FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING AMONG WOMEN IN NAKHON PATHOM PROVINCE, THAILAND

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FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING AMONG WOMEN IN NAKHON PATHOM PROVINCE, THAILAND

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ABSTRACT

Breastfeeding has enormous benefits for mothers and infants. In Thailand the national target of exclusive breastfeeding for 6 months after delivery has been set at 30%. At present the rate of exclusive breastfeeding is still lower than expected. The objectives of this research were to study factors influencing exclusive breastfeeding among women in Nakhon Pathom Province. Demographic characteristics, knowledge, attitude, source of support and information on exclusive breastfeeding were included. Study subjects were 230 women who had delivered their babies in the previous 6 months to 1 year and resided at Amphur Dontoom, Nakhon Pathom Province. Data was collected by interviewing using structured questionnaires. Descriptive statistics included rate, mean and standard deviation. Chi-square test was applied to test statistical significance at the level of $p < 0.05$ by using the SPSS V 16 statistical program.

The results showed that the average age of the women was 26.59 ± 6.77 years. Most of them (55.2 %) were primipara and 67.8 % completed high school or less. Most of the women had fair level of knowledge and attitude towards breastfeeding (84.4% and 67.4%, respectively). Most of them (68.4%) had a high level of source of support and information. The rate of exclusive breastfeeding was 90 %, 76.5 % and 70% at 1, 3 and 6 months, respectively. Two factors which were significantly associated with exclusive breastfeeding at 3 months were education and occupation ($p < 0.05$). Attitude towards breastfeeding was associated with education and occupation ($p < 0.05$).

In conclusion, exclusive breastfeeding at 6 months among women at Amphur Dontoom, Nakhon Pathom Province was high. Most of the women had rather fair knowledge, fair attitude and high level of support for breastfeeding. But source of information from mass media e.g. television, radio and magazine was still low. There should be more promotion in mass media about exclusive breastfeeding at the community level in order to assure long-term success in a sustainable high rate of exclusive breastfeeding.

KEY WORDS : EXCLUSIVE BREASTFEEDING

68 pp.

ปัจจัยที่มีผลต่อการเลี้ยงลูกด้วยนมแม่อย่างเดียวของสตรี ในจังหวัดนครปฐม (FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING AMONG WOMEN IN NAKHON PATHOM PROVINCE, THAILAND)

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บทคัดย่อ

การเลี้ยงลูกด้วยนมแม่มีประโยชน์อย่างยิ่งต่อมารดาและทารก ประเทศไทยกำหนดเป้าหมายการเลี้ยงลูกด้วยนมแม่อย่างเดียว 6 เดือนหลังคลอด ร้อยละ 30 แต่ในปัจจุบันอัตราการเลี้ยงลูกด้วยนมแม่อย่างเดียวยังอยู่ในระดับต่ำ วัตถุประสงค์ของการวิจัยนี้เพื่อศึกษาปัจจัยที่มีผลต่อการเลี้ยงลูกด้วยนมแม่อย่างเดียวของสตรี ในจังหวัดนครปฐม ปัจจัยที่นำมาศึกษาได้แก่ ปัจจัยส่วนบุคคล ความรู้ ทัศนคติ และแรงสนับสนุนทางสังคมและการได้รับข้อมูลเกี่ยวกับการเลี้ยงลูกด้วยนมแม่ ประชากรในการศึกษา ได้แก่ สตรีที่คลอดบุตรในระยะเวลาตั้งแต่ 6 เดือน ถึง 1 ปี และอาศัยอยู่ใน อำเภอดอนตูม จังหวัดนครปฐม จำนวน 230 คน การเก็บข้อมูลใช้การสัมภาษณ์ โดยใช้แบบสัมภาษณ์ที่สร้างขึ้น การวิเคราะห์ข้อมูลใช้สถิติเชิงพรรณนา จำนวน ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และใช้ Chi-square test เพื่อทดสอบสมมติฐานที่ระดับความมีนัยสำคัญทางสถิติที่ $p < 0.05$ โดยใช้โปรแกรมสำเร็จรูป SPSS V 16

ผลการศึกษาพบว่า กลุ่มตัวอย่างอายุเฉลี่ย 26.59 ± 6.77 ส่วนใหญ่ร้อยละ 55.2 เป็นครรภ์แรก ร้อยละ 67.8 จบการศึกษาระดับมัธยมศึกษาหรือต่ำกว่า และมีความรู้และทัศนคติเกี่ยวกับการเลี้ยงลูกด้วยนมแม่อยู่ในระดับปานกลางร้อยละ 84.8 และ 67.4 ตามลำดับ ร้อยละ 68.4 ได้รับแรงสนับสนุนทางสังคมในระดับสูง อัตราการเลี้ยงลูกด้วยนมแม่อย่างเดียวในระยะ 1 เดือน 3 เดือนและ 6 เดือน คิดเป็นร้อยละ 90 ร้อยละ 76.5 และร้อยละ70 ตามลำดับ ปัจจัยที่มีความสัมพันธ์กับการเลี้ยงลูกด้วยนมแม่อย่างเดียวในระยะ 3 เดือน อย่างมีนัยสำคัญทางสถิติ คือ ระดับการศึกษาและอาชีพ และพบว่าทัศนคติการเลี้ยงลูกด้วยนมแม่มีความสัมพันธ์กับระดับการศึกษาและอาชีพ

สรุป การเลี้ยงลูกด้วยนมแม่อย่างเดียวในระยะ 6 เดือน ในเขตอำเภอดอนตูม จังหวัดนครปฐม มีอัตราสูง ส่วนใหญ่สตรีมีความรู้และทัศนคติเกี่ยวกับการเลี้ยงลูกด้วยนมแม่อย่างเดียวระดับปานกลางและมีแรงสนับสนุนทางสังคมในระดับสูง แต่การรับรู้ข้อมูลเกี่ยวกับการเลี้ยงลูกด้วยนมแม่จากสื่อมวลชนเช่น ทางโทรทัศน์ วิทยุและหนังสือวารสาร ยังอยู่ในระดับต่ำ ดังนั้นจึง ควรมีการพัฒนาสื่อให้มีคุณภาพและมีการกระจายสู่ชุมชน ซึ่งจะทำให้การเลี้ยงลูกด้วยนมแม่อย่างเดียวในระยะ 6 เดือนหลังคลอดได้อย่างต่อเนื่องและประสบผลสำเร็จดียิ่งขึ้น

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CHAPTER I
INTRODUCTION

Significance of Problem

Breast milk is the natural first food for babies, it provides all the energy and nutrients that the infant needs for the first months of life, and it continues to provide up to half or more of a child's nutritional needs during the second half of the first year, and up to one-third during the second year of life. Breast milk promotes sensory and cognitive development, and protects the infant against infectious and chronic diseases. Exclusive breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia, and helps for a quicker recovery during illness. Breastfeeding contributes to the health and well-being of mothers, it helps to space children, reduces the risk of ovarian cancer and breast cancer, increases family and national resources, is a secure way of feeding and is safe for the environment.(1)

As a global public health recommendation, infants should be exclusive breastfed for the first six months of life to achieve optimal growth development and health. Thereafter, to meet their evolving nutritional needs, adequate and safe complementary foods should be added while breastfeeding continues for up to two years of age or beyond.(2) The guideline of infant feeding in Thailand has been changed the recommendation of exclusive breastfeeding from 4-6 months, to 6 months since 2003 to be consistent the World Health Organization(WHO) and the United Nations Childrens' Fund (UNICEF) recomendations. (3)

The survey in 2006 found exclusive breastfeeding at 6 months was 10.2 % while the national target of the Ninth National Health Development Plan (NHDP) has been set at 30 %.(4) At the present time, Thailand has rapidly changed in economic status which disincentives breastfeeding. Mothers have to work outside the home. The majority of outside working mothers could not breastfeed their infants in the daytime so they have to use instant formula milk for their infants. Besides, some factors such as lacking of knowledge, poor attitude and poor social support can be implicated in lowering breastfeeding trend.(5)

In 2006, a survey of exclusive breastfeeding in Thailand by Bureau of Health Promotion found that exclusive breastfeeding for 6 months was 9 % in the central region of Thailand. Amphur Dontoom in Nakhon Pathom Province is one rural district in central Thailand.[6] Most of the people are rather poor with average income of 81,000 Bath per year. Most women work in factories near their home. It is interesting to find out the rate of exclusive breastfeeding and factors influencing exclusive breastfeeding.[7]

Table 1 Percent of exclusive breastfeeding for 6 months in Thailand 2006

Region	Rate of exclusive breastfeeding for 6 months
Central	9
Northern	8
Northeastern	20
Southern	15

Source: Bureau of Health Promotion, Department of Health, Ministry of Public Health in 2006.

Objective of the Study

1. To study rate of exclusive breastfeeding at 1, 3 and 6 months after delivery among women who live in Amphur Dontoom, Nakhon Pathom Province.
2. The reasons why women stopped exclusive breastfeeding.
3. Knowledge, attitude, source of support and information about breastfeeding among women in Amphur Dontoom, Nakhon Pathom Province.
4. Association between level of knowledge, level of attitude, source of support and demographic factors.
5. Association between exclusive breastfeeding at 1, 3 and 6 months and demographic factors, knowledge, attitude and source of support.

Scope and limitation of study

The study was a retrospective research gathering data from recall memories. Every answers of the women were assumed to be correct. The study should only applied for women who live in rural area in the Central region of Thailand.

Definition of Terms

Women means women at Amphur Dontoom, Nakhon Pathom Province who had delivered their babies in the previous 6 months to 1 year

Exclusive breastfeeding means infants have only breast milk or breast milk and water, other liquids with the exception of drop or syrups consisting of vitamin, mineral supplement or medicines.

Age means the full year age of the females in Nakhon Pathom Province.

Education means the highest education level of the females in Nakhon Pathom Province.

Occupation means a women who work focus on five careers: employee, merchant agriculture, enterprise or government and housewife.

Family income means salary or money received in a month which divided in

1. Single women's income means her salary or money received a month
2. Married female's income means the salary or money received both the women's and husband's

Number of living children means the number living children.

Knowledge about breastfeeding means scores that women got from answering 15 question about breastfeeding correctly. Knowledge about breastfeeding was categorized into 3 levels

Low	level	score	< 11
Fair	level	score	11-14
Good	level	score	> 14

Attitude of breastfeeding means scores that women got from answering 10 question about breastfeeding. Attitude toward breastfeeding was categorized into 3 levels

Poor	level	score	< 3.5
Fair	level	score	3.5-4.5
Good	level	score	> 4.5

Source of support and information means that received advice and encourage about breastfeeding from the husband other relative, health care providers, neighbor and mass media e.g. television, radio, magazine, book, and intranet. Source of support or information was categorized into 3 levels

Low	level	score	< 3
Fair	level	score	3-4
High	level	score	> 5

Conceptual framework

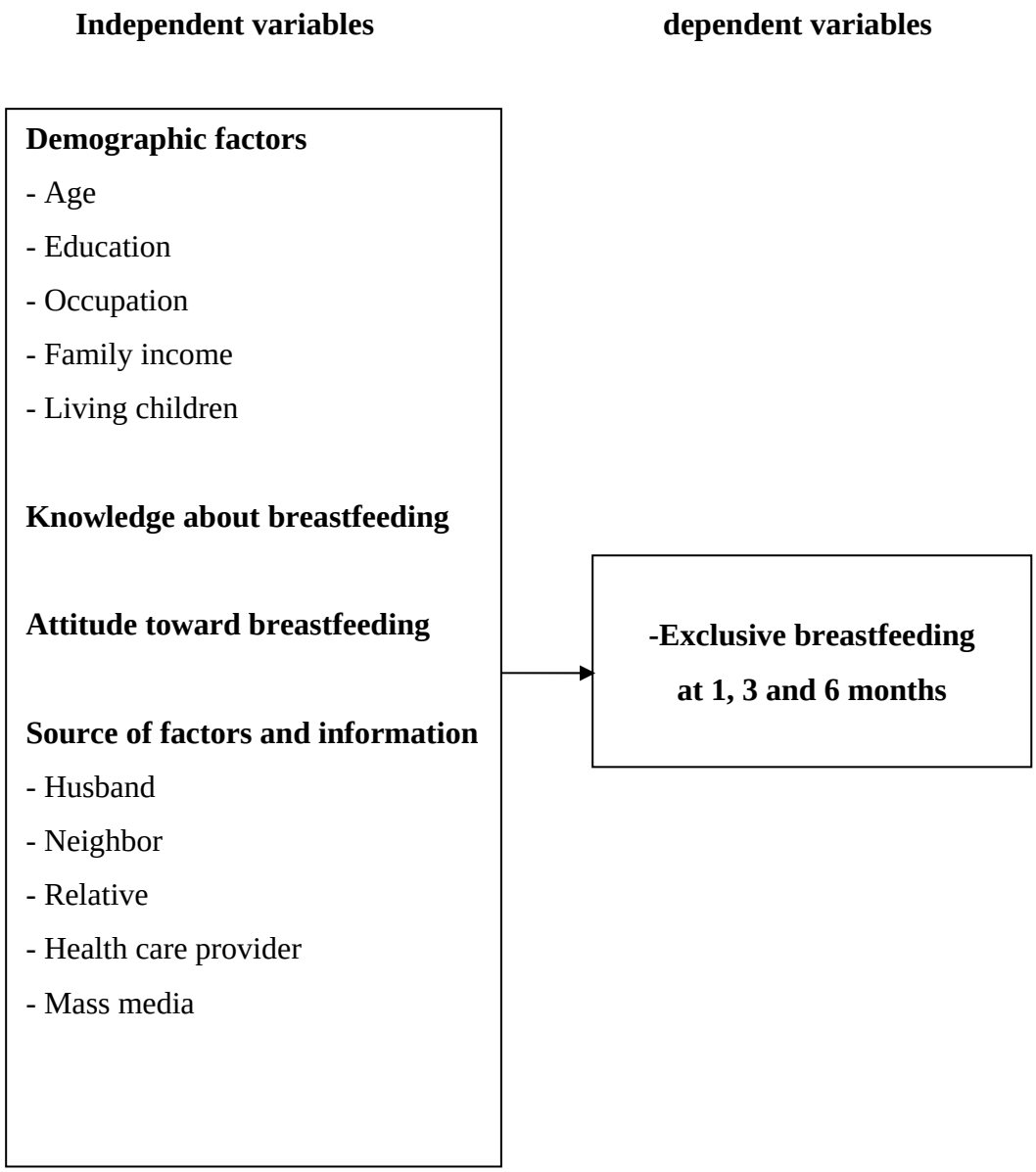

Figure 1 Conceptual framework

CHAPTER II
LITERATURE REVIEW

The objectives of this study are to identify factors influencing exclusive breastfeeding among women. In this chapter, the aspects to be reviewed included the following:

Part I Breast milk Production
Part II Benefits of Breastfeeding
Part III Exclusive breastfeeding
Part IV Problems in breastfeeding and exclusive breastfeeding
Part V Related research

Part I: Breast milk Production

Anatomy of the breast

The female breast is the gland that produces milk. The female breast begins to prepare for lactation with the onset of puberty. As a woman matures there is a further mammary development giving a characteristic structure to the breast. During pregnancy, the glandular cells of the breast change into actual secreting cells. By the time the baby is born, the breast reaches a degree of development capable of producing milk. The breast consists partly of gland tissues and partly of supporting tissues and fats (Fig. 1). The gland tissue (technically known as alveoli) are small sacs, made up of millions of milk secreting cells which goes along small tubes towards the nipple. Before they reach the nipple, the tubes become much wider, and form lactiferous sinuses in which milk collects. The nipple contains many sensory nerves so it is very sensitive. This is important for the responses which help milk to come. Around the nipple there is a circle of dark skin called areola. Beneath the areola are the lactiferous sinuses. Therefore, areola must go inside the baby's mouth in order to draw milk from sinuses.

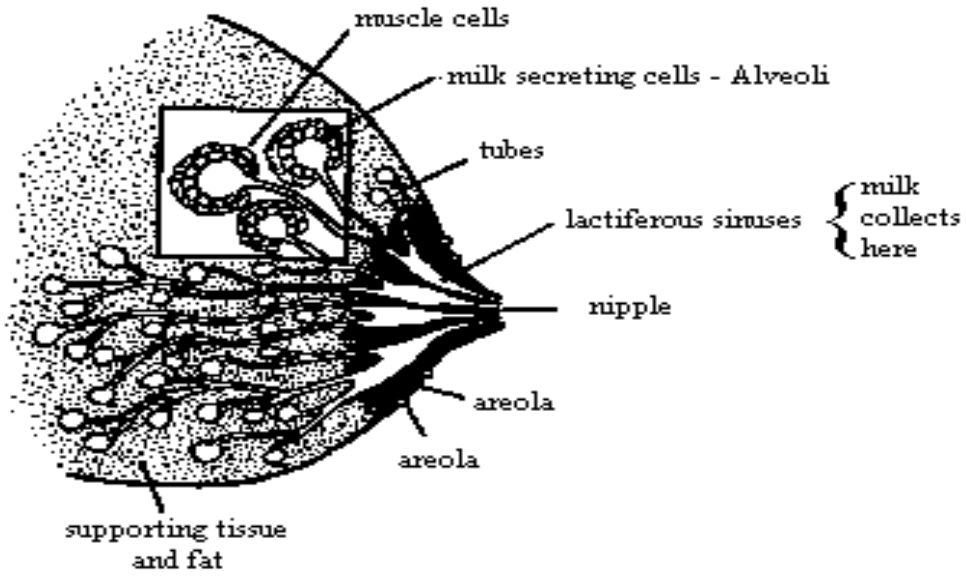

Figure 2 Anatomy of the breast

Breast milk Production

As the baby suckles on the breast it provides a sensory stimulus through nerve endings in the nipple to the anterior pituitary glands resulting in the prolactin release known as the prolactin reflex. This acts on glands in the breast for milk secretion. Thus, milk production is dependent on the suckling stimulus (Fig 2). Prolactin is present in the blood for about 30 minutes after the baby finishes the feed. It makes the breast produce milk for the next feed.

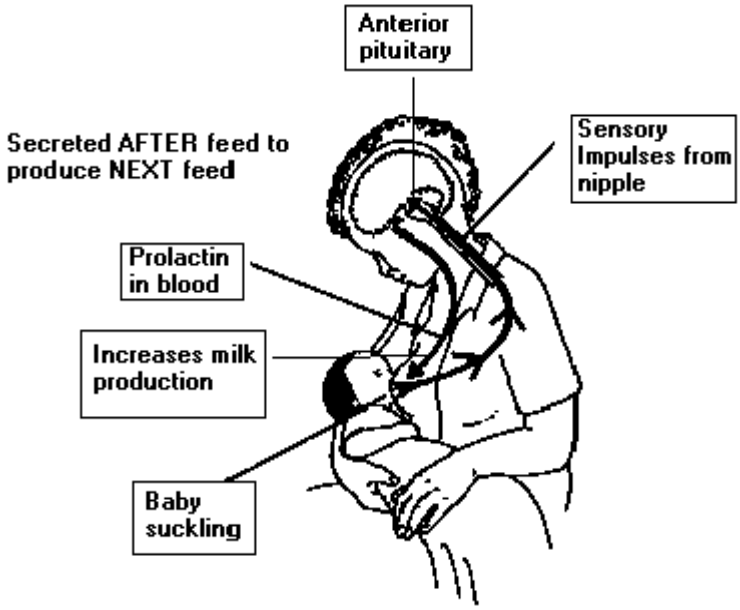

Figure 3 The prolactin reflex or the milk secretion reflex

Breast milk Flow

Suckling by the baby also induces the production of oxytocin, the hormone responsible for milk flow, this is known as the oxytocin reflex. Oxytocin acts on the muscle cells around the alveoli causing the ejection of milk. Oxytocin is produced quickly with the start of the suckling and sometimes even before that. It is produced now for this feed and is responsible for milk transfer from breast to the baby. If not produced adequately, the baby may have difficulty in getting the milk. It may seem that breast is not producing milk in fact it is there, but not flowing. Oxytocin also makes the uterus contract and controls postpartum bleeding. Oxytocin release is affected by mother's feelings and her mental state. Good feelings, thinking lovingly of her baby, feeling confident that her milk is the best and enough for the baby, can help oxytocin reflex to work better. The sight and sound of her baby help augment the oxytocin reflex. Negative feelings like pain, worries, tension, lack of confidence and doubts in mother's mind about her ability to produce milk inhibit the reflex. (Fig. 3) You should never make a statement that undermines mother's confidence and self esteem. Oxytocin is responsible for flow of milk from mother's breast to the baby's mouth.

Part II: Benefits of Breastfeeding [8]

Benefits of breastfeeding for infant

In any statement about breastfeeding and breast milk (human milk), it is important first to establish breast milk's distinct and irreplaceable value to the human infant.

1. Species specificity

Species specificity encompasses all the benefits of being breastfed for the human infant, as breast milk is more than just good nutrition. Human breast milk is specific for the needs of the human infant, just as the milk of thousands of other mammalian species is specifically designed for their offspring. For option growth of brain and body, as well as protection against infection and development of immunity, human milk is specifically designed for the human infant.

2. Nutrition benefits

The unique composition of breast milk provides the ideal nutrients for human brain growth, especially in the first year of life. Cholesterol, docosahexaenoie acid (DHA), and taurine are particularly important. Cholesterol is part of the fat globule membrane and is present in about equal amounts in both cow milk and breast milk. Maternal dietary intake of cholesterol has no impact on breast milk's cholesterol content. Formula naturally lacks human DHA and taurine. The cholesterol in cow milk, however, has been removed in infant formulas, which are cholesterol-free. These element, cholesterol, DHA and taurine, are readily available from breast milk, and are the essential nutrients for the human infant.

The maximum bioavailability of essential nutrients, including the microminerals, means that digestion and absorption are highly efficient. Comparison of the biochemical percentage of constituents of breast milk and infant formula fails to reflect the highly efficient bioavailability and utilization of constituents in breast milk compared with modified cow milk, from which only a small fration of some nutrients is absorbed.

Nourishment with breast milk is a combination event, in which nutrient-to-nutrient interaction is significant. The process of mixing isolated single nutrients in formula does not guarantee the nutrient or nonnutrient benefits that result from breastfeeding. The composition of human milk is a delicate balance of macronutrients and micronutrients, each in the proper proportion to enhance absorption. Ligands bind to some micronutrients to enhance their absorption. Enzymes also contribute to the digestion and absorption of all nutrients.

An excellent example of balance is the action of lactoferrin, which binds iron to make it unavailable for Escherichia coli, which depends on iron for growth. When the iron is bound, E. coli cannot flourish and the normal flora of the newborn gut, Lactobacillus bifidus (Bifidobacterium bifidum), can thrive. In addition, the small amount of iron in human milk is almost totally absorbed, whereas only about 10% of the iron in formula is absorbed by the infant. Nutrients such as proteins are examples of constituents in human milk with multiple fuctions, which include preventing infection and inflammation, promoting growth, transporting microminerals, catalyzing reactions and synthesizing nutrients.

3. Infection protection

Luekocytesm, specific antibodies and other antimicrobial factors protect the breastfed infant against many common infection. Protection against gastrointestinal infections is well documented. Protection against infections of the upper and lower respiratory system and the urinary tract is less recognized but equally well documented. These infections lead to more emergency room visits, hospitalizations, treatments with antibiotics and health care costs for the infant who is not breastfed.

The incidence of acute lower respiratory infections in infants has been evaluated in a number of studies examining the relationship between respiratory infections and breastfeeding or formula feeding in these infants. These studies confirm that breastfed infants are less likely to be hospitalized for respiratory infection and, if hospitalized, are less seriously ill. In a study of infant deaths from infectious disease in Brazil, the risk of death from diarrhea was 14 times more frequent in the formula fed infant, and the risk of death from respiratory illness was

four time more frequent. The association of wheezing and allergy with infant feeding patterns has also shown a significant advantage to breastfeeding. In a report from a 7-year prospective study in South Wales, the advantage of breastfeeding persisted to age 7 years in nonatopic infants, and in at risk infants who were breastfed the risk of wheezing was 50% lower (after accounting for employment status, passive smoking and overcrowding). Breastfeeding is thought to confer long-term protection against respiratory infection as well.

Upper and lower respiratory tract infections have been evaluated in case-control studies, cohort based studies, and mortality studies in both clinic and hospitalized children in many countries of the developed world. The results all show clearly that breastfeeding has a protective effect, especially in the first 6 months of life. A randomized controlled trial indicated that withholding cow milk and giving soy milk provided no such protective effect. The incidence of acute otitis media in formula fed infants is dramatically higher that in breastfed infants, not only because of the protective constituents of human milk but also because of the process of suckling at the breast, which protects the inner ear. When an infant feeds by bottle, the Eustachian tube does not close, and formula and secretions are regurgitated up the tubes. Child care exposure increases the risk of otitis media, and bottle feeding amplifies this risk.

4. Immunologic protection

In addition to the protection provided by breastfeeding against acute infections, epidemiologic studies have revealed a reduced incidence of childhood lymphoma, childhood-onset insulin depedent diabetes, as well as diabetes type 2 and Crohn’s disease in infants who have been exclusively breastfed for at least 4 months, compared with formula fed infants.

5. Allergy prophylaxsis

Breastfed infants at high risk for developing allergic symptoms such as eczema and asthma by 2 years of age show a reduced incidence and severity of symptoms in early life. Some studies suggest the protective effect continues through childhood. A significant reduction in risk of childhood asthma at age 6 years was

reported by Oddy and associates if exclusive breastfeeding is continued for at least 4 months.

6. Psychological and cognitive benefits

Newton noted that children who had been breastfed were more mature, secure and assertive and they progressed further on the developmental scale than nonbreastfed children. More recently, studies by Lucas and associates and other investigators have found that premature infants who received breast milk provided by tube feeding were more advanced developmentally at 18 months and at 7 to 8 years of age than those of comparable gestational age and birth weight who had received formula by tube. Such observations suggest that breast mlik has a significant impact on the growth of the central nervous system. This suggestion is further supported by studies of visual activity in premature infants who were fed breast milk compared with those who were fed infant formula. When similar studies were performed in term infants, visual activity developed more rapidly in the breastfed infants. Even when docosahexanoic acid (DHA) was added to formula, the performance by the breastfed infants was still better.

Benefits of breastfeeding for mother

Breastfeeding may provide the mother with a number of benefits, which should be included during a discussion about making an informed decision regarding how to feed one's infant.

1. Empowerment

In addition to clinically proven medical benefits, breastfeeding empowers a woman to do something special for her infant. The relationship of a mother with her sucking infants is considered the strongest of human bonds. Holding the infant to the mother's breast to provide total nutrition and nurturing creates an even more profound and psychological experience than carrying the fetus in utero. These observations have been tested in animal experiments in which oxytocin and prolactin have triggered parenting behavior with nonpregnant subjects. In studies of young women enrolled in the Women, Infants and children (WIC) program in Kentucky who were

randomly assigned to breastfeed or not to breastfeed and who were provided with a counselor/support person throughout the first year post partum, the women who breastfed chaged their behavior. They developed selfesteem and assertiveness, became more outgoing and interacted more maturely with their infants than did the women assigned to artificial feeding. The women who breastfed turned their lives around by completing school, obtaining employment and providing for their infants.

2. Postpartum recovery

Women who breastfeed return prepregnancy state more promptly than women who do not and they have a lower incidence of obesity in later life. The presence of oxytocin stimulates the uterus to contract and involute with each feeding so that the uterus returns to the prepregnant state within 6 weeks. The extra pregnancy tissue strorage is utilized in the production of milk and the return to prepregnancy weight is thus facilitated.

3. Decreased risk of osteoporosis

The risk of osteoporosis in later life is greatest for women who have never borne an infant, somewhat less for those who have borne infants and measurably less for those who have borne and breastfed infants. The bone mineral loss experienced during pregnancy and lactation is temporary. Bone mineral density returns to normal following pregnancy and even following extended lactation when mineral density may exceed the original baseline. Serum calcium and phosphorus concentrations are greater in lactating than in nonlactating women. Lactation stimulates the greatest increases in fractional calcium absorption and serum calcitriol after weaning. Postweaning concentration of parathyroid hormone are significantly higher than in other stages and urinary calcium loss is significantly lower.

4. Protection against ovarian cancer

There is general agreement that a women’s increasing number of pregnancies, increasing length of oral contraceptive use, and increasing duration of lactation are protective against ovarian cancer. When the relationship between lactation and epithelial ovarian cancer was studied from a multination database, short-

term lactation was as effective as long-term lactation in decreasing the incidence of ovarian cancer in developed countries where ovulation suppression may be less prolonged in relation to lactation. In a study of black women, who are known to have a lower incidence of ovarian cancer, breastfeeding for 6 months or longer, as well as four or more pregnancies and oral contraceptive use, further reduced the incidence of ovarian cancer. Siskind and associates studied the modifying effect of menopausal status on the association between lactation and risk of ovarian cancer in 824 cancer patients and 855 community control subjects. No association was noted in women whose cancer occurred postmenopausally; however, breastfeeding was somewhat protective against ovarian cancer before menopause in this study.

5. Reduced incidence of breast cancer

A mother with a new diagnosis of breast cancer should not nurse her infant in the interest of having definitive treatment immediately, because prolactin level remain very high during lactation, and the role of prolactin in the advancement of mammary cancer is still in dispute. Although endogenous prolactin by itself may not be a risk factor, it could, along with sex steroids, contribute to the acceleration of malignant growth. All lumps in the lactating breast are not cancer and are not even benign tumors. The lactating breast is lumpy, and the “lumps” shift day by day. If a mass is located and the physician thinks it should be biopsied, this can be done under local anesthesia without weaning the infant.

Part III: Exclusive breastfeeding [9]

Exclusive breastfeeding, based on the WHO definition, refers to the practice of feeding only breast milk (including expressed breast milk) and allows the baby to receive vitamins, minerals or medicine. Water, breast milk substitutes, other liquids and solid foods are excluded.

To enable mothers to establish and sustain exclusive breastfeeding for 6 months, WHO and UNICEF recommend:

1. Initiation of breastfeeding within the first hour of life

2. Exclusive breastfeeding – that is the infant only receives breast milk without any additional food or drink, not even water

3. Breastfeeding on demand – that is as often as the child wants, day and night
4. No use of bottles, teats or pacifiers

Ten steps to successful breastfeeding [10]

The Birthing Center is a participant in the Baby Friendly Hospital Initiative and received the Certificate of Intent in 1993. This program was developed by UNICEF and the World Health Organization (WHO) to promote, support, and protect breastfeeding in hospitals throughout the world. Listed below are the 10 Steps to a Baby Friendly Hospital:

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 breastfeeding.
4. Help mothers initiate breastfeeding within half an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in - that is, allow mothers and infants to remain together - 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Part IV: Problems in breastfeeding [11, 12]

1. Flat or Inverted Nipples

Flat or inverted nipples do not protrude properly when stimulated. Inverted nipples pull inward instead of protruding out when pressure is applied to the areola. Flat nipples neither retract not protrude, but remain flat when the areola is gently squeezed.[13] Some infants may have difficulty latching on to flat or inverted nipples. Some experts believe that a woman can correct these conditions by wearing breast shells or milk cups in her bra towards the end of her pregnancy and, if still needed, between feedings during the postpartum period.[14]

2. Sore Nipples

Some women may experience nipple sensitivity or tenderness during the early postpartum period as they are learning and adapting to breastfeeding. However, this sensitivity usually diminishes after the first week or two. It does not require medical intervention nor does it cause visible damage to the breast or the nipples. A mother should not feel pain during breastfeeding. Sore nipples beyond 2 weeks postpartum or soreness accompanied by visible damage to the breast or nipples may be caused by several factors, including the following:

- **Incorrect positioning and latch-on to the breast:** If an infant is not positioned appropriately for breastfeeding or his or her mouth is not attached to the breast with a good portion of the areola in the mouth, the nipple can become irritated. The infant's grasp on the nipple should not feel painful to the mother if the infant is properly attached to her breast.
- **Inappropriate breast care practices:** Mothers should be instructed to avoid harsh soaps, use a properly fitting nursing bra, and use breast pads.
- **Inappropriate frequency and duration of breastfeeding:** An infant who is allowed to become overly hungry may traumatize the nipple by suckling too vigorously. Also, if the mother's breasts are engorged from infrequent feedings, the infant may not be able to grasp the nipple and areola properly in the mouth and thus increase irritation to the nipple.

Nipples that suddenly become sore and cracked can also be caused by an infection called thrush. A woman with a thrush infection on the nipples will usually complain of itching or burning nipples and the skin may become pink and flaky. Thrush may also appear as white spots on the inside of the infant's cheeks, tongue, or gums. A health care provider should be consulted; medication or other treatment may be prescribed for both the mother and infant.

Expressing some milk onto the nipples at the end of a feeding and letting it dry may help sore nipples to heal. If a mother complains of sore nipples, the cause of the soreness needs to be determined in order to treat the condition and prevent it from recurring. A WIC breastfeeding expert can provide assessment, counseling, and follow-up services to mothers complaining of sore nipples.

3. Engorgement

Engorgement refers to the firm and painful overfilling and edema of the breasts. Normal fullness, common in the first weeks of lactation, is the result of milk production beginning along with increased blood flow to the breasts. By the second or third week postpartum, this normal fullness decreases and the breasts will feel softer, even when the milk supply is plentiful. Engorgement may occur due to infrequent or ineffective removal of milk from the breast. When engorgement occurs, the breasts will feel full, hard, warm, tender, and painful. It may be difficult to attach the infant to the breast because the nipple and areola become very taut and hard to grasp. Cases of severe engorgement are associated with abrupt changes in breastfeeding frequency, such as when a mother skips several feedings in a day. Common recommendations to relieve engorgement include the following:

- Apply moist heat (hold a washcloth soaked in warm water to the breasts or stand under a warm or hot shower) for 10 - 20 minutes before a feeding to facilitate the milk ejection reflex.
- Express some milk to soften the areola and breast and allow the nipple to protrude easily.
- Massage the breasts to encourage the flow of milk and to relieve fullness.

- Apply cold compresses to the breasts after feedings to reduce swelling and pain. For years, some women have applied clean, refrigerated, or room-temperature cabbage leaves to their breasts to relieve engorgement. It is not clear whether cabbage leaves contain a substance that makes this technique effective or if the cold simply provides relief, but the practice is believed to be both effective and harmless.

The best management for engorgement is prevention by having the infant breastfeed frequently and effectively every 1 to 3 hours.

4. Plugged Milk Ducts

A plugged milk duct can occur when a milk duct becomes clogged with milk. A mother with a plugged milk duct will commonly complain of a localized tender area on her breast or a lump she can feel in her breast (but does not have fever or other flu-like symptoms). Plugged ducts can be caused by improper positioning of the infant on the breast, severe engorgement, consistently breastfeeding on one breast only, infrequent or skipped feedings, or pressure applied on the breast. (e.g., by a tight bra or other constricting clothing, or certain sleeping positions).To release a plugged milk duct, a mother can take these steps:

- Take a hot shower or apply warm, moist cloths to the area where the plugged duct is located and the rest of the breast.
- Massage the breast from the plugged area down to the nipple before and during breastfeeding.
- Breastfeed frequently (at least every 2 hours) and use different positions.
- Position the infant's chin toward the plugged duct and empty the affected breast first.
- Loosen tight clothing, especially the bra.
- Get plenty of rest.

5. Mastitis

Mastitis is an infection of the breast. It can occur if a mother does not breastfeed frequently and effectively, and thus often appears following engorgement

or plugged ducts. This condition frequently occurs at times of stress or change in usual routine (e.g., guests are visiting, holiday time, returning to work). Frequent and effective breastfeeding (which empties the milk from the breasts regularly) can prevent most cases of mastitis from developing. A mother with mastitis may have any of the following symptoms: tenderness and/or redness of the breast or flu-like symptoms such as body aches, headache, nausea, fever, chills, malaise, or fatigue. A breastfeeding mother complaining of any of these symptoms should contact or be referred to her health care provider immediately. The treatment is the same as for plugged ducts apply heat, get plenty of rest, drink adequate fluids, and breastfeed often. Antibiotics will usually be prescribed to cure the infection. To prevent the recurrence of mastitis, it is important that a mother take the entire course of prescribed medication, even if her symptoms have disappeared before the medication is finished. It is recommended that mothers continue breastfeeding, using both breasts at each feeding, and breastfeed frequently to remedy and prevent this condition. If mastitis is not quickly or completely treated, a more serious condition such as a breast abscess may result.

6. Poor Suckling

An infant who does not appear to be correctly attached to the breast, chews on the nipple, or pushes the nipple out of his or her mouth may not be suckling effectively. Poor suckling may result from improperly positioning an infant, incorrect use of the tongue while breastfeeding, nipple preference, and other problems. An infant who suckles poorly may be breastfeeding often but ineffectively and thus not necessarily receiving sufficient milk from the breasts. Ultimately, poor suckling can result in a decrease in the mother's milk supply as well as an infant who is frustrated, gaining weight inadequately, has a low urinary output, and has abnormally infrequent stools.

7. Appetite or Growth Spurts

Appetite or growth spurts are short periods of time when the infant breastfeeds more frequently than normal. Around 8 to 12 days of age, mothers may notice the infant acts hungrier than normal and may not seem satisfied. During this

time, the fullness of the mother's breasts may have also subsided. Consequently, a mother may feel these signs indicate that she is not producing enough milk for her infant. Many mothers begin to supplement their feedings with infant formula, try to feed their infant complementary foods, or even stop breastfeeding completely.

Although a mother may feel that she has an insufficient milk supply, what is actually happening is the infant is signaling the mother's body to produce more milk to meet his growing needs. Encourage the mother to keep the infant at the breast as often as the infant demands to feed during this period. Frequent feeding will increase her milk supply to meet her infant's increased needs and eventually he or she will resume a more normal feeding pattern. Other periods when appetite spurts can occur are 6 weeks, 3 months, and 6 months. However, the time period an infant goes through an appetite spurt may vary. Anticipatory guidance to breastfeeding mothers regarding infant feeding patterns often eliminates supplementation and premature weaning.

8. Teething and Biting

Teething and biting are not reasons to wean an infant from the breast. Infants can continue to breastfeed while growing teeth without causing pain to the mother.

9. Refusing to Breastfeed

An infant's sudden refusal to breastfeed is often referred to as a "nursing strike" and may occur at any time. Mothers may perceive this as a personal rejection, and a nursing strike may lead to early or unplanned weaning. Many mothers never figure out what caused the nursing strike but some common causes include:

- Onset of a mother's menses
- Maternal stress
- Change in maternal diet
- Change in maternal soap, deodorant, or perfume
- Infant nasal congestion
- A mother returning to work, or a period of separation of the dyad (mother and infant)

- Infant nasal obstruction or gastroesophageal reflex disease.

Efforts to restore or continue breastfeeding may take several days. Mothers will need reassurance to continue the breastfeeding relationship. Encourage mothers to continue putting infant to breast especially when he shows signs of hunger or when he is just awakening or sleepy; increase the amount of time holding or cuddling, including skin-to-skin contact; and minimize distractions. Mothers should be advised to maintain their milk supply by pumping or hand expression to assure continued adequate milk production. Instruct mothers to provide pumped breast milk in a cup, spoon, or dropper until breastfeeding resumes.

10. Slow weight gain

An infant's weight gain is the most reliable sign of breastfeeding success. When an infant does not gain weight adequately, appropriate action should be taken to increase the infant's weight as well as ensure that premature weaning does not occur. It is common for infants, both breastfed or formula-fed, to lose a few ounces of weight in the first 3 or 4 days of life. During this period, infants pass their first stools and eliminate extra fluids that they are born with. This weight loss should stop as the mother's milk production increases. At this time, an infant who is breastfeeding effectively should begin gaining weight and ultimately exceed his or her birth weight by 14 days after birth. After infants experience the typical early weight loss and regain their birth weight, they usually gain around 6 ounces per week during the first 6 months.

11. Sleeping Through the Night

Although many mothers worry about getting their infant to sleep through the night, the reality is that an infant's digestive system is not designed to go an extended amount of time without food. Infants need the important nutrition that night feedings can provide for growth and development. Night feedings are also important for the breastfeeding mother because they help maintain a healthy milk supply and prevent the mother's breasts from becoming overly full. Mothers may feel pressure from family members and friends who indicate that their infant slept through the night

at an early age; however, it is important to remind mothers that infants have different feeding patterns and feed at different time intervals. Some infants cluster feed in the late evening and sleep longer at night. Other infants continue to feed every 2 to 3 hours through the night. Sleep deprivation is natural in the early weeks after childbirth. Getting to know an infant's feeding and sleeping patterns is a learning process for mothers whether they breastfeed or formula-feed. Both feeding methods may disrupt sleep but breastfeeding eliminates having to get up and prepare a bottle of infant formula. Mothers can use strategies such as keeping the infant close to the bed in a bassinet, sleeping when the infant sleeps, and accepting help from others to get adequate rest. Assure the mother that as her infant grows he/she will sleep for longer intervals.

12. Complementary Bottles and Pacifier Use

In order to establish a good breast milk supply, advise mothers to avoid feeding complementary bottles of infant formula and water or using pacifiers for the first 2 to 4 weeks of an infant's life. Supplementation with fluids other than breast milk as well as pacifier use can interfere with establishing effective breastfeeding and have been associated with early weaning. Some of the problems that may be caused or aggravated by feeding complementary bottles or using a pacifier include:

- **Nipple preference**: Artificial nipples on bottles and pacifiers require different movements of the infant's tongue, lips, and jaw and may make it difficult for infants to easily go back to the mother's nipple and breast.
- **Engorgement**: Bottles and pacifiers decrease the amount of time the infant spends breastfeeding. Breastfeeding immediately postpartum, and frequently, helps prevent engorgement.
- **Refusal of the breast:** After being on a bottle, the infant may become frustrated and not express as much interest in suckling from the breast.
- **Early weaning:** Because the infant fills up on infant formula and suckles less on the breast a reduction in milk production occurs.

Part V: Related research

In 1970, Durongdej S. The results showed reasons for exclusive infant formula was 69.6% because women had to work outside home and reason for chages exclusive to combined breastfeeding was 51.6% and 66.7% at 1 and 3 months respectively were had to work outside home which related to the study of infant feeding in Bangkok which found that when mothers were asked why they weaned their infants, Most of mothers (35%) gave the reason as returning to work. This was not statistical significance.(13)

In 1989, Kamdee K. studied factors related to the duration of Breastfeeding among Working Mothers in the Maternal and Child Hospital, Chiang Mai. Retrospective study showed that the factors that were likely to support the mothers to continue breastfeeding after returning to work outside the home were the mother's intention to breastfeed, advice and help from health professionals, bonding and valuing the advantages of breastfeeding, following the model of relatives or neighbors to prolong breastfeeding and social support received.(14)

In 1995, Seubsri V. studied of maternal readiness affecting breast feeding during the first six months in Muang District, Chiang Mai Province. The samples of 109 mothers were randomly selected from those who have a baby aged 6 months-1 year. Data were collected by using structured interview designed by the investigatior. Data were analyzed by using descriptive statistics and T-test was used to test the hypothesis. The results of the study revealed that 51.4 percent of mothers who exclusive breast feeding for six months. Maternal readiness concerning physical, mental and supportive factors were at good levels of 86.1, 89 and 88.6 percent respectively. It was found that the average score of mental readiness of mothers who complete breastfeeding during the first 6 months was significantly higher than those who did not complete breastfeeding ($p < .001$). The physical and supportive factors for maternal readiness between both groups of mothers did not different significantly.(15)

In 1997, Kanjana E. and colleague studied factors influencing the exclusive breast feeding behavior in Phrae Province. Results showed that the exclusive breast feeding rate was 31%. Factors which influenced the exclusive breast feeding behavior statistically significant were: ante-natal care place, advice and post partum visits by public health officers, using artificial tests, problems occured during breast feeding

and attitudes of mothers toward breast feeding ($p<.05$). It is recommended that health center officers develop nipple guideline for solving breast feeding problems, such as, inadequate milk supply, cracked nipple and postpartum care. The sustainability of breast feeding programs should be evaluated in the future.[16]

In 1998, Poltree P. studied factors influencing the duration of breastfeeding in Sakhonakorn Province, study of 279 mothers. The percentage of mothers who breastfeeding their babies for 12 months was 82 %, There were significant relationships between duration of breastfeeding, mother's health, public health service, family support excluding spousal support and health officer support at a high level of 0.05.[17]

In 2001, Alikasifoglu M. and colleague studied factors influencing the duration of exclusive breastfeeding in a group of Turkish women. The study found that a negative association between formula supplementation during the hospital stay and duration of exclusive breastfeeding. The median age for starting non-breast milk liquids was 1 month for those who received formula in the hospital and 3 months for those who did not (P = .001). The hospital practices were more predictive of the duration of exclusive breastfeeding in this study group than mothers' knowledge of infant feeding or psychosocial factors. Thus, hospital practices should be reevaluated.[18]

In 2003, Jenkarnsuk M. and colleague studied the effectiveness of breastfeeding promotion rogram with husband support at Maternal and Child hospital, Health Promotion Center Region 1 Bangkok. Result showed that after intervention the experimental group had knowledge mean higher and it was significant (P – Value < 0.001), but the knowledge mean of control group was not different (P – Value = 0.051), The experimental group matched longer duration of breastfeeding than the control group as significant (P – Value = 0.033). In summary, The breast feeding promotion program with husband support was effected to knowledge and duration of breastfeeding, that was the development to successful of breastfeeding promotion.[19]

In 2004, Apichatvorapong C studied the relationship between stress and its related factors influencing exclusive breastfeeding among working mothers. The subjects were 148 primipara mothers with an infant between 4-6 months of age who worked outside the home. The infant were brought by mothers for a regular check up or immunization at the Out Patient Department in Siriraj Hospital, Bangkok. The

results showed that knowledge and attitude of breastfeeding had a positive relationship with exclusive breastfeeding ($r = 0.237$, $p< 0.01$ and $r = 0.203$, $p< 0.05$, respective) while there was no significant relationship between maternal stress and social support for breastfeeding with exclusive breastfeeding ($p<0.05$).[20]

CHAPTER III
MATERIAS AND METHODS

The design of this study was a descriptive study which used a retrospective study to factors influencing exclusive breastfeeding among women at Amphur Dontoom, Nakhon Pathom Province.

Population and Sampling

The population was women who delivered their babies in the previous for 6 months to 1 year. The sample consisted of 230 women who resided at Amphur Dontoom, Nakhon Pathom Province.

Sample size

According to the availability of resources, the sample size was calculated by using sampling formula from Daniel[21] WW. As follows :

$$n = \frac{Z^2 \alpha/_2 \, . NP (1 -P)}{Z^2 \alpha/_2 \, . P (1-P) + (N-1)d^2}$$

When N = Target population = 715

n = Size of the sample

Z = Standard normal deviation, set at 1.96 which correspond with 95 % confidence interval

α = 0.05

P = the prevalence of exclusive breastfeeding only 6 mouth is 25 percentages, so P = 0.25()

d = allowable variation equal to 0.05

Then,

$$n = \frac{(1.96)^2(715)\,(0.25)\,(1-0.25)}{(1.96)^2\,(0.25)(1-0.25)+(715-1)\,(0.05)^2}$$

$$= 205.57$$

The number of sample is 206 for protect of allowable variation. Then increase the sample 10 percentages. Size of the sample equal to 230.

Research instruments

The instrument used in this study was the questionnaire developed by the researcher based on extensive review of existing related research and relevant literature to serve the objectives of the present study. The questionnaire had been validated to ensure its quality as follows:

1. Content Validity: A panel of three experts reviewed the questionnaire for accuracy, completeness, and language appropriateness.

2. Reliability: The questionnaire was revised based on the comments and suggestion of experts before being tried out with 30 subjects who shared similar characteristic with the subjects of the present study.

The reliability of the test of knowledge on breastfeeding was to 0.70,while that of the attitude toward breastfeeding was 0.71.

The questionnaire was then revised and adjusted one more time before using with the actual subjects.

The research instrument could be divided into five part as follows:

Part I : Demographic characteristics of women.

Part II : Knowledge about Breastfeeding. This part questionnaire consisted of 15 items. The meaning of the corresponding question was as follows:

1 score for correct answer

0 score for incorrect answer

The range of score was from 0-15. The obtained score of knowledge about breastfeeding in this study was futher divided into difference level, according to Locharote that is:

Good	level	score	< 11
Fair	level	score	11-14
Low	level	score	> 14

Part III: Attitude of Breastfeeding. This part questionnaire consisted of 10 items.which consisted of positive and negative items; question with 7 positive items and 3 negative items. The responses were in the form of Likert-scale offering 5 choices of responses. The scoring was as follows :

For positive items :	Strongly agree	equal to	5	points
	Agree	equal to	4	points
	Not sure	equal to	3	points
	Disagree	equal to	2	points
	Strongly disagree	equal to	1	points
For negative items :	Strongly agree	equal to	1	points
	Agree	equal to	2	points
	Not sure	equal to	3	points
	Disagree	equal to	4	points
	Strongly disagree	equal to	5	points

Part IV, Part V: Source of supports or information

This part questionnaire consisted of 13 items. It was developed from the literature review of breastfeeding. The meaning of the corresponding scales was:

1 score for Ever recived source of support

0 score for Never recived source of support

Data collection

The steps involved in data collection are as follows :

1. A letter issued by the Faculty of Graduate studies , Mahidol University , will be sent to director of Dontoom Hospital, Nakhon pathom Province, to ask for cooperation in data collection.

2. After permission to collect data is granted, the researcher will meet Public Health Official, to describe research objective and data collection procedures.

3. The researcher selected the sample was according to the inclusion criteria of the study.

4. The researcher interview women who meet the selection criteria at Amphur Dontoom, Nakhon Pathom Province.

5. The researcher will check the questionnaires for completeness of data.

6. Data analysis

Data Analysis

1. Data preparation

1.1 Cllecting data preparation

1.2 Collecting and verifying data then record into diskette. Analyze data with computer by using SPSS V 16 (Statistical Package for the Sciences Version 16)

2. Statistics

2.1 Descriptive statistics: Rate, mean and standard deviation were calculated to characteristics among women, rate of exclusive breastfeeding, knowledge, attitude, source of supports and information about breastfeeding.

2.2 Analysis statistics: Data was analyzed by using Chi-square test $\alpha = 0.05$ and Peason's Product Moment Correlation Coefficient test.

CHAPTER IV
RESULTS

This research studied factors influencing exclusive breastfeeding. Study subjects were women who had delivered their babies in the previous 6 months to 1 year and resided at Amphur Dontoom, Nakhon Pathom Province. The subjects were interviewed for their knowledge, attitude, source of support and information on breastfeeding. The results were divided into 6 parts as follows:

Part I : Demographic characteristics
Part II : Duration of exclusive breastfeeding
Part III : Knowledge about breastfeeding
Part IV : Attitude towards breastfeeding
Part V : Source of support and information about breastfeeding
Part VI : Association between factors and exclusive breastfeeding at 1, 3 and 6 months

Part I : Demographic characteristics

Table 2 Number and percentage of demographic characteristics among women

Characteristics	Number (n = 230)	Percent
Age		
≤ 20	52	22.6
21 – 25	61	26.5
26 – 30	46	20.0
31 – 35	41	17.8
≥ 36	30	13.0
Mean= 26.59 **SD= 6.77**	**Min= 16** **Max= 42**	

Table 2 Number and percentage of demographic characteristics among women. (continue)

Characteristics	Number (n = 230)	Percent
Education		
No education	3	1.3
Primary school	78	33.9
High school	78	33.9
College	56	24.4
University	15	6.5
Occupation		
Employee	110	48.8
Merchant	30	13.0
Agriculture	19	8.3
Enterprise /Government officer	8	3.5
Housewife	63	27.4
Family income		
Less than 5,000	62	27.0
5,001 – 9,999	98	42.6
10,000 – 14,999	40	17.4
15,000 – 19,999	14	6.1
More than 20,000	16	7.0
Mean= 8,839.57 SD = 6,607.50	**Min = 2,000**	**Max = 60,000**

Table 2 Number and percentage of demographic characteristics among women. (continue)

Characteristics	Number (n = 230)	Percent
Number of living children		
1	127	55.2
2	80	34.8
3 and over	23	10.0

Table 2 showed the demographic characteristics of women including age, education level occupation, family income, and number of living children.

1. **Age** Women's ages ranged from 16 to 42 years. Most of them (26.5 %) were between 21 to 25 years old and 22.6 % aged $\leq$ 20 years old.
2. **Education** Most of them (67.8 %) finished high school or less.
3. **Occupation** Most of them (48.8 %) were employees and 27.4 % were housewife.
4. **Family income** Their family income ranged from 2,000 to 60,000 Bath. Most of them 42.6 % had family income of 5,001 to 9,999 Bath. The mean family income was 8,839.57 $\pm$ 6,607.50 Bath.
5. **Number of living children** They had 1 to 5 living children. Most of them (55.2 %) had 1 child.

Part II :Duration of exclusive breastfeeding

Table 3 Number and percent of duration of exclusive breastfeeding and kinds of milks. (N=230)

Items	Duration of exclusive breastfeeding (Months)		
	1	3	6
	N0.(%)	N0.(%)	N0.(%)
Exclusive breastfeeding	207(90.0)	176(76.5)	161(70.0)
Combined breastfeeding	0(0.0)	31(13.5)	46(20.0)
Exclusive infant formula	23(10.0)	23(10.0)	23(10.0)

Table 3 showed number and percentage of duration of exclusive breastfeeding. At 1st month after delivery, the rate of exclusive breastfeeding was 90 %. This rate decrease to 80 % and 70 % at 3 and 6 months respectively (Table 3). There were 23 women (10 %) who refused to breastfed their babies and fed their babies with infant formula only. At 3 months after delivery 31 women (13.5 %) supplemented infant formula with their breast milk. The number increased to 46 women (20 %) at 6 months.

Table 4 Number and percent of reason for changes exclusive to combined breastfeeding.

Item	Combined breastfeeding	
	1	3
	No. (%)	No. (%)
1. Mother has to work outside the home	16(51.6)	10(66.7)
2. Inadequate amount of breast milk	13(41.9)	4(26.7)
3. Inverted nipple on one side	1(3.2)	1(6.7)
4. Mother had allergic symptoms (rhinitis)	1(3.2)	0(0.0)
Total	31	15

Table 5 Number and percentage of reason for exclusive infant formula

Item	Exclusive infant formula
	No. (%)
1. Mother has to work outside home	16(69.6)
2. Inadequate amount of breast milk	4(17.4)
3. Inverted nipples	2(8.7)
4. Baby refuse breast milk	1(4.3)
Total	23

Table 4 showed the reason why women abandoned exclusive breastfeeding. Most of their reasons were that they had to work outside home 51.6 % and 66.7 % at 1, 3 months respectively. There were 23 women who did not breastfed their infants at all. Their reason for using infant formula were also that they had to work outside home (69.6 %), (Table 5).

Part III: Knowledge about breastfeeding

Table 6 Level about knowledge among women about breastfeeding.

Level	knowledge about breastfeeding	Number	Percent
	Low (< 11)	14	6.1
	Fair (11-14)	195	84.8
	Good (> 14)	21	9.1
	Total	230	100.0

Mean ± SD = 12.75 ± 1.41 Min = 6 Max = 15

Table 6 shows the percentage of the women according to their knowledge level about breastfeeding. Most of them (84.8 %) had fair level of knowledge. Only 6.1 % had low level knowledge about breastfeeding.

Table 7 Number and percentage of women according to correct responses to items on knowledge about breastfeeding. (N=230)

Items of knowledge	Number	Percent
1. Breast milk is perfect food and provide immunity to the newborns.	230	100.0
2. When providing breastfeeding, mother should have adequate nutrition.	228	99.1
3. Proper breastfeeding requires the lips to latch on both nipple and areola.	227	98.7
4. After breastfeeding, infant should be positioned to burped.	227	98.7
5. Breastfeeding saves cost for the family.	226	98.3
6. Breastfeeding lowers the risk of breast cancer.	223	97.0
7. Frequent suckling of infant will stimulate let down reflex.	221	96.1
8. Breastfeeding can help mothers lose weight.	216	93.9
9. Mother should clean nipple every time before she breastfed the baby.	211	91.7
10. When breast engorgement occurs, mother should massage the breasts gently to encourage the flow of milk.	203	88.3
11. If mother has to work outside the home, she can express her breast milk and keep in sterile bag and store in refrigerator at temperature ≤ 4 °C and can be used within 3-5 days.	199	86.5
12. Colostrums appears within 1-2 days after delivery It should be expressed and disposed. Only white breast milk is suitable for the baby.	175	76.1
13. Breastfeeding have contraceptive effects.	122	53.0

Table 7 Number and percentage of women according to correct responses to items on knowledge about breastfeeding. (N=230), (continue)

Items of knowledge	Number	Percent
14. Emotional stress does not affect breastfeeding.	117	50.9
15. Combined breastfeeding and bottle feeding should be practiced during early post-partum period when mother still have no breast milk.	107	46.5

About items of knowledge, most women could answer correctly about breast milk is that breast milk is a perfect food and provide immunity to the newborns (100 %), that when breastfeeding mother should have adequate nutrition (99.1 %) and proper breastfeeding requires the lips to latch on both nipple and areola (98.7 %). Their knowledge was still low when they were asked whether bottle feeding should applied at early post-partum period (46.5 %) whether emotional stress affects breastfeeding (50.9 %) and whether breastfeeding have contraceptive effects (53.0 %), (Table 7).

Table 8 The association between demographic characteristics and knowledge level about breastfeeding.

Characteristics	**Knowledge level**			**X^2**	**df**	**r**	**p-value**
	Low	**Fair**	**Good**				
	N=14	**N=195**	**N=21**				
	No.(%)	**No.(%)**	**No.(%)**				
Age						-0.014	0.889
Education							
No education / Primary school	4(28.6)	72(36.9)	5(23.8)	6.42	4	-	0.170
High school	4(28.6)	69(35.4)	5(23.8)				
College / University	6(42.9)	54(27.7)	11(52.4)				
Occupation							
Employee / Enterprise, Government officer	8(57.1)	98(50.3)	12(57.1)	0.56	2	-	0.755
Merchant / Agriculture / Housewife	6(42.9)	97(49.7)	9(42.9)				
Family income						0.070	0.552
Number of living children						0.087	0.259

Table 8 showed that there was no significant association between age, education, occupation, family income, number of living children and source of support or information.

Part IV: Attitude towards breastfeeding

Table 9 Level of attitude of women towards breastfeeding.

Level of attitude towards breastfeeding	**Number**	**Percentage**
Poor (< 3.5)	63	27.4
Fair (3.5-4.5)	155	67.4
Good (> 4.5)	12	5.2
Total	230	100.0

Mean ± SD = 37.75 ± 5.05 Min = 24 Max = 50

Table 9 showed that most women had fair attitude towards breastfeeding (67.4 %) and only 5.2 % had good attitude towards breastfeeding.

Table 10 Number and percentage of women according to attitude towards breastfeeding.

Attitude toward breastfeeding	**Score (Total score 5)**	
	Mean ± SD	**Level**
1. Breastfeeding creates bonding between mother and infant.	4.82 ± 0.42	Good
2. Exclusive breastfeeding should be practiced for 6 months.	4.23 ± 0.82	Fair
3. Colostrums help excrete meconium.	3.85 ±0.87	Fair
4. At present time breastfeeding is not necessary because infant formula had the same nutrients as breast milk.	3.83±0.42	Fair
5. Expensive infant formula also had high quality which is more beneficial to the baby.	3.66 ±0.99	Fair
6. Mother should drink traditional herbal alcoholic medicine to increase lochia.	3.62 ±1.15	Fair
7. Pure water is not required during 6 mouths of breastfeeding because water is the main component of breast milk .	3.60 ±1.16	Fair
8. Breastfeeding will affect family income because mother has to work.	3.49±1.12	Low
9. Infant formula feeding had the same bonding as breast milk.	3.43 ±1.14	Low
10. Prolong breastfeeding will adverse on breast contour.	3.23 ±0.89	Low

when items of attitude towards breastfeeding was examined, the women had good attitude only on the item about breastfeeding effect on bonding between mother and infant (4.82 ± 0.42) but women had poor attitude towards breastfeeding when they was asked about effect of prolonged breastfeeding on contour (3.23 ± 0.89),

bonding effect of infant formula (3.43 ± 1.14) and effect of breastfeeding on family income.

Table 11 The associated between demographic characteristics and attitude level toward breastfeeding.

Characteristics	**Attitude level**			X^2	**df**	**r**	**p-value**
	Poor	**Fair**	**Good**				
	N=63	**N=155**	**N=12**				
	No. (%)	**No. (%)**	**No.(%)**				
Age						0.055	0.180
Education							
No education / Primary school	28(44.4)	46(29.7)	7(58.3)	10.25	4	-	0.036*
high school	14(22.2)	62(40.0)	2(16.7)				
College / University	21(33.3)	47(30.3)	3(25.0)				
Occupation							
Employee / Enterprise, Government officer	34(54.0)	79(51.0)	5(41.7)	9.92	4	-	0.042*
Merchant	8(12.7)	17(11.0)	5(41.7)				
Agriculture / Housewife	21(33.3)	59(38.0)	2(16.7)				

Table11 The associated between demographic characteristics and attitude level toward breastfeeding. (continue)

Characteristics	Attitude level			X^2	df	r	p-value
	Poor	Fair	Good				
	N=63	N=155	N=12				
	No. (%)	No. (%)	No. (%)				
Family income						0.030	0.904
Number of living children						-0.062	0.444

Table 11 showed the association between demographic characteristics and attitude level toward breastfeeding. Education and occupation were found to be statistically significant associated with attitude level toward breastfeeding ($p < 0.05$).

Part V: Source of support and information about breastfeeding

Table 12 Level of source of support or information about breastfeeding.

Level of source of support about breastfeeding (Scores)	Number	Percentage
Low (< 3)	3	1.3
Fair (3-4)	70	30.4
High (>4)	157	68.4

Mean $\pm$ SD = 2.65 $\pm$ 0.57 **Min= 1** **Max= 5**

Table 12 showed that, most of women had high source of support or information about breastfeeding (68.4 %) and only 4.3 % had low source of support or information about breastfeeding.

Table 13 Number and percentage of women who had source of support or information**.**

Source of support or information	**No. (%)**
1. Husband	228 (99.1)
2. Other relatives	225 (97.8)
3. Health care provider	218 (94.8)
4. Neighbor	201 (87.4)
5. Television, radio, magazine and book	192 (83.5)

* One women can give more than one choice.

Most of women (99.1 %) had good support from husband about breastfeeding. Eighty three percent of women responded that they got information from mass media i e, television, radio, magazine, book and intranet (Table 13).

Table 14 The association between demographic characteristics and source of support or information about breastfeeding.

Characteristics	**Source of support level**			**X^2**	**df**	**r**	**p-value**
	Low	**Fair**	**High**				
	N=10	**N=63**	**N=157**				
	No. (%)	**No. (%)**	**No. (%)**				
Age						0.039	0.239
Education							
No education / Primary school	4(40.0)	23(36.5)	54(34.4)	0.19	2	-	0.908
High school / College / University	6(20.0)	40(63.5)	103(65.6)				
Occupation							
Employee / Enterprise, Government officer	5(50.0)	32(50.8)	81(51.6)	0.02	2	-	0.091
Merchant / Agriculture / Housewife	5(50.0)	31(49.2)	76(48.4)				
Family income						-0.010	0.180
Number of living children						-0.035	0.523

Table 14 showed that there was no significant association between age, education, occupation, family income, number of living children and source of support or information.

Part VI: Association between factors and exclusive breastfeeding at 1, 3 and 6 months.

6.1 Association between factors and exclusive breastfeeding at 1 month after delivery.

Table 15 showed that there was no significant association between age, education occupation, family income, number of living children, knowledge about breastfeeding , attitude toward breastfeeding, source of support or information about breastfeeding and exclusive breastfeeding at 1 month ($p > 0.05$).

Table 15 Association between factors and exclusive breastfeeding at 1 month among women. (N=207)

Factors	**Exclusive breastfeeding**			**X^2**	**df**	**r**	**p-value**
	Yes	**No**	**Total**				
	No.(%)	No.(%)					
Age						0.104	0.512
Education							
No education / Primary school	78(96.3)	3(3.7)	3(100.0)	5.59	2	-	0.061
High school	67(85.9)	11(14.1)	78(100.0)				
College / University	62(87.3)	9(12.7)	71(100.0)				
Occupation							
Employee / Enterprise, Government officer	110(93.2)	8(6.8)	118(100.0)	3.02	3	-	0.388
Merchant	26(86.7)	4(13.3)	30(100.0)				
Agriculture	17(89.5)	2(10.5)	19(100.0)				
Housewife	54(85.7)	9(14.3)	63(100.0)				

Table 15 Association between factors and exclusive breastfeeding at 1 month among women. (N=207), (continue)

Factors	Exclusive breastfeeding			X^2	df	r	p-value
	Yes	No	Total				
	No.(%)	No.(%)					
Family income						-0.093	0.490
Number of living children						0.009	0.895
Level knowledge						0.005	0.939
Level attitude						-0.042	0.522
Source of support or information (Scores)						0.084	0.220

6.2 Association between factors and exclusive breastfeeding at 3 months after delivery

Table 16 showed that two factors were significantly associated with exclusive breastfeeding at 3 months. They were education and occupation ($p < 0.05$) women with on education or completed primary school tend to practice exclusive breastfeeding more than women who have higher education (88.9 %). Women completed educational university level practiced exclusive breastfeeding only 60 %. About occupation were who worked as government or enterprise officer practiced exclusive breastfeeding only 37.5 % compare to were who as employees practiced exclusive breastfeeding 82.7 %.

Table 16 Association between factors and exclusive breastfeeding at 3 months among women. (N=176)

Factors	**Exclusive breastfeeding**			**X^2**	**df**	**r**	**p-value**
	Yes No.(%)	**No** No.(%)	**Total**				
Age						0.023	0.530
Education							
No education / Primary school	72(88.9)	9(11.1)	81(100.0)	12.03	3	-	0.007*
High school	57(73.1)	21(26.9)	78(100.0)				
College	38(67.9)	18(32.1)	56(100.0)				
University	9(60.0)	6(40.0)	15(100.0)				
Occupation							
Employee	91(82.7)	19(17.3)	110(100.0)	10.34	4	-	0.035*
Merchant	21(70.0)	9(30.0)	30(100.0)				
Agriculture	15(78.9)	4(21.1)	19(100.0)				
Enterprise/ Government officer	3(37.5)	5(62.5)	8(100.0)				
Housewife	46(73.0)	17(27.0)	63(100.0)				
Family income						-0.186	0.091
Number of living children						0.211	0.116

Table 16 Association between factors and exclusive breastfeeding at 3 months among women. (N=176), (continue)

Factors	Exclusive breastfeeding			X^2	df	r	p-value
	Yes	No	Total				
	No.(%)	No.(%)					
Level knowledge						0.100	0.297
Level attitude						-0.193	0.783
Source of support or information (Scores)						0.034	0.102

6.3 Association between factors and exclusive breastfeeding at 6 months after delivery.

Table 17 showed that there was no significant association between age, education occupation, family income, number of living children, knowledge about breastfeeding, attitude toward breastfeeding, source of support and information about breastfeeding and exclusive breastfeeding at 6 months.

Table 17 Association between factors and exclusive breastfeeding at 6 months among women. (N=161)

Factors	**Exclusive breastfeeding**			**X^2**	**df**	**r**	**p-value**
	Yes	**No**	**Total**				
	No.(%)	No.(%)					
Age						-0.023	0.943
Education							
No education / Primary school	63(77.8)	18(22.2)	81(100.0)	5.35	2	-	0.069
High school	55(70.5)	23(29.5)	78(100.0)				
College/ University	43(60.6)	28(39.4)	71(100.0)				
Occupation							
Employee / Enterprise, Government officer	84(71.2)	34(28.8)	118(100.0)	2.23	3	-	0.526
Merchant	18(60.0)	12(40.0)	30(100.0)				
Agriculture	15(78.9)	4(21.1)	19(100.0)				
Housewife	44(69.8)	19(30.2)	63(100.0)				
Family income						-0.184	0.058
Number of living children						0.068	0.571
Level knowledge						-0.046	0.403
Level attitude						0.103	0.290
Source of support or information (Scores)						0.080	0.319

CHAPTER V
DISCUSSION

In this chapter, the discussion of the research results are divided into 2 part:

Part I: Discussion of research methodology

Part II: Discussion of research results

Part I: Discussion of research methodology

1. Research design

The present research was descriptive a study which aimed to study rate, time and factors associated with exclusive breastfeeding. Study design appropriate for objective and for time of study.

This research is a retrospective study. Descriptive is a type of quantitative study that falls under the broad heading of descriptive quantitative research. This type of research involves either identifying the characteristic of an observe phenomenon or exploring possible correlations among two or more phenomenon. In every case, descriptive research examines a situation as it is. It dose not involve changing or modifying the situation under investigation, nor is it intended to detect cause-and-effect relationships. The problem of descriptive study is that one must first to observe and carefully describe the phenomena. Accurate description requires the development of specialized research skills. Selection and use of these proper samples also requires specialized skills.[22]

2. Sample size

The subjects recruited in this study were 230 women who delivered their babies for 6 months to 1 year earlier and resided at Amphur Dontoom, Nakhon Pathom Province, during March 2008 to April 2008. The minimal sample size was 206 and 10 percent were added for data loss or incomplete records. Total sample size was equal to 230 women and it is adequate for analysis to meet the objective.

3. Research instrument

The researcher developed an instrument from the review of the related literatures. The questionnaires were validated by three experts and were tried out with a group of 30 subjects who had characteristic similar to those of the subjects in the present study. The reliability of the test of knowledge on breastfeeding was equal to 0.70 while that of the attitude towards breastfeeding was 0.71. Therefore, it could be concluded that both parts of questionnaire were reliable enough for the objectives of the present research.

4. Data collection

The research used the interview method for data collection. This method was a good data collection method as some women don't understand each question but the interview helped them understand more clearly the questions in the questionnaire with the help of coordinators, The researcher had an appropriate amount of time to collect data in each subject (20-30 minutes). Thus the results the data collection were correct and complete in this research.

Part II: Discussion of research results

Objective 1: The rate of exclusive breastfeeding at 1, 3 and 6 months after delivery.

In this study, the rate of exclusive breastfeeding was 90 %, 76.5 % and 70 % at 1, 3 and 6 months respectively. This contradicted with the survey of Ministry of Public Health found that the percent of exclusive breastfeeding were 15 % at 6 months.

This may be due to the characteristics of population of study. The rate from the survey of Ministry of Public Health was and national average with included women in the urban areas. Women in the rural areas have higher rate of exclusive breastfeeding. There women in the urban areas due to socioeconomics situation women in the rural areas have more time and less economic advantages than those in the urban areas.[4]

This was confirmed by the study Seusri V. who studied of maternal readiness affecting breast feeding during the first six months Muang District, Chiang Mai Province and found 51.4% of exclusive breastfeeding at 6 months.[15]

Aprichatvorapong C. who studied the relationship between stress and its related factors influencing exclusive breastfeeding among working mothers at Siriraj Hospital in Bangkok and found the rate of exclusive breastfeeding were 77 %, 31 % and 14.9 % at 1, 3 and 4 months respectively.[20]

Objective 2: The reasons why women stopped exclusive breastfeeding.

The results showed the most women reasons for (69.6 %) practicing exclusive infant formula was because women had to work outside home. This was also the most women reasons for changes from exclusive breastfeeding to combined breastfeeding at 1 (51.6 %), and 3 (66.7 %) months respectively. The result was in accordance with the study of Durongdej S.[13] who studied infant feeding in Bangkok and asked mothers why they weaned their infants breastfeeding. Most of mothers (35 %) gave the reason that they had to return to work.

Objective 3: Knowledge, attitude, source of support and information about breastfeeding among women

3.1 Knowledge about breastfeeding

This study found that, most women (84.8 %) had fair level of knowledge. Only 6.1 % of women had low level of knowledge about breastfeeding. It also found that best knowledge about breastfeeding most women had was that breast milk is a perfect food and provide immunity to the newborns (100 %), breastfeeding mother should have adequate nutrition (99.1 %) and proper breastfeeding requires the infant lips to latch on both nipple and areola (98.7 %). But women misunderstood some aspects about breastfeeding, some of bottle there still believed that feeding should be provided during early post-partum period when mothers still do not have breast milk (46.5 %). They misunderstood that stress does not affect breastfeeding (50.9 %) and only 53 % knew that breastfeeding have contraceptive effect.

This result of this study in accordance with the study of Parnichayakorn S. who studied breastfeeding at Nakhon Sawan Province and found that most women had fair knowledge (63.6 %). In her study she also found that women had less knowledge about contraceptive effect of breastfeeding (63.6 %) but they knew well that water supplementation after breastfeeding is not necessary (83.6 %).[23]

The study of Aprichatvorapong C. found that most of mother had high level knowledge (66.2 %). When considering each item of the question regarding knowledge about breastfeeding practice, it was found that women had best knowledge about expressed breast milk (95.3 %).[20]

The study of Tanwatnonon C. who studied breastfeeding practice within 2 years at Baby Friendly Intiative Hospital, at Roiet Province found that most women had low level of knowledge about breastfeeding (55 %).[24]

So the level of knowledge about breastfeeding varied among population, whether in the rural or urban areas and different parts of the country where misconcept of breastfeeding varied women needed more information about practice and benefit about breastfeeding that will help eradicate misconcept about breastfeeding.

3.2 Attitude of women toward breastfeeding.

This study found that, most women (67.4 %) had fair level of attitude toward breastfeeding. The best attitude among women at Amphur Dontoom was about bonding between mother and infant.

This is in accordance with the study of Aprichatvorapong C. who found that most mother had fair level of attitude toward breastfeeding (68.3 %).[21] But it contradicted to the study of Tanwatnonon C. and Wiporn K. who found that women had good level of attitude toward breastfeeding (100 % and 88.9 % respectively).[24], [25]

From these studies, it seemed that all women to had rather good level of attitude toward breastfeeding. The most women negative attitude was that prolong breastfeeding will had adverse effect on breast contour. So health care provider should promote correct knowledge and good understanding about breastfeeding and to alter some negative attitude toward breastfeeding.

3.3 Support or Source of information about breastfeeding among women

In this study most women had good level of support or source of information about breastfeeding. Most of them (99.1 %) received support from husband who encouraged breastfeeding, (83.5 %) of women responded that they got information from mass media about breastfeeding.

The study this finding is in accordance with Ketbumrongporn W. who also found good support from husband and relatives (92 %).[25]

But is contradicted to the study of Apichatvorapong C. who studied at Siriraj Hospital in Bangkok found that only 39.8 % of the mothers received encouragement for breastfeeding from husbands.[20] This may be the effect of urban areas where both husband and wife had to work outside their home.

Objective 4: Association between demographic factors and level of knowledge, level of attitude, and source of support.

The study found that there was no factor which had significant association with level of knowledge about breastfeeding.

Objective 5: Association between demographic factors, knowledge about breastfeeding, attitude toward breastfeeding source of support and exclusive breastfeeding at 1, 3 and 6 months.

In this study there were two factors which were significantly associated with exclusive breastfeeding at 3 months. They were educational level and occupation.

This is accordance with the study of Kanokpongsuk R. and Parnichayakorn S. who studied the relationship between maternal education and breastfeeding. They found that less educated mothers had higher rate of exclusive breastfeeding than higher educated mother. Less educated mothers tended to have occupation such as laborer, farmer which had more time to be with their babies and could bring babies to the work place so that mothers could breastfeeding their babies most of the time.[26], [23]

The study of Ngo Thi Nguyen Phuong who studied factors related to breastfeeding practice among mothers of children under two years in Benluc district, Logan Province, Vietnam, found that occupation of mothers was significantly associated with duration of breastfeeding.[27]

The study of Bumrung O. who study at Child Hospital, Health Promotion Center Region I and Nopparat Rajathani Hospital in Bangkok found that among working women there wear no significant association between education and occupation and duration of breastfeeding.[28]

CHAPTER VI
CONCLUSION

Breastfeeding has enormous benefits for mothers and infants. In Thailand the national target of exclusive breastfeeding for 6 months after delivery has been set at 30%. At present the rate of exclusive breastfeeding is still lower than expected. The objectives of this research were to study factors influencing exclusive breastfeeding among women in Nakhon Pathom Province. Demographic characteristics, knowledge, attitude, source of support and information on exclusive breastfeeding were included. Study subjects were 230 women who had delivered their babies in the previous 6 months to 1 year and resided at Amphur Dontoom, Nakhon Pathom Province. Data was collected by interviewing using structured questionnaires. Descriptive statistics included rate, mean and standard deviation. Chi-square test was applied to test statistical significance at the level of $p < 0.05$ by using the SPSS V 16 statistical program.

The results showed that the average age of the women was 26.59 ± 6.77 years. Most of them (55.2 %) were primipara and 67.8 % completed high school or less. Most of the women had fair level of knowledge and attitude towards breastfeeding (84.4 % and 67.4 %, respectively). Most of them (68.4 %) had a high level of source of support and information. The rate of exclusive breastfeeding was 90 %, 76.5 % and 70% at 1, 3 and 6 months, respectively. Two factors which were significantly associated with exclusive breastfeeding at 3 months were education and occupation ($p < 0.05$). Attitude towards breastfeeding was associated with education and occupation ($p < 0.05$).

In conclusion, exclusive breastfeeding at 6 months among women at Amphur Dontoom, Nakhon Pathom Province was high. Most of the women had rather fair knowledge, fair attitude and high level of support for breastfeeding. But source of information from mass media e.g. television, radio and magazine was still low. There should be more promotion in mass media about exclusive breastfeeding at the community level in order to assure long-term success in a sustainable high rate of exclusive breastfeeding.

Recommendation for Application

1. Working outside home is the main reason for cessation of exclusive breastfeeding. Work at home or collection of breast milk at work place should be encouraged.

2. Promotion of exclusive breastfeeding by television, radio and magazine.

Recommendation for further research

1. A study on factors influencing exclusive breastfeeding among women who live in the urban area.

2. A study on the use of breast milk bag at work place.

3. A study of effectiveness of mass media on the rate of exclusive breastfeeding.

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APPENDIX

เลขที่โครงการ/ รหัส ID 02-51-57 ย

เรื่อง : “ปัจจัยที่มีผลต่อการเลี้ยงลูกด้วยนมแม่อย่างเดียวของสตรี ในจังหวัดนครปฐม”

คำชี้แจงในการตอบแบบสอบถาม

1. แบบสอบถามนี้ใช้สัมภาษณ์สตรีที่มีบุตรอายุ 0 ถึง 1 ปี ที่อยู่ใน อำเภอดอนตูม จังหวัดนครปฐม
2. การเลี้ยงลูกด้วยนมแม่อย่างเดียวในการวิจัยครั้งนี้ คือ การที่สตรีเลี้ยงลูกด้วยนมตนเองอย่างเดียวโดยไม่ให้น้ำและอาหารเสริมใดๆรวมทั้งนมผสม
3. แบบสอบถามแบ่งออกเป็น 5 ส่วน ได้แก่

   ส่วนที่ 1 ข้อมูลด้านตัวบุคคล

   ส่วนที่ 2 ความรู้เกี่ยวกับการเลี้ยงลูกด้วยนมแม่

   ส่วนที่ 3 ด้านทัศนคติในการเลี้ยงลูกด้วยนมแม่

   ส่วนที่ 4 ด้านการสนับสนุน

   ส่วนที่ 5 ด้านบริการสาธารณสุข

4. กรุณาเติมคำในช่องว่าง และทำเครื่องหมาย ✓ ในวงเล็บหน้าข้อความ ตามความเป็นจริงและตรงกับความคิดเห็นของท่านมากที่สุด

แบบสอบถามเลขที่…....

แบบสอบถาม

ปัจจัยที่มีผลต่อการเลี้ยงลูกด้วยนมแม่อย่างเดียวของสตรี

เขตอำเภอดอนตูม จังหวัดนครปฐม

คำชี้แจง กรุณาเติมคำในช่องว่าง และทำเครื่องหมาย ✓ ในวงเล็บหน้าข้อความ ตามความเป็นจริงและตรงกับความคิดเห็นของท่านมากที่สุด

<u>ส่วนที่ 1</u> <u>ข้อมูลด้านตัวบุคคล</u>

1. ปัจจุบันท่านอายุ.....ปี
2. ท่านจบการศึกษาชั้นสูงสุดระดับ.....
3. ท่านประกอบอาชีพ.....
4. รายได้เฉลี่ยของครอบครัว.....บาท / เดือน (รวมสามีและภรรยา)
5. จำนวนบุตรที่มีชีวิตอยู่.....คน
6. ท่านมีปัญหาสุขภาพขณะตั้งครรภ์ที่ทำให้ไม่สามารถเลี้ยงลูกด้วยนมแม่ในระยะหลังคลอดหรือไม่

   ( ) ไม่มี

   ( ) มี ระบุ.....
7. หลังคลอดบุตรท่านมีปัญหาสุขภาพที่ทำให้ไม่สามารถเลี้ยงลูกด้วยนมแม่หรือไม่

   ( ) ไม่มี

   ( ) มี ระบุ.....
8. ขณะเลี้ยงลูกด้วยนมแม่หัวนมของท่านมีลักษณะปกติหรือผิดปกติ (ผิดปกติได้แก่ หัวนมบอด หัวนมสั้น หัวนมบุ๋ม)

   ( ) ปกติ

   ( ) ผิดปกติ

   ( ) แก้ไขดึงหัวนมเป็นประจำทุกวัน

   ( ) ไม่แก้ไข เพราะ.....

9. ท่านเลี้ยงลูกด้วยนมแม่อย่างต่อเนื่องทุกวัน จนบุตรอายุถึง 6 เดือนใช่หรือไม่

( ) ใช่

( ) ไม่ใช่ เพราะ.....

หยุดให้นมบุตรขณะบุตรอายุ.....เดือน

10. หลังคลอด ท่านให้นมชนิดใดแก่บุตร

( ) นมแม่

( ) นมผสม

( ) นมแม่และนมผสม

( ) อื่นๆ ระบุชนิด.....

ส่วนที่ 2 ความรู้เกี่ยวกับการเลี้ยงลูกด้วยนมแม่

คำชี้แจง โปรดกาเครื่องหมาย ✓ ลงหน้าข้อความที่ท่านเห็นว่าถูก และ ✗ ลงหน้าข้อความที่ท่านเห็นว่าผิด

เครื่องหมาย	ข้อความ
	1.น้ำนมแม่มีสารอาหารครบถ้วนและมีภูมิคุ้มต้านทานโรค
	2.เมื่อมีน้ำนมเหลืองไหลออกมาในระยะ 1- 2 วันแรกควรบีบทิ้งเนื่องจากเป็นน้ำเหลือง ไม่ควรให้ลูกดูดต้องรอจนน้ำนมจะเปลี่ยนเป็นสีขาวจึงจะให้ลูกดูด
	3.การให้ลูกดูดนมแม่บ่อยๆ เป็นการกระตุ้นการหลั่งน้ำนม
	4.การเลี้ยงลูกด้วยนมแม่ช่วยในการคุมกำเนิดได้
	5.ในระยะหลังคลอดใหม่ๆ หากแม่ยังไม่มีน้ำนม ควรให้ลูกดูดนมแม่สลับกับการให้นมผสม
	6.การเลี้ยงลูกด้วยนมแม่จะทำให้น้ำหนักของมารดากลับสู่สภาพเดิมได้เร็วและทำให้มดลูกเข้าอู่เร็ว
	7.ก่อนให้นมลูก แม่ควรใช้สำลีชุบน้ำต้มสุก เช็ดหัวนมก่อนทุกครั้ง
	8.ขณะลูกดูดนมแม่ควรให้ลูกอมให้ลึกถึงลานนมของแม่
	9.หลังจากที่ลูกดูดนมจนอิ่ม ควรอุ้มลูกพาดบ่าเพื่อให้เรอทุกครั้งจะช่วยป้องกันลูกท้องอืดและสำรอก
	10.ระหว่างเลี้ยงลูกควรรับประทานอาหารที่มีประโยชน์ทุกชนิด เช่น เนื้อสัตว์ ผัก ผลไม้ ไข่และนม
	11.ภาวะความตึงเครียดของแม่ไม่มีผลต่อการหลั่งน้ำนมแม่
	12.เมื่อแม่มีอาการคัดตึงเต้านม ควรนวดคลึงเต้านมเบาๆ บีบเอาน้ำนมออกจากเต้านมบางส่วนก่อนให้ลูกดูด
	13.การเลี้ยงลูกด้วยนมแม่ถือเป็นการประหยัดค่าใช้จ่ายในครอบครัว
	14.การเลี้ยงลูกด้วยนมแม่ลดภาวะเสี่ยงการเกิดมะเร็งเต้านม
	15.หากแม่ต้องทำงานนอกบ้าน ควรบีบนมเก็บไว้ในตู้เย็นที่อุณหภูมิน้อยกว่าหรือเท่ากับ 4 องศาเซลเซียล สามารถเก็บได้ 3 – 5 วัน

ส่วนที่ 3 ทัศนคติในการเลี้ยงลูกด้วยนมแม่

ทัศนคติในการเลี้ยงลูกด้วยนมแม่	ระดับความคิดเห็น				
	เห็นด้วยอย่างยิ่ง	เห็นด้วย	ไม่แน่ใจ	ไม่เห็นด้วย	ไม่เห็นด้วยอย่างยิ่ง
1. การเลี้ยงลูกด้วยนมแม่ทำให้เกิดความผูกพันระหว่างแม่และลูก					
2. น้ำนมเหลืองช่วยในการขับขี้เทา					
3. ควรเลี้ยงลูกด้วยนมแม่จนครบ 6 เดือน จึงจะเริ่มป้อนน้ำและอาหารเสริม					
4. การเลี้ยงลูกด้วยนมแม่นานเกินไปจะทำให้เต้านมแม่หย่อนยาน					
5. แม่ควรดื่มยาดองเหล้าเพื่อขับน้ำคาวปลา					
6. ปัจจุบันไม่จำเป็นต้องเลี้ยงลูกด้วยนมแม่เนื่องจากนมผสมมีสารอาหารครบถ้วนเท่ากับนมแม่					
7. การเลี้ยงลูกด้วยนมแม่ในระยะ 6 เดือนแรกไม่จำเป็นต้องให้น้ำ เนื่องจากในน้ำนมแม่มีปริมาณน้ำเพียงพอแก่ลูก					
8. การเลี้ยงลูกด้วยนมแม่ทำให้ขาดรายได้ในครอบครัว เนื่องจากต้องหยุดพักงาน					
9. การเลี้ยงลูกด้วยนมผสมก็ทำให้เกิดความรักความผูกพันเช่นเดียวกับการเลี้ยงลูกด้วยนมแม่					
10.นมผสมที่มีราคาแพงจะมีคุณค่าทางอาหารสูงซึ่งมีประโยชน์ต่อลูกมาก					

ส่วนที่ 4แรงสนับสนุน

1. ท่านเคยมีประสบการณ์การเลี้ยงลูกด้วยนมแม่หรือไม่
   ( ) ไม่เคย
   ( ) เคย จำนวนบุตรที่เลี้ยงด้วยนมแม่.....คน
2. ท่านเคยได้รับความรู้หรือคำแนะนำเกี่ยวกับการเลี้ยงลูกด้วยนมแม่จากเพื่อนบ้านหรือไม่
   ( ) ไม่เคย
   ( ) เคย
3. สามีให้กำลังใจหรือสนับสนุนให้ท่านเลี้ยงลูกด้วยนมตนเอง ใช่หรือไม่
   ( ) ไม่ใช่ เพราะ…….
   ( ) ใช่
4. สามีและสมาชิกในครอบครัวช่วยแบ่งเบาภาระงานในบ้านเพื่อให้มีเวลาในการเลี้ยงลูกใช่หรือไม่
   ( ) ไม่ใช่ เพราะ…….
   ( ) ใช่
5. ญาติแนะนำให้ท่านรับประทานอาหารที่มีประโยชน์ในการสร้างน้ำนมแม่ในระยะหลังคลอดใช่หรือไม่
   ( ) ไม่ใช่ เพราะ…….
   ( ) ใช่

ส่วนที่ 5บริการสาธารณสุข

1. ระหว่างตั้งครรภ์ท่านฝากครรภ์หรือไม่
   ( ) ไม่เคยฝากครรภ์ เพราะ .....
   ( ) เคยฝากครรภ์
      ( ) โรงพยาบาลรัฐบาลระบุ.....
      ( ) สถานีอนามัย
      ( ) คลินิกหรือโรงพยาบาลเอกชน

2. ท่านไปคลอดบุตรคนสุดท้องนี้ที่ไหน

   ( ) โรงพยาบาลรัฐบาล ระบุ.....

   ( ) สถานีอนามัย

   ( ) คลินิกหรือโรงพยาบาลเอกชน

3. เจ้าหน้าที่สาธารณสุขเคยให้คำแนะนำและส่งเสริมในการเลี้ยงลูกด้วยนมแม่ ในระยะหลังคลอดหรือไม่

   ( ) ไม่เคย

   ( ) เคย

4. หลังคลอดท่านเคยได้รับการกระตุ้นและสนับสนุนให้เลี้ยงลูกด้วยนมแม่ทุกครั้ง ที่ไปรับบริการจากเจ้าหน้าที่สาธารณสุขหรือไม่

   ( ) ไม่เคย

   ( ) เคย จำนวน.....ครั้ง

5. เจ้าหน้าที่สาธารณสุข เคยเยี่ยมบ้านหลังคลอดหรือไม่

   ( ) ไม่เคย

   ( ) เคย

6. ท่านเคยได้ยินนโยบายส่งเสริม และสนับสนุนให้เลี้ยงลูกด้วยนมแม่หรือเคย ทราบเรื่องโรงพยาบาลสายสัมพันธ์-แม่ลูก หรือไม่

   ( ) ไม่เคย

   ( ) เคย ระบุแหล่งข้อมูล.....

7. ท่านเคยอ่านหนังสือหรือเอกสารเกี่ยวกับการเลี้ยงลูกด้วยนมแม่หรือไม่

   ( ) ไม่เคย

   ( ) เคย ระบุชื่อหนังสือ/เอกสาร.....

8. ท่านเคยฟังวิทยุหรือชมรายการวิทยุโทรทัศน์เกี่ยวกับการส่งเสริมการเลี้ยงลูกด้วยนมแม่หรือไม่

   ( ) ไม่เคย

   ( ) เคย

BIOGRAPHY

NAME	Miss Supaporn Sittikon
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