTER V

DISCUSSION

This chapter consisted of three sections. The first section contained the discussion of all chapters in this study. The final two sections contained the strength of this study and the limitations of this study.

5.1 Discussion of Finding

This study showed that Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies could significantly improved rates of exclusive breastfeeding during the first six months after delivery when compared with usual standard knowledge. KSPES had been used in patients with diabetes (Funnell et al, 2005:31), however, it has never been used in the field of breastfeeding. The results of this study provided new information regarding KSPES on exclusive breastfeeding.

World Health Organization (WHO) and other organizations endorsed the importance of promoting and supporting breastfeeding as the best feeding method used exclusively for at least six months and continued along with complementary feeding for on less than two years of life (World Health Organization, 1982:35). The same as in Thailand, Ministry of Public Health has supported the importance of exclusive breastfeeding and the operational target is to make at least 30% of the postpartum mothers exclusively breastfeed their infants for at least six months (Hangchaovanich et al, 2006:89). However, rates of exclusive breastfeeding for the

first six months in the study group were still lower than the operational target, but higher than the national rates for exclusive breastfeeding.

There are many studies evaluating the effect of intervention on rates of exclusive breastfeeding. However, the rates of exclusive breastfeeding are not high. Su et al (Su LL. et al, 2007) performed a randomized controlled trial to evaluate antenatal education and postnatal support strategies for improving rates of exclusive breastfeeding. They found that antenatal breastfeeding education and postnatal lactation support both significantly improve the rates of exclusive breastfeeding for up to six months after delivery. Rates of exclusive breastfeeding were 19%, 19%, and 9% in antenatal breastfeeding education, postnatal lactation support and the control group, respectively. Anderson et al (Anderson et al, 2005:159) performed a randomized trial to assess the efficacy of peer counseling on exclusive breastfeeding in a predominantly Latina low-income community. They found that rates of exclusive breastfeeding throughout the first 3 months were significantly higher for the peer counseling group than the control group (21% and 1%). Susin et al performed a study of paternal inclusion in breastfeeding programs to promote breastfeeding. They found that rates of exclusive breastfeeding at 4 months were higher in the mothers' and fathers' intervention group (16.5% and 11.1% in the mothers' only intervention group and 5.7% in the control group).The result of the present study shows higher rates of exclusive breastfeeding than previous study.

In the present study, discussion of findings will be presented in accordance with the objectives of the study which were to examine;

5.1.1 The effectiveness of Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies program.

- Focus group discussion, in-depth interviews, participant observation and telephone interviews in this program.

5.1.2 Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group.

5.1.3 Results of multivariate logistic regression analysis of factors influencing decision on exclusive breastfeeding during the first six months of life.

5.1.1 The effectiveness of Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies program

This study used a Randomized controlled trial (RCT) study design and aimed to evaluate the effectiveness of Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies in pregnant women to improve the rates of exclusive breastfeeding during the first six months after delivery with two comparable groups - the study and the control groups. The group in which routine standard knowledge of breastfeeding techniques with KSPES on antenatal education and postnatal support strategies implemented consisted of 40 pregnant women while group in which the routine standard knowledge of breastfeeding techniques underwent, i.e., the control group, consisted of 40 pregnant women. Both groups were birth registered, had had more than 32 weeks' gestation, received antenatal care and delivery during January-March, 2009 and had completed six months of follow- up until August and September, completed questionnaires in October, 2009 at King Chulalongkorn Memorial Hospital and Theptarin Hospital, Bangkok Province. Characteristics among two randomized groups (the study group and the control group) were similar.

Forty subjects in the study group were then assigned to participate in the designed KSPES on antenatal education and postnatal support strategies, which were the important keys of the intervention program proposed in this study. The KSPES on antenatal education and postnatal support strategies in this study was designed as the model of knowledge sharing practices with Empowerment which was based on Gibson theory (1991:16) and consisted of knowledge sharing practices such as communication, demonstration and displaying, best practice and storytelling and empowerment model such as empowering to building up perceived self-efficacy. The latter consisted of 4 steps such as discovering reality, critical reflection, taking charge and holding on.

The process of empowerment to building up motivation is the processional concept in leading to intrinsic and extrinsic development of the individuals to gain potential in accepting the situation and to gain successful experience from, which self-confidence and self-management ability to control the situations efficiently will develop. Finally, the study was done with the expectation that mothers having children will gain more knowledge, attitude and self-efficacy for self-management to lessen the impact of exclusive breastfeeding for the first six months. In additional postnatal support strategies, mothers were visited by researcher or staff within the first three postnatal days before discharge from the hospital. The supporter used breastfeeding printed guides during the visits and encouraged mothers by telephone interviewing together with home visit and observation. When the problems were occurred about exclusive breastfeeding, they were followed up at day 7, 14, months 1, 2, 3, 4, 5 and 6 after delivery. Effectiveness was measured by knowledge scores of breastfeeding, attitudes of breastfeeding and perceived Self-Efficacy for Self-Management, which were separated as following:

Based on the study, before the KSPES program, there were no statistical differences between the mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding of the study group and routine standard knowledge of breastfeeding in the control group at 0.05. However, after the program was implemented, the mean scores of knowledge about breastfeeding, attitude toward breastfeeding and Self-efficacy for self-management toward breastfeeding after intervention (KSPES) of the study group were higher than before.

Moreover, there was no statistical significant difference between the mean scores for perceived knowledge, the attitude and self-efficacy for self-management toward exclusive breastfeeding before and after receiving routine standard knowledge of breastfeeding techniques in the control group during the first six months after delivery. After the program was implemented, the mean score of perceived knowledge about breastfeeding, the attitude and self-efficacy for self-management toward breastfeeding in women from KSPES program during the first six months after delivery was higher than that of routine standard knowledge in the control group with the statistical significant difference at 0.05.

Reflecting the scores from the effective of KSPES program, it showed that KSPES on antenatal education and postnatal support strategies was more effective than the routine standard knowledge of breastfeeding. KSPES program offered the exchange of knowledge, attitude as well as self-efficacy for self-management toward exclusive breastfeeding. This provided the pregnant women in the study group more opportunity to pass on the learning process (hearing, understanding and applying) and extend their scope of knowledge regarding exclusive breastfeeding than the control group. Moreover, they could adjust their attitude and mindset to have the correct

behavior of exclusive breastfeeding and achieved the feeling and intention to carry out that good behavior uniformly and continuously than the control group. They also had the perspective, automatically controlled by the external stimuli and basic human capabilities under girding the regulation of exclusive breastfeeding better than pregnant women in the control group. Likewise, Suree Chantaramolee (1994) found out that learning with persuasive communication could change behaviors, beliefs and attitudes so long as learners realized the value and benefits of the subject. When the mothers understand the concept and become conscious about its value, they will instigate the exclusive breastfeeding (Chantaramolee, 1994).

- Focus group discussion, in-depth interviews, participant observation and telephone interviews in this program

The KSPES on antenatal education class design used focus group discussion as qualitative research methods.

Pregnant women expressed their satisfaction upon attending this program. They could able to participate in communication, sharing discussion of their knowledge by storytelling, experience by best practices, demonstrating and displaying thoughts and feelings. They also addressed other needs concerning baby nursing; exercising after giving birth, and exclusive breastfeeding while working. Some of pregnant women felt happy and gained self-confidence about their ability to exclusive breastfeeding for the first six months. So, based on above mentioned data, it can be concluded that the study group could apply this program to get encouraged to solve the problem of exclusive breastfeeding during the first six months. They also agreed to practice successful breastfeeding to their babies with higher degree of confidence.

The study group felt more contented and satisfied to participate in KSPES programmed class. The majority of the participants in KSPES program have

exchanged their past experience of the explicit and tacit knowledge regarding exclusive breastfeeding after this program. As a result, this method motivated the mothers' breastfeeding behavior and drew accurate interests of participants which were the very basic requirements and this program was an appropriate method to support exclusive breastfeeding among mothers and their babies.

Observation by home visit approach on the problem case in the study group was the evaluation process after implementation of KSPES program. The visits were made during the first six months after delivery only to the problem cases, with the purpose of following up, evaluating, supporting and moreover, helping to solve their problems of exclusive breastfeeding by their own. Not only the group member's capability to breastfeeding their child but also the health condition of postpartum mothers and their babies were also followed up. Since problems that mothers faced and supports provided could be different and needed prompt solutions, this period was very important. Moreover, mothers were more likely to confront the problem during this period. Home visit approach allowed mothers and supporters to continuously practice exclusive breastfeeding in order to apply their knowledge, skill, attitude and positive value effectively and guaranteed the acceptable outcome thereby the group tended to adopt such behavior habitually since the value and benefit had been established.

Knowledge, attitude and self-efficacy for self-management, intention and good plan to exclusive breastfeeding are important to successful exclusive breastfeeding during the first six months. The supporters not only assisted, supported and cheered those mothers to breastfeed, but helped alleviating the load of housework.

5.1.2 Relationship of breastfeeding practices during the first 7, 14 days, 1, 2, 3, 4, 5 and 6 months after delivery between the study and the control group

The rate of exclusive breastfeeding at six months in present study was 20%. This rate was comparable with the study from Singapore (21.1%) (Foo et al, 2005:20). This rate was higher than the studies done by Laisiriruangrai et al (11.0%) (2008:91) and Wong et al (2%) (2007:2) which were done without intervention. It was also higher than that of Esther HY Wong's study in Hong Kong (10%).

The differences of studied populations, sample sizes, geographic locations as well as the years of survey might be possible explanations for the differences of exclusive breastfeeding rates among these studies.

The rate of predominant breastfeeding, partial breast feeding and no breastfeeding of the study group in this study were 40.0, 15.0 and 25.0 per cent, respectively. However, when compared with the operation goal of the promotion of mothers' and children's health specified in the Ninth National Health Development Plan, it was found that the finding of the present study was still lower than the goal set by the government in Thailand, which was 30.0%. It might be due to some problems from this study which were working outside (39.7 and 38.6 per cent), insufficient lactation (25.0 and 33.3 per cent), infant refusing to suckle (14.7 and 15.8 per cent), having someone else taking care of infants (14.7 and 8.8 per cent) and finally innutritious breast milk (5.9 and 3.5 per cent), in the study and control groups, respectively.

Despite the rate of breastfeeding decreases on monthly basis, the rate in study group was still higher than that of the control group by 6 times. These results could be explained by the mean scores of knowledge, attitudes and perceived self-efficacy for self-management toward breastfeeding, as well the rate of breastfeeding practices

(Exclusive breastfeeding, Predominant breastfeeding, Partial breast feeding and No breastfeeding) which reflected the effective of KSPES program on antenatal education and postnatal support strategies.

5.1.3 Various factors associated to exclusive breastfeeding practices during the first six months after delivery.

Determinants of the exclusive breastfeeding referred to using the PRECEDE Framework - the various individual and environmental factors influencing exclusive breastfeeding in pregnant women during the first six months after delivery and consisted of 4 following factors:

Predisposing factors refer to the factors motivating the mothers and leading to exclusive breastfeed practice including demographic characteristics as age, religion, education status, occupation, family income, and parity; knowledge about breastfeeding; attitude toward breastfeeding; self-efficacy for self-management toward breastfeeding; intention to breastfeeding and plan toward breastfeeding.

Reinforcing factors refer to factors promoting and supporting breastfeeding behavior and practice of the mothers such as support from supporter or husband's approval, social norm, religious norms and peer influence.

Enabling factors refer to the resources and skills enabling the mothers to breastfeed including past experience of exclusive breastfeeding, family's status characteristics, techniques of suckling successful and duration allowed for work absence and convenient to keep breast milk.

Physiological factors refer to factors promoting breastfeeding behavior physiologically such as mode of delivery, health status of mothers, infants' birth weight and current weight, and problems and obstacles in breastfeeding such as position of breastfeeding or suckling method of infant.

From this study, factors that affected on exclusive breast feeding were infants' birth weight, attitude toward breastfeeding and mode of delivery. Increasing the infants' birth weight and increasing the attitude toward breastfeeding were positive effects on exclusive breastfeeding while cesarean section was negative effect on exclusive breast feeding. As a result, the factors that could be used to predict exclusive breastfeeding during the first six months in the present study were infants' birth weight, attitude toward breastfeeding, and normal delivery.

Infants' birth weight

Majority or more than half of infant's birth weights in the study group and the control group were 3,001-4,000 grams. Infants' birth weight is one of the physiological factors and it can also predict whether the rate of exclusive of breastfeeding is improving or not. Infants with birth weights of more than 3,000 grams were tended to be breastfed more and longer than those with birth weight of less than 3,000 grams. Mothers believed that infants with low birth weights did not have enough energy to suck their mothers' breasts as infants having standardized weights. Thus, mothers may feed their infants with predominant breastfeeding, partial breastfeeding or no breastfeeding for increasing their infants' weights. This was confirmed by the previous studies done by Sithiporn Horharitanon et al (1994) and Calzolari et al (1989:653-656), which indicated that there was a significant relationship between infants' birth weight and breastfeeding practice. Similarly, infants' birth weight 2,500 grams or more were reported to have positively influenced breastfeeding initiation in infants, which was in contrast to the study of Caldeira et al., (2000:65-72).

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A study of Clements et al (1997:22) discovered that in southeast England, low birth weight had positive impact on breastfeeding initiation. Also, a study of Lisa W. Kuan, (1999) found that parity was not a statistically significant factor for successful breastfeeding. EYL Leung (2006:28) found that infants' birth weight was not statistically significantly associated with exclusive breastfeeding pattern. A study done by Rajesh K. Chudasama M.D.(2009) stated that breastfeeding initiation practice had effect on breastfeeding in South Gujarat region of India.

Attitude toward breastfeeding:

Attitude toward breastfeeding was the second factor associated with exclusive breastfeeding. This study was instituted that a large proportion of the study group (nearly full of them) after the intervention (KSPES), had high level of attitude toward breastfeeding. In reverse, more than half of the control group after the routine standard knowledge of breastfeeding had moderate level of attitude toward breastfeeding. The attitude toward breastfeeding was one of the factors indicating the effective result from KSPES program. Positive attitude toward breastfeeding can affect on improving rates of exclusive breastfeeding with the reason that it causes the adjustment of mothers' attitude in order to have their mind setting upon the exclusive breastfeeding. The right attitude will likely to bring the decent behavior. It results in uniform belief, feeling, and intention on the behavior of breastfeeding. This is similar to the previous studies by Chudasama et al(Chudasama et al., 2009) and Chanokporn Tanwattananond (1996:91) who found that the mother's attitude toward breastfeeding was associated with breastfeeding practices. A study of Barbara Gijsbers et al (2008:158-169) showed that the aim was to examine the factors that influenced the duration of exclusive breast-feeding. Cox multiple regression analysis showed a positive significant

association between duration of exclusive breast-feeding and positive attitude ($P < 0.01$).

Difference findings were observed by fatos Göksen (2002:1743-1753) who stated that belief / attitude measures taken at the time of birth did not predict end-of-first-month full breastfeeding behavior with the help of logistic regression models and multiple regression analyses. Similarly, a study of Margaret E. Bentley (2003:305-309) established that factors influencing a woman's decision to breastfeed were individual beliefs about breastfeeding and Entos Zainal et al (2004) established that, attitude upon breastfeeding was not associated with exclusive breastfeeding pattern.

Mode of delivery:

Mode of delivery is one of the physiological factors and the third factor associated with exclusive breastfeeding. Cesarean section had negative influence on exclusive breastfeeding but normal vaginal delivery increased the rates of exclusive breastfeeding. The reason could be due to the fact that cesarean section precluded early mother-infant contact and early initiation of breastfeeding (Calzolari: 653-656). The other reason could be caesarean section caused maternal pain and exhaustion through blood loss. However, they are not principal obstacles preventing postpartum mothers from practicing breastfeeding, if the mothers receive close care and necessary support from public health officials or if the mothers truly understand the nature of breastfeeding. This present study was similar to the study from Somboon et al (1994:19) which found that the type of child delivery affected breastfeeding as natural or normal childbirth and also similar to a study of Hinde and Mturi, (1996:347-354) who found that breastfeeding duration was found to vary according the mode of

delivery. A study of Md. Mosharaf et al (2009) also found that mode of delivery is the highest value variability of breastfeeding.

Contrary, a study of Janke, (1992: 159-164) documented that postpartum mothers who underwent caesarean section and normal delivery were not different. A study about Practice of breastfeeding and factors that affect breastfeeding in Hong Kong stated that the mode of delivery was no statistically significant associations with the initiations of breastfeeding (EYL Leung et al, 2006:28). A study done by Weiderpass E (1998) discovered that breastfeeding duration was similar among babies born either by vaginal delivery or by emergency cesarean section.

5.2 The strength of this study

The study design which was a randomized controlled trial was one of the strengths of this study. The KSPES program on antenatal education and postnatal support strategies to improve exclusive breastfeeding during the first six months after delivery was the very first time intervention implementing on breastfeeding. The KSPES program is an effective program and an important strategy because it explores the purpose of formalization, the sharing and discussion of the participants' knowledge by storytelling, experience by best practice, demonstrating and displaying within the pregnant women groups in addition to applying the 4 steps of empowerment by Gibson's theory (1991). Furthermore, postnatal support strategies, for instance, follow-up by telephone interview at days 7 until months 6 after delivery, are also important strategies to motivate and stimulate the mother's behaviors and improve the rates of exclusive breastfeeding for the first six months after delivery or over a long period.

5.3 The limitations of this study

5.3.1 This study has no data in contraceptive that should have effect to exclusive breastfeeding.

5.3.2 As the study was consisted of qualitative study in some parts which was subjected to opinion, cultural and social beliefs, including specific practices of the group, the application suggested by the study might be limited to population similar to the study group.

5.3.3 In this study the mothers were not match in term of their psychological parameters although feeding can be affected by the psychological state of the mother.

5.3.4 The study took a long time period to follow-up during the first six months after delivery.

5.3.5 Lost to follow-up participants' characteristics and behaviors could not be traced which accounted for 11.2% of this study.

5.3.6 Communication channel was another limitation, for example, contacting by telephone interview or home visit was difficult in a city state.

5.3.7 This study could not include poor mothers such as those who did not have telephone line or who were illiterate.

CHAPTER VI

CONCLUSION AND RECOMMENDATIONS

This chapter consists of three sections. The first section contains the conclusion of all chapters in this study. The final two sections provide the recommendations of this study and the recommendations for further research.

6.1 Conclusion

In this study, the researcher hypothesized that Knowledge Sharing Practices with Empowerment Strategies (KSPES) on antenatal education and postnatal support strategies could significantly improve exclusive breastfeeding during the first six months after delivery.

For this reason, KSPES became an additional important strategy and technique in educating and promoting the exclusive breastfeeding during the first six months to the pregnant women in antenatal education class. The researcher designed the model of Knowledge Sharing Practices with Empowerment Strategies based upon Knowledge Sharing Practices (KSP) in Knowledge Management (KM) and Empowerment in Gibson theory, which consisted of four steps such as discovering reality, critical reflection, taking charge and holding on. Each step consisted of all steps of KSP. All of these could be done through communication, sharing discussion of their knowledge by storytelling, experience by best practices, demonstration and displaying their thoughts and feelings. In this way, the persons discovered their own capability of managing breastfeeding and also learnt others' experiences. The mothers then evaluated by taking information from the group and compared themselves with

their own standard. The KSPES on postnatal support strategies provided the instructions on latching on, proper positioning, and other techniques to avoid common complications during the women's first routine postnatal visit after delivery. Then the researcher telephone-interviewed at day 7, 14, months 1, 2, 3, 4, 5, and 6 post-natal period together with home visits to the problem cases of exclusive breastfeeding. That was the most appropriate method to see a change and also a way to stimulate and motivate the women to adopt the good behavior for improving exclusive breastfeeding during the first six months.

This study was conducted in King Chulalongkorn Memorial Hospital and Theptarin Hospital, Bangkok province in Thailand, with 40 pregnant women each in the study and control groups using a randomized controlled trail study design to compare the effectiveness of KSPES to improve exclusive breastfeeding (EBF) during the first six months. This report covered the study period from the beginning of year 2009 to the end of year 2009.

The research instruments were the questionnaire based on the PRECEDE Framework containing the knowledge about breastfeeding, attitude toward breastfeeding, self-efficacy for self-management toward breastfeeding and support for breastfeeding practices and records of the information of exclusive breastfeeding for the first six months as well as focus group discussion, participant observation, in-depth interviews, telephone interviews and home visits. The analytical finding explained qualitative results and quantitative results of Knowledge Sharing Practices with Empowerment Strategies (KSPES) Program, and also the rate and duration of breastfeeding practices. The study also covered the predisposing factors, enabling factors, reinforcing factors and physical factors for exclusive breastfeeding. Moreover,

the association between breastfeeding practices and various factors was determined by using multiple logistic regressions.

The research findings can be concluded as follows: A group of receiving KSPES on antenatal education and postnatal support strategies had more mean scores of knowledge about breastfeeding, attitude toward breastfeeding and self-efficacy for self-management toward breastfeeding than the control group. The rate of exclusive breastfeeding in pregnant women from the study group was more in a group receiving only routine standard knowledge of breastfeeding techniques, though the prevalence rate of exclusive breastfeeding during the first six months after delivery was 20.0 per cent and still lower than the National target (30%). However, in conclusion, KSPES on antenatal education and postnatal support strategies significantly improve the rates of exclusive breastfeeding during the first six months after delivery. The infant's birth weight, attitude toward breastfeeding and mode of delivery (normal delivery) are important factors in promoting the exclusive breastfeeding during the first six months.

6.2 Recommendations

KSPES on antenatal education and postnatal support strategies significantly improve the rates of exclusive breastfeeding during the first six months after delivery. However, it was found that the rate of exclusive breastfeeding at 6 months in the study group was 20%, which was far from the goal yet still higher in the study group than that in the control group which indirectly showed that KSPES on antenatal education and postnatal support strategies was more effective than the routine standard knowledge of breastfeeding techniques significantly. Moreover, it was found that common problems and obstacles in breastfeeding both in the study and control groups

were working outside (39.7 and 38.6 per cent) and insufficient lactation (25.0 and 33.3 per cent).

6.2.1 KSPES on antenatal education and postnatal support strategies program

This program should be applied as a guideline to improve the rates of exclusive breastfeeding during the first six months after delivery and it should be conducted by all public health officials in the operational level to understand the importance of exclusive breastfeeding, to motivate the behavior of mothers enabling them to develop their full potential and to ensure that they have correct knowledge about breastfeeding, attitude toward breastfeeding, self-efficacy for self-management toward breastfeeding. Moreover, they should understand the strategies or techniques of KSPES on antenatal education and postnatal support strategies to facilitate, the skill and appropriate demonstration to increase breastfeeding knowledge, attitude, self-efficacy for self-management toward breastfeeding of the pregnant women. Moreover, this program should be able to develop and cultivate the knowledge and understanding in order to employ consistently in daily practice. The highlights of each period are as follows:

Ante-natal period: KSPES on antenatal education should be provided to all pregnant women during the third trimester of gestational age, unless there are the routine standard of breastfeeding techniques of antenatal care clinics at Department of Obstetrics and Gynecology.

Delivery period: The staff should encourage the postpartum mothers to touch and hold their babies within half an hour after delivery to ensure early bonding and early techniques of sucking successfully. This is also an important stimulus of mothers' love and spiritual bonding for their infants. It will increase the chance that

they could be able to exclusively breastfeed the babies for longer time. The staff should also be able to provide close suggestion, show model of the best practice and demonstrate the actual situation of exclusive breastfeeding.

Postpartum period: The staff should provide discharge planning about exclusive breastfeeding to the postpartum mothers. The postpartum mothers should have confidence in their ability to breastfeed their infants before they are discharged from the hospital with correct knowledge, positive attitude and good self-efficacy for self-management toward breastfeeding.

Follow up period: The postnatal support strategies should be applied to mothers during the first six months after delivery. In addition to this, those same staff should continuously follow up the postpartum mothers who face the problems on breastfeeding by means of home visits and closely contact as they have better understanding about the problems and health histories of the women.

6.2.2 Counseling to husbands or family:

Husbands or family members should be counseled to have active and encouraging roles in breastfeeding support; this practice has been associated with higher rates of exclusive breastfeeding.

6.2.3 Supportive role of the doctor:

Family doctors need to take more active and supportive roles in exclusive breastfeeding, especially during the third trimester and up until 6 months postpartum. Usually are they the first advisors pregnant women visit, and are accepted and perceived to more popular than midwives in imparting information about exclusive breastfeeding. Not just family doctors, but doctors of all specialties should encourage exclusive breastfeeding whenever they encounter a pregnant woman.

6.2.4 Government's policy:

According to the policy of the Bureau of Health Promotion, Department of Health, Ministry of Public Health, it is stated that at least 30% of every postpartum mothers have to practice breastfeeding exclusively for at least six months after delivery before offering other food, and partial breast feeding should be continued along with complementary feeding for at least the first 2 years of life.

The policy should be adjusted to comply with the actual situation. Furthermore, workplaces should have facilities to support mothers who would like to exclusive breastfeed to their infants in their workplaces. These includes that employees who need to express breast milk during working hours should approach their supervisors to provide appropriate arrangements and appropriate facilities for expression and storage of milk in the workplace. All other staff members are requested to support their colleagues to breastfeed by adopting positive and accepting attitude.

Also, a childcare center should also be set up at the workplaces to enable the postpartum mothers to practice breastfeeding while working. Moreover, government legislation should include compulsory facilities to support breastfeeding in large public areas such as shopping center, restaurants and hotel etc.

6.3 Recommendations for Further Research

6.3.1 Apply KSPES program in most of subjects was attending the classes, results may generalization and sample sizes were relatively large.

6.3.2 Follow up and evaluate the effects of exclusive breastfeeding promotion through KSPES program in the study group, such as the rate of disease occurrence or

complication caused by breastfeeding, and the rate of infection in mother and child etc compared with the control group.

6.3.3 Apply KSPES program in routine standard of breastfeeding education for pregnant women.

6.3.4 The study participants were the pregnant women in public and private organizations. Their educational status may be higher than those in general population. Studies in general population including poor educational status together with illiterate pregnant women and/or those who do not have landline or mobile to contact would provide more in-depth understanding of the effectiveness of the program.

6.3.5 This study did not include high risk women or multiple pregnancies. Further research should study in multiple pregnancies or high risk groups such as gestational diabetic women etc.

6.3.6 Institute the breast-milk-clinic by implementing KSPES program to improve exclusive breastfeeding during the first six months, and apply the concept of KSPES process to other health promotion activities to encourage breastfeeding related health care services, in consistent with the health system reform policy. On a communitywide basis, breastfeeding promotion should aim at increasing public acceptance, for instance, mother who had successful exclusive breastfeeding during the first six months of life should be publicized as the best role model to promote exclusive breastfeeding in the community. Also, campaigns should be organized to publicize values and benefits of breastfeeding to promote breastfeeding through media such as internet, television, radio, magazine, or news announcement center in the community.

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APPENDICES

APPENDIX A

ETHICAL CONSIDERATIONS

COA No. 042/2009
IRB No. 491/51

INSTITUTIONAL REVIEW BOARD
Faculty of Medicine, Chulalongkorn University
1873 Rama 4 Road, Patumwan, Bangkok 10330, Thailand, Tel 662-256-4455 ext 14, 15

Certificate of Approval

The Institutional Review Board of the Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, is in full compliance with the International guidelines for human research protection as Declaration of Helsinki, The Belmont Report, CIOMS Guideline and International Conference on Harmonization in Good Clinical Practice (ICH-GCP)

Study Title : A randomized controlled trail of knowledge sharing practice with empowerment strategies in pregnant women to improve exclusive breastfeeding during the first six months after delivery

Study Code : -

Study Center : Chulalongkorn University

Principal Investigator : Mrs.Jutamart Kupratakul

Signature: ..... **Signature:** .....

(Emeritus Professor Anek Aribarg, M.D.)
Chairman of
The Institutional Review Board

(Associate Professor Sopit Thamaree)
Committee and Secretary of
The Institutional Review Board

Date of Approval : January 29, 2009

Approval Expire Date : January 29, 2010

Approval is granted subject to the following conditions: (see back of this Certificate)

เทพธารินทร์ Theptarin Hospital
3850 ถนนพระราม 4 คลองเตย กรุงเทพฯ 10110
3850 Rama 4 Road, Klongtoey, Bangkok 10110
Tel. +66 2 348 7000 Fax +66 2 249 8774
www.theptarin.com

Documentary Proof of Ethics Committee on Researches Involving Human Subjects.

Theptarin Hospital

No. 1/2009

Title of Project : **A RANDOMIZIED CONTROLLED TRIAL OF KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES IN PREGNANT WOMEN TO IMPROVE EXCLUSIVE BREASTFEEDING DURING THE FIRST SIX MONTHS AFTER DELIVERY.**

Protocol Number : ID 01-2009

Principle Investigator : Mrs.Jutamart Kupratakul

Name of Department : Ph.D degree Programs in Research for Health Development (Multidisciplinary and International Programs) Graduate School, Chulalongkorn University

Document Reviewed : Protocol Document

The aforementioned documents have been reviewed and acknowledged by Ethics Committee on Researches Involving Human Subjects, based on the Declaration of Helsinki.

Signature of Chairman
Ethics Committee on Researches
Involving Human Subjects

Somboon Vongterapak

Somboon Vongterapak,MD

เทพธารินทร์ Theptarin Hospital

Date of Approval

JAN 19, 2009

Excellence
Teamwork
Hospitality
Integrity
Continuous Improvement
Social Responsibility

APPENDIX B

HUMAN RIGHTS PROTECTION FORM

เอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย

(Information sheet)

วันที่ 8 ธันวาคม 2551

1. ชื่อโครงการ การวิจัยเชิงทดลอง: การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก

2. ชื่อผู้วิจัย นางจุฑามาศ คุประตกุล นิสิตปริญญาเอก หลักสูตรวิทยาศาสตร์ดุษฎีบัณฑิต สาขาวิชาวิจัยเพื่อการพัฒนาสุขภาพ จุฬาลงกรณ์มหาวิทยาลัย

3. สถานที่ปฏิบัติงาน โรงพยาบาลเทพธารินทร์ จังหวัดกรุงเทพมหานคร

โทรศัพท์ที่ทำงาน 0-2348-7000 ต่อ 4346 โทรศัพท์เคลื่อนที่ 08-1841-6041

E-mail: Jutamartkupratakul@yahoo.co.th

4. ข้อมูลเกี่ยวข้องกับการให้คำยินยอมในการวิจัยประกอบด้วย คำอธิบายดังต่อไปนี้

4.1 การวิจัยเกี่ยวข้องกับการศึกษา การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก

4.2 วัตถุประสงค์ของการวิจัย เพื่อเปรียบเทียบความแตกต่างของอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก ในหญิงตั้งครรภ์ระหว่างกลุ่มที่ได้รับโปรแกรมการแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในการอบรมมารดาก่อนคลอดและกลยุทธ์ในการติดตามหลังคลอดและกลุ่มที่ไม่ได้รับโปรแกรม

4.3 การวิจัยครั้งนี้เป็นการวิจัยเชิงทดลอง ที่ผู้วิจัยคาดว่าจะรบกวนเวลาของมารดาตั้งครรภ์ที่เข้าร่วมในการวิจัยนี้ ข้อมูลซึ่งอาจระบุถึงมารดาตั้งครรภ์จะถูกถอดออกเป็นรหัส และวิเคราะห์ในภาพรวม ผลการวิจัยที่ตีพิมพ์จะไม่มีชื่อของมารดาตั้งครรภ์แต่อย่างใด

5. รายละเอียดและขั้นตอนที่ผู้ร่วมโครงการวิจัยจะได้รับการปฏิบัติในการวิจัยครั้งนี้ ซึ่งจะเก็บข้อมูลจาก มารดาตั้งครรภ์ที่มารับบริการการฝากครรภ์และคลอดที่โรงพยาบาลจุฬาลงกรณ์ สภากาชาดไทย และโรงพยาบาลเทพธารินทร์ จำนวน 80 คน โดยแบ่งเป็น 2 กลุ่มดังนี้

INSTITUTIONAL REVIEW BOARD
Faculty of Medicine, Chulalongkorn University
IRB No. 491/51
Date of Approval 29 ม.ค. 2552

5.1 กลุ่มที่ 1 จะได้รับการพยาบาลตามปกติ ตามกิจกรรมของเจ้าหน้าที่ทางการพยาบาลประจำหน่วยฝากครรภ์ ห้องคลอด หลังคลอด และแผนกเด็กอ่อน

5.2 กลุ่มที่ 2 จะได้รับการพยาบาลตามปกติ ตามกิจกรรมของเจ้าหน้าที่ทางการพยาบาลประจำหน่วยฝากครรภ์ห้องคลอด หลังคลอด และแผนกเด็กอ่อน และได้รับโปรแกรม การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก ซึ่งส่งผลให้เกิด พฤติกรรมส่งเสริมสุขภาพเพิ่มขึ้นในทางบวก โดยระยะเวลาในการเข้ารับโปรแกรมคือ การอบรมเรื่องการเลี้ยงลูกด้วยนมมารดา 1 วัน ตั้งแต่เวลาประมาณ 9.00 น.ถึง 12.00 น. และการติดตามการเลี้ยงลูกด้วยนมมารดาอย่างเดียวภายหลังคลอด ตลอดระยะหลังคลอด 6 เดือนแรก โดยการสัมภาษณ์ 6 ครั้งและเยี่ยมบ้านกรณีมีปัญหา

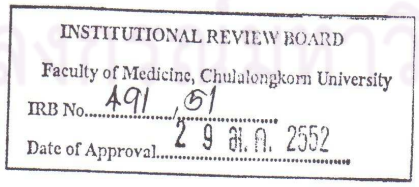
6. การติดต่อกับผู้วิจัยในกรณีที่มีปัญหา สามารถติดต่อที่เบอร์โทรศัพท์เคลื่อนที่ 08-1841-6041 ได้ตลอดเวลา

หากท่านมีข้อสงสัยประการใด และต้องการซักถามเพิ่มเติมหรือมีข้อคิดเห็นประการใด กรุณาติดต่อข้าพเจ้าได้ตลอดเวลา

ขอแสดงความนับถือและขอบพระคุณในความร่วมมือเป็นอย่างสูง

นางจุฑามาศ คุประตกุล

ผู้ทำวิจัย



เอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัย

(Informed Consent Form)

การวิจัยเรื่อง การวิจัยเชิงทดลอง: การแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก

วันให้คำยินยอม วันที่.....เดือน.....พ.ศ.....

ข้าพเจ้า นาย/นาง/นางสาว.....

ได้อ่านรายละเอียดจากเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย วิจัยที่แนบมาฉบับวันที่ 8 ธันวาคม 2551 และข้าพเจ้ายินยอมเข้าร่วมโครงการวิจัยโดยสมัครใจ

ข้าพเจ้าได้รับสำเนาเอกสารแสดงความยินยอมเข้าร่วมในโครงการวิจัยที่ข้าพเจ้าได้ลงนาม และ วันที่ พร้อมด้วยเอกสารข้อมูลสำหรับผู้เข้าร่วมโครงการวิจัย ทั้งนี้ก่อนที่จะลงนามในใบยินยอมให้ทำการวิจัยนี้ ข้าพเจ้าได้รับการอธิบายจากผู้วิจัยถึงวัตถุประสงค์ของการวิจัย ระยะเวลาของการทำวิจัย วิธีการวิจัย รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัย ข้าพเจ้ามีเวลาและโอกาสเพียงพอในการซักถามข้อสงสัยจนมีความเข้าใจอย่างดีแล้ว โดยผู้วิจัยได้ตอบคำถามต่าง ๆ ด้วยความเต็มใจไม่ปิดบังซ่อนเร้นจนข้าพเจ้าพอใจ

ข้าพเจ้ามีสิทธิ์ที่จะบอกเลิกเข้าร่วมในโครงการวิจัยเมื่อใดก็ได้ โดยไม่จำเป็นต้องแจ้งเหตุผล และการบอกเลิกการเข้าร่วมการวิจัยนี้ จะไม่มีผลต่อการรักษาโรคหรือสิทธิอื่น ๆ ที่ข้าพเจ้าจะพึงได้รับต่อไป

ผู้วิจัยรับรองว่าจะเก็บข้อมูลส่วนตัวของข้าพเจ้าเป็นความลับ และจะเปิดเผยได้เฉพาะเมื่อ ได้รับการยินยอมจากข้าพเจ้าเท่านั้น บุคคลอื่นในนามของบริษัทผู้สนับสนุนการวิจัย คณะกรรมการพิจารณาจริยธรรมการวิจัยหรือผู้ได้รับอำนาจมอบหมายให้เข้ามาตรวจและประมวลข้อมูลของผู้เข้าร่วมวิจัย ทั้งนี้จะต้องกระทำไปเพื่อวัตถุประสงค์เพื่อตรวจสอบความถูกต้องของข้อมูลเท่านั้น โดยการตกลงที่จะเข้าร่วมการศึกษานี้ข้าพเจ้าได้ให้คำยินยอมที่จะให้มีการตรวจสอบข้อมูลประวัติทางการแพทย์ของผู้เข้าร่วมวิจัยได้ ผู้วิจัยรับรองว่าจะไม่มีการเก็บข้อมูลใด ๆ ของผู้เข้าร่วมวิจัย เพิ่มเติม หลังจากที่ข้าพเจ้าขอยกเลิกการเข้าร่วมโครงการวิจัยและต้องการให้ทำลายเอกสารและ/หรือ ตัวอย่างที่ใช้ตรวจสอบทั้งหมดที่สามารถสืบค้นถึงตัวข้าพเจ้าได้

INSTITUTIONAL REVIEW BOARD
Faculty of Medicine, Chulalongkorn University
IRB No. 491/51
Date of Approval 29 ต.ค. 2552

ข้าพเจ้าเข้าใจว่า ข้าพเจ้ามีสิทธิ์ที่จะตรวจสอบหรือแก้ไขข้อมูลส่วนตัวของข้าพเจ้าและสามารถเลิกการให้สิทธิในการใช้ข้อมูลส่วนตัวของข้าพเจ้าได้ โดยต้องแจ้งให้ผู้วิจัยรับทราบ

ข้าพเจ้ายินดีลงนามในเอกสารยินยอมนี้เพื่อเข้าร่วมการวิจัยด้วยความเต็มใจ

.....ลงนามผู้ยินยอม

(.....) ชื่อผู้ยินยอมตัวบรรจง

วันที่ .....เดือน.....พ.ศ.....

ข้าพเจ้าได้อธิบายถึงวัตถุประสงค์ของการวิจัย วิธีการวิจัย รวมทั้งประโยชน์ที่จะเกิดขึ้นจากการวิจัยอย่างละเอียด ให้ผู้เข้าร่วมในโครงการวิจัยตามนามข้างต้นได้ทราบและมีความเข้าใจดีแล้ว พร้อมลงนามลงในเอกสารแสดงความยินยอมด้วยความเต็มใจ

.....ลงนามผู้ทำวิจัย

(.....) ชื่อผู้ทำวิจัยตัวบรรจง

วันที่ .....เดือน.....พ.ศ.....

.....ลงนามพยาน

(.....) ชื่อพยานตัวบรรจง

วันที่ .....เดือน.....พ.ศ.....

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Date of Approval 29 มิ.ย. 2552

APPENDIX C

RESEARCH INSTRUMENTS: ENGLISH

(EXAMPLE)

RESEARCH INSTRUMENTS: ENGLISH

INTERVIEW SCHEDULE

A RANDOMIZED CONTROLLED TRAIL OF KNOWLEDGE SHARING PRACTICE WITH EMPOWERMENT STRATEGIES IN PREGNANT WOMEN TO IMPROVE EXCLUSIVE BREASTFEEDING DURING THE FIRST SIX MONTHS AFTER DELIVERY

( ) **1. Case** ( ) **1. Before-Training**

( ) **2. Control** ( ) **2. After-Training**

( ) **3. Six months after- delivery**

ID Number……..

Date of Interview……

Place of Interview……

Direction: This interview form has 6 parts as follow

The purpose of these questionnaires are to find out the Maternal and infant factors, Knowledge, Attitude, Self-efficacy for Self-management of breastfeeding, Support for breastfeeding practices and Information of exclusive breastfeeding for the first six months .The interviewer will explain the purpose of the study and verbal consent will be sought from pregnant women before interviewing them. They will also be assured of the confidentiality of the information. The interviewer is expected to check (/) mark the respondent's answer in the right column or write down the answer in the spaces provided.

Part 1: The Maternal and infant factors (For Pretest only)

Direction: Please mark or check (/) for the best and true answer, or fill up the space

1. Age…….years (more than 6 months can be counted as year)
2. Religion

   ( ) 1. Buddhism ( ) 2. Islam

   ( ) 3. Christian ( ) 4. Other (specify)……...
3. Education status

   ( ) 1. Primary school level ( ) 2. Secondary school level

   ( ) 3. Bachelor or higher level ( ) 4. None
4. Occupation……..

   Work place ( ) 1. At home ( ) 2. Outside home
5. Average family income……baht / month
6. Place of ANC visit and Receive breastfeeding practices' advice.

   ( ) 1. King Chulalongkorn Memorial Hospital

   ( ) 2. Theptarin Hospital
7. Family's status

   ( ) 1. Stay with husband (Every day)

   ( ) 2. Stay with husband (Some day)

   ( ) 3. Separate from husband (Widow /Divorce)
8. Family's characteristic

   ( ) 1. Single family (Compose you and husband)

   ( ) 2. Extended family (Compose you, husband and relatives)
9. Gravida

   ( ) 1. Primiparous

   ( ) 2. Multiparous

   *A number of alive babies……

   *Did you have previous experience of breastfeeding?

   ( ) 1. Not having ( ) 2. Having

   *What kind of milk that mother feds the previous child?

Children no. 1

Activities	**days**		**months**					
	7	**14**	**1**	**2**	**3**	**4**	**5**	**6**
(1) **Exclusive breastfeeding** (the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution).	…	….	….	….	….	….	….	….
(2) **Predominant breastfeeding** (the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula).	…	….	….	….	….	….	….	….
(3) **Partial breastfeeding** (the infants are fed with the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids).	…	….	….	….	….	….	….	….
(4) **No breastfeeding** (the infants are fed no breast milk and only formula milk and other liquids or food).	…	….	….	….	….	….	….	….
(5) Others (specify)…….. ……..	…	….	….	….	….	….	….	….

Children no. 2

Activities	**days**		**months**					
	7	**14**	**1**	**2**	**3**	**4**	**5**	**6**
(1) **Exclusive breastfeeding** (the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution)	…	….	….	….	….	….	….	….
(2) **Predominant breastfeeding** (the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula).	…	….	….	….	….	…..	….	….
(3) **Partial breastfeeding** (the infants are fed with								

the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids).	…	….	….	….	….	….	….	….
(4) **No breastfeeding** (the infants are fed no breast milk and only formula milk and other liquids or food).								
(5) Others (specify)……..	…	….	….	….	….	….	….	….
……..	…	….	….	….	….	….	….	….

Children no. 3

Activities	days		months					
	7	14	1	2	3	4	5	6
(1) **Exclusive breastfeeding** (the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution).								
(2) **Predominant breastfeeding** (the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula).	…	….	….	….	….	….	….	….
(3) **Partial breastfeeding** (the infants are fed with the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids).	…	….	….	….	….	….	….	….
(4) **No breastfeeding** (the infants are fed no breast milk and only formula milk and other liquids or food).								
(5) Others (specify)……..	…	….	….	….	….	….	….	….
……..	…	….	….	….	….	….	….	….
	…	….	….	….	….	….	….	….

10. Do you have normal nipple?

( ) 1. Normal ( ) 2. Abnormal specify……

11. Did you receive sufficient advice on breastfeeding practices?

( ) Sufficient ( ) Not sufficient

( ) Specify require……..

12. Did you have an intention to practice exclusive breastfeeding during pregnancy?

( ) 1. Not having Reason…….

( ) 2. Having

*How does your intention for your baby?

Activities	days		months					
	7	14	1	2	3	4	5	6
(1) **Exclusive breastfeeding** (the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution).								
(2) **Predominant breastfeeding** (the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula).	…	….	….	….	….	….	….	….
(3) **Partial breastfeeding** (the infants are fed with the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids).	…	….	….	….	….	….	….	….
(4) **No breastfeeding** (the infants are fed no breast milk and only formula milk and other liquids or food).								
(5) Others (specify)……..	…	….	….	….	….	….	….	….
……..	…	….	….	….	….	….	….	….
	…	….	….	….	….	….	….	….

Reason……

13. Did you have a plan to breastfeed your babies with working?

( ) 1. Not having Reason…….

( ) 2. Having

Specify ( ) 1. During pregnancy ( ) 2. Postpartum

*How do you plan for your baby

Activities	days		months					
	7	14	1	2	3	4	5	6
(1) **Exclusive breastfeeding** (the infants are fed only with the mothers' breast milk or expressed with no other food, no formula or water except medicines, vitamins, and oral rehydration solution).								
(2) **Predominant breastfeeding** (the infants are fed only with the mothers' breast milk with water, sweetened water, and juices without formula).	….	….	….	….	….	…	….	….
(3) **Partial breastfeeding** (the infants are fed with the mothers' breast milk and complementary food such as formula milk, gruel, semisolids, or solids).	….	….	….	….	….	…	….	….
(4) **No breastfeeding** (the infants are fed no breast milk and only formula milk and other liquids or food).	….	….	….	….	….	…	….	….
(5) Others (specify)…… ……	….	….	….	….	….	…	….	….
	….	….	….	….	….	…	….	….

Reason……
……
……
.

Part 1: The Maternal and infant factors (For six months after deliver only)

Direction: Please mark or check (/) for the best and true answer, or fill up the space

1. Date of birth……
2. Gestational age at delivery……weeks
3. Child's sex…….
4. Birth weight …….grams
5. Current baby's weight at six months……grams
6. For mother who return to work after birth

   a. When would you expect to restart working?.....month

   b. Are there the place for keeping the milk at your workplace?

(Refrigerator, Flask)

( ) Yes ( ) No

c. Referring to your occupation, are you convenient to keep your breast-milk?

( ) Yes ( ) No because……

7. Did you have illness during pregnancy?

( ) Have specify…… ( ) Not have

8. Health status during pregnancy

( ) Healthy ( ) Not healthy

9. Type of delivery

( ) 1. Normal delivery ( ) 2. Instrumental

( ) 3. Caesarean Section ( ) 4. Other specify…….

10. Did the infant have any health problems at birth?

( ) 1. Having specify…… ( ) 2. Not having

11. Did the infant have any health problems during the first six months?

( ) 1. Having specify…… ( ) 2. Not having

12. Did you have any health problems during the first six months?

( ) 1. Having specify…… ( ) 2. Not having

13. Technique of sucking successful (Early breastfeeding)

Did the infant's sucking in the half-one hour after birth?

( ) Yes ( ) No

Did the infant's sucking at least once every two to three hours?

( ) Yes ( ) No

When the infant's sucking, the nipple should be pushed into its mouth so that the baby has a mouthful of nipple and areola?

( ) Yes ( ) No

……

APPENDIX D

RESEARCH INSTRUMENTS: THAI

(EXAMPLE)

แบบสอบถามเพื่อการวิจัย

เรื่อง การวิจัยเชิงทดลอง: การแลกเปลี่ยนเรียนรู้ ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดระยะหลังคลอด 6 เดือนแรก

( ) 1. กลุ่มทดลอง **( ) 1. ก่อนการทดลอง**

( ) 2. กลุ่มควบคุม **( ) 2. หลังการทดลอง**

( ) 3. หลังคลอด 6 เดือนแรก

เลขที่.....

วันที่ตอบแบบสอบถาม.....

สถานที่ตอบแบบสอบถาม.....

คำชี้แจง: แบบสอบถามประกอบด้วย 6 ส่วน

ส่วนที่ 1: ข้อมูลปัจจัยด้านมารดาและบุตร (ก่อนทดลองและหลังคลอด 6 เดือนแรก)

ส่วนที่ 2: แบบวัดความรู้ในการเลี้ยงลูกด้วยนมมารดา (ก่อนและหลังทดลอง)

ส่วนที่ 3: แบบวัดทัศนคติในการเลี้ยงลูกด้วยนมมารดา (ก่อนและหลังทดลอง)

ส่วนที่ 4: แบบวัดการรับรู้สมรรถนะการจัดการตนเองในการเลี้ยงลูกด้วยนมมารดา (ก่อนและหลังทดลอง)

ส่วนที่ 5: แบบวัดได้รับการสนับสนุนส่งเสริมการเลี้ยงลูกด้วยนมแม่ (หลังคลอด 6 เดือนแรก)

ส่วนที่ 6: แบบบันทึกการเลี้ยงลูกด้วยนมมารดาตลอดเวลา 6 เดือนแรก (หลังคลอด 6 เดือนแรก)

ส่วนที่ 1: ข้อมูลปัจจัยด้านมารดาและบุตร (ก่อนทดลอง)

คำชี้แจง: โปรดเติมข้อความในช่องว่างหรือทำเครื่องหมาย / ในช่อง ( ) ที่ตรงกับความเป็นจริงที่สุด

1. ท่านอายุ…….ปี (มากกว่า 6 เดือนสามารถนับเป็น 1 ปี)

2. ท่านนับถือศาสนา

( ) 1. พุทธ ( ) 2. อิสลาม

( ) 3. คริสต์ ( ) 4. อื่นๆ……...

3. ท่านจบการศึกษา

( ) 1. ประถมศึกษา ( ) 2. มัธยมศึกษา

( ) 3. อนุปริญญาหรือสูงกว่า ( ) 4. อื่นๆ……...

4. อาชีพ……

สถานที่ทำงาน ( ) 1. ทำงานในบ้าน ( ) 2. ทำงานนอกบ้าน

5. รายได้ของครอบครัวเฉลี่ยต่อเดือน……บาท

6. สถานพยาบาลที่ฝากครรภ์ และการแนะนำการเลี้ยงลูกด้วยนมมารดา

( ) 1. โรงพยาบาลจุฬาลงกรณ์ สภากาชาดไทย

( ) 2. โรงพยาบาลเทพธารินทร์

7. สถานภาพสมรส

( ) 1. อยู่ด้วยกันกับสามี (ทุกวัน)

( ) 2. อยู่ด้วยกันกับสามี (เป็นบางครั้ง)

( ) 3. แยกกันอยู่กับสามี (หย่าร้าง / หม้าย)

8. ลักษณะครอบครัว

( ) 1. ครอบครัวเดี่ยว (ประกอบด้วยท่านและสามี)

( ) 2. ครอบครัวขยาย (ประกอบด้วยท่าน สามีและญาติพี่น้องคนอื่นอยู่ด้วย)

9. จำนวนการตั้งครรภ์

( ) 1. ท้องแรก (กรุณาข้ามไปข้อ 11)

( ) 2. ท้องที่สองเป็นต้นไป

* จำนวนเด็กที่มีชีวิต……คน

* ประสบการณ์การเลี้ยงลูกด้วยนมมารดาในท้องก่อนๆ

( ) 1. ไม่มีประสบการณ์ ( ) 2. มีประสบการณ์

* ชนิดของการเลี้ยงลูกด้วยนมมารดาในการตั้งครรภ์ครั้งก่อน

บุตรคนที่ 1

ชนิดของการเลี้ยงลูกด้วยนมมารดา	**วัน**		**เดือน**					
	7	**14**	**1**	**2**	**3**	**4**	**5**	**6**
(1) **การเลี้ยงลูกด้วยนมมารดาอย่างเดียว** (ทารกได้รับเพียงวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า โดยปราศจาก อาหาร นมผสม หรือสารน้ำ ยกเว้นยา วิตามิน และสารละลายป้องการปากแห้ง)	…	….	….	….	….	….	….	….
(2) **การเลี้ยงลูกด้วยนมมารดาส่วนใหญ่** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้สารน้ำ น้ำหวาน และน้ำผลไม้ โดยปราศจากนมผสม)	…	….	….	….	….	….	….	….
(3) **การเลี้ยงลูกด้วยนมมารดาบางส่วน** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้อาหารชนิดต่างๆ เช่น นมผสม อาหารเหลว อาหารอ่อน หรืออาหารธรรมดา)	…	….	….	….	….	….	….	….
(4)) **การเลี้ยงลูกด้วยนมผสมเพียงอย่างเดียว**(ทารกไม่ได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ได้รับเพียงแต่นมผสมและอาหารเหลวอื่นๆ หรือ อาหารธรรมดา)	…	….	….	….	….	….	….	….
(5) อื่นๆ (ระบุ)……. …….	…	….	….	….	….	….	….	….

บุตรคนที่ 2

ชนิดของการเลี้ยงลูกด้วยนมมารดา	วัน		เดือน					
	7	14	1	2	3	4	5	6
(1) **การเลี้ยงลูกด้วยนมมารดาอย่างเดียว** (ทารกได้รับเพียงวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า โดยปราศจาก อาหาร นมผสม หรือสารน้ำ ยกเว้นยา วิตามิน และสารละลายป้องการปากแห้ง)	…	….	….	….	….	….	….	….
(2) **การเลี้ยงลูกด้วยนมมารดาส่วนใหญ่** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้สารน้ำ น้ำหวาน และน้ำผลไม้ โดยปราศจากนมผสม)	…	….	….	….	….	….	….	….
(3) **การเลี้ยงลูกด้วยนมมารดาบางส่วน** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้อาหารชนิดต่างๆ เช่น นมผสม อาหารเหลว อาหารอ่อน หรืออาหารธรรมดา)	…	….	….	….	….	….	….	….
(4)) **การเลี้ยงลูกด้วยนมผสมเพียงอย่างเดียว**(ทารกไม่ได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ได้รับเพียงแต่นมผสมและอาหารเหลวอื่นๆ หรือ อาหารธรรมดา)	…	….	….	….	….	….	….	….
(5) อื่นๆ (ระบุ)……. …….	…	….	….	….	….	….	….	….

บุตรคนที่ 3

ชนิดของการเลี้ยงลูกด้วยนมมารดา	วัน		เดือน					
	7	14	1	2	3	4	5	6
(1) **การเลี้ยงลูกด้วยนมมารดาอย่างเดียว** (ทารกได้รับเพียงวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า โดยปราศจาก อาหาร นมผสม หรือสารน้ำ ยกเว้นยา วิตามิน และสารละลายป้องการปากแห้ง)	…	….	….	….	….	….	….	….

(2) **การเลี้ยงลูกด้วยนมมารดาส่วนใหญ่** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้สารน้ำ น้ำหวาน และน้ำผลไม้ โดยปราศจากนมผสม)								
(3) **การเลี้ยงลูกด้วยนมมารดาบางส่วน** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้อาหารชนิดต่างๆ เช่น นมผสม อาหารเหลว อาหารอ่อน หรืออาหารธรรมดา)	…	….	….	….	….	….	….	….
(4)) **การเลี้ยงลูกด้วยนมผสมเพียงอย่างเดียว**(ทารกไม่ได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ได้รับเพียงแต่นมผสมและอาหารเหลวอื่นๆ หรือ อาหารธรรมดา)	…	….	….	….	….	….	….	….
(5) อื่นๆ (ระบุ)……. ……	…	….	….	….	….	….	….	….

10. การตั้งครรภ์ปัจจุบันท่านมีหัวนมปกติหรือไม่

( ) 1. ปกติ ( ) 2. ผิดปกติ ระบุ…….

11. ท่านได้รับความรู้เรื่องการเลี้ยงลูกด้วยนมมารดาเพียงพอต่อการนำไปปฏิบัติหรือไม่

( ) เพียงพอ ( ) ไม่เพียงพอ

( ) ต้องการความรู้เพิ่มเติมระบุ.....

12. ในระหว่างตั้งครรภ์ บุตรคนนี้ท่านตั้งใจที่จะเลี้ยงลูกด้วยนมมารดาหรือไม่ อย่างไร เพราะเหตุใด

( ) 1. ไม่ตั้งใจ ระบุเหตุผล.....

( ) 2. ตั้งใจ

*ท่านตั้งใจอย่างไร

ชนิดของการเลี้ยงลูกด้วยนมมารดา	วัน		เดือน					
	7	14	1	2	3	4	5	6
(1) **การเลี้ยงลูกด้วยนมมารดาอย่างเดียว** (ทารกได้รับเพียงวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า โดยปราศจาก อาหาร นมผสม หรือสารน้ำ ยกเว้นยา วิตามิน และสารละลายป้องการปากแห้ง)	…	….	….	….	….	….	….	….
(2) **การเลี้ยงลูกด้วยนมมารดาส่วนใหญ่** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้สารน้ำ น้ำหวาน และน้ำผลไม้ โดยปราศจากนมผสม)	…	….	….	….	….	….	….	….
(3) **การเลี้ยงลูกด้วยนมมารดาบางส่วน** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้อาหารชนิดต่างๆ เช่น นมผสม อาหารเหลว อาหารอ่อน หรืออาหารธรรมดา)	…	….	….	….	….	….	….	….
(4)) **การเลี้ยงลูกด้วยนมผสมเพียงอย่างเดียว**(ทารกไม่ได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ได้รับเพียงแต่นมผสมและอาหารเหลวอื่นๆ หรือ อาหารธรรมดา)	…	….	….	….	….	….	….	….
(5) อื่นๆ (ระบุ)……. …….	…	….	….	….	….	….	….	….

ระบุเหตุผล.....

13. ท่านได้วางแผนเกี่ยวกับการเลี้ยงลูกด้วยนมมารดาร่วมกับการทำงานหรือไม่

( ) 1. ไม่ได้วางแผน

( ) 2. วางแผน

ระบุช่วงระยะในการวางแผน ( ) 1. ระหว่างตั้งครรภ์ ( ) 2. ระยะหลังคลอด

*ท่านวางแผนอย่างไร

ชนิดของการเลี้ยงลูกด้วยนมมารดา	วัน		เดือน					
	7	14	1	2	3	4	5	6
(1) **การเลี้ยงลูกด้วยนมมารดาอย่างเดียว** (ทารกได้รับเพียงวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า โดยปราศจาก อาหาร นมผสม หรือสารน้ำ ยกเว้นยา วิตามิน และสารละลายป้องการปากแห้ง)	…	….	….	….	….	….	….	….
(2) **การเลี้ยงลูกด้วยนมมารดาส่วนใหญ่** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้สารน้ำ น้ำหวาน และน้ำผลไม้ โดยปราศจากนมผสม)	…	….	….	….	….	….	….	….
(3) **การเลี้ยงลูกด้วยนมมารดาบางส่วน** (ทารกได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ร่วมกับการให้อาหารชนิดต่างๆ เช่น นมผสม อาหารเหลว อาหารอ่อน หรืออาหารธรรมดา)	…	….	….	….	….	….	….	….
(4)) **การเลี้ยงลูกด้วยนมผสมเพียงอย่างเดียว**(ทารกไม่ได้รับด้วยวิธีดูดนมมารดาหรือการป้อนโดยการบีบน้ำนมจากเต้า ได้รับเพียงแต่นมผสมและอาหารเหลวอื่นๆ หรือ อาหารธรรมดา)	…	….	….	….	….	….	….	….
(5) อื่นๆ (ระบุ)……. …….	…	….	….	….	….	….	….	….

ระบุเหตุผล.....

ส่วนที่ 1: ข้อมูลปัจจัยด้านมารดาและบุตร (หลังคลอด 6 เดือน)

คำชี้แจง: โปรดเติมข้อความในช่องว่างหรือทำเครื่องหมาย / ในช่อง ( ) ที่ตรงกับความเป็นจริงที่สุด

1. วันที่คลอด……..

2. อายุครรภ์ขณะคลอด…….เดือน

3. บุตรคนปัจจุบันของท่านเป็นเพศ……..

4. น้ำหนักทารกแรกคลอด……..กิโลกรัม

5. น้ำหนักบุตรคนนี้เมื่ออายุ 6 เดือน……..กิโลกรัม

6. สำหรับมารดาที่กลับมาทำงานหลังคลอด

ก. หลังจากคลอดบุตร ท่านได้กลับมาเริ่มทำงานเมื่อ……..เดือน

ข. สถานที่ทำงานมีที่สำหรับเก็บน้ำนม เช่น ตู้เย็น กระติกน้ำแข็ง หลังบีบไว้หรือไม่

( ) 1. มี ( ) 2. ไม่มี

ค. สถานที่ทำงานของท่าน สะดวกต่อการเก็บน้ำนมหลังบีบหรือไม่

( ) 1. สะดวก ( ) 2. ไม่สะดวก

7. ขณะตั้งครรภ์บุตรคนนี้จนถึงปัจจุบัน ท่านมีปัญหาการเจ็บป่วยหรือไม่

( ) 1. มี ระบุ.....

( ) 2. ไม่มี

8. สุขภาพของท่านขณะตั้งครรภ์บุตรคนนี้

( ) 1. แข็งแรง ( ) 2. ไม่แข็งแรง

*กรณีไม่แข็งแรง แพทย์สั่งยาให้ท่านในขณะตั้งครรภ์หรือไม่

( ) 1. ไม่ให้ ( ) 2. ให้ ระบุ.....

9. บุตรคนปัจจุบันคลอดโดยวิธีใด

( ) 1. คลอดปกติ ( ) 2. คลอดโดยใช้เครื่องมือคลอด

( ) 3. ผ่าตัดคลอดทางหน้าท้อง ( ) 4. อื่นๆ ระบุ.....

10. ขณะอยู่โรงพยาบาลหลังคลอด บุตรคนนี้มีปัญหาสุขภาพหรือไม่

( ) 1. มี ระบุ..... ( ) 2. ไม่มี

11. บุตรคนนี้ มีปัญหาสุขภาพในระหว่าง 6 เดือนหลังคลอดหรือไม่

( ) 1. มี ระบุ..... ( ) 2. ไม่มี

12. ท่านมีปัญหาสุขภาพ ต้องมารับการรักษาที่โรงพยาบาลในระหว่าง 6 เดือนหลังคลอดหรือไม่

( ) 1. มี ระบุ..... ( ) 2. ไม่มี

13. ท่านใช้วิธีการที่ทำให้ประสบผลสำเร็จในการเลี้ยงลูกด้วยนมมารดาอย่างไร (ช่วงแรกคลอด)

1. ท่านให้ทารกดูดเร็ว โดยให้ดูดภายในครึ่งถึง 1 ชั่วโมงหลังคลอดหรือไม่

( ) 1. ใช่ ( ) 2. ไม่ใช่

2. ท่านให้ทารกดูดบ่อย โดยให้ดูดอย่างน้อยทุก 2-3 ชั่วโมงหรือไม่

( ) 1. ใช่ ( ) 2. ไม่ใช่

3. ท่านให้ทารกดูดถูกวิธี โดยให้ทารกอ้างปากกว้างๆ งับบริเวณลานนมหรือไม่

( ) 1. ใช่ ( ) 2. ไม่ใช่

……

APPENDIX E

KSPES PROGRAM: THAI

(EXAMPLE)

KSPES PROGRAM

โปรแกรม แลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก

*** ทำแบบสอบถามก่อนทดลอง (ระยะเวลาที่ใช้ประมาณ 30 นาที) ตั้งแต่เวลาประมาณ 12.00 ถึง 12.30 น.***

วัตถุประสงค์	กลุ่มเป้าหมาย	การดำเนินการ	ผู้ดำเนินการ	วิธีดำเนินการ	ระยะเวลา
เมื่อสิ้นสุดการเข้าร่วมโปรแกรม ผู้เข้าร่วมโปรแกรมจะได้รับ 1. มีความรู้ความเข้าใจในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวเพิ่มขึ้น 2. มีทัศนคติในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวเพิ่มขึ้น 3. มีการรับรู้สมรรถนะในการจัดการตนเองในการเลี้ยงลูกด้วยนมมารดาอย่างเดียว	มารดาตั้งครรภ์ที่มีอายุครรภ์ตั้งแต่ 32 สัปดาห์ขึ้นไป	ให้การอบรมเป็น รายกลุ่ม จำนวน สมาชิก 5-8 คนต่อกลุ่ม โดยอบรมกับมารดาตั้งครรภ์ที่มีอายุครรภ์ตั้งแต่ 32 สัปดาห์ขึ้นไป 1 ครั้ง ใช้เวลาประมาณ 160 นาที ตั้งแต่เวลาประมาณ 12.00-12.30 น. มีสาระเนื้อหาและวัตถุประสงค์ย่อยแตกต่างกัน	คุณจุฑามาศ คุประตกุล (ผู้วิจัย)	โดยมีขั้นตอนดังนี้ คือ *****ระยะที่ 1 ระยะเปิดกลุ่ม** สิ่งที่ต้องปฏิบัติ คือ 1. สร้างบรรยากาศให้เกิดความคุ้นเคย ผ่อนคลายและเป็นกันเอง โดยการปฏิบัติดังนี้ 1.1 ควบคุมเครื่องปรับอากาศและไฟให้พอดี เกิดความรู้สึกสบายและผ่อนคลาย 1.2 จัดกลุ่มในลักษณะยืนเป็นรูปวงกลม จัดระยะห่างพอประมาณ 1.3 เปิดเพลงบรรเลง ลักษณะของเพลงช้าๆ และเบาๆ พอประมาณ 1.4 ฝึกการหายใจ โดยให้สูดลมหายใจเข้าออกลึก ๆ ช้า ๆ ประมาณ 10 ครั้งให้เข้าตามจังหวะของเพลง 1.5 ฝึกการออกกำลังกายสำหรับหญิงตั้งครรภ์ ประมาณ 3-5 ท่า (ท่าละ 3-5ครั้ง) ให้เข้าตามจังหวะของเพลง 2. การสร้างสัมพันธภาพ โดยผู้นำกลุ่มแสดงออก ดังนี้ 2.1 Verbal Language ได้แก่ - การกล่าวทักทายด้วยถ้อยคำสุภาพเป็นกันเอง - ให้สมาชิกแนะนำตัวโดยให้บอกชื่อ นามสกุล ภูมิลำเนา ข้อมูลเกี่ยวกับบุตรของเช่น อายุ เพศ ลำดับที่ของบุตร เป็นต้น - ถามสารทุกข์สุขดิบ (Small Talk) และให้การประคับประคองทางด้านจิตใจ - การตกลงบริการเรื่อง-เวลาที่ใช้ ความลับ บทบาทหน้าที่ของผู้นำกลุ่มและผู้ร่วมกลุ่ม 2.2 Non verbal Language ได้แก่ - ท่าทีที่อบอุ่น เป็นมิตร ยิ้มแย้มแจ่มใส - ระยะห่างที่พอเหมาะระหว่างสมาชิก โดยจัด	ระยะเวลาที่ใช้ 160 นาที) ตั้งแต่เวลา 12.30 ถึง 15.30 น. (ระยะเวลาที่ใช้ในระยะที่ 1 ประมาณ10

เพิ่มขึ้น 4. สามารถเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลา 6 เดือนแรกได้				เบาะนั่งและหมอนอิงเป็นรูปตัวยูไม่มีเก้าอี้หรือโต๊ะตรงกลาง - การประสานสายตาที่เหมาะสม เป็นระยะ **<u>แนวคิด</u>** บรรยากาศที่คุ้นเคย ผ่อนคลายและเป็นกันเอง เป็นทางนำไปสู่สัมพันธภาพที่ดีระหว่างสมาชิกในกลุ่มเป็นสิ่งสำคัญที่สุดที่จะเอื้ออำนวยให้กระแสกลุ่มดำเนินไปอย่างราบรื่น ดังนั้นก่อนดำเนินการในขั้นอื่น ๆ ผู้นำกลุ่มจะต้องเอื้ออำนวยให้เกิดสัมพันธภาพที่ดีขึ้นในกลุ่ม และจะต้องรักษาสัมพันธภาพที่ดีให้คงอยู่ตลอดกระบวนการ โดยผู้นำกลุ่มจะต้องมีความอดทนให้ความใส่ใจต่อสมาชิก มีความจริงใจรวมทั้งให้การยอมรับสมาชิกแต่ละคนและสามารถที่จะสื่อให้สมาชิกรับรู้ได้ว่า ผู้นำกลุ่มมีความเชื่อถือในตัวเขาว่าเขาสามารถที่จะทราบ เข้าใจและสามารถที่จะปฏิบัติได้ สามารถที่จะรับผิดชอบต่อตนเองในการกระทำสิ่งต่าง ๆ ได้สำเร็จตามเป้าหมายของตน ยอมรับในอารมณ์ ความคิดและพฤติกรรมอย่างไม่มีเงื่อนไข เพื่อสร้างความมั่นใจและความรู้สึกมั่นคงปลอดภัยให้แก่สมาชิกแต่ละคน ให้เขามีพลังใจที่เข้มแข็งพร้อมที่จะเผชิญสถานการณ์และปัญหาของตนตามความเป็นจริงในการเลี้ยงลูกด้วยนมมารดาตลอดเวลาหลังคลอด 6 เดือนแรก *****ระยะที่ 2 ระยะดำเนินกลุ่ม**โดยปฏิบัติตามโปรแกรมแลกเปลี่ยนเรียนรู้ร่วมกับการเสริมสร้างพลังอำนาจในหญิงตั้งครรภ์ ต่อการส่งเสริมอัตราการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก ตลอดระยะของการดำเนินกลุ่ม ได้สอดแทรกและเสริมกลยุทธ์ต่างๆ คือ การติดต่อปฏิสัมพันธ์ การสนทนากันแบบฟังเชิงลึก การสาธิต การแสดงความรู้สึกและความคิดเห็น การใช้แบบอย่างที่ดี และการเล่าเรื่อง ซึ่งสาระของโปรแกรมมีประเด็นหลักคือ	นาที) ตั้งแต่เวลา 12.30 ถึง 12.40 น.

				1. ความรู้และทัศนคติเรื่องการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรกโดยครอบคลุมเนื้อหาเกี่ยวกับความหมาย พยาธิสภาพกลไกของการสร้างและหลั่งน้ำนม วิธีการและเทคนิคในการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรกให้ประสบความสำเร็จ 2. การเผชิญปัญหาและความเครียดในการเลี้ยงลูกด้วยนมมารดาตลอดเวลาหลังคลอด 6 เดือนแรกและการแก้ไขปัญหา 3. การสื่อสารกับบุคคลในครอบครัวและบุคลากรในวิชาชีพ 4. การปฏิบัติตามแผนการในเรื่องการเลี้ยงลูกด้วยนมมารดาอย่างเดียว 5. การป้องกันและสังเกตอาการผิดปกติที่อาจเกิด รวมทั้งการช่วยแก้ไขเบื้องต้นเกี่ยวกับการเลี้ยงลูกด้วยนมมารดาอย่างเดียว อีกทั้งให้คำแนะนำ ชักชวนและชี้แนะแก่มารดาตั้งครรภ์ โดยการนำสาระเหล่านี้มาแบ่งออกเป็น 5 เรื่องย่อยที่จำเป็นในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวให้ประสบความสำเร็จ คือ 1) ความสำคัญและประโยชน์ของการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก 2) เทคนิคในการเลี้ยงลูกด้วยนมมารดาอย่างเดียว ให้ประสบผลสำเร็จ 3) ความเครียดและปัญหาพร้อมวิธีแก้ไขในการเลี้ยงลูกด้วยนมมารดาอย่างเดียว 4) การเลี้ยงลูกด้วยนมมารดา เมื่อมารดาต้องไปทำงานได้ 5) การสื่อสารเพื่อขอความช่วยเหลือหรือปรึกษาเรื่องการเลี้ยงลูกด้วยนมมารดา โดยทำเรื่องละ 1 ครั้ง โดยแต่ละครั้งประกอบด้วย 4 ขั้นตอนย่อย คือ **ขั้นตอนที่ 1. การค้นพบความจริง (discovering reality)** เป็นการพยายามทำให้มารดาสำรวจตัวเองในเรื่อง ความรู้ความเข้าใจและประโยชน์	ระยะเวลาที่ใช้ 160 นาที

				ของ การเลี้ยงลูกด้วยนมมารดาอย่างเดียว ตลอดเวลาหลังคลอด 6 เดือนแรก ปฏิบัติตามเทคนิคในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวให้ประสบผลสำเร็จ การเผชิญความเครียดและปัญหาพร้อมวิธีแก้ไขในการเลี้ยงลูกด้วยนมมารดาอย่างเดียว การบีบและเก็บน้ำนม การสื่อสารเพื่อขอความช่วยเหลือหรือปรึกษาเรื่องการเลี้ยงลูกด้วยนมมารดา กับบุคลากรในวิชาชีพ โดยจัดให้มีการพูดคุยแลกเปลี่ยนประสบการณ์ ความคิด ความรู้สึก ทำให้บุคคลค้นพบความสำเร็จในการจัดการกับตนเองในสถานการณ์การเลี้ยงลูกด้วยนมมารดาอย่างเดียวตลอดเวลา 6 เดือนแรกหลังคลอด และประสบการณ์ของบุคคลอื่น ๆ ทำให้มารดาได้เกิดการประเมินเปรียบเทียบกับมาตรฐานของตนเอง และอาจได้รับคำบอกกล่าวถึงการกระทำนั้นจากบุคคลในกลุ่ม **ขั้นตอนที่ 2. การพิจารณาไตร่ตรอง (critical reflection)** เป็นการพยายามทำให้มารดาทบทวนสะท้อนสิ่งที่เกิดขึ้นกับตนเองอย่างรอบคอบ เพื่อประกอบการตัดสินใจและจัดการกับสิ่งที่เกิดขึ้นต่อไปได้อย่างเหมาะสม ได้ค้นพบความสามารถของตนเองจากการพูดคุยแลกเปลี่ยนประสบการณ์ของแต่ละคน ได้ค้นพบแหล่งประโยชน์ที่สามารถนำมาใช้กับตนเองจากการที่มารดานำประสบการณ์การกระทำของผู้อื่นมาประเมินเปรียบเทียบกับตนเอง เช่น ประสบการณ์ในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวของมารดาแต่ละคน การแก้ปัญหาของมารดาในการเลี้ยงลูกด้วยนมมารดาอย่างเดียวตลอดเวลา 6 เดือนแรก โดยให้ดูมารดาอื่นที่มีลักษณะคล้ายกับตนเอง ทำให้เกิดแนวทางในการจัดการกับสถานการณ์ที่เกิดกับตนเองได้ **ขั้นตอนที่ 3 การลงมือปฏิบัติ (taking charge)**	

				เป็นการพัฒนาความสามารถในการจัดการควบคุม ตัดสินใจดำเนินการต่าง ๆ ได้ด้วยตนเอง โดยการให้ข้อมูลที่จำเป็น เช่น การเลี้ยงลูกด้วยนมมารดาอย่างเดียว การเผชิญความเครียด การแก้ไขเหตุการณ์ต่างๆที่ไม่พึงประสงค์ในการเลี้ยงลูกด้วยนม การสื่อสารอย่างมีประสิทธิภาพ ฯลฯ โดยวิธีการสาธิตให้ดูและให้มารดาได้ปฏิบัติตามเพื่อเกิดประสบการณ์ว่าตนสามารถทำได้ และการพูดให้กำลังใจสนับสนุนในสิ่งที่มารดาสามารถทำได้ **ขั้นตอนที่ 4 การเสริมสร้างความมั่นคงทางจิตใจ (holding on)** เป็นการทำให้เกิดความรู้สึกมั่นใจในความเข้มแข็งของตนเอง ความสามารถของตนเองในมารดาที่เลี้ยงลูกด้วยนมมารดาอย่างเดียว โดยการได้ลองฝึกปฏิบัติจนเกิดความมั่นใจจากการพูดคุยซักถามในข้อสงสัยทำให้มารดาลดความคับข้องใจและด้วยบรรยากาศที่เป็นมิตรทำให้มารดาลดความวิตกกังวลและความเครียดลงได้ ทำให้มารดาดำรงรักษาความรู้สึกนี้ไว้ได้ **ระยะที่ 3 ระยะปิดกลุ่ม** ก่อนจะเลิกกลุ่มต้องปฏิบัติดังนี้คือ - เปิดโอกาสให้มารดาซักถามข้อสงสัยหรือแสดงความคิดเพิ่มเติม - ให้สมาชิกในกลุ่มสรุปเรื่องราวและประเด็นที่พูดคุยกัน - นัดหมาย การติดต่อโดยการโทรศัพท์ทั้งเวลาจำนวนครั้ง การพบกันครั้งต่อไปโดยการเยี่ยมบ้าน - กล่าวขอบคุณสมาชิกกลุ่มที่ให้ความสนใจหรือให้ความร่วมมือด้วยดี	ระยะเวลาที่ใช้10นาที

****อาหารว่างจัดให้ภายใน Class อบรม**

ทำแบบสอบถามหลังทดลอง (ระยะเวลาที่ใช้ประมาณ 30 นาที) ตั้งแต่เวลา 15.30 ถึง 16.00 น.

APPENDIX F

PICTURES IN ANTENATAL EDUCATION CLASS

VITA

NAME:	Mrs. Jutamart Kupratakul
PRESENT TITLE AND	UR. Nurse Department of Nursing
AFFILIATION:	Theptarin Hospital Bangkok , Thailand
	3850 Rama IV Rd, Prakanong Klong-Toey Bangkok 10110, Thailand.
BIRTH DATE& PLACE:	April 23, 1971, Udontani, Thailand
EDUCATION AND	1989-1993: B.N.S of Nursing Science, Faculty of Nursing,
QUALIFICATIONS:	Assumption University, Bangkok, Thailand.
	1997-2001: M.Ed. Education Psychology, Faculty of Education
	Srinakharinwirot University, Bangkok, Thailand.
	2006-2010: Ph.D. in Research for Health Development Program
	(International Program), Graduate School, Chulalongkok University
	Bangkok, Thailand.
POSITIONS:	1993-1995: Nurse Staff, Medical-Surgery Ward, Camillian Hospital
	1995-2005: Nurse Staff, Department of Obstetrics and Gynecology,
	Samittivej Hospital
WORK EXPERIENCE:	2005-present: UR. Nurse, Department of Nursing, Theptarin Hospital
	1999-2005: Instructor of preparation of Maternal and Childbirth Class
	in Samittivej Hospital
	2005-present: Instructor of preparation of Maternal and Childbirth Class
	in Theptarin Hospital
GRANT:	2009: CU. GRADUATE SCHOOL THESIS
	2010: CONFERENCE GRANT FOR Ph.D. STUDENT