

**FACTORS INFLUENCING MOTHERS' DECISION
TO BREASTFEED IN HOSPITAL UNIVERSITI
SAINS MALAYSIA (HOSPITAL USM)**

by

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LIST OF ABBREVIATIONS

Hospital USM	Hospital Universiti Sains Malaysia
USM	Universiti Sains Malaysia
SPSS	Statistical Package for Social Sciences
WHO	World Health Organization

FACTORS INFLUENCING MOTHERS' DECISION TO BREASTFEED IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HOSPITAL USM)

ABSTRACT

The purpose of this descriptive study was to identify the factors influencing mothers' decision to breastfeed in Hospital Universiti Sains Malaysia (Hospital USM). Mother's knowledge regarding breastfeeding and several factors including personal, social, cultural, facilities and environmental was identified through this study. A convenience sample of 101 primigravida and multigravida mother who admitted into Hospital USM was recruited. The mothers were selected using stratified, random sampling technique. Data were obtained using self-administered questionnaire, adapted questionnaires from Alina & Zaharah (2010) and Kong & Lee (2004) to determine the mother's knowledge regarding breastfeed and to identify the factors influencing mother's decision to breastfeed. The data were analyzed with SPSS version 20 using descriptive statistic, Chi-square test for answering the research questions. Result showed that there was significant association between level of mothers' knowledge and mothers' decision to breastfeed ($p=0.012$). Besides, result also showed that there is a significant association between factors influencing mothers' decision to breastfeed and mothers' decision to breastfeed. All the factors involved that are personal ($p<0.001$), social ($p=0.002$), cultural ($p<0.001$), facilities and environmental ($p<0.001$). In conclusion, the findings of this study provide information for nurses and administrative department regarding factors that influencing mothers' decision to breastfeed in Hospital USM.

Key words: Factors, knowledge, breastfeeding, decision.

**FAKTOR-FAKTOR MEMPENGARUHI KEPUTUSAN IBU UNTUK
MENYUSUKAN ANAK DI HOSPITAL UNIVERSITI SAINS MALAYSIA
(HOSPITAL USM)**

ABSTRAK

Kajian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi keputusan ibu untuk menyusukan anak di Hospital Universiti Sains Malaysia (Hospital USM). Pegetahuan ibu tentang penyusuan susu ibu dan beberapa faktor termasuk personal, sosial, budaya, kemudahan dan persekitaran telah dikenalpasti dalam kajian ini. Seramai 101 ibu primigravida dan multigravida yang masuk ke Hospital USM telah diambil dalam kajian ini. Ibu-ibu ini dipilih berdasarkan kaedah sampel random. Data-data telah diambil menggunakan soalan yang diadaptasi daripada Alina & Zaharah (2010) dan Kong & Lee (2004) untuk mengetahui pengetahuan ibu dan faktor mempengaruhi penyusuan susu ibu. Data-data telah dianalisa dengan SPSS versi 20 menggunakan statistik diskriptif, ujian Chi-square digunakan untuk menjawab soalan kajian. Keputusan kajian menunjukkan ada kaitan signifikasi antara pengetahuan ibu dengan keputusan ibu untuk menyusukan anak ($p=0.012$). Selain itu, keputusan juga menunjukkan kaitan signifikasi antara faktor-faktor mempengaruhi penyusuan susu ibu dengan keputusan ibu untuk menyusukan anak. Semua faktor yang terlibat adalah personal ($p=<0.001$), sosial ($p=0.002$), budaya ($p=<0.001$), kemudahan dan persekitaran ($p=<0.001$). Konklusinya, kajian ini dapat memberikan maklumat kepada jururawat-jururawat dan bahagian pengurusan berkaitan penyusuan susu ibu di Hospital USM.

Kata kunci: Faktor-faktor, penyusuan susu ibu, keputusan.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Breastfeed practiced was very beneficial especially to the infants and to the mothers as well. The practiced of breastfeed is high during early post delivery and start to decrease at the late post delivery period. Cernadas, Noceda, Barrera, Martinez and Garsd (2003) have revealed that the exclusive breastfeeding rate at four months post delivery was 56% and at six months was 19%. While according to The United Nations Children's Fund (UNICEF), in Russia, the breastfeeding in maternity wards was at about 97% and the exclusive breastfeeding rate was 18% at four months (UNICEF 2006). While in Asia, a study of feeding practices in 105 counties of rural China, has found that, 98.22% of the 20,914 babies in the study was been breastfeed (Wang, Wang & Kang 2005). As for Malaysia, The Second National and Health Morbidity Survey (NHMS II, 1996) showed that the overall prevalence of children ever breastfed in Malaysia was 88.6%, with the prevalence of exclusive breastfeeding was only 29.0%. Significant differences were seen between states as well as urban and rural localities. The prevalence of timely initiation of breastfeeding was 41.4% and continued breastfeeding up to two years was 11.7% (Fatimah, Jackie, Tahir, Yusof, Sa'adiah, Latipah & Maimunah, 1999). The NHMS II which was conducted in 1996 was the first national survey that used the indicators recommended by World Health Organizations (WHO) for assessing breastfeeding and provided baseline data for the country.

Fatimah, Siti, Tahir, Hussain and Ahmad (2010) revealed that from The Third National Health and Morbidity Survey (NHMS III) that was been conducted in 2006, the overall prevalence of ever breastfeed among children aged less than 12 months was 94.7%. The overall prevalence of exclusive breastfeeding below 6 months was 14.5%. While the prevalence of timely initiation was 63.7% and the continued prevalence of breastfeeding up to two years was 37.4%. This increasing trend seems promising and showed a positive signs for breastfeeding practices among the Malaysian mothers. Yet the figure is still regrettable as the figures are still lower and far behind other countries, with 65% United States of America (USA), 83% in Italy and 90% in Australia (Fatimah et al., 2010).

From the previous study conducted by Alina and Zaharah (2010), the main respondents were the staff of Hospital Universiti Sains Malaysia (Hospital USM). They tried to identify the knowledge level of breastfeeding among the staff in Hospital USM. Different from this study, researcher tried to identify and assess mothers' knowledge regarding breastfeeding. Thus, this study can be different to other study based on the respondents chosen. Besides, in this study also, researcher tried to identify factors influencing mothers' decision to breastfeed. Unlike to other local studies that have been conducted, no studies have been done to determine the factors influencing mothers' decision to breastfeed.

1.2 Problem Statement

Number of pregnant mothers admitted into Hospital Universiti Sains Malaysia (Hospital USM) was increased significantly from year 2011 to September 2012. On

the other hand, number for mothers who practiced breastfeeding in Hospital USM is absent as the mothers are referred to the Health Clinic at their district for further infant's medical checkup, immunization injections and others. Thus, Hospital USM does not provide the actual number of mother who practiced breastfeed (Medical Record Hospital USM, 2012).

Therefore, by conducting this research, actual number of mothers who breastfeed their infants can be acknowledge thus, statistic for breastfeeding mothers can be produce by Hospital USM. Statistic for breastfeeding is very important as it indicate the effectiveness of breastfeeding programs that has been conducted by Hospital USM. Besides, Hospital USM is also one of the hospitals which registered as the Baby Friendly Hospital which support the initiatives to improve breastfeeding practices among mothers.

This Baby Friendly Hospital Initiative (BFHI) was launched by World Health Organization (WHO) and UNICEF in 1991, following the Innocenti Declaration of 1990. The initiative is a global effort to implement practices that protect, promote and support breastfeeding among mothers. To help in the implementation of the initiative, different tools and materials were developed, field-tested and provided, including a course for maternity staff, a self-appraisal tool and an external assessment tool. Additional tools were developed such as monitoring and reassessment tools afterwards. Since its launching BFHI has grown, with more than 152 countries around the world have implementing the initiative including Malaysia which HUSM is one of the hospitals who support the BFHI. The initiative has measurable and proven impact,

increasing the likelihood of babies being exclusively breastfed for the first six months (WHO & UNICEF, 1991).

Effectiveness of BFHI in Hospital USM can be analyzed by only using the statistic for breastfeed mothers. With lack of information regarding breastfeed in Hospital USM, this research is rationally done to trace the numbers of mothers who breastfeed their infants besides expose the factors influencing mothers' decision to breastfeed. To identify and understand the multifaceted nature of mothers' decision to breastfeed, Social Network Theory (Pescosolido, 1992) and Ecological Theories of Parenting (Bently, 1999; Brofenbrenner, 1979) have been used in this research.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study is to identify the factors influencing mothers' decision to breastfeed in Hospital Universiti Sains Malaysia (Hospital USM).

1.3.2 Specific Objectives

- i. To identify the mothers' knowledge of breastfeeding in Hospital USM.
- ii. To identify the personal, social, cultural, facilities and environmental factors that influencing mothers' decision to breastfeed in Hospital USM.
- iii. To determine the association between mothers' knowledge of breastfeeding with their decision to breastfeed in Hospital USM.
- iv. To identify the association between the factors of personal, social, cultural, facilities and environmental with mothers' decision to breastfeed in Hospital USM.

1.4 Research Questions

- i. What are the mothers' knowledge of breastfeeding and its influence on their breastfeeding decision in Hospital USM?
- ii. What are the personal, social, facilities and environmental factors that influencing mothers' decision to breastfeed in Hospital USM?
- iii. Is there any association between mothers' knowledge of breastfeeding with their decision to breastfeed in Hospital USM?
- iv. Is there any association between the factors of personal, social, cultural, facilities and environmental with mothers' decision to breastfeed in Hospital USM?

1.5 Research Hypothesis

- H_{O1}** :There is no significant association between the mothers' knowledge of breastfeeding on their decision to breastfeed in Hospital USM.
- H_{A1}** :There is significant association between the mothers' knowledge of breastfeeding on their decision to breastfeed in Hospital USM.
- H_{O2}** :There is no significant association between personal, social, cultural, facilities and environmental factors with mothers' decision to breastfeed in Hospital USM.
- H_{A2}** :There is significant association between personal, social, cultural, facilities and environmental factors with mothers' decision to breastfeed in Hospital USM.

1.6 Definition of Terms (Conceptual/Operational)

1.6.1 Personal factor

According to the Health Promotion Model, personal factors are categorized as either biologic, psychological, or socio cultural (Pender, 2002). In this research, the researcher will investigate those personal factors such as age can affect the decision to breastfeed among mothers.

1.6.2 Social factor

Social factor can be considered as things that can affect our lifestyles as a society (Kong & Lee, 2004). In this research, religion, economic status, education, family, and politics and husband's support are the main social factors.

1.6.3 Cultural factor

Culture encompasses the set of beliefs, moral values, traditions, language, and laws (or rules of behavior) held in common by a nation, a community, or other defined group of people (Gale Encyclopedia of Public Health, 2002). In this research, researcher will identify customs among mother regarding breastfeed.

1.6.4 Facilities factor

Refer to place or tools that are available for mothers to breastfeed. It can be workplace and public facilities that are both considered as above factor (Kong & Lee, 2004). In this research, researcher will ask regarding the availability of facilities to breastfeed at public and workplace.

1.6.5 Environment factor

Last (2001) defined the environment for the International Epidemiological Association as: "All that which is external to the human host. Can be divided into physical, biological, social, cultural, etc., any or all of which can influence health status of populations". According to this definition, the environment would include anything that is not genetic, although it could be argued that even genes are influenced by the environment in the short or long-term. In this research, home environment and surrounding affect mothers' such as the space, the privacy affects the mothers' decision to breastfeed.

1.6.6 Mother

A woman in relation to a child or children to whom she has given birth (Oxford, 2012). In this research, primigravida and multigravida mothers who admitted and visited to Hospital Universiti Sains Malaysia was included in this research.

1.6.7 Decision

A conclusion or resolution reached after consideration and an action or process of deciding something or of resolving a question (Oxford, 2012).

1.6.8 Breastfeed

The child has received breast milk direct from the breast or expressed (WHO & UNICEF, 1991).

1.6.9 Exclusive breastfeeding

Requires that the infant receive breast milk (including milk expressed or from wet nurse). Allows the infant to receive drops, syrups (vitamins, minerals, medicines) and does not allow the infant to receive anything else (WHO & UNICEF, 1991).

1.7 Significance of the Study

Breastfeed mothers have plenty of reasons for breastfeeding their infants. External and internal influences may affect their decision to breastfeed as other factors may contribute during the decision making. Therefore, this research will focus to those factors that influence the mother's decision to breastfeed. Those factors are personal, social, cultural, facilities, environment and others. A better understanding of the factors which relate to the mothers' decision to breastfeed can be gain after the research is taken place. This can facilitate in improving the breastfeeding status for coming years. Besides, after all the data have been analyze, clear view regarding breastfeeding status in HUSM can be gain as nowadays, HUSM is lacks with local published information regarding statistics in breastfeed (Medical Record Hospital USM, 2012). In addition, to evaluate the effectiveness of BFHI in HUSM, this research should be done in order to enhance the effectiveness of any programs related to the breastfeed practice. Nurses and midwives would be more alert to play a role in encouraging mothers to breastfeed. Therefore, by conducting this study, it may give benefits towards HUSM regarding breastfeed among mother.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

Due to the benefits of breastfeed toward infants and mothers, the World Health Organisation (WHO, 1990) recommends that infants should be exclusively breastfed for the first six month of life and complementary food should be introduced at the age of six month. These recommendations were adopted following a systematic review of current scientific evidence on the optimal duration of exclusive breastfeeding and an expert consultation on the subject (Kramer & Kakuma, 2002). Direct benefits of breastfeed to both mothers and infants lead to global campaign, The Baby-Friendly Hospital Initiative (BFHI) that was launched by UNICEF and the WHO to advocate breastfeeding among mothers.

In Malaysia, the National Breastfeeding Policy was formulated in 1993 whereby exclusive breastfeeding was recommended for the first four to six months of life and continued up to two years. Since the introduction of this policy, breastfeeding promotion in Malaysia has been intensified (Fatimah *et al.* 2010). The Baby Friendly Hospital Initiative (BFHI), training program for health staff, extension of maternity and paternity leave for the government sector and the Code of Ethics for the Marketing of Infant Formula Products were some of the program that have been implemented in the country.

According to the UNICEF Malaysia Communications (2008), a maternity facility can be designated 'baby-friendly' only when it does not accept free or low-cost breast milk substitutes, feeding bottles or teats, and has implemented 10 specific steps to support successful breastfeeding. Those steps are (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 one half-hour of birth (5) Show mothers how to breastfeed and 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 and lastly, (10) Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.

Instead of the initiative done, factors which determined the women's decision to breastfeed should be clearly highlight to ensure positive result of breastfeeding practice. In this chapter, researcher will reviews some facts related to factors which influence mothers' decision to breastfeed. Factors included are, knowledge, personal, cultural, social, facilities and environmental and other factors.

2.2 Review of Literature

2.2.1 Knowledge and breastfeeding

Mostly mothers are agreed to breastfeed their infants even though they have deficit knowledge regarding the breast milk and the actual benefits of the breast milk to the infants and to themselves. Hackett, Mukta, Jalal and Sellen (2012) reported that, young mothers generally had very little knowledge of the benefits of breast milk. But yet they agreed that breast milk is good for babies even though they are unsure of any

specific reasons why. Some of the young mothers claimed that the breast milk is good for babies because it 'is nutritious', 'contains vitamins', 'keeps the baby healthy' or 'provides energy', but very few discussed its economic or maternal benefits. They also have diverse range of opinions on the topic regarding colostrums. Many participants regarded colostrum as 'the yellowish milk that first comes out' and some mentioned that this milk was 'full of vitamins' and 'must be fed to babies because it's good for their health'. A smaller proportion of participants had the opposite opinion, insisting that colostrum was 'bad milk' and must never be fed to infants.

While according to Chezem, Friesen and Boettcher (2003), only knowledge appeared to influence breastfeeding outcomes. Women with breastfeeding confidence describe women belief or expectation that they possesses the knowledge and skills to successfully breastfeed their infant. These expectations are based on information gained from prior to their breastfeeding experience, observation of other women breastfeeding, support and encouragement from individuals whose opinions are respected, and the physiological reaction to the prospect or act of breastfeeding.

On the other hand, Chatman, Salihu, Roofe, Wheatke, Henry and Jolly (2004), found that breastfeeding practice among Jamaican mothers are mostly influenced by the physiological (built-in anxiety lead to inhibition of the physiological milk-ejection reflex) aspects rather than knowledge. Maternal concern also may affect the breastfeeding decision as four reasons have gained and stood out as rationale among the overwhelming majority of women who supplemented breast milk before the recommended period of 6 months: fear or anxiety that breastfeeding alone may not be sufficient; other competing engagement (e.g., work, study, etc); infant did not show much affinity for breast milk;

and breast milk did not flow in sufficient quantity. Statistic showed that the prevalence of breastfeeding initiation is high. But, the level of exclusive or predominant breastfeeding was extremely low at 22.2%. Thus, only about 1 in 5 mothers in the study sample practiced exclusive breastfeeding.

2.2.2 Personal factor with breastfeed

Elements in sociodemographic may affect the breastfeeding behavior among mothers worldwide. Various elements such as age, employment, breastfeeding experience and others may influence mother's decision to breastfeed. McKinley and Hyde (2004) have revealed that employment is one of the most important predictors of breastfeeding behavior. Even though employment prior to childbirth does not predict breastfeed behavior, but still many of the women continued to breastfeed after returning to employment. Intentions to breastfeed are likely to represent individual preferences, as well as anticipated structural limitations in breastfeeding. Result from the research also revealed that older women intended to breastfeed longer and did breastfeed longer than younger women. This result is partially consistent with previous research (Ford & Lobbok, 1990) as cited in Mckinley and Hyde, 2004.

Younger age also may cause change in breastfeed behavior. Study done by Hackett et al., (2012) reported that, younger mothers in Bangladesh have misinterpretation regarding exclusive breastfeeding which lead to complementary feeding in infants. They interpret 'exclusive' to mean breast milk and other liquids. This finding was previously reported among adult mothers in urban Bangladesh (Haider et al. 1999) as cited in the journal (Hackett et al., 2012). Taken together, these results suggest that

misinterpretations of exclusive breastfeeding remain common in Bangladesh and may be similar in urban and rural populations as well. Fruit juices and non-breast milk are most common complementary food given to the infants in their society. As misinterpretation is kept among this society, exclusive breastfeed cannot be achieved. This misinterpretation is mainly influenced by the perceptions and practices of older women in their communities and that perception and practices may be based on cultural models in place by adolescence.

Thomson and Dykes (2012), found that women decision to breastfeed was generally related to the health benefits for the infant rather than for personal reason. The mothers highlighted a desire to protect their infants from health-related illness and to give them the best start in life. Bonding and attachment also operated as a significant influence in a woman's decision to breastfeed. Those who managed to breastfeed spoke of love, pride and determinations achieved with the infant when breastfeed is practiced. While for women who had been less successful at breastfeeding (discontinued within the early post-natal period) may expressed guilt and remorse. Blame was attributed to the potential impact on attachment relationship thus, lead to deterioration in breastfeeding practiced.

Discontinuation in breastfeed at early post-natal period may cause by pain felt by the mothers during breastfeed. According to Williamson, Leeming, Lyttle and Johnson (2012), mothers mostly used words and phrases such as 'extremely, excruciatingly painful, toe-curling, very painful, horrific and really tender sore breasts' to expressed pain felt by them. Bleeding, cracked and blistered nipples phenomenon has been recorded as a major cause affecting over a third of mothers during the first week of breastfeeding.

2.2.3 Social factor with breastfeeding

One of determinant factors which influence mothers to breastfeed is social factor. Even the mother is equipped with well knowledge regarding breastfeed, the confidence to practice is still lack. Based from the research (Entwistle, Kendall & Mead 2010), their social environment and the varying levels of professional support may negatively affect their ability to breastfeed. Therefore, breastfeeding environment and support could all be enhanced if the sources of self-efficacy information could be drawn upon by health professionals in a knowledgeable way. The framework of self-efficacy could be used by midwives and other health professionals to understand breastfeeding behavior among women. The support and advice women received from health professionals were important to their self-confidence in their ability to succeed.

Besides, breastfeeding peer support has been identified as a key intervention to help improve breastfeeding and exclusive breastfeeding rates. The World Health Organization (WHO) recommends implementation of breastfeeding peer support projects in order to encourage women to breastfeed their infants. Thomson, Crossland and Dykes (2012), revealed that this breastfeeding support service have promoted and sustained hope in women's breastfeeding goals and infant-feeding expectations. The service provided realistic assessments of the women's breastfeeding situation across varying situational contexts, formed strategies and plan to help women overcome any obstacles, made women aware of potential negative outcomes, mobilized women's external and personal resources to facilitate goal attainment, provided evaluations and feedback of women's (and infant's) progress, and through praise, reassurance and instilling calm, the peer supporters helped women to focus their energy to continue breastfeeding.

Even though there is services and health workers to help in mothers with breastfeed, but still the mothers requires dedication, commitment, persistence and support from family members continuously. Mothers often need to overcome many obstacles to successfully breastfeed their babies and maintain their balance of home, family and work commitments. Evidence suggests that fathers do make a difference in breastfeeding support. Study conducted by Tohotoa, Maycock, Hauck, Howatt, Burns and Binns (2009) support the idea that dads do make a difference in breastfeeding practice. It was revealed that both the mothers and the fathers believed that breastfeeding was a team effort and that father's support was essential to the mother being able to breastfeed successfully.

Same goes to the research done by Mitchell-Box and Braun (2012) who revealed that most male partners wanted to be actively involved in infant feeding and searched for effective ways of being supportive and helpful in caring for the new infant. Most were empathetic with their wives and felt bad if they were in pain or not sleeping. Besides, the research also found that male partners acknowledged breastfeeding as healthy and natural but did not feel that the method of infant feeding was their decision. Mothers commonly stated that the decision was ultimately their own (Andrew and Harvey, 2011).

2.2.4 Cultural factor with breastfeeding

Based on the study conducted by Andrew and Harvey (2011), many of the participants described anxiety about breastfeeding their infant in public. They especially concerned that other people would object to them breastfeeding near them, resulting in embarrassment. This finding is consistent with research done by Stewart-Knox, Gardiner and Wright (2003), which suggest that mothers will feel two opposing pressures from

society. One that breastfeeding is best for the health of their baby, but, on the other hand, that breastfeeding is not something that should be seen in public. In light of the discussion surrounding the importance of exposure to breastfeeding mothers, the difficulty that many mothers experience breastfeeding in public is particularly relevant because it may perpetuate the belief that breastfeeding is not the norm among society.

Thomson and Dykes (2011), revealed the same thing as most of the participants in the research expressed personal difficulties in feeding in front of other people. These difficulties tended to be expressed towards 'strangers', though for some this difficulty also extended to their close personal networks. One of the main deterrents of public breastfeeding was the fear of possible retribution. This belief was often strongly associated with the socio-cultural perception of breasts as sexual objects

2.2.5 Facilities and environment factor with breastfeeding

Kong and Lee (2004) revealed that, over 200 mothers (88.2%) in Hong Kong agreed that lack of privacy for breastfeeding in public places was a barrier to breastfeeding. Workplace and public facilities were both considered as not supportive for breastfeeding practice. Besides, the overcrowded living environment in Hong Kong may consider as a barrier to breastfeeding. Besides, lack of privacy for breastfeeding at home may also affect breastfeeding practice among mothers. Consistent with study done by Grassley and Eschiti (2008), to practice breastfeeding as it is some kind of activity that should be hidden away from families and friends.

2.3 Conceptual/ Theoretical Framework

Research done by Lee, Elo, McCollum and Culhane (2009), which focus into racial or ethnic differences in initiation and duration of breastfeeding among mothers have used the social network theory (Pescosolido, 1992) and ecological theories of parenting (Bently 1999; Brofenbrenner, 1979) as their conceptual model for their research (Figure 2.1). The model is quite similar with researcher's study which to determine factors influencing mothers' decision to breastfeed. Thus, researcher has decided to adapt these theories to be applied in the research. Improvement has been done in order to suit with the researcher's objectives and demand.

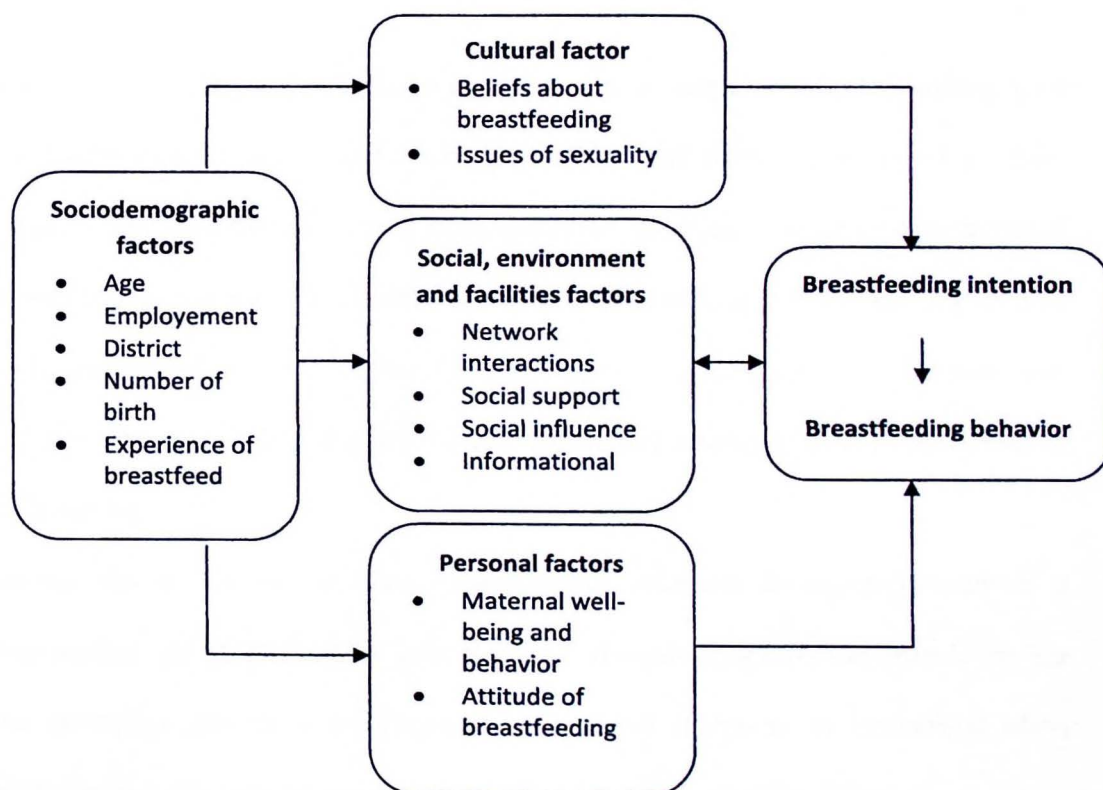


Figure 2.1: Conceptual Framework on study the factors influencing mother's decision to breastfeed adapted from Pescosolido, 1992 and Bently, 1999; Brofenbrenner, 1979.

These theories provide an understanding of the multifaceted nature of the mother's decision to breastfeed her infant as both theories emphasize the socially embedded aspects of the decision-making process. As noted above, age, employment, district, number of birth and etc. are categorized as the sociodemographic factors which influence breastfeeding behavior. These theories also include social networks consisting of family, friends and society that can serve as important sources of information about health behaviors and beliefs. Sociocultural orientations rooted in these networks reflect intergenerational transmission of ideas and information, behavioral norms and parenting beliefs held by family and friends, as well as traditional or accepted customs in the countries.

Most central to the mother's social context are her interpersonal relationships with the child's father, family, and friends, who are salient and trusted sources of support, social influence, and information. These individuals can provide a buffer against material hardships and stress, and they may either encourage or discourage breastfeeding as they shape the norms regarding what infant feeding method is deemed best. Cultural and Personal factors also may affect the decision to breastfeed among mothers which lead to breastfeed behavior.

Finally, the model incorporates breastfeeding intention during pregnancy as a critical determinant of breastfeeding initiation and duration. Behavioral intentions are among the strongest predictors of future behavior and intention to breastfeed often reflects high degrees of normative and attitudinal support for breastfeeding.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Research Design

A cross-sectional descriptive study was conducted on mothers by using self-administered questionnaire.

3.2 Population and Setting

The study was conducted on all the primigravida and multigravida mothers admitted and visited to Hospital Universiti Sains Malaysia. Specifically, ward 2 Topaz (postnatal ward), 2 Akik (antenatal ward), 2 Baiduri (antenatal ward) and 1 TB (Special Care Nursing) in Hospital Universiti Sains Malaysia were chosen for data collecting setting.

3.3 Sampling Plan

3.3.1 Inclusion and Exclusion Criteria

Inclusion criteria

- Primigravida and multigravida mothers who admitted and visited to Hospital Universiti Sains Malaysia.
- Able to understand Bahasa Melayu and fit to answer the questions.
- Able to provide informed consent to participate in this study.

Exclusion criteria

- Primigravida and multigravida mothers with complicated deliveries (caesarean section, forceps and vacuum deliveries).
- Mothers of infants with existing feeding problems.

- Unwilling to participate in this study.

3.3.2 Sampling Method

Non-probability purposive sampling was used in the study.

3.3.3 Sampling Size

Numbers of mothers who practice the breastfeed in Hospital USM is not known as there is unavailability of statistic from the medical record of Hospital USM. Thus, the researcher used the statistic of pregnant mothers who visited to Hospital USM. In the year of 2011, 8146 total of pregnant mothers have visited Hospital USM for Anti-Tetanus Toxoid Injection. Using the average numbers of mothers visited to Hospital USM for three months (December 2011, January and February 2012), sample size was measured using Raosoft's software. To calculate the sample size and estimate the accuracy of a sample (sampling error) while determined the representative and parameters of the sample, the researcher will use the power and sample size calculation software. Controlling the probability of type I error alpha equal 0.05 and confidence level of 95%, the sample size required in this study was 245 respondents. Allowed for drop out and in complete questions up to 10% drop out rate was needed. Therefore, the total respondents required for this study will be 270 respondents. Due to the time constriction, the sample size was only 110 respondents.

3.4 Variables

3.4.1 Variables Measurement

The dependent variable was the mothers' decision to breastfeed. It was measured by the result from questionnaire part B and part C. For part B, if the mother's score is >75, it indicate the high level of knowledge which affect the influence of mothers' decision to breastfeed and vice versa. While for part C, the highest percentage (%) will indicate the factors influence mothers' decision to breastfeed and vice versa. While for the independent variable will be included in:

- i. Part A (Sociodemographic data)
 - Date of birth (dd/mm/yy), age (years old), religion (Islam, Buddha, India, others.), marital status (married, single, cohabiting, separated), educational level (no education, primary school, secondary school, college/university), job, numbers of live child born, household composition (husband only, others), breastfeed experience (yes, no), exclusive breastfeed since child born till six month of infancy (yes, no).
- ii. Part B (Mother's knowledge regarding breastfeed)
 - Used score which consists of correct (1mark), wrong (0 mark) and not sure (0 mark). Total score will be range from 0-47 marks. Median percentage (%) score which is greater than 75% indicate high level of knowledge. While for median percentage (%) less than 75% indicate low level of knowledge regarding breastfeed.

iii. Part C (Factors influencing mother's decision to breastfeed).

- Used the 3-Likert type response scale which consists of agree (1), not sure (0) and disagree (0). High percentage (%) of answer agree indicate the factors influencing decision to breastfeed and vice versa.

3.5 Instrumentation

3.5.1 Instrument

These instruments are already permitted and allowed from author to be used in this study. The self-administered questionnaires that was used for this study consisted:

- Part A: Sociodemographic data (Alina & Zaharah, 2010).

The questionnaire consist of name of respondent, age, religion, job, marital status, educational level, number of live child born, address, job, breastfeed experience and exclusive breastfeeding since child born till 6 months of infancy.

- Part B: Knowledge on breastfeeding (Alina & Zaharah, 2010).

The questionnaire consists of 47 items assessing breastfeeding knowledge on mothers admitted into Hospital Universiti Sains Malaysia. This questionnaire were adapted and modified from a breastfeeding questionnaire developed by a team of Hospital Universiti Sains Malaysia pediatric nurses. Domains that consisted in the questionnaire included advantages to baby and mother, colostrum, effective feeding, breast milk expression, duration of feeding, complementary feeding, problem with breastfeeding, breast engorgement and practical aspect of breastfeeding. The items used ranged from 'correct', 'wrong' and 'not sure'. The

questions were all in the form of statements. Highest correct answer will indicate the positive decision of mothers to breastfeed.

- Part C: Factors influencing mother's decision to breastfeed (Kong & Lee, 2004).

The questionnaire consists of 27 items which is designed in the form of a Likert-type response scale covering personal, social, cultural and environmental dimensions relevant to the decision to breastfeed. All the items will be measure using 3-point's Likert scales that ranged from 'agree', 'neither' and 'disagree'. The questions were all in the form of statements. Domain score in part C determine the factors influencing mother's decision to breastfeed. This part also can determine the mother's decision to breastfeed.

3.5.2 Translation of Instrument

The questionnaire for assessing mother's knowledge regarding breastfeed (Part B) was available in both languages (English and Bahasa Melayu). Therefore, there is no need in back to back translation for this part of questionnaire. Meanwhile, for questionnaire in determining the factors influencing mothers' decision to breastfeed (Part C), the questionnaire is just available in English version thus, back to back translation had been done by Pusat Bahasa and was checked by the supervisor.

3.5.3 Validity

The validity of the questionnaires was face validated by three lecturers of nursing.

3.5.4 Reliability

Researcher used the 47 items questions assessing mother's knowledge on breastfeed that was developed by the team of Hospital Universiti Sains Malaysia pediatric nurses (2008) and the Cronbach's alpha was 0.77. While for the 27 items Likert scale assessing factors influencing decision to breastfeed was tested for reliability by computing internal consistency, and gave a Cronbach's alpha coefficient of 0.7062 ($r = 0.71$). For determining the reliability of questionnaires, the researcher had ran a pilot study on 10 mothers who are admitted and visited to Hospital Universiti Sains Malaysia and the result of the Cronbach's alpha was 0.73.

3.6 Ethical Consideration

The study was conduct after obtaining the approval from the Research Ethical Committee (Human), Universiti Sains Malaysia with the permission of the Director of Hospital Universiti Sains Malaysia, (Hospital USM), Head of Medical Department and Sisters of the selected wards, and clinics of Hospital USM. Other considerations before approaching the respondents are as follows (1) Written consent was taken first before answering the questionnaire (2) Explanation on the purpose of the study was been given first (3) Special care was taken to avoid disturbance and exhaustion of the mothers (4) Respondents have a reasonable period of rest 48-72 hours after delivery (5) Only mothers who are comfortable and were not engaged in any activity was been approached (6) Respondent's rights to discontinue from the study was explained (7) Information from the study will be kept confidential, anonymous and was used for academic purposes only.