KNOWLEDGE, ATTITUDES AND PRACTICES TOWARDS BREASTFEEDING AMONG MOTHERS IN TUMPAT ,KELANTAN.

By

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ABSTRACT

Breastfeeding has been actively promoted in Malaysia in the last few years in all public and private hospital. 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. The prevalence of exclusive breastfeeding among children below six months was low about 15% in Malaysia. Thus, the current breastfeeding patterns are still far from the recommended levels. Compared to other countries in the Southeast Asian region, Malaysia is the country with the lowest prevalence of exclusive breastfeeding. This study proposed to find out knowledge, attitude and practice towards breastfeeding among mothers in kampung Baru Nelayan, Tumpat Kelantan. The questionnaire consist of three parts and descriptive statistic were used to organize and summarize the information obtained from a sample (n=110) of the population. The results from the KAP study shown that the prevalence of exclusive breastfeeding and complementary breastfeeding was 55% respectively. Apart from that, the results indicate most mother are shy to breastfeed in public and they were more likely to breastfeed in public if there is a suitable placed. Mothers with a positive attitude on breastfeeding and those who possess a secondary educational level were associated with longer duration of breastfeeding. Spouse and family members played an important role in building up a mother's confidence to breastfeed her child. Mothers preferences are important in the decision to initiate breastfeeding and continue exclusive breastfeeding for the recommended 6 months minimum.

ABSTARK

Penyusuan Susu Ibu telah digalakkan secara aktif di Malaysia sejak beberapa tahun yang lalu di semua hospital awam dan swasta. Di Malaysia, Polisi Penyusuan Susu Ibu Kebangsaan telah digubal pada tahun 1993 di mana penyusuan susu ibu sepenuhnya telah disyorkan untuk empat hingga enam bulan pertama kehidupan dan diteruskan sehingga dua tahun. Prevalens penyusuan eksklusif di kalangan kanak-kanak di bawah enam bulan adalah rendah kira-kira 15% di Malaysia. Oleh itu, corak penyusuan semasa masih jauh dari tahap yang disyorkan. Berbanding dengan negara-negara lain di rantau Asia Tenggara, Malaysia merupakan negara dengan kelaziman terendah penyusuan eksklusif. Kajian ini mencadangkan untuk mengetahui pengetahuan, sikap dan amalan terhadap penyusuan kalangan ibu-ibu di kampung Baru Nelayan, Tumpat Kelantan. Soal selidik yang terdiri daripada tiga bahagian dan statistik deskriptif telah digunakan untuk menyusun dan merumuskan maklumat yang diperolehi daripada sampel (n = 110) daripada jumlah penduduk. Hasil daripada kajian KAP yang menunjukkan bahawa kelaziman penyusuan eksklusif dan penyusuan pelengkap adalah 55% masing-masing. Selain itu, keputusan menunjukkan kebanyakan ibu adalah malu untuk menyusukan bayi di khalayak ramai dan mereka lebih cenderung untuk menyusu di khalayak ramai jika ada yang sesuai diletakkan. Ibu dengan sikap yang positif terhadap penyusuan susu ibu dan mereka yang mempunyai tahap pendidikan menengah dikaitkan dengan tempoh yang lebih lama memberi penyusuan susu ibu. Pasangan dan ahli keluarga memainkan peranan penting dalam membina keyakinan ibu untuk menyusukan anaknya. Pilihan ibu adalah penting dalam keputusan untuk memulakan penyusuan ibu dan meneruskan penyusuan susu ibu sepenuhnya untuk disyorkan 6 bulan minimum.

TABLE OF CONTENT

8. Appendixes

CHAPTER 1

INTRODUCTION

1.0 Background of Study

Breastfeeding is the subject of much interest. Advantages of breastfeeding over formula feeding have been evidenced by many studies well beyond the domains of nutrition, human development and public health. However, according to a recent report, nearly 95% among children aged less than 12 months in the Malaysia are ever breastfed, and about 14.5% of the infants completely rely on exclusive breastfeeding below 6 months of their birth (Fatimah et al., 2010).

The literature consistently presented that knowledge and attitude among young adult populations regarding breastfeeding are strong predictors of the likelihood to breastfeed when they become parents (Marrone et al., 2008). Furthermore, recent studies indicated that men's attitude towards breastfeeding may be as important as women's; multiple studies presented evidence that the opinions and attitudes of the father or male partner towards breastfeeding have a strong positive correlation with the mother's intent to breastfeed as well as the actual initiation and duration of breastfeeding (Wolfberg et al., 2004).

It is important therefore to understand what determine women's knowledge and attitude regarding breastfeeding. Most previous studies that examined the determinants of breastfeeding looked at maternal characteristics such as relationship status, age, education level, employment, occupation, income, number of children and feeding method as an infant (Ong et al.,2005).

Knowledge about breastfeeding practices whether exclusively breastfeeding or appropriate complementary feeding among mothers is crucial towards infant feeding. Mothers who has knowledge regarding benefit of exclusively breastfeeding were prone to exclusive breastfeed all their children. Social cultural factor such as family background were more likely to influence attitude and practices towards breastfeeding among the mothers. In a study that investigated the determinant of mother breastfeeding Yunhee et al (2011) found that family background of the young adults may also have a direct influence on how their infant gets fed.

Human milk for human babies is the biological norm. It has long been recognized as both the unequalled way of providing all the nutritional, immunological and psychological requirements that a healthy, term infant needs to thrive, and important to the health and well-being of the mother. Reviews of studies in both economically advantaged and disadvantaged settings have shown short-term and long-term risks to the child and to the mother from not breastfeeding (Horta, 2007).

The World Health Organization (WHO) recommends that all infants should be fed exclusively on human milk from birth to six months of age and continued thereafter with appropriate complementary foods (WHO,2002). There is evidence that babies who do not receive human milk are more likely to suffer health problems including gastrointestinal and respiratory diseases , urinary tract infection and late-onset sepsis in preterm infants (Quigly 2007). In both affluent and poorer communities, not receiving human milk may increase infant mortality (Chen 2004).

Exclusive breastfeeding is defined as an infant's consumption of human milk with no supplementation of any type, including no water, juice, non-human milk or foods, though medicines, vitamins and minerals are allowed (WHO,2008). A review of interventions in 42

developing countries estimated that exclusive breastfeeding for six months and continued breast feeding for the first year of life could prevent 13% of the over 10 million deaths per annum of children less than five years old. Breastfeeding is identified as the single most important preventative intervention in saving such lives (Jones,2003). Compared to exclusive breastfeeding, the risks from partial or non-exclusive breastfeeding have been recognized for many years including a higher rate of infant morbidity and mortality from diarrhea and respiratory illness (Chantr ,2006).

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. The Baby Friendly Hospital Initiative (BFHI), training programmed 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 programmed that have been implemented in the country. Following the recommendation by WHO, the Malaysian Breastfeeding Policy was revised in 2005 in accordance with World Health Assembly Resolution 54.2 (2002) whereby exclusive breastfeeding was recommended for the first 6 months of life and continued up to two years.

Through most of the twentieth century, initiation and duration of breastfeeding declined worldwide as a result of rapid social and economic change, including urbanization and marketing of breast milk substitutes. In recent years the global trend has shifted towards improved breastfeeding practices (Lutter,2000). Survey data from 43 countries indicated a significant increase in exclusive breastfeeding, from 39 to 46% between 1989 and 1999, with wide variations within and between geographic regions (Fatimah et al.,2010).

In Malaysia, nationally representative data on levels of exclusive breastfeeding was virtually unavailable before the 1990s. The Second National and Health Morbidity Survey (NHMS II) which was conducted in 1996 was the first national survey that used the indicators recommended by WHO for assessing breastfeeding (WHO, 1991) and provided baseline data for the country.

Findings of the NHMS II showed that although the overall prevalence of children ever breastfed in Malaysia was 88.6%, the prevalence of exclusive breastfeeding was only 29.0%, (Fatimah et al., 1999). 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%.

However, recent statistic results of the Third National Health and Morbidity Survey (NHMS III) showed that the overall prevalence of ever breastfeed among children aged less than 12 months was 94.7%. Although the prevalence of exclusive breastfeeding below six months was 14.5% but the continued prevalence of breastfeeding up to 2 years was 37.4% (Fatimah et al.,2010).

1.1 Problem Statement

Through most of the twentieth century, initiation and duration apart from practices of breastfeeding declined worldwide as a result of rapid social and economic change, including urbanization and marketing of breast milk substitutes. In recent years the global trend has shifted towards improved breastfeeding practices (Lutter,2000). Survey data from 43 countries indicated a significant increase in exclusive breastfeeding, from 39 to 46% between 1989 and 1999, with wide variations within and between geographic regions (Fatimah et al., 2010).

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Although the Baby Friendly Hospital Initiative (BFHI) has gradually progressed and contributed to higher breast-feeding prevalence over the past 10 years (UNICEF,2005), exclusive breast-feeding (EBF) during the first 6 months has not been popularized and has been still far from the recommended levels (Foo et al., 2005). Only 38% of all infants born in the developing

world are exclusively breast-fed for the first 6 months of life and less than 60% receive complementary foods when they should (UNICEF, 2008b). Various factor such as lack of awareness of breast-feeding benefits, advice from health professionals, employment situations, antenatal breast-feeding plans and delays in initiation of breast milk after delivery are thought to influence mothers breastfeeding practices (Daglas et al.,2005).

1.2 Objective of Study

General Objective

To determine knowledge, attitudes and practices towards breastfeeding among mother's in Kampung Baru Nelayan, Tumpat.

Specific Objective

1) To determine mother's knowledge related to infant feeding practices.
2) To determine association between attitude of breastfeeding and practices towards breastfeeding among mother's.

1.3 Research Questions

I. How does mother's knowledge about breastfeeding influence infant feeding practices?

II. What is the association between attitude and practice among mothers towards breastfeeding?

1.4 Hypothesis

Hypothesis 1

Null Hypothesis

There is no relationship between mother knowledge about breastfeeding and infant feeding practices.

Alternative Hypothesis

There is a relationship between mother knowledge about breastfeeding and infant feeding practices.

Hypothesis 2

Null Hypothesis

There is no relationship between attitude and practice among mother's towards breastfeeding.

Alternative Hypothesis

There is a relationship between attitude and practice among mother's towards breastfeeding.

1.5 Significant of the Study

Over the past decade, the government of Malaysia has recognized the significance of breastfeeding and infant nutrition. According to Malaysia Third National Health and Morbidity Survey (NHMS III), the prevalence of exclusive breastfeeding below six months was 14.5%. The effect of globalization and urbanization on breastfeeding in Malaysia is not well studied. To improve the rates of exclusive breastfeeding in Malaysia, specific information about the knowledge, attitude and practices that influence this outcome is needed.

This study was designed to evaluate knowledge, attitudes and practice towards breastfeeding among mother's in Kampung Baru Nelayan which assessed little known about mother's knowledge and attitudes toward breastfeeding. A study conducted by Tan (2009) stated that, breastfeeding practice was common among mothers with good knowledge on breastfeeding. Knowledge about the breastfeeding among mothers may influence attitude and practices towards the breastfeeding.

Besides that, mother's education had greater impact on nutritional status of children (Hien and kam,2008). This is proven by a study done by Abdullah et al (2009) which stated that low education mothers result in various degrees of malnutrition. However, it does not mean that mothers with high educational level had healthy children only (Liaqat et al.,2006). According to Willey et al.(2009), mother's education can determined child growth and health. This because each mothers from different education level should has different practices (Webb et al.,2009).

However, most mother's in developed countries were still not practicing exclusive breastfeeding until 6 months (Fewtrell et al.,2009). In the South-East Asian region, Malaysia has the lowest prevalence of exclusive breastfeeding (Fatimah et al.,2010). This practiced are uncommon because nowadays most of the mothers are working and have higher household income. This has lead the mothers to use infant formula milk rather than breast milk (Tan,2009).

Thus this study was done to study the relationship between attitude and practices towards breastfeeding among the mother's. Mother's that practicing exclusive breastfeeding can be classified as has positive attitude towards breastfeeding.

1.6 Conceptual Framework

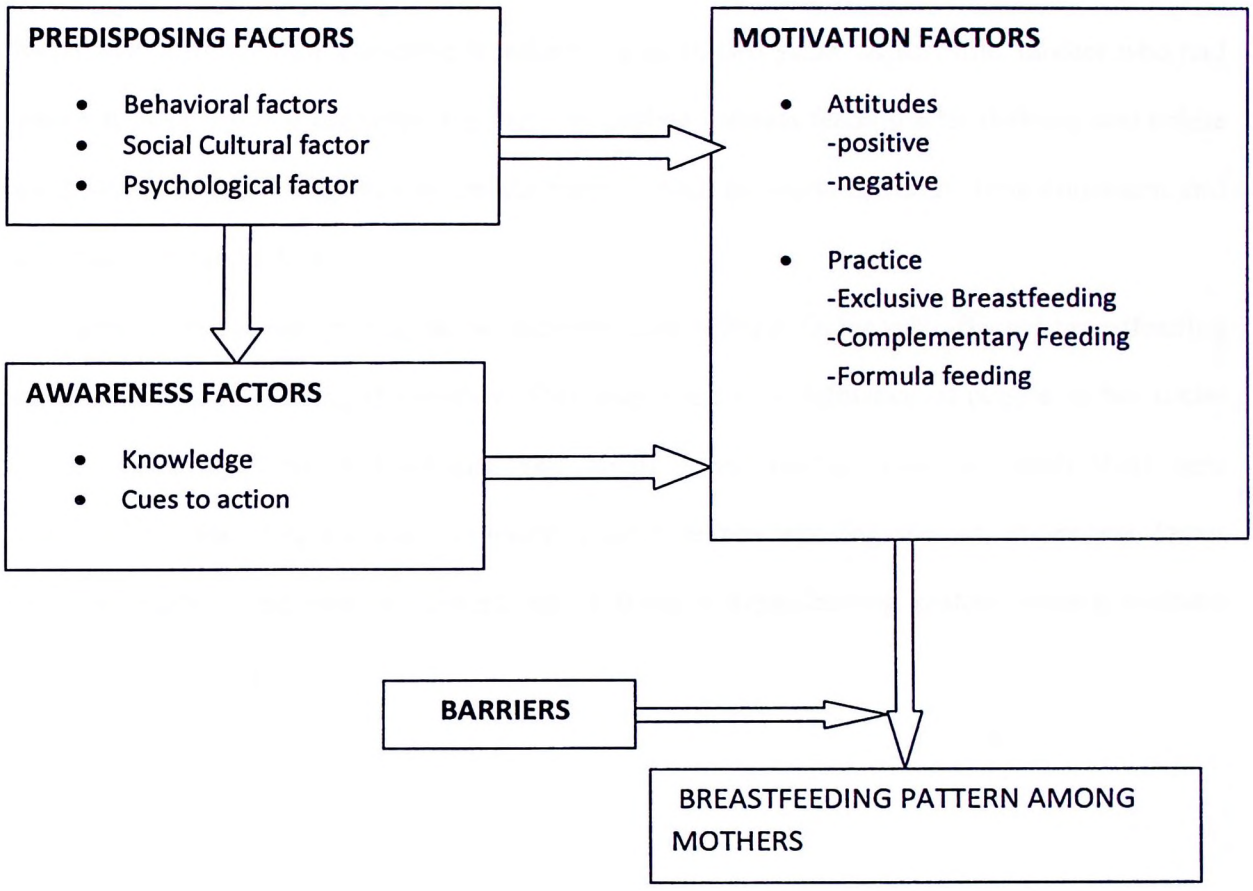

Figure 1.1 : The Determinants of Breastfeeding

This conceptual framework proposed that early exposure during pregnancy about the knowledge of breastfeeding will influence a mother to breastfeed their infant. Widely promoting strategy of practicing exclusively breastfeeding and appropriate complementary feeding which organized by the government will influence a mother breastfeeding practices. A high degree of

awareness factors such as knowledge and cues to action promoting a mother to has positive attitude towards breastfeeding.

A mother who has positive attitude towards breastfeeding will initiate breastfeeding after delivery and prolonged the exclusive breastfeeding up to two years. Meanwhile, mother who had negative attitude towards breastfeeding prone to initiate formula feeding after delivery and refuse to exclusively breastfeeding due to certain barriers such as working status, time constraint and less breast milk production.

Besides that, predisposing factor such as social cultural factor will affected breastfeeding practices and attitude among the mother. This may due to the influence of people in her social network. A family who is practicing exclusively breastfeeding tends to teach their next generation for practicing the same practice. Therefore predisposing factors, awareness factor ,motivation factors and certain barriers will influence breastfeeding pattern among mothers which shown in figure 1.

CHAPTER 2

LITERATURE REVIEW

2.0 Definition of Breastfeeding Practice

Infant feeding practices were classified into one of several breastfeeding categories based on the World Health Organization infant feeding indicator (WHO,1991). The breastfeeding categories were 'Exclusive Breastfeeding' (when infant receives only breast milk and no water or other liquid or foods, 'Predominantly Breastfeeding' (when infant receive breast milk and water or water based drinks) and 'Complementary Breastfeeding' (when infant receives breast milk and any other fluid or food including non-human breast milk (Fatimah et al.,2010).

2.1 Breast Milk Composition

Proteins, carbohydrates and lipids are the major contributors to the energy content of human milk. Protein and carbohydrate concentrations change with duration of lactation, but they are relatively invariable between women at any given stage of lactation. In contrast, lipid concentrations vary significantly between both individual women and populations, which accounts for the variation observed in the energy content of human milk (WHO, 2002).

Dietary proteins provide approximately 8% of the exclusively breastfed infant energy requirements and the essential amino acids necessary for protein synthesis. Thus, the quantity and quality of proteins are both important. Because protein may serve as a source of energy, failure to meet energy needs decreases the efficiency of protein utilization for tissue accretion and other metabolic functions. Protein under nutrition produces long-term negative effects on

growth and neurodevelopment (Nancy et al., 2002). The protein content of mature human milk is approximately 8–10 g/l. The concentration of protein changes as lactation progresses (Jensen,1995).

Vitamin A is a generic term for a group of retinoids with similar biological activity. The term includes retinal, retinol, retinoic acid and substances considered to be pro-vitamin A because they can be transformed into retinol. Among the pro-vitamin A compounds, β-carotene has the highest potential vitamin A activity. The vitamin A content of human milk depends on maternal vitamin A status. Infants of women with inadequate vitamin A status are born with low reserves of vitamin A, and thus their vitamin A status is likely to be protected for shorter periods than the status of infants born with higher reserves (WHO,2002). The mature milk of well-nourished mothers contains approximately 1.7 moles/l vitamin A (National Academy Press,2001).

Apart from that, human milk also contain vitamin D. Vitamin D concentrations in human milk depend on maternal vitamin D status (Specker et al.,1985). Factors affecting vitamin D status include skin pigmentation, season and latitude (Holick et al.,1981). Human milk contains 250–300 mg/l of calcium with no pronounced changes during lactation (Jensen,1985). Generally, maternal diet does not appear to influence the concentration of calcium in milk.

2.3 Hormonal Control Of Milk Production

There are two hormones that directly affect breastfeeding *prolactin* and *oxytocin*. A number of other hormones, such as estrogen, are involved indirectly in lactation (Lawrence,2005). When a baby suckles at the breast, sensory impulses pass from the nipple to the brain. In response, the anterior lobe of the pituitary gland secretes prolactin and the posterior lobe secretes oxytocin.

Prolactin is necessary for the secretion of milk by the cells of the alveoli. The level of prolactin in the blood increases markedly during pregnancy, and stimulates the growth and development of the mammary tissue, in preparation for the production of milk (Hartmann et al,1996). Apart from that, oxytocin makes the myoepithelial cells around the alveoli contract. This makes the milk, which has collected in the alveoli, flow along and fill the ducts in which sometimes the milk is ejected in fine streams (Ramsay et al,2004).

2.4 Advantages Of Breastfeeding

Breast feeding provides all essential nutrients that are important for the development of the brain and nervous system (Olang et al,2009). It is also associated with a decreased risk for many early-life diseases (Olang et al,2009). Furthermore, it has been documented that human milk improves intellectual, neurological, psychomotor and social development (Mubaideen and Al-Saraireh,2006). According to WHO (2002,2004) it recommended that all infants should be exclusively breastfed for the first six months of life and receive nutritionally adequate and safe complementary foods whereas breast feeding should continue for up to two years of age or beyond.

Apart from that, most of the mothers nowadays give their infants feeding through exclusive breast feeding and complementary feeding. Moreover, exclusive breast feeding for six months or more reduces the risk of infection and their associated mortality and morbidity (Hirani and Premji, 2009). Although, WHO recommend exclusively breastfeeding for the first six months of life the impact of this recommendation is unclear worldwide (Wen et al, 2009).

The act of breastfeeding itself stimulates proper growth of the mouth and jaw and secretion of hormones for digestion and satiety. Breastfeeding creates a special bond between mother and baby and the interaction between the mother and child during breastfeeding has positive repercussions for life in terms of stimulation, behaviour, speech, sense of wellbeing and security and how the child relates to other people. Breastfeeding also lowers the risk of chronic conditions later in life, such as obesity, high cholesterol, high blood pressure and diabetes (Henry,2009).

In addition to the benefits gained by a breastfed infant there are also numerous benefits for a breastfeeding mother (Dennis,2002). Breastfeeding results in a more rapid uterine involution and decrease postpartum bleeding as well as enhancing maternal-infant bonding (Weimer,2001). It also cause amenorrhea increasing the time between pregnancies by providing 98% effective protection against conception within the first 6 months postpartum (Dermer,2001).

Breastfeeding may also reduce the risk of breast cancer, ovarian and uterine cancer (Lavin,2001). Breastfeeding has a long-term protective effects on maternal bone mineral density and consequently protects women against osteoporosis (CFPC,2004). Furthermore, mothers who breastfeed are more likely to return to their pre-pregnancy weight than mothers who formula feed (Labbok,2001). Weight loss occurs because breastfeeding mothers burn all average of 500 calories more than formula feeding mothers per day (Dermer,2001).

2.5 Recommendation for breastfeeding Initiation and Duration

Early initiation of breastfeeding is encouraged for numerous reasons. Mothers benefit from early initiation because it stimulate breast milk production and facilitates the release of oxytocin which assists the contraction of the uterus and reduces blood loss. Furthermore, the first breast milk contains colostrums which is highly nutritious and has antibodies that protect against infection and diseases. Colostrum satisfies a newborn thirst and hunger. Lastly, early initiation of breastfeeding also fosters the bond between mother and child (Dennis,2002). The public health organization additionally advocate that after 6 months of exclusive breastfeeding, infants should receive nutritionally adequate and safe complimentary food while breastfeeding continues for up to two years of age or beyond (WHO,2003).

2.6 Policies designed to promote support for breastfeeding

The need for policy makers and health care professional to support and encourage exclusive breastfeeding is emphasized by both the WHO and UNICEF (Humenick& Gwayi-chore,2001). An initial document, *International Code Of Marketing of Breast-milk Substitute* produced by the WHO and UNICEF (1981) was created in response to the realization that poor infant feeding practices were a major cause of mortality in infants and young children(WHO,2008).

The aim of the code was to contribute "to the provision of safe and adequate nutrition for infants by the protection and promotion of breastfeeding and by ensuring the proper use of breast milk substitute when these are necessary on the basis of adequate information and through appropriate marketing and distribution (WHO,1981).

The Baby Friendly Hospital Initiative (BFHI) was launched in 1991 by WHO and UNICEF based on former international documents that outlined breastfeeding policies and practices. Hospital and birthing centers can be given the designation of "Baby Friendly" when all Ten Steps to Successful breastfeeding have been fulfilled. The BFHI is a global initiative aimed at improving maternity services for pregnant women, mothers and infants worldwide and for protection, promoting and support breastfeeding (WHO,2007).

2.7 Global Rates of Breastfeeding

Globally, rates of exclusive breastfeeding have been increasing during the last decade in many countries due to implement programming efforts (WHO,2008). A recent report published by UNICEF entitled " The State of the World's Children 2008" suggests that the percentage of children in the world who are exclusively breastfeeding which less than six months is 38% (UNICEF,2008). This percentage accounts for the decrease rates of exclusive breastfeeding in the least developed countries and elevated rates in industrialized nations.

In Canada, rates of exclusive breastfeeding initiation are relatively high compared with other countries in North America. Breastfeeding initiation rates in Canada have increase steadily with a national average initiation rate of 73% in 1995 (Hillary,2009). More recent national surveys have found that breastfeeding initiation rates in Canada may be closer to 80% (Health Canada,1997). Further, national statistic reveal a breastfeeding duration rate of 35% thus this percentage of women who are exclusively breastfeeding for the recommended six months minimum is relatively high. Various factors likely account for the differing rates of breastfeeding in Canada including urbanization, community and family support instead of cultural traditions and belief as found in other areas of the world.

Apart from that, in East Asia and the Pacific the rate of exclusive breastfeeding for six months is 35.55 ranging from 5% in Thailand to 65% in the Democratic People's Republic of korea (Dennis,2002). In the Philippines, the rate of exclusive breastfeeding fell from 20% in 1998 to 16% in 2003 largely due to in appropriate feeding practice including the use of infant formula (Hillary,2009). However, Cambodia has experienced a rise in women who are exclusive breastfeeding their infants during the first six months of life. The rates have increase from 11% in 2000 to 60% in 2005 (CDHS,2005).

2.8 Prevalence of Breast-feeding in Malaysia`

Infant feeding practices in Malaysia are undergoing considerable changes. As shown from the studies that have been performed in Malaysia the incidence of breast-feeding is increasing slowly. The higher incidence of breast-feeding is mainly in the Malay population both in urban and rural area. According to Yusof et al,1995 the study that were conducted in Kelantan shows that incidence of breast-feeding is quite high among Kelantanese mothers in which 80% of mothers were from urban areas while 20% were from rural areas that is about 95% of the mothers who have children have breastfed their youngest child.

Findings of the NHMS II showed that although the overall prevalence of children ever breastfed in Malaysia was 88.6%, the prevalence of exclusive breastfeeding was only 29.0%, (Fatimah et al., 1999). 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%. The prevalence of timely initiation of breastfeeding in Malaysia in 2006 was 63.7% with a significant increment of 22.3% compared to ten years ago (Fatimah et al.,2010).

According to Fatimah et al.(2010) even though two-thirds of infants were initiated early for breastfeeding and almost all infants were ever breastfed, the prevalence of exclusive breastfeeding among children below six months was low about 15%. Thus, the current breastfeeding patterns are still far from the recommended levels. Compared to other countries in the Southeast Asian region, Malaysia is the country with the lowest prevalence of exclusive breastfeeding.

Besides that, another study conducted by Tan(2009) shown that the prevalence of exclusive breastfeeding was reported by 32.8%, mixed feeding was reported by 14.5% and infant formula feeding was reported by 52.75 among the mother's in Klang, Malaysia. However, the incidence of exclusive breastfeeding in the study conducted by Yadav (2010) showed only 21% while predominant breastfeeding and complementary feeding was higher.

2.9 Hospital Policy related to Breastfeeding

The Baby Friendly Hospital Initiative (BFHI) assists hospital in giving mothers the information, confidence and skills needed to successfully initiate and continue breastfeeding their babies or feeding formula safely and give special recognition to hospital that have done so. This hospital can adopt the BFHI "ten steps to support breastfeeding" as a way to encourage breastfeeding in the Malaysian mother.

According to Sherita(2011) ,the ten steps to support breastfeeding as follow: (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) Helps mothers initiate breastfeeding within 1 hour of birth; (5) Show mothers how to breastfeed and how to

maintain lactation even if they are separated from their infants; (6) Give newborn infants no food or drink other than breast milk unless medically indicated; (7) Practices 'rooming in' allow mothers and infants to remain together 24 hours a day; (8) Encourage breastfeeding on demand; (9) Give no pacifiers or artificial nipples to breastfeeding infants; (10) Foster the establishment of breastfeeding support growth and refer mothers to them on discharge from the hospital and clinic.

CHAPTER 3

METHODOLOGY

3.0 Research Design

This study is conducted to determine knowledge, attitudes and practices towards breastfeeding among mothers in Kampung Baru Nelayan, Tumpat.. The study design is a cross-sectional study.

3.1 Location of study

The location of this research is at Kampung Baru Nelayan Tumpat, Kelantan. Tumpat was chosen as the study area because it is a rural district with one of the lowest socio-economic development in Peninsular Malaysia and it may be a possible factor for the higher rate of breast-feeding (Zulkifli et al.,1996).

3.2 Sample of study

The target population of this study is mothers whether single or married aged 18-55 years old and has experienced of breastfeeding.

3.3 Sampling Method

The sample population was obtained by using a random sampling whereby the respondent that interested to join this survey and fulfilled the inclusion criteria was recruited as a participant. The interviewed was conducted by doing census from house to house. A total of 110 respondents were participated in this study.

3.4 Sampling size calculation

Formula (Daniel, 1999; Ahmad Hashimi Mohammad, 2014) :

$$n = \frac{Z^2 P(1-P)}{d^2}$$

where, n = sample size,

Z= statistic for a level of confidence,

P= expected prevalence or proportion,

and

d= precision

(in proportion of one; if 5%, d = 0.05).

With level of confidence of 95%, Z= 1.96

P = 88 % = 0. 88 :

d= 0.5 (1- P)

= 0.5 (1 - 0.88)

=0.06

$$n = \frac{(1.96)^2 [0.88 (1-0.88)]}{(0.06)^2}$$

n = 112.68

- n ≈ 113

With 10% drop out

$$113 \times 0.1 = 11.3$$
$$\approx 11$$
$$113 + 11 = 124$$

❖ $n \approx 124$ respondent

3.5Inclusion and exclusion

3.51 Inclusion criteria

a) Mothers whether single or married aged 18-55 years old that selected from the Kampung Baru Nelayan, Tumpat.
b) Mothers at least have one child aged up to 2 years.
c) Mothers that has experience of breastfeeding.
d) Mothers that willing to take part in the study and accept the informed consent.

3.52 Exclusion criteria

a) Mothers with infant that has Lactose Intolerance.
b) Mothers that not willing to take part in the study and not accept the informed consent.

3.6 Research tools and measurement of variables

Data were collected using a structured interview (closed-ended questions). The questionnaire consist of 16 questions about KAP has been built by my own based on the literature from other study about knowledge, attitudes and practices towards breastfeeding in Malaysia. The structured

interview has been translated and modified to suit the participants of this study. Face validity and content validity were maintained for the structured interviews.

3.6.*1 Questionnaire*

The questionnaires were administered by the investigator through face to face interview with the mother's. The questionnaire included 3 sections that is demographic, knowledge related to breastfeeding and attitude towards breastfeeding instead of breastfeeding practice. Knowledge question were initially presented in a multiple-choice or true/false format. A 5-point Likert-type scale was used for attitudes question with 5 indicating strong agreement and 1 indicating strong disagreement.

All mothers were asked question regarding their main reasons for either breastfeeding or bottle feeding. Question with five-point Likert rating scale from strongly disagree to strongly agree were used to assess women's knowledge and attitude towards breastfeeding. Questions that evaluated mother's attitude included mothers comfort breastfeeding, costs, effect on care of other family members and effect on marital relationship. Most of the variables under socio-demographic dimension were categorized into two or more categorical variables as the following in Appendix C:

I. Ethnicity : Malay, Chinese, Indian or others
II. Maternal working status: Housewife or Working
III. Maternal education: Primary school, secondary school, Vocational graduates, University graduates
IV. Total household income: Below rm500 or Rm500 and above
V. Total number of children: 3 children and below or 4 children and above