BREAST-FEEDING: PERSONAL AND SOCIAL INFLUENCES

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ABSTRACT

Based on a purposive non-random sample of 20 primiparous and 11 multiparous women who had their delivery at a general hospital, a descriptive study was conducted to explore personal and socio-cultural factors which influence women's choice of an infant-feeding method, and those factors that influence the continuation or cessation of breast-feeding. The women from both groups were interviewed four times with a similarly structured questionnaire - 3-5 days postnatally at the hospital and three times at home until the baby was 12 weeks of age. The first interview covered a retrospective review of the decision about the method of feeding and the present experience of breast-feeding whilst the questions asked at home related to the experience of breast-feeding including reasons for change of feeding method. The last interview concerned feeding experience and the women's perception of the major advantage and disadvantage of the feeding method that they were actually using.

The result showed that all women elected to breast-feed their babies and almost all of them made such a decision prior to pregnancy or at an early stage of pregnancy.

It was found that several aspects of personal characteristics influenced women's choice of infant-feeding. The personal value system, knowledge and experience affect women's decisions to breast-feed whilst coping ability and physical problems affect the continuation or discontinuation of breast-feeding. An analysis of the demographic background failed to indicate any influence on breast-feeding. Within the Socio-cultural context, cultural pratice, advice and help at hospital, and a source of help and encouragement at home, significantly affect choice and continuation of breast-feeding. Encouragement and help with household tasks from partner and family in particular appeared to be an important influence on the continuation of breast-feeding.

Implications for nursing practice and other factors relevant to the Thai situation are derived from the results. These have been discussed and suggestion for change have been made.

CHAPTER 1

INTRODUCTION

Breast-feeding is one of the best and most natural ways of promoting health. It has several advantages over bottle feeding. Nutritionally the quality of breast milk is superior to all other types of milk or formulas (Blane, 1981). Breast-feeding also provides immunologic benefits to the infant (Cunningham, 1977, 1979; Fallot, 1980), enriching maternal-infant interaction (Klaus and Kennell, 1976). Many studies suggest that the incidence of infection, morbidity,and mortality is less amongst breast-fed babies (Cunningham, 1977, 1979; Chandra,1979; Fallot, 1980; Cussen, 1980; Plank, 1973; Pullan, Martin, Gardner, Webb, and Appleton,1980; Downham, 1976; France, 1980).

Although health professionals are stimulated by new research findings on the advantages of breast-feeding, it seems that problems of infant feeding and patterns of malnutrition in early childhood are still common throughout much of the world, particularly the developing countries.

Thailand is one country which encounters these problems, which affect infant health and the economics of the country. Statistics from the National Statistics Bureau in 1982 showed

that infant mortality from diarrhoea and infection was 69 per 1000 population (Department of Family Health, 1982).

Malnutrition among infants and young children occurred in every region of Thailand (Nutrition Devision, Department of Health, 1982). The main cause of this may possibly be attributed to women lacking the knowledge and/or resources to provide suitable alternatives to breast milk. Disadvantages of artificial feeding are compounded by an adverse environment (e.g. poor sanitation), including the inadequate use of supplementary food for older infants (Tantisirin, 1980).

Given the above situation, it is of concern to Thai health professionals, that breast-feeding is on the decline in Thailand in both urban and rural areas. Statistics show that breast-feeding of infants aged 0-2 years dropped from 83% to 63% in rural areas and from 49% to 35% in urban areas between the years 1969-1981 (Kamnuansin, 1982).

Given that breast milk is superior to alternatives and given the declining rate of breast-feeding in Thailand, health teams should develop ways of encouraging success in breast-feeding. To promote any activity requires a knowledge of factors which influence a person to undertake or reject that activity. Those who wish to encourage mothers to breast-feed need to know what factors will influence a mother to choose this method (Hally, Bond, Crawley, Gregson, Philips, Russell, 1984).

Research workers have, however, paid less attention to identifying these factors than to demonstrating the benefits of breast-feeding. Indeed by the mid-1970s the acceptance of these benefits (Addy, 1976) led to the promotion of breast-feeding being advocated internationally (WHO, 1974), while at the same time knowledge of the influences on a mother's choice of feeding method remained limited. The aim of this study is therefore to explore the factors that influence a mother's choice of method of infant feeding, and those factors that influence whether or not breast-feeding is continued.

New Zealand is a good place to study this topic as it is presently experiencing a rising rate of breast-feeding, and provides a useful contrast to Thailand. The proportion of all mothers breast-feeding in New Zealand has increased significantly from 62% in 1972 to 83% in 1982 and the median length of time that breast-feeding continues has also increased. In Palmerston North, in 1983, the rate of breast-feeding for the first month of infancy is 85% (Plunket Society, 1983).

From the results of this exploratory study, it is hoped that a better understanding of the factors which influence a woman's choice of feeding method, and the factors that increase the chance of her continuing breast-feeding will be achieved. This information should be helpful to other researchers in New Zealand

who are concerned with developing a knowledge base for nursing care related to infant feeding. It will also provide a useful base for further work in Thailand.

Purpose:

To contribute to the understanding of factors which influence women's choices of infant feeding methods and which favour the continuation of breast-feeding.

Objectives:

To answer the following questions:

1. When in the pregnancy is the decision about feeding method made?
2. What personal and social factors influence the feeding method decision?
3. How does the actual experience of feeding compare with the anticipation of the experience?
4. What critical experiences, during the first three months, influence the continuation or cessation of breast-feeding?
5. Which of the factors identified, are relevant for application to the Thai situation?

This thesis contains 5 Chapters. In chapter 2 a conceptual framework and a review of the literature with respect to breast-feeding will be presented. Research methodology will be

illustrated in Chapter 3. In chapter 4 research results, in which personal and social characteristics of the sample women are related to breast-feeding phenomena, will be outlined. Discussion, conclusion and implication for nursing practice will be contained in Chapter 5, which is the final Chapter of this report.

CHAPTER 2

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

Breast-feeding, like all behaviour, is influenced by many factors. The difficulty is to categorise the variety of influences. The conceptual framework used in the study was developed from Worrall's (1980)" General Model of the Human Decision Maker". He presents a single frame view of the decision process, which contains 3 major components as follows:

1) Individual Constraints (i.e. needs and motives, intelligence and personality, knowledge and skills, attitudes and beliefs, health and age).

2) External constraints (i.e. interlinked decisions, social pressure, interpersonal communication etc).

3) The Processing Pathway (i.e. perceiving, analysing, and deciding stage, action and feed back).

In this model any decision made by a human has gone through three major steps (processing pathways); perceiving, analysing and deciding. What the decision will be, is determined by Individual constraints and External constraints. Individual constraints are concerned with the psychological make-up which determines, limits, or indeed constrains, the kind of decision one can make. External constraints concern those factors over which the person

has relatively little or no control but which to a varying degree will nevertheless influence the decision.

This framework was found to be useful in organising the literature review and was thus also adopted for the questionnaire design for this study. Table 2.1 shows the framework and structure for the questionnaire design.

Table 2.1 Framework Used for the Development of Structured Interviews

Content	Interview Number 1	2	3	4
A) Personal Factors				
1. Demographic background				
- education, age, occupation and income	X			
2. Personal value system				
- attitudes to motherhood	X			
- attitudes to feeding method	X	X	X	X
3. Knowledge and Experience				
- past experience of babies	X			
- present feeding experience	X	X	X	X
- knowledge concerning breast-feeding areas of knowledge, sources of knowledge	X	X	X	X
4. Coping ability				
- general coping with new experience	X			
- coping with breast-feeding	X	X	X	X
5. Physical factors				
- Problems directly related to breast-feeding	X	X	X	X
- Other problems (e.g. using drugs, contraception)	X	X	X	X
B) Socio-Cultural Factors				
1. Cultural Practice				
- method of feeding; of subjects themselves, used by relatives and friends	X			
2. Lifestyles;				
- at home		X	X	X
- membership of organisations	X			
- employment for pay	X		X	X
- hobbies	X	X	X	X
- smoking	X			
3. Social contact;				
- sources of information; people (professional, family), book etc.	X	X	X	X
- Sources of help with baby and other tasks	X	X	X	X
- Sources of encouragement	X	X	X	X

The following studies, undertaken in a number of different countries within different subcultures, have shown many commonalities. Because of the variety of countries referred to, the country from which the sample taken is put in brackets.

1. WHEN DO WOMEN CHOOSE AN INFANT-FEEDING METHOD?

In Western cultures, most women select the method of infant-feeding in a early stage of pregnancy i.e., before their first hospital appointment for antenatal care, or even before pregnancy. (Eastham, Smith, Poole, Neligan, 1976, Newcastle UK; Jones & Belsey, 1977, Inner London; Mackey & Fried, 1981, Ottawa Canada; Beske & Garvis, 1982, Minneapolis USA; Ekwo, Dusdieker, Booth, 1983, a Midwestern University town USA; Hally, Bond, Crawley, Gregson, Philips, Russell, 1984, Newcastle UK).

Eastham et al. (1976) investigated some of the factors which led 100 women to decide to breast-feed their babies and 100 comparable mothers to decide to bottle-feed. They found that about 50% of the women in both groups considered that they had decided how they would feed their babies before the start of pregnancy, with only about 15 percent of women having decided during the third trimester and after delivery. In addition, a study of 50 women by Mackey and Fried (1981) found that 42 of the 50 women had determined the method of infant-feeding prior to the start of the pregnancy, with 11 of 42 mothers stating they had

decided prior even to marriage. They found no differences in the decision time concerning the duration of feeding between mothers who had decided to breast-feed or bottle-feed.

However, Bloom, Goldbloom, and Stevens (1982a, Nova Scotia Canada), in a study of 539 women, found that the mothers who decided to breast-feed had a higher ratio of making their feeding choice before pregnancy than those who decided to bottle-feed (73% and 53% respectively). With a larger sample size this study was likely to produce to some extent a more accurate result than others.

2. POSSIBLE FACTORS INFLUENCING WOMEN'S CHOICE OF FEEDING METHOD

Many studies have indicated that the choice of infant-feeding method is associated with complex personal and socio-cultural factors. These factors are presented as follows.

2.1 Personal Factors

2.1.1 Demographic factors

Previous studies have shown that the choice of breast-feeding is positively related to several personal characteristics such as maternal age, education, parity, and socio-economic levels.

Mothers who choose breast-feeding are significantly older, more highly educated and had a higher occupational status than those who choose formula feeding (Bloom et al., 1982a, Nova Scotia

Canada). This finding is similar to others (Bacon and Wylie, 1976, Newcastle UK; Jeffs 1977, London UK; Yeung, Pennell, Leung, Hall, 1981, Toronto Montreal Canada; Hally et al., 1984, Newcastle UK). Bloom et al. (1982a) found that breast-feeding mothers have a higher education than formula-feeding mothers in terms of the average years of study (13.6, and 11.6 respectively).

Breast-feeding is much less likely to be the choice of mothers who are younger than 20 years old. Brimblecombe and Cullen (1977, Exeter district UK) found that 31% of mothers who were under 18 years old breast-fed their babies while 42% and 52% of mothers who were 18-26 years old and 25-29 years old respectively breast-fed.

Parity is also a major influence on infant-feeding choice. It is apparent that primiparous women are more in favour of breast-feeding than bottle-feeding which is in contrast to multiparous women who have shown lower ratios of breast-feeding. According to Bacon and Wylie (1976, Newcastle UK), 50% of primiparous women choose breast-feeding but only 33% of multiparous women choose this method. This finding is similar to a study by Brimblecombe and Cullen (1977, Exeter district UK). Both studies seem to occur during the period of an increasing tendency to breast-feeding. With the pattern of breast-feeding changing world wide, many more women in Western society wish to breast-feed than in previous decades.

Houston (1981) showed that the effect of social class on both the decision to breast-feed and the duration of breast-feeding is evident in a large number of studies in Western society. In particular, the upper social classes more often choose to breast-feed and are more successful than the lower social class groups in terms of length of breast-feeding.

In developing countries, the effect is the opposite (WHO 1979) with the trend among the economically advantaged in developing countries being toward more bottle-feeding and the early discontinuation of breast-feeding.

However, social class, maternal age, education, and parity of mothers are related. Women of higher social class are likely to have a longer education and thus will be older when they start a family, which will, on average, be smaller (Bacon and Wylie 1976, Newcastle, UK; Smith, 1985, USA). Nevertheless, recent studies in USA (Martinez and Nalezienski 1979; Smith 1985) showed an increasing movement in all social classes toward breast-feeding. Smith (1985) found that the proportion of infants breastfed who were born in 1974-1976 was increasing rapidly, with the highest rates found among white, college-educated, western mothers and the lowest rates among black mothers and mothers with less than a high school education. Reviewing the changes between 1971-1981, the proportion of mothers with less than a college education who

breast-fed their children increased from 19% to 51% over the decade, while the proportion among college-educated mothers rose from 42% to 74%.

The one study that dose not show the above trends (Mackey and Fried 1981, Ottawa Canada) was based on a sample of 50 women where only 4 expressed an intention to bottle-feed. The researchers stated that there were "no particular characteristics that appeared to differentiate between the breast-and non-breast feeding women," in spite of immediately prior to this stating that statistical comparison was not possible. Little information is given in the study concerning the variability to be found in the sample concerning social class factors. Additionally, Golub (1978, New York USA) made a study of 41 samples (20 breast-feeding and 21 bottle-feeding mothers) and found that the samples were very similar with regard to age, parity, education and socio-economic status. This may be due to the relatively small number of mothers sampled.

2.1.2 Knowledge, Attitude and Previous Experience of Feeding Method

Knowledge of the advantages of breast milk, a positive attitude towards feeding, and experience with a previous child seem to be important factors in mothers' choice of an infant-feeding method.

Many studies show that the mothers' knowledge that breast-feeding is the best for the nutritional, the physical and psychological

health of the infant is the main reason for mothers choosing to breast-feed (Brimblecombe and Cullen, 1977, the Exeter district UK; Mackey and Fried, 1981, Ottawa Canada; Yeung et al., 1981, Toronto and Montreal Canada; Rousseau, Lescop, Fontaine, Lambert, Roy, 1982, Montreal Canada; Ekwo et al., 1983, Iowa City USA; Gunn, 1984 in Auckland NZ).

For instance, Ekwo et al.(1983) studied factors that motivated 72 mothers to initiate breast-feeding. They found that 33% of primiparous and 36% of multiparous women chose breast-feeding because they believed that breast-milk would provide protection against infection for the infants whereas the primiparous and multiparous women (33%) believed that breast-feeding would result in maternal-infant bonding. Additionally, 45% of primiparous and 8% of multiparous women believed that breast milk provided better nutrition than bottle feeding. This is more likely to encourage the mothers to choose the breast-feeding method rather than the other.

However, Jones and Belsey (1977, Inner London) found that 50 out of 100 women who had decided to bottle-feed knew that breast-feeding was healthier for their babies. Their reason given for choosing bottle-feeding was that they disliked the idea of breast-feeding (no explanation given). Negative attitudes about from the human breast are associated with the selection of bottle-feeding. Several studies indicate that feelings of

squeamishness or embarrassment about breast-feeding is an important factor influencing decisions whether to breast-or bottle-feed. In a study in London, Jeffs (1977) found that one-third of women who bottle-fed thought that women should not breast-feed even with their husband present, while the breast-feeding group of mothers showed a markedly more liberal attitude towards the acceptability of breast-feeding with other people present. They thought that women should feel able to breast-feed discretely in public.

In addition, Bacon and Wylie (1976, Newcastle UK) discovered that many mothers who chose bottle-feeding stated that they would not want to be seen breast-feeding even by their parents, children, or close friends. The embarrassment of breast-feeding was the commonest reason given for selecting to bottle-feed (Bacon and Wylie 1976, and Eastham et al., 1976, Newcastle UK). This shows some evidence of inhibition which probably contributed towards their decision not to breast-feed. However, a study in New Zealand (Gunn, 1984) reported that only 5% of mothers were worried by a lack of privacy. In addition, the intention of having a baby seems to affect mothers' choice of infant-feeding method. While (1985), in her study, indicated that the mothers who had unplanned pregnancies were associated more with bottle-feeding.

Brown, Lieberman, Winston, Pleshetten (1960) also reported a number of significant attitudinal differences between two groups

of mothers studied. The bottle-feeding mothers believed breast-feeding made breasts less attractive and emphasized their desire for the freedom and convenience of the bottle. Breast-feeding mothers believed that breast-feeding was more attractive to their husbands and more enjoyable for the baby (From Golub, 1978).

Several studies indicate that previous experience affects the mother's choice of feeding method. Previous feeding methods tend to be repeated again: mothers who have breast-fed successfully before are prepared to do so again. Those who have previous difficulties (such as mother's health problem, fatigue after feeding, sore nipples and painful engorgement, not enough milk) and those who have only bottle-fed before are much more likely to choose bottle-feeding (Eastham et al., 1976, Newcastle; Bacon and Wylie, 1976, Newcastle UK; Jeffs, 1977, London UK; Brimblecombe and Cullen 1977, Exeter District UK; Jones and Belsey, 1977, London UK; Yeung et al., 1981, Toronto and Montreal Canada).

Jeffs (1977) examined factors which influence 130 mothers as to infant-feeding methods. The study showed that of mothers who had bottle-fed a previous baby, 67% were bottle-feeding the new baby, and of those who had breast-fed a previous baby, 60% were breast-feeding again. She also found that mothers were significantly more likely to breast-feed if they had seen other babies being breast-fed in earlier years. This finding is similar to others

(Hally etal., 1984, Newcastle UK; Gunn, 1984, Auckland NZ). Thus, given that primiparous women are more likely to breast-feed than multiparous women, it would seem that difficulties with feeding the first infant leads to a change in feeding method with subsequent infants.

2.2 Socio-Cultural Factors

Socio-cultural influences play an important part in mothers' decisions whether to breast-feed or formula feed. Mothers across a number of studies stated that more than one person had been influential in their decisions concerning infant feeding. Although it is difficult to assign relative importance, one major influence on mothers' choice of feeding method is the knowledge of how they themselves had been fed. The habits of one generation tended to be passed to the next within a particular family (Brimblecombe and Cullen, 1977, Exeter District UK). According to Hally et al. (1984, Newcastle UK), breast-feeding was more likely to be chosen by mothers who knew that they had themselves been breast-fed. This finding is similar to other studies (Bacon and Wylie, 1976, Newcastle UK; Brimblecombe and Cullen, 1977, the Exeter district UK; Bloom et al., 1982a, Nova Scotia Canada; Beske and Garvis, 1982, Minneapolis USA).

Another major influence on mothers is the knowledge of relatives' and friends' choices of feeding methods. These have a positive relationship with the method of feeding chosen. The experience

of friends and relatives have been shown to be strongly correlated with feeding method chosen (Jones and Belsey 1977, and Jeffs 1977, London; Bloom et al., 1982a, Nova Scotia Canada; Gunn 1984, Auckland NZ). Women with friends who had breast-fed successfully were most likely to choose this method, whereas those whose friends had problems with breast-feeding were more likely to bottlefeed.

Additionally, husbands' attitude to breast-feeding also, to some extent, influenced the method of feeding chosen (Jeffs, 1977, London; Martin, 1978, UK; Palti, Vardi, Palti, Pevsner, Pridan, 1980, Israel; Gunn, 1984, Auckland NZ). According to Gunn (1984) more of the mothers who chose to breast-feed than those who chose to bottle-feed were encouraged by the father of their baby. Eighty six percent of breast-feeding mothers were encouraged by the father of their baby who preferred breast-feeding while 19% of bottle-feeding mothers mentioned that husbands preferred breast-feeding. Friends were more often named than were husbands as most influencing the decision on how to feed the baby (Sloper, Mckean, Baum, 1975, Oxford UK; Brimblecombe and Cullen, 1977, Exeter District UK; Sinniah, Chon, Arokiasamy, 1980, Kuala Lumpur Malaysia; Mackey and Fried, 1981, Ottawa Canada; Ekwo et al., 1983, Mid Western USA). Self-influence is also significantly related to the choice of infant-feeding than other (Bacon and Wylie, 1976, Newcastle UK; Brimblecome and Cullen, 1977, Exeter District UK; Yeung et al., 1981, Toronto and Montreal Canada).

It may be concluded that while the husbands, the self and the friends are influencial, the research results differently indicate that the relative importance of these factors. Therefore, it is difficult to point out which factor most influenced on women's decision concerning infant-feeding.

Not only immediate family and friends but health professionals and mass media appear to have an impact on mothers' choices of infant-feeding methods (Sloper et al., 1975, Oxford UK; Bacon and Wylie, 1976, Newcastle UK; Brimblecombe and Cullen, 1977, Exeter District UK; Yeung et al., 1981, Toronto and Montreal Canada; Rousseau et al., 1983, Montreal Canada).

According to Sloper et al. (1975), 24% of 145 women noted that the health visitor, district nurse and midwife were the main influences on their decision to breast-feed their babies. Additionally, Jeffs (1977, London UK) reported that 46% of 130 mothers had read about infant-feeding, and of the breast-feeding mothers, 56% had read compared with 29% of the bottle-feeding mothers. Several studies also indicated that mothers who received advice from or consulted health professionals tended to breast-feed more than those who did not (Eastham et al., 1976, Newcastle UK; Jeffs, 1977, London UK; Yeung et al., 1981, Toronto and Montreal Canada).

However, Mackey and Fried (1981, Ottawa Canada), in a study of 50 randomly selected samples, found that health professionals did not influence women's decisions concerning feeding methods. It is not surprising that health professionals have a somewhat reduced influence on the maternal decision to initiate breast-feeding as most of the mothers in many studies decided to breast-feed either before they were pregnant or as soon as they knew they were pregnant (See page 9).

However, it is difficult to determine the influence of either health professional advice or mass media on mothers' choices of infant-feeding methods. For example, Jeffs (1977, London UK) argued that it was hard to assess whether the classes and reading influenced their decisions to breast-feed or whether their pre-determined choice of breast-feeding led these mothers to seek more information about it. A study by Dawson, Richardson, Carpenter, Blair, McKean (1979, Tauranga NZ) showed that mothers who did not breast-feed sought little advice while on the other hand mothers who breast-fed had sought more advice both during pregnancy and in the maternity annexe.

As a part of making the decision, Tough (1982) studied intentional changes that people achieve in themselves and their lives by interviewing 330 men and women. He found that people are remarkably successful at choosing, planning, and implementing intentional changes, with most help being obtained from friends

and family rather than from books or professionals. The finding showed that 68% of the people were themselves involved in choosing the change, with 25% of non professionals (friends, family, neighbours, etc) contributing to the choice of the particular changes. Professionals accounted for only 3%, and books and other non human resources for 4%.

2.3 Lifestyle

This section reviews research from previous studies. Here, lifestyle is presented only from the aspects of women working, social life, and cigarette smoking habits. Other aspects of lifestyle, especially interaction with others, is dealt with in the next section of this chapter.

Lifestyle is a part of the influence on a mother's choice of infant-feeding method. Rousseau et al. (1982) in a prospective study of 150 mothers in Montreal, Canada showed that the mothers who breast-fed were more likely to be working outside the home than the other groups (55% and 37% espectively). They were also more likely to be social drinkers than the other group. A few studies also reported that less than 15% of mothers mentioned returning to work as a reason for their choice of bottle-feeding (Jeffs, 1977, London UK; Bloom et al., 1981a, Nova Scotia Canada). However, Eastham et al. (1976, Newcastle, UK) reported that only 4% of mothers in each group intended to go back to work within 3 months and none gave this as a reason for their choice

of feeding method. Similarly, Mackey and Fried (1981, Ottawa Canada) found that no relationship was established between either a specific type of occupation or future work plans and the feeding method chosen. However, the sample of this study was only 50 women out of which 4 selected bottle-feeding. This raises the problem of sample size.

However, future work plans were found to be related to the anticipated use of formula supplements. Sixty two percent of the mothers who intended to return to work planned to supplement their babies' feeding with formula, thereby allowing them to breast-feed regardless of work plans. Work was also found to be associated with mothers' plans of the length of time to breast-feed. The mothers who were at home during pregnancy planned to nurse their babies for an average of 10 months while those women who had worked outside the home planned to nurse for 5.79 months. (Mackey and Fried 1981).

Women's work role certainly influences breast-feeding, but the rate of breast-feeding depends on the context in which the work is carried out, not on whether the women work. In cultures that permit the baby to accompany his mother to work, there is little interference. Some non-western cultures - both simple and complex- depend heavily on women in the labour force. Yet breast-feeding flourishes for two or more years with each baby because the work does not separate the baby from his mother

(Newton, 1968). Therefore, the incidence of breast-feeding changes with changes in social attitudes and values. Moreover, a survey of 200 mothers in Newcastle England (Bacon and Wylie, 1976) showed that many mothers who intended to bottle-feed mentioned that the convenience of bottle-feeding allowed them more social life.

Mothers who are cigarette smokers have a greater tendency to bottle-feed than mothers who are non smokers. According to a study of 187 mothers in Montreal Canada (Rousseau et al., 1982) 50% of smoking mothers chose bottle-feeding, with only 22% of this group choosing breast-feeding. Yeung et al. (1981) in a longitudinal survey of 403 mothers in Toronto and Montreal, found that 42% of smokers chose bottle-feeding while only 23% of non-smoker chose this method. However, the researchers noted that the underlying factors that deter cigarette smokers from breast-feeding are not clear, with only two mothers indicating that they chose not to breast-feed to protect their infants from possible harmful effects of cigarette smoking.

3. REASON FOR CHOICE OF A FEEDING METHOD

It is important in studying breast-feeding to separate the perceptions of the researchers from those of the women studied. The earlier section, studying factors that influence breast-feeding, reflects the perspective of the researchers. This section reflects the view of the subjects. In practice there is often overlap between these two perceptives leading to unavoidable repetition. Reasons given by mothers for their choice of feeding method are reported in many previous studies. Most women gave more than one reason for their choice of feeding method. These reasons reflect socio-cultural factors which influence their decision. They can be summarized into 5 major categories; 1) advantages of feeding method for mothers and babies 2) general feeling; 3) experiences; 4) necessity and 5) advice/literature. This order of presentation reflects the relative frequency with which each of categories was mentioned by the subjects.

3.1 Advantages of Feeding Method for Mothers and Babies

Breast-feeding mothers are most likely to cite the main advantage of breast-milk (i.e. it is best or better for the baby's health) as their reason for choosing to nurse (Bacon and Wylie 1976; Eastham et al., 1976; Jeffs, 1977; Jones and Belsey, 1977; Hally et al., 1984, England; Golub, 1978, New York; Ekwo et al., 1983, Iowa City USA; Yeung et al., 1981; Bloom et al., 1982a, Canada; Gunn, 1984, New Zealand).

Yeung et al. (1981) found that 31% of 403 mothers indicated the main reason for choosing to breast-feed was because it was healthier and better for the baby than formula. They also reported that the presence of immune properties in breast-milk was mentioned by 12.5% of the mothers as a reason to breast-feed. A few mothers also mentioned its ease of digestion, and faster involution of the uterus (3.4% and 0.9% respectively).

The convenience of breast-feeding was the second most cited reason (Yeung et al., 1981, Toronto and Montreal Canada). This finding is similar to other studies (Bacon and Wylie, 1976, Newcastle and Jones and Belsey, 1977, London UK). Economic factors were also cited by some mothers (60%) as their reasons for choosing breast-feeding (Golub, 1978, New York USA).

The reasons given by bottle-feeding women are more likely to be the advantages for mothers, rather than those for babies. Jones and Belsey (1977) found that about half the bottle-feeding mothers (N = 100) stated that bottle-feeding was more convenient. This finding was also supported by other studies (Bacon and Wylie, 1976, Newcastle UK; Golub, 1978, New York USA; Yeung et al., 1981, Toronto and Montreal Canada). Besides, many mothers added that bottle-feeding allowed them more social life. Another advantage of bottle-feeding mentioned by mothers who intended to bottle-feed was that they knew how much milk the baby was getting at each feed (Eastham et al., 1976, Newcastle UK).

In Thailand, Channimitsri (1983, Bangkok) studied 150 mothers and found that 65% of breast-feeding mothers selected breast-feeding because of the baby's health benefits but 68% of bottle-feeding mothers mentioned the necessity of resuming work as their reason for their choice of method.

3.2 General Reasons for Choice

General feeling of closeness and warmth between mother and baby, and naturalness of breast-feeding were mentioned as a reason for choosing breast-feeding (Eastham et al., 1976, Newcastle UK; Jones and Belsey, 1977, London UK; Yeung et al., 1981, Toronto and Montreal Canada). For instance, Eastham et al.(1976) found that 32% of 100 mothers mentioned that breast-feeding was the natural thing to do and 15% stated the emotional closeness to the baby as the most important reason for choosing the feeding method. In addition, general feeling of maternal instinct was stated by 23% of 130 breast-feeding mothers and the feeling of enjoyment in breast-feeding was mentioned by 5% of mothers as their reason for choosing breast-feeding (Jeffs, 1977, London UK). Emotional satisfaction was also reported by some breast-feeding mothers as their reason (Bacon and Wylie, 1976, Newcastle UK; Ekwo et al.,1983, Iowa City USA).

By contrast, in the group of bottle-feeding mothers, 54% of them disliked the idea of breast-feeding (Jones and Belsy, 1977,

London UK). The feeling of embarrassment when breast-feeding was another main reason given for choosing the bottle (Bacon and Wylie, 1976; Eastham et al., 1976 and Hally et al., 1984, Newcastle UK). According to two studies in Newcastle (Bacon and Wylie, 1976; Hally et al., 1984) 45% of mothers claimed that they chose bottle-feeding because they would have been embarrassed by breast-feeding. Similarly, Eastham et al. (1976) found that not only embarrassment about breast-feeding but also a fear of losing one's figure was reported by a few women as a reason for choosing bottle-feeding.

3.3 Experiences with Breast-feeding

Success in breast-feeding with a previous child is more likely to be a reason for multiparous women to do it again, but failure with previous children leads mothers to choose bottle-feeding (Jones and Belsey, 1977, London UK; Yeung et al., 1981, Toronto and Montreal Canada).

According to Jones and Belsey's work, 19% of mothers claimed that they chose bottle-feeding because there were problems in breast-feeding with previous children. Therefore, it seems that previous failures with breast-feeding are more likely to encourage women to bottle-feed. Besides, Jones and Belsey (1977) also reported that friends' problems in breast-feeding was mentioned by 10% of mothers as a reason for choosing to bottle-feed. However, Golub (1978 in New York) found that the

experience of others was mentioned by breast-feeding mothers more than bottle-feeding mothers (60%, 24% respectively) as a reason for choosing the feeding method.

3.4 Necessity

Necessity to return to work is given as a reason for not breast-feeding (Jeffs, 1977, London; Bloom et al., 1982a, Nova Scotia Canada). Bloom et al. (1982a) found that 13% of bottle-feeding mothers gave the return to work as a reason for their decision to bottle-feed and this reason was not found among those who had selected breast-feeding.

In addition, a mother's health problems was also mentioned as the reason for choosing bottle-feeding (Jeffs, 1977; Jones and Balsey, 1977, London UK; Yeung et al., 1981, Toronto and Montreal Canada).

3.5 Advice/Literature

A few studies report that mothers cited advice/literature (i.e. professional's advice, family and friends' advice, husband's advice/support, and reading from books) as a reason for choosing the feeding method (Jones and Belsey, 1977, London UK; Golub, 1978, New York USA; Bloom et al., 1982a, Nova Scotia Canada).

Bloom et al. (1982a) reported that more breast-feeding than formula feeding mothers gave advice/literature as reasons (38.1%,

12.2% respectively). They also found that 15% of breast-feeding mothers mentioned reading from books that breast-feeding is best for the health of babies and mothers were encouraged to choose it but only 1% of the other group mentioned this.

As mentioned earlier, professional advice has played a minor role in influencing mothers in their decisions about infant-feeding whether to breast feed or not. Golub (1978, New York USA) found that about half of each group of mothers cited professional advice as their reason for choosing a particular method.

4. FACTORS ASSOCIATED WITH CONTINUING TO BREAST-FEED AND EARLY CESSATION OF BREAST-FEEDING

4.1 Personal Factors

4.1.1 Demographic factors

The groups of mothers who breast-feed longer and the mothers who either do not attempt or fail to breast-feed have certain distinguishing personal and social characteristics.

Education has been found to be a universal factor not only in the choice of breast-feeding but in its duration (Sjolin, Hofvander, Hillervik, 1977, Uppsala Sweden; Hofvander,Petros-Barvazian 1978, WHO, 1979; Pursall, Jepson, Smith, Emery, 1978, Sheffield UK; Starling, Fergusson, Horwood, Taylor, 1979, Christchurch NZ; Bloom et al., 1982b, Nova Scotia Canada; Yeung et al., 1981 and

Rousseau et al., 1982, Montreal Canada). According to Yeung et al. (1981) the mother's education had a significant association with the duration of breast-feeding (i.e. more or less than 3.5 months). More mothers with higher levels of education breast-fed their infants for 3.5 months (or more) than mothers who received lower levels of educations. There are many reasons why more highly educated women continue to breast-feed longer than other women. First, they are for the time being more motivated. Second, they are also in a position to obtain information on the management of breast-feeding. Third, the jobs held by the more highly educated women are often of a kind that are compatible with the demands of breast-feeding such as flexible working hours; understanding employer; possibilities for taking at least some of the work home; and for taking the baby along to the place work (Helsing and King 1982).

However, Hall (1978, Mississippi USA) in a study of 40 breast-feeding women, found that there was no significant difference in success (still nursing at 6 wks) when related to their education. Since the sample was relatively small such a conclusion is questionable.

Previous studies also suggested that maternal age may affect the continuation of breast-feeding. Mothers who were older tended to breast-feed longer than the younger mothers (Sjolin et al., 1977, Uppsala Sweden; Martin, 1978, England and Wales; Beske and

Garvis, 1982, Minneapolis USA). According to Sjolin et al. (1977), a study of 320 mothers found that mothers who were 25 years of age or older were inclined to breast-feed longer than the younger mother (i.e. 47% of the older mothers nursed more than 2 months compared with 27,2% of the younger ones). However, West (1980, Edinburgh UK) who studied 239 mothers, found that maternal age had no significant influence on the duration of breast-feeding.

There was no evidence that the number of pregnancies (parity) as such influenced the mother's success with lactation. (Sloper et al., 1975, Oxford UK; Sjolin et al., 1977, Uppsala Sweden; Starling et al., 1979, Christchurch NZ; Whichelow, 1979, Cambridge UK; Hart, Bax, Suejenkins, 1980, London; West, 1980, Edinburgh UK; Gunn, 1984, Auckland NZ). For instance, in a study of 533 mothers, West (1980) found that parity did not influence the duration of breast-feeding, the continuation rates at 12 weeks being 60% for the primiparous women and 57% for the multiparous women. However, a study of 539 mothers in Nova Scotia, Canada (Bloom et al., 1982b) showed that the duration of breast-feeding was related to parity in that multiparous mothers continued breast-feeding longer than did primiparous mothers (mean 17.0 and 13.5 weeks).

The effect of social class on the continuation of breast-feeding is evident in many studies in England (Sloper et al., 1975,

Oxford; Langford, 1978, Great Britain; Whichelow, 1979, Cambridge UK; Hart et al., 1980, London; West, 1980, Edinburgh UK). West (1980) indicated that the continuation of breast-feeding was significantly influenced by social class, with 68% of the 124 mothers from social class I, II, III (non-manual), still breast-feeding at 12 weeks, compared wtih 45% of the 92 mothers from social class III (manual), IV and V.

Helsing and King (1982) explained why social class seems to influence the continuation of breast-feeding in this way. Women in social groups III and IV, that is working-class women, usually have less education. They face stronger competition for jobs. It is much more difficult for them to demand special services from their employees, especially when their demands are not backed up by legislation. Further, their work places are often less suitable for having a baby around, even were it allowed. And taking their work home is rarely possible, they may have to travel a long way to work, and so they can not go home to nurse a baby during breaks (Helsing and King, 1982).

4.1.2 Knowledge, Attitude, and Experience of Breast-feeding

The lack of knowledge about the physiology and techniques of breast-feeding often results in early cessation for many women (Ladas, 1970, New York USA; Sloper et al., 1975, Oxford; Bacon and Wylie, 1976; Eastham et al.,1976, Newcastle UK; Sjolin et al., 1977, Uppsala Sweden). Mackey and Fried (1981, Ottawa

Canada) found that the knowledge of breast-feeding was positively associated with unsupplemented breast-feeding at 6 weeks postpartum.

It is common for health professionals to assume that because there is a positive association between attendence at antenatal clinics and breast-feeding, that this relationship is a causal one. However, both are positively associated with education which could also be claimed as the causal variable. This is supported by a study of 249 breast-feeding mothers by Bloom et al. (1982b, Nova Scotia Canada) which indicated that mothers who had attended a prenatal breast-feeding class had higher education and socio-economic status than those who did not attend.

The mothers' preparation for breast-feeding seems to be associated with continuation of breast-feeding. A quasi-experimental design of 40 chosen primiparous women done by Wiles (1984, Ohio USA) showed that mothers who received prenatal breast-feeding education reported a significantly higher frequency of continuation of breast-feeding (beyond one month postpartum) than those who did not attend. The breast-feeding education class included information on the anatomy of the lactating breast, physiology of lactation, the advantages of breast-feeding for mother and infant, prenatal breast care, the mechanics of breast-feeding, self care for the breast-feeding mother, possible set backs early in breast-feeding and their

treatments, breast-feeding and the working mother, and resources for the breast-feeding mother. This finding is also supported by a study by Bloom et al. (1982b) which showed that the average number of weeks of breast-feeding was longer for both mothers who had attended all of their prenatal classes and who had attended a prenatal breast-feeding class. The understanding of breast-feeding will help mothers to become confident about their ability to breast-feed, (Derek, 1983). Spitzer, Palgi, Ben-dor, Ovadia, Reisner (1980, Iserael) found that mothers who had confidence regarding the amount of milk available, had a positive influence on the length of breast-feeding. Confident mothers were significantly more successful in breast-feeding over 3 months.

Attitude to breasts seems to be indirectly related to the mothers' ability to breast-feed their babies for an adequate length of time. In Western or urban society, the breasts is often perceived as primarily a sexual symbol rather than for feeding babies (Jelliffe and Jelliffe, 1978). Some mothers have developed a negative body image concerning breast-feeding and for them, this procedure is a disgusting or degrading act (Taggart, 1976). Therefore, a new mother may not be at all comfortable about exposing her breasts to anyone except the baby. This may interfere with her lifestyle, particularly her social life and pattern. Some women fear that breast-feeding will change the shape of their breasts, and hence it is threatening to their notions of continued attractiveness (Weichert, 1975; Helsing and

King, 1982). This is supported by a study of Masters and Johnson (1966, USA), who found that 13 out of 25 women (52%) who rejected breast-feeding post partum reported this to be the case.

By contrast, women who have a positive attitude to breast-feeding tend to breast-feed longer than those who have not (Barnes and Barnes, 1976, Nottingham UK). Similarly, Sjolin et al. (1977, Sweden) also found that mothers who enjoyed their breast-feeding nursed longer than those who did not.

Previous breast-feeding experience has been shown to be important in affecting the duration of breast-feeding. Jones and Belsey (1977, London UK) found that of mothers who breast-fed a previous child for less than 2 weeks, 41% did not breast-feed the new babies, and 44% breast-fed less than 6 weeks. For those who had successfully breast-fed a previous infant, 52% did so again and continued more than 6 weeks. This finding is supported by other studies (Barnes and Barnes, 1976, Nottingham UK; Sjolin et al., 1977, Uppsala Sweden; West, 1980, Edinburgh UK). Therefore, feeding problems with one baby seem to influence mothers against trying to breast-feed a subsequent child.

Moreover, Jones (1984, Wales UK) also found that the nature of mothers' previous experience of infant-feeding was associated with the prevalence of problems. Among multiparous women, those who previously had breast-fed successfully were less likely to

have problems than those who had attempted breast-feeding but who had failed. These women did not fare differently from mothers of first babies.

4.1.3 Paid Employment

There is no clear evidence that the work factor influences the duration of breast-feeding. Helsing and King (1982) indicate that in urban society where unemployment is a problem, mothers tend to use shorter breast-feeding, and bottle-feeding is common. This could be because mothers may wean their babies in order to be free to look for a job. Although one of the reasons for bottle-feeding is always assumed to be a way to liberate women to income-earning activities, precise data of how often mothers of young children actually do hold a paid job can be rarely found. In a literature review by Almroth (1976), it is found that employment was given as the reason for weaning by an average of only 6% of mothers surveyed in different parts of the world. In a western country, Montreal Canada, Rousseau et al. (1982) studied 187 mothers and reported that less than 20% of the mothers mentioned returning to work as their main reason for weaning their baby.

However, studies in some developing countries have indicated that working has to an extent an influence on the duration of breast-feeding. In Colombia, 47% of a series of mothers had stopped breast-feeding because they were working, while in another study

in New Delhi, only 6% were doing so (Berg, 1973). In Malaysia, Sinniah et al. (1980 in Kuala Lampur) surveyed infant feeding practices among 317 nursing staff of all categories in both urban and rural areas. They found that 85% of women discontinued breast-feeding once they resumed work, generally six weeks after delivery. They found it difficult to combine full time work and breast-feeding, especially, when they were away from home for long periods.

On the contrary, Frengen and Joner (1976) found that the frequency of breast-feeding in one of the largest towns in Norway was far higher among women who had held a paid job prior to the birth of the baby, than among those who had worked only at home. At 5 months, 33% of the former and 23% of the latter were breast-feeding. It is also found that among the women who had held paid work, the frequency of breast-feeding increased with higher social status. Among working mothers in social groups I and II (academics, business, and other professionals), 50% were still breast-feeding after 5 months, compared to 22% of working mothers in social groups III and IV - industrial workers and service jobs (Helsing and King, 1982).

It appeares that in lower social classes continuation of breast-feeding is more likely to be affected by work demands, since mothers in lower classes usually have more physical jobs and inflexible working hours where their work places are often less

suitable for having a baby near them. On the other hand, higher social class mothers may have less difficulty in continuing breast-feeding for the same reasons. This can be supported by a study by Bergman and Feinberg (1981) in Israel showing that accademics breast-fed longer than unskilled workers (2.46 and 1.57 months respectively).

4.1.4 Smoking

It has been demonstrated that cigarette smoking habits have a significant influence on the duration of breast-feeding. Cigarette smokers terminated breast-feeding significantly earlier than non cigarette smokers - 2.7 months, and 4.1 months respectively (Yeung et al., 1981). This finding is similar to other previous studies (Meyer, 1979; Whichelow and King 1979).

4.1.5 Physical Factors

A mother's physical health has been found to be an important factor effecting the length of breast-feeding. Physical problems such as inverted, flat or painful nipples, maternal fatigue, and breast complications are a reason for stopping breast-feeding (Ladas, 1970, New York USA; Starling et al., 1979, Christchurch NZ; Whichelow, 1979, Cambridge UK; West, 1980, Edinburgh UK). Spitzer et al. (1980, Israel) also found that none of the mothers who developed mastitis or other infections fed for more than three months.

The duration of breast-feeding is also related to the mother's experience during the birth of the child. Jackson, Wilkin, Auerbach (1956) suggested that the more difficult the labour, the less successful the breast-feeding. This suggestion receives support from a study by Bernal and Richards (1970). They found that more medication and a longer labour affect the success of breast-feeding. They indicated that drugs given in labour led to altered interaction between mother and infant in the first 10 days, such as altered sucking patterns and more difficult feeding interactions. A direct correlation has also been made with the amount of medication and anesthetic given during labour and delivery and subsequently the sleepiness of the infant and ultimately the inadequacy of the suckling (Lawrence, 1980).

Two main physiological mechanisms operate in lactation : sucking stimulation and the "let down of milk". The most important method of encouraging successful breast-feeding is the provision of adequate sucking stimulation. Discomfort can inhibit the let down of milk and thereby decrease the opportunity for the infant to suck (Newton 1967). The physical discomforts of early nursing were often severe enough to cause early weaning, which was supported by maternal comments in Riker's (1959) study cited by Evans, Thigpen, Hamrick (1969). Evans et al., also found that not only did the discomforts positively relate to lack of success in breast-feeding but unexpected discomforts (such as cracked nipples, infected breasts) were also associated with lack of

success in breast-feeding. Among successful mothers, 90.5% of the discomforts were expected and 9.5% unexpected, while among unsuccessful mothers, 74.6% were expected and 25.4% unexpected. Their criteria of success were;

1) the baby's nutritional needs are met as evidenced by of need for supplementary formula.
2) the mother verbalizes that breast-feeding has been a satisfying experience to her.

4.1.6 Effect of Contraception

A study of 106 mothers in Cambridge (Whichelow, 1979) showed that there was no association between pill-taking and weaning due to insufficiency of milk. However, women taking a contraceptive pill during lactation more often experienced a diminuition of milk supply than non pill-takers.

4.2 Socio-cultural Factors

Breast-feeding behaviour has been influenced not only by educational, social and work factors but also by cultural factors. In some societies breast-feeding is deeply rooted in the culture and tradition of rural communities i.e. the smaller the community, the longer the duration of breast-feeding (Robertson, 1961).

Breast-feeding behaviour is more likely be learned in social interaction patterns in which positive values are held for the

behaviour. It can be expected that women in societies where breast-feeding is common will be more likely to breast-feed than those in other societies. For example in societies where breast-feeding is the cultural norm, 100% of mothers start to breast-feed and 98-100% continue beyond 6 months (WHO 1979).

In contrast, the effect of cultural norms are clearly demonstrated by Goel, House, Shanks (1978) who examined infant feeding practices among immigrants in Glasgow. They found that most of the Asian, African, and Chinese mothers interviewed had not wanted to breast-feed after arriving in Britain where breast-feeding used to be the norm, and those who chose to breast-feed had a relatively short duration of breast-feeding.

Brack (1975) has pointed out six factors as the major influences in the development of breast-feeding:

1) a doctor who has a positive attitude toward breast-feeding;
2) breast-feeding encouraged by nurses;
3) significant women in their own network of association who have themselves breast-fed children;
4) husbands who prefer breast-feeding;
5) opportunity to observe other breast-feeding women; and
6) positive attitudes themselves toward breast-feeding.

The mother's family background is also related to continuation of breast-feeding. Sloper et al. (1975, Oxford UK) showed that

mothers who had themselves been breast-fed in infancy had significantly succeeded in lactation beyond one month after delivery. Beske and Garvis (1982, Minneapolis USA) also found that over half of breast-feeding mothers (N = 96) reported that their own mothers had breast-fed them and 86% of long term breast-feeders (150 days) said their mothers favoured breast-feeding. Blooms et al. (1982b, Nova Scotia Canada), in a longitudinal study of 249 breast-feeding mothers, reported that the continuance of breast-feeding was positively correlated with husband preference, so that the mothers whose husbands preferred breast-feeding nursed their babies longer than the others.

4.3 Support from Family and Others

It has been claimed that the support and encouragement from family, volunteer groups and professionals influence the likelihood of continuation of breast-feeding. Many authors indicate that mothers who receive more support from husband, immediate family and friends, and more contact with La Leche League, both during pregnancy and after delivery, breast-feed their babies longer (beyond 4 months) than those who lack support (Eisenberg, 1975, Boston USA; Starling et al., 1979, Christchurch NZ; Rousseau et al., 1982, Montreal Canada). Moreover, it has also been found that breast-feeding continues longer in families in which the baby was reported by the mother as being the greatest source of encouragement for nursing (Beske and Garvis, 1982, Minneapolis USA).

In addition, Ladas (1970 in New York USA) has studied 756 women who attended La Leche League preparation classes and compared them to a similar group who attempted to breast-feed but did not have this preparation. She has been able to demonstrate that the women who received support and information from such a programme have a better outcome to their breast-feeding endeavours, and more confidence than those who lack support. This suggests that the lack of knowledge and lack of support are two major factors which inhibit breast-feeding success.

A high correlation between participation in self-help groups such as La Leche League and the duration of breast-feeding has been documented (Knaft, 1974, USA). Since breast-feeding is a learned skill in the human mother, both preparation and ongoing peer support are important factors in her initial motivation and continuing performance.

Much has been written about the importance of one to one support on the outcome of the breast-feeding experience. Raphael (1973) suggests the word "doula" which explains the characteristics of such a person as one who is knowledgeable in the breast-feeding process and who "mothers the mother". The doula may be a close relative, a neighbour, a friend, husband or a nurse who is available to assist the mother in daily tasks, give emotional support and help guide the mother to a successful solution of her

problems. In most non- Western cultures every parturient woman has a relative or some member of her community who has had personal breast-feeding experience and passes her knowledge on to the mother. At the same time she assists the parturient woman with her household work and protects her from the stresses of the outside world. In mobile and primarily urban society, failure to provide a doula may to a large part be responsible for the low rate of long-term successful breast-feeding. In some measure the emergence and proliferation of self-help groups, in which mothers unite and become doulas for one another, fill the gap that society has created (From Riordan, 1983).

Increasing the advice and support given by health professionals both in hospital and community may encourage a greater continuation of breast-feeding (Sloper, Elsden, Baum, 1977, Oxford UK; Hall, 1978, Missisippi USA; Hart et al., 1980, London UK; Houston, Howie, Cook, McNeilly, 1981, Edinburgh UK). According to, Hall (1978), a study to evaluate factors that influence breast-feeding success, divided all samples into three groups. A slide tape presentation was made to the first group, the presentation plus nursing support was given to the second group, and the third group received only routine hospital care. At 6 weeks postpartum she found that of the first and the third group, 50% were still breast-feeding while 80% of the second group were still breast-feeding. She also found that the mothers who received emotional support from their family breast-fed longer than those who did not.

A follow up study of breast-feeding in Oxford was carried out by Sloper et al. (1977). The results of this survey were compared with a similar survey of mothers discharged from the same ward two years earlier (Sloper et al., 1975). They found that: significantly more mothers went home breast-feeding (52% compared with 37%); these mothers breast-fed their babies for a longer period (43% for 5 months compared with 23%) and introduced mixed feeds significantly later (17% at 2 months compared with 64%). They attributed the changing patterns in infant-feeding practice in Oxford to changes in advice and support given by health visitors and community health personnel. However, this study did not include control populations for comparison.

Houston et al. (1981, Edinburgh UK) studied 28 breast-feeding mothers who received extra home support in the form of routine fortnightly visits for up to 24 weeks by the same person. This was compared with routine health service care in a group of 52 controls carefully matched for age, parity, and social class. They found that all mothers in the study group breast-fed for at least 12 weeks. They had a longer duration of breast-feeding and a later introduction of artificial milk or solid foods. It may be concluded that the more support and encouragement the breast-feeding mothers receives postnatally, the longer she will continue to breast-feed her child.

4.4 The Reason Given by Mothers for Breast-feeding Cessation

Reasons given by mothers for stopping breast-feeding are reported in many previous studies which will be described in the following section. Most women gave more than one reason for discontinuation of breast-feeding. The major causes for cessation of breast-feeding can be divided into three factors : "maternal problems," "infant problems," and "social reasons".

4.4.1 Maternal Problems

The major reason for stopping breast-feeding in studies done in many Western and developing countries is reported as being the mothers' physical and emotional problems. In Western countries, the major reported reason for discontinuance of breast-feeding in the first three months postpartum is the perceived inadequacy of breast-milk or drying up of the milk (Ladas, 1970, New York USA; Sloper et al., 1975, Oxford UK; Bacon and Wylie, 1976, Newcastle UK; Davies and Thomas, 1976, Wales UK; Sacks, Brada, Hill, Barton, 1976, Bristol UK; Coles, 1977, Massachussetts USA; Starling et al., 1979, Christchurch NZ; Salariya, Easton, Cater, 1980, Dundee UK; West, 1980, Edinburgh UK; Yeung et al., 1981, Toronto and Montreal Canada; Bloom et al., 1982b, Nova Scotia Canada; Gunn 1984, Auckland NZ).

For instance, a sample of 108 mothers in Dundee, Scotland (Salariya et al., 1980) showed that 73% of mothers who stopped breast-feeding before 12 weeks gave "a poor milk supply" as their

reason. Similarly, several studies in NZ (Hood, Faed, Silva, Buckfield, 1978; Dawson et al., 1979; Gunn, 1984) also found that over half of the mothers stopped breast-feeding before they intended to because of inadequate lactation or cessation of milk supply. In a world health (1981) studying of lactation in Chilie, the Phillipines, Guatemala and India, about half the respondent gave up breast-feeding because they felt that they had "insufficient milk". In Thailand, it was found that 32% of 1434 women gave up breast-feeding due to insufficient milk (Durongdej 1983, Bangkok).

This illustrats a lack of understanding of the lactation process. According to Applebaum (1970) many women fail to produce an adequate amount of milk because of lack of confidence and anxiety which adversely affect the "let down" reflex. According to Newton and Newton (1968) physiological factors are common causes of lactation failure.

However, it is argued that physiological factors are not the major problem of breast-feeding women, if they have a determination to do so. It was found that at least 98% of women who wanted to breast-feed their babies were successful (WHO 1979). Richardson (1960) supports this view by citing that whereas only 38% of the French population nursed prior to World War II, 90% succeeded at breast-feeding under wartime conditions, when no artificial formula was available.

This suggests that early cessation of breast-feeding is most probably related to poor management of early problems, lack of knowledge and skills in establishing and maintaining breast-feeding. In addition, Yeung et al. (1981 in Toronto and Montreal Canada) also found that painful breasts, resulting from sore or cracked nipples, and absessed, infected, or engorged breasts, were often reported as the reason for stopping breast-feeding early (16% of responses). Moreover, Martin (1978) who reported on breast-feeding which covered a sample of 2000 mothers in England and Wales found that 31% of mothers who started to breast-feed discontinued lactation within the first 2 weeks. Problems with breast-feeding in the first week were mainly physical difficulties, e.g., getting the baby to take the breast (31%), painful engorgement of the breast (60%), painful stitches, making feeding difficult (21%), sore nipples (41%) and insufficient milk (13%). She also found that sixty-one percent of those mothers who stopped breast-feeding by 6 weeks complained of "insufficient milk."

Starling et al. (1979, Christchurch NZ) also reported that 14% of 434 mothers said that breast-feeding was too physically demanding as the cause for cessation breast-feeding. Other reasons given for stopping breast-feeding in some women is that they disliked the experience of breast-feeding and its inconvenience (Bloom et al., 1982b; Starling et al., 1979). Inadequate privacy was also

reported by several mothers as the reason for weaning (West, 1980, Edinburgh; Gunn, 1984, Auckland). Gunn (1984) also reported that tiredness and sickness were mentioned by 19% of 94 mothers as the reasons for weaning. Lack of confidence and anxiety were also reported by a few mothers as their reason for cessation of breast-feeding (West 1980).

4.4.2 Infant problems

Many studies show that "infant problems" have often been reported as the reason for discontinuation of breast-feeding. (Starling et al., 1979, Christchurch NZ; West, 1980, Edinburgh UK; Rousseaeu et al., 1982, Montreal Canada; Gunn, 1984, Auckland NZ).

According to Starling et al. (1979) 23.7% of mothers who discontinued breast-feeding in the first 4 months said that they felt that the baby was not responding well to breast-feeding. "Baby unsatisfied" (20 out of 60 mothers) and "baby being difficult" (15 out of 60 mothers) were reported as the mothers' reason for weaning their infants within four months of delivery (Rousseau et al., 1982 in Montreal Canada). "Baby illness" was also cited as a reason for weaning. Gunn (1984) showed that 5% of 84 mothers gave this as their reason. Children born by caesarean section or assisted delivery, were breast-fed significantly less often at discharge from hospital than children in general (Tamminen, Verronen, Saarikoski, Goransson,

Tuomiranta, 1983, Finland). Other problems resulting from inadequate milk supply were "baby hungry" and "poor weight gain" were also reported for the cessation of breast-feeding (White, 1976, London; Bloom et al., 1982b, Nova Scotia Canada).

Teething was reported as a reason for weaning. Yeung et al. (1981) found that 3% and 11% of mothers indicated this as their reason for terminating breast-feeding at 5 to 6 months and 8 to 12 months respectively. Additionally, 18% stopped because their infants were no longer interested in feeding from the breast.

4.4.3 Social Reasons

A number of studies report that it necessary to cease breast-feeding because of social reasons (Starling et al., 1979; Gunn, 1984, New Zealand; West, 1980, Edinburgh; Wallace, 1980, England) Bloom et al., 1982b, Nova Scotia Canada). For instance a study of 539 mothers by Bloom et al. (1982b) showed that 9% and 44% of mothers who stopped breast-feeding prior to 6 weeks and after 3 months respectively mentioned returning to work as necessitating weaning their babies.

Similarly, in developing countries, the main reason for termination of breast-feeding before or at six weeks postpartum was work (Durongdej, 1983, Bangkok Thailand; Sinniah, Chon, Arokiasamy, 1980, Kuala Lumpur Malaysia). Wallace (1980) in England also found that 15.8 percent of mothers discontinued

breast-feeding for social reason over the age of six months. Explanations given included such things as that nursing was too time consuming, interfered with social life, and that friends and relatives pressured the mother to stop nursing. The highest incidence occurred at one week (33%), with other drops at four weeks, ten weeks and four months. Explanations given at these times were sibling jealousy, interfering with sibling activities such as sports. Starling et al. (1979, Christchurch NZ) found that few women (3.7%) stopped breast-feeding because they found it socially inconvenient. A new pregnancy was given by only a small percentage of mothers as the reason for stopping breast-feeding. Gunn (1984, Auckland NZ) found that 3% reported this. However, WHO reported (1981) that across various cultures and different social classes a new pregnancy is sometimes cited more frequently by mothers as a reason for giving up breast-feeding (see Table 2.2).

Table 2.2 Percentage of mothers for whom a new pregnancy was given as a reason for the cessation of breast-feeding

	A	B	C	R
Nigeria	13%	<5%	<5%	13
Zaire	33	51	-	57
Chile	<3	-	<3	3
Guatemala	-	-	6	17
India	2	6	13	-
Philippines	2	-	10	10

A = Economically advantaged B = Urban middle income

C = Urban - poor R = Rural

(Source: WHO. Comtemparary Patterns of Breast Feeding. 1981. pp. 38-39)

The baby being old enough was reported as a reason for weaning by about three-quarters of mothers in Nigeria where the median age of weaning was about 6 months in the A group, 11 months in the B group and well over 18 months in the C and R group (WHO 1981).

4.5 Reasons for continuation of breast-feeding

Mothers reported the advantages of breast-milk for themselves and infants as their reason for prolonged breast-feeding. A study in Montreal and Toronto, Canada (Yeung et al., 1981) showed that 42

mothers (12% of all subjects) were breast-feeding at 8 months, with 15 mothers continuing to breast-feed at 12 months. Their main reasons for doing so were convenience, closeness and warmth between mother and baby, healthiness of breast-feeding and the baby being used to breast-feeding. A small number of women indicated that they still enjoyed breast-feeding as the reason (4.2% at 8 months, 9.1% at 12 months). That breast-feeding can delay the onset of menstruation was also reported by a small percentage of women (1.4% at 8 months 2.6% at 10 months).

4.6 Contribution of Health Professional to Continuation of Breast-feeding

As mentioned earlier, prenatal and postnatal breast-feeding education, including home support provided by health professionals seems to relate to the continuation of breast-feeding (see section 4.3).

Hospital Policies

Early initiation of breast-feeding and frequent feeding can affect the extension of the nursing period (de Chateau et al., 1977, Sweden; Salariya et al., 1978, Dundee UK; Whichelow, 1982, Cambridge UK). When de Chateau, Holmberg, Jakobson, Winberg (1977) investigated a group of 21 women with early contact and 19 control women, they found that mothers whose infants had suckling contact within one hour of delivery went on to breast-feed for considerably longer than mothers who did not experience early

suckling (175 days and 105 days respectively). In addition, Bloom et al. (1982b, Nova Scotia Canada) supported this view by showing that breast-feeding continued longer for breast-feeding mothers who had early and increased contact with their infant, having held their infant while on the delivery table, having initiated breast-feeding in the first few hours after delivery, and having chosen daily rooming-in (mean 17.0 weeks and 7.4 weeks, $p = 0.002$).

The classic study by Illingworth, Stone, Jowett, and Scott, (1952) showed that "demand" feeding in the early days led not only to more successful breast-feeding, but also to fewer nipple problems and less engorgement. Early mother-infant interaction was also reported by de Chateau and Winberg (1978) in Sweden as a factor influencing the duration of breast-feeding. The researchers examined the effect of early contact (15 minutes of immediate skin to skin contact and suckling) compared with a control group who were given routine care (immediate separation for routine weighing, bathing, etc) of the baby before it was returned to a crib beside the mother's bed. It was found that full breast-feeding at 3 months was twice as common in the early contact group as in the routine group.

This study adds support to the many others of the beneficial effects of early contact on parent-infant interaction e.g. Bernal and Richards 1970; Klaus and Kennell (1976). Moreover,

Beske and Garvis (1982) also found that mothers who breast-fed for a shorter time, were less likely to nurse their infants at night in the hospital, and were more likely to use water or formula to supplement. It may be that the success of breast-feeding nursing at one month is a visible measure of the success of the mother-child relationship, where other psychological social parameters are more confusing. It is very difficult in studies of this kind to find groups of women in whom social and psychological factors are comparable and in whom the effects of participating in a study is not in itself going to override the effects of the factor to be studied. To select one woman to be studied and another to be a control may be ethically very difficult and is in practice well nigh impossible. The results of these studies should be interpreted with caution. However, these findings indicate that feeding practices in hospital are likely to influence the duration of breast-feeding.

Summary

This chapter is to review the research that mainly involve factors influencing infant-feeding. The frame of the review is based on the Ganeral Model of the Human Decision Maker which is highlight in the very previous part of this chapter. It may be summarised that method of infant-feeding is selected by women in an early stage of pregnancy. Women's choice of infant-feeding methods are influenced by a number of factors such as personal factors (i.e. demographic, knowledge, attitude, and previous

experience of feeding methods, and physical factors) and socio-cultural factors (i.e. cultural practice, lifestyles, and social contact). While these factors are found to be associated with women's choice of infant-feeding, none was able to point out what extent that each factor influences on the choice of feeding.

Women appear to have some reasons to select and continue breast-feeding. Advantages of feeding method for baby and convenience are the major reasons expressed by breast-feeding women. Cessation of breast-feeding is due to at least threee major causes: maternal problems, infant problems,and social reasons.

CHAPTER 3

METHODOLOGY

The present study has been designed to explore personal and socio-cultural factors which influence women's choice of an infant feeding method, and which influence women's experience of breast-feeding.

An in-depth approach has been used to obtain data to illuminate the factors that influence breast-feeding over the first twelve weeks after delivery. The first twelve weeks were chosen as it is clear from the literature that mothers encounter many problems during this period that may lead them to give up breast-feeding prematurely.

Many previous studies have found that most mothers do encounter difficulties in breast-feeding and that some of them stop breast-feeding in the early postpartum weeks (Brimblecombe & Cullen, 1977; Sjolin, Hofvander, Hillervik, 1977; Martin, 1978; West, 1980; Bloom, Goldbloom, Stevens, 1982b; Houston, Howie, McNeilly, 1983). For instance, Martin (1978) found that 50% of the mothers who started to breast-feed had stopped by six weeks postpartum. Another study by West (1980) showed that 10% of her sample had stopped within the first week, and 50% within twelve weeks postpartum. The major reasons given by women were those of

inadequate milk supply and inconvenience of breast-feeding due to other demands. Similar results have been found in New Zealand (Starling et al., 1979; Gunn, 1984). In particular, the first two months were also viewed as a period of intense emotional stress (Edwards, 1973; Rubin, 1975; Sumner and Fritsche, 1977).

In the present study most data were collected concurrently. Some data were collected retrospectively in order to learn about the women's personal and socio-cultural circumstances at the beginning of the first twelve weeks while lactation was being established. Data concerning factors which influence the mother's choice of method of infant feeding were also collected in the first interview a few days after delivery because many previous studies showed that most women determined the method of infant feeding during early pregnancy or even before conception (Eastham, Smith, Poole, Neligan, 1976; Mackey and Fried, 1981; Beske and Garvis, 1982). It was difficult to collect data about the factors which were influencing the women's decision at such a period, therefore data were collected retrospectively.

Sample

A purposive non-random sample was used to decrease variability of subjects. Women meeting the following criteria served as subjects:

-Resident in city in which the hospital was located

-Competent in everyday spoken English.

-Baby not admitted to neonatal unit.

-Mother intending to keep baby.

The first criterion was selected to ensure a reasonable travelling distance for the researcher. This means a sample biased against rurally-based women and those living in smaller towns. The second criterion relates to the fact that verbal communication is important where this is the basis of data collection. The third criterion was selected in order to exclude the confounding influence of women whose babies were not healthy, and the last one was related to the completion of data collection concerning breast-feeding experience.

In the study women who had had twin babies were also excluded because their experience of breast-feeding would differ from other women. The researcher planned to collect data from thirty subjects (20 primiparous and 10 multiparous women). It was thought that this number of subjects would give enough information for the study as these women were followed over a period of three months during which they were interviewed four times.

The sample of primiparous women is larger than the sample of multiparous women for a number of reasons. Primiparous women make their decisions about the choice of infant-feeding method for the first time, while multiparous women may make their

decisions following previous experiences of feeding. Women's success in breast-feeding their previous infants has been found to have a positive effect on their choosing to feed subsequent children (Brimblecomble & Cullen 1977; West, 1980). If the factors influencing continuation in breast-feeding for primiparous women can be discovered, it may be possible to enhance continuation in subsequent feeding experiences.

In other studies, primiparous and multiparous groups reported different influences on the choice of feeding method. Among primiparous women, friends' experiences had the greatest influence on the choice of feeding method, but for multiparous women the choice was largely dictated by their own past experiences (Jones & Belsey, 1977; Bloom et al., 1982a). The two groups of mothers also differed in some of their breast-feeding experiences. Primiparous women had a more positive attitude to breast-feeding than multiparous women (Jones & Belsey, 1977; Bloom et al., 1982a). West (1980) suggested that previous failure to breast-feed sucessfully may lead to disinclination to try again with a subsequent child. It could not be assumed that the decision making and the breast-feeding experience in primiparous and multiparous groups were similar. Therefore, this study was designed to collect two separate groups of information, the first about the influences on the choice of method of infant feeding and the second concerning the breast-feeding experience in each group.

Although the initial intention was to include only ten subjects in the multiparous group, the researcher increased data collection in this group to twelve women in order to prevent the possibility of an inadequate sample resulting from subject withdrawal from the study. However, only eleven multiparous women actually took part in the study.

After the nominated date in the spring of 1985, all eligible women were approached initially by the supervisor of the maternity unit. The total number of women who were approached were 28 primiparous and 20 multiparous women who met the above criteria. Six of those primiparous women refused to take part in the study. One was moving to another town while the remaining 5 refused, either because of their uncertainty about breast-feeding or because of a lack of interest in the topic. Seven multiparous women also refused to take part in the study. One had to shift to another town, the remaining 6 stated either that they had no time to participate in the study or that they were not interested in the topic.

All of the remaining subjects agreed to participate in the study. However, some women were withdrawn from the sample after initially being eligible. One of the primiparous women could not be contacted for the second interview. The researcher tried to contact her by telephone at different times, but was

unsuccessful. Another primiparous woman cancelled her appointment for the second interview but she was still breast-feeding her baby at that time. One multiparous woman withdrew after the first interview as she was experiencing problems with breast-feeding. Another also cancelled her appointment for the second interview. Both of them had already changed to bottle-feeding at the time of their cancellation. Therefore, the actual number of sample is 20 primiparous and 11 multiparous women for whom results are being presented.

Instruments and Data Collection

The researcher devised four structured questionnaires (see Appendices I - IV) which focussed on factors that appear to influence women to breast-feed and women's experience of breast-feeding. The content of each questionnaire was centred on two domains: Personal factors and Socio-cultural factors. These are summarised in Table 2.1 (See page 8). Several personal and socio-cultural factors such as knowledge and experience of infant-feeding, coping ability, lifestyles and so on were asked at each different time of interviewing (see Table 2.1).

The choice of a structured interview as the instrument of inquiry was based on the recognised advantages of an interview over the completion of an unsupervised questionnaire. For example, it can be ensured that the responses are properly understood, a better response rate is obtained than from mailing a written self report

questionnaire, and it is also more effective in getting at people's complex feelings or perceptions. Most questions were open-ended which allows a free response.

The first structured interview, undertaken while the subjects were still in hospital covered a retrospective review of the decision about the method of feeding and the present experience of feeding. Demographic data was also obtained at this time (see Appendix i). The duration of this interview was approximately 45 minutes.

The later three interviews conducted at the mother's home related to the experience of breast-feeding and the reason(s) for any change of feeding method where this had occurred (see Appendices II, III,and IV). In addition, the final interview was not only concerned with the woman's infant-feeding experience but also sought the mothers' perceptions of the advantages of the feeding method that they were presently using (see Appendix IV). The duration of these home interviews was approximately half an hour.

All four interview schedules were pretested on 5 women (2 primiparous, 3 multiparous women) who had recently had a baby. These women had different educational backgrounds from high school level to university level and their ages varied from 17 - 35 years. On the pretest it was found that a few questions were not clear and the respondents were unsure of what the researcher

wanted to know. Those questions were modified and were successfully retested with the same group of women.

Data collection took place over 18 weeks in the spring and summer of 1985-1986. Where subjects granted permission, interviews were tape recorded. Data were collected in the post-natal wards in the hospital for the first interview, and then were collected at the women's homes for the remaining three interviews. All subjects were interviewed in a private room while they were in hospital.

Procedure:

The interview schedules were used at the different time:

1) 3 - 4 days after delivery.
2) 2 - 3 weeks after delivery,
3) 7 - 8 weeks after delivery, and
4) 12 - 13 weeks after delivery.

Permission to approach the women was obtained from the hospital authorities. Co-operation was required of hospital personnel in gaining access to post-natal wards in order to obtain the initial sample. The researcher had previously spent time observing in the maternity complex and a preliminary discussion with the supervisor of the unit indicated that the additional work required of her staff was manageable. The supervisor of the maternity unit accepted the responsibility of explaining the

proposed procedure to the relevant nursing staff and obtaining their assistance in gaining access to the appropriate patients. Those who agreed were then approached by the reseacher as described below.

Phase 1

Potential participants as defined above were contacted in the hospital by the researcher on the first or second day postnatally. The very first approach and interview took place with the first woman who met all of the study criteria to give birth after the nominated starting date for the collection of data. This procedure was followed for suitable subjects until to completion of the data collection period (18 weeks).

The study was described verbally and participation invited. A written description was left for consideration and time allowed for consultation with others if desired. On the following day the researcher checked for consent and, if given, would proceed with the first interview at an agreed time while the woman was still in hospital.

Phase 2

Arrangements were made at the end of the first interview to interview each woman again on two or three subsequent occasions in her own home. Those still breast-feeding at the second interview (2-3 weeks after delivery) were also interviewed again

when the baby was 7-8 weeks old. Data collection included a guided conversation about the feeding experience and responses to a structured interview.

A final interview was carried out with all women still in the sample who were breast-feeding their babies on discharge from hospital. This interview occurred 12-13 weeks after delivery and included some women who had subsequently changed to bottle-feeding.

Ethical Considerations:

Informed consent was obtained by the researcher through a written description of the study given in the postnatal ward (see Appendix V). These written descriptions were left with women at least 24 hours in order to give them an opportunity to consider their participation and to consult their family if they wished. The first interview was conducted in the postnatal ward after consent had been given. The description of the study emphasised the voluntary nature of participation, and the option the women had of withdrawing from the study at any time.

Care was taken to ensure that the names of participants were confidential to the study and were not revealed in any way. Once the selected subjects decided to participate in the project, code numbers were used for each subject and put onto each of their questionnaires. The list of their names and code numbers were

kept in a locked drawer, which was well separated from the locked drawer in which the questionnaire responses and tapes were kept. Tapes were wiped shortly after notes had been taken from them. They were stored in a locked drawer while still containing interview data.

Consideration was also given to the ethical issues concerning the relationship of the researcher to the subjects and to other health workers. No treatment was offered by the researcher to any of the subjects during the period of the study. During an interview, if a woman raised health-related questions, she was referred to an appropriate agency. No other risks were seen for the women who participated.

Analysis of Data

Although the interview schedule was structured the majority of the responses were unstructured. The categories for these responses were developed following data collection. A major purpose of the research was to study the breast-feeding situation in depth over 12 weeks postpartum. It was therefore decided that a larger number of in depth interviews with fewer women would be more appropriate than a survey approach.

The data were analysed by using descriptive statistics, including cross-tabulation in order to highlight and promote understanding of factors which influence women's choice of infant feeding

methods and women's experiences concerning breast-feeding.

CHAPTER 4

RESULTS

In this chapter, the results are divided into five major sections according to the objectives. The first section describes the sample. Selection of the infant-feeding method is presented in the second section. Personal and social factors associated with the selection of breast-feeding method are also presented in this section. The third section contains the subjects' experiences of breast-feeding in the hospital. The fourth section investigates their breast-feeding experiences at home over the first three postpartum months. In the final section, a comparision of the actual experience of feeding and anticipations of this experience is presented. A comparision of the critical experiences of women who discontinue breast-feeding, and those who continue over the study period is also provided in this section.

The following data were obtained from 31 women while they were in hospital and at their homes on a self-report basis from a structured questionnaire.

THE CHARACTERISTICS OF THE SAMPLE

The sample was 31 postpartum women, 20 primiparous and 11 multiparous women (See Table 4.1).

Age : The average age for the primiparous women studied was 25.85 years whereas the average age for the multiparous women was 30.27 years. 67.7 per cent of the 31 subjects were aged between 20-30 years. This is similar to the national range age of mothers in New Zealand. Statistics showed that in 1981, 83 per cent of primiparous and 73 per cent of multiparous women giving birth in New Zealand were aged between 20-30 years (Department of Statistics, 1984).

Education Level: 54.83 per cent of all subjects were educated beyond high school. Their qualifications consisted of technical certificates, graduate, and post-graduate degrees. 45.16 per cent of women had not undertaken formal educational study after high school. A comparison with census data suggested that the subjects were relatively well educated, although a direct comparison was not possible as the census did not provide a directly relevant control for age as required for this study. The census data is also confounded by the inclusion of those still at school (Department of Statistics, 1985).

Family Income: The average family income of the subjects was in excess of $25,000 or above per year. This is greater than the average New Zealand household income ($23,542.48 per annum, Department of Statistics, 1986).

Occupational Status: All primiparous women had worked outside the home before having their babies. The majority of the multiparous women were housewives. The occupation of the employed women varied greatly and included professional workers as well as skilled and unskilled workers.

Table 4.1 The characteristics of the sample

Characteristic	Primiparous Women (20)	Multiparous Women (11)	Total
Age			
Under 20	2	-	2
20-30	15	6	21
31-40	3	5	8
Education Level			
High School	10	4	14
Beyond High School	10	7	17
Family Income ($)			
10,000-14,999	5	2	7
15,000-19,999	3	2	5
20,000-24,000	1	1	2
25,000 and above	10	5	15
No response	1	1	2
Occupation*			
Housewife	-	8	8
Works outside the home	20	3	23

* Occupation during pregnancy.

SELECTION OF INFANT-FEEDING METHOD

Time and Reason for Selection of Feeding Method

The subjects (both primiparous and multiparous women) had made the decision to breast-feed their babies at different times. Nine of the 20 primiparous women and 8 of the 11 multiparous women had decided to breast-feed their babies prior to the start of pregnancy. Half of the primiparous and 2 multiparous women had decided early in pregnancy (before 4 months), with the remaining one primiparous woman deciding during the last 6 months of her pregnancy. Only one multiparous woman had decided to breast-feed after delivery because she had been uncertain whether she was able to breast-feed.

All subjects had breast-fed their babies prior to the first interview (3-5 days postnatally). Table 4.2 summarises their reasons for breast-feeding. These data resulted from an open-ended question. Example of replies under the category included : "Advantages for baby in general" were "best for baby", "healthier for baby", and "best way to do". Of great interest in this table is the fact that the naturalness of breast-feeding was mentioned only by the primiparous group, while more than half of the multiparous women mentioned the convenience and the ease of breast-feeding.

Table 4.2 Reason given for selecting breast-feeding*

	Primiparous Women (20)	Multiparous Women (11)	Total
Advantages for baby			
- general	11	9	20
- nutritional	2	1	3
Advantages for mother			
- physical	2	1	3
- convenience, ease	3	7	10
- economic	-	1	1
Advantages for both mother and baby			
- closeness and warmth	3	2	5
Reference to breast-feeding being natural	7	-	7

* Many women gave more than one response.

Planned Length of Breast-feeding

The planned length of breast-feeding of both groups is summarised in Table 4.3. This Table shows clearly the differences between the planning for the length of time of breast-feeding in the primiparous and the multiparous women. The mode for the primiparous women is 4-6 months, whilst the mode for the

multiparous women is 10-12 months. The reasons for the selected length of breast-feeding given by both groups referred to the baby, such as "the baby's health", "at that time, the baby can wean himself" (See appendix vi,vii). In answering this, about half the respondents from the primiparous group expressed uncertainty before selecting the period of breast-feeding. On the contrary, most multiparous women showed more confidence in planning the length of time. Most of them referred to their pervious experiences saying that it would be easier to breast-feed, and they enjoyed breast-feeding their babies.

In the actual practice of breast-feeding, it was found that three primiparous women had changed to bottle-feeding earlier than their initial plans. Two of these expected to breast-feed for 4-6 months, but one had changed to bottle-feeding at 6 days after delivery. The other reported, at the final interview, that she was about to change to bottle-feeding. The remaining one who planned to breast-feed for 7-9 months, had changed to bottle-feeding 10 weeeks after delivery.

Additionally, 2 multiparous women changed to bottle-feeding before the anticipated time. One expected to breast-feed for 4-6 months and had changed to bottle-feeding at 9 weeks postnatally. The other was uncertain of her expected length of time for breast-feeding and she had changed to bottle-feeding at 6 weeks after delivery. Overall 5 of the women breast-fed for a shorter time than they had planned initially.

Table 4.3 Planned length of breast-feeding period *

Months	Primiparous Women (20)	Multiparous Women (11)	Total
More than 12	-	2	2
10-12	4	6	10
7-9	5	1	6
4-6	8	1	9
Don't know	3	1	4

* These plans were reported when the baby was 3-5 days old.

PERSONAL AND SOCAIL FACTORS ASSOCIATED WITH THE SELECTION OF THE BREAST-FEEDING METHOD

In this section data concerning personal and social factors are described, as the categories were assumed to be the factors which influenced the decision making concerning breast-feeding. The data collected at the first interview concerned the factor that encouraged the decision about the feeding method. Similar data collected in later interviews concerned the way in which breast-feeding changed a woman's lifestyle. Reference back to the present data will be made when relevant in later sections.

Personal Value System

This topic is viewed from two points of view, i.e., attitude to motherhood and attitude to the breast-feeding method. All women were asked about their attitude to needing a baby i.e., whether children are necessary for a couple's happiness. Most answered that it was not neccessary as women could have happiness without children (See Table 4.4). However, the mojority of both groups reported that it was very important for them to be a mother (See Table 4.5).

The women's attitude towards seeing someone breast-feeding in public was also sought. This attitude was mostly positive with only 3 primiparous women reporting that they disapproved and another felt very embarrassed (See Table 4.6).

To sum up, the majority of respondents did not mind feeding their babies in front of other people (See Table 4.7). However, most women reported that they did mind how other people felt about this. These data were collected in the first interview (3-5 days postnatally) so the primiparous women had not as yet had much experience of babies and did not have experience of feeding in public.

When asked about their attitude to breast-feeding in isolation from others, most respondents did not think that breast-feeding would isolate them from others, although one primiparous woman

did not have any idea about this. Most gave the reason that "it is the natural thing to do" and "most people breast-feed at present and most people can understand". Three respondents from the primiparous group were not able to give a reason for this because they felt that they did not have any experiences of breast-feeding before.

Table 4.4 Importance of children for a couple's happiness

	Primiparous Women	Multiparous Women
Very Important	6	3
Not important	14	8
Don't know	-	-
Sample size	20	11

Table 4.5 Attitude to being a mother

	Primiparous Women	Multiparous Women
Very important	15	8
Important	4	3
Not important	1	-
Sample size	20	11

Table 4.6 Attitude to seeing someone breast-feeding

	Primiparous Women	Multiparous Women
Pleased	4	3
Don't know	12	8
Disapproved	3	-
Other	1	-
Sample size	20	11

Table 4.7 Personal responses to breast-feeding in front of people

	Primiparous Women	Multiparous Women
Very embarrassed	2	-
Embarrassed	5	-
Don't mind	13	11
Sample size	20	11

Knowledge and Experience of Breast-feeding

1. **Knowledge about preparation of breasts during pregnancy**

These data were collected retrospectively at the first interview. Fifteen respondents from the primiparous group prepared their breasts during pregnancy, with only 5 not preparing them. Eleven of those reported that they learned about this from antenatal classes, with 6 mentioning the antenatal class or professionals as their only source of information. Four primiparous women reported that they learned how to prepare breasts from other sources such as books, doctors, their mothers and friends.

On the contrary, only 5 respondents from the multiparous group prepared their breasts during pregnancy. One respondent, who had not breast-fed her previous child but who intended to breast-feed this baby, learned breast preparation from antenatal classes. Another 2 knew from their previous experiences, with the last 2 reporting that a La Leche member gave them advice.

As many women from both groups attended the same antenatal classes and consequently received the same instruction, this suggests that more primiparous women were concerned about preparing themseves for breast-feeding than the multiparous women.

2. Information gained about infant-feeding methods from antenatal classes

Table 4.8 summarises information about infant-feeding methods which the women received from antenatal classes. All women who attended the classes reported that they received more advice on breast-feeding than bottle-feeding. General knowledge about breast-feeding (nipple preparation, the position for breast-feeding, structure of breast and how it works) was reported as being the information received mostly by the primiparous group. The problems of breast-feeding were not discussed at any length, with only 2 women reporting information being given and then only on sore nipples and insufficient milk. Only 4 primiparous and 2 multiparous women reported that doctors discussed breast-feeding with them.

Table 4.8 Information gained about infant-feeding methods from antenatal classes*

Information	Primiparous Women (18)	Multiparous Women (6)
Breast-feeding recommended	3	2
General advantages of breast-feeding mentioned	3	3
General knowledge about breast-feeding mentioned	9	1
Some problems of breast-feeding discussed	1	1
Mainly suggested breast-feeding but less detail/neglect to mention bottle-feeding	4	1

* A few subjects gave more than one answer. Two primiparous and 5 multiparous women did not attend the classes.

3. Sources of knowledge about infant-feeding from the mass media

Seventeen respondents from the primiparous group received information about infant-feeding from the mass media. Most respondents (N=16) got the knowledge from books and a few women also mentioned other mass media (radio, television, and

newspapers). Only one got information about infant-feeding from television. Eleven of those thought that the mass media was a very important source of information about infant-feeding, with 4 of the remaining 6 reporting that it was important for them. The remaining 5 respondents thought that it was not important for them, although 2 of these 5 were amongst the 17 women who reported receiving information from this source.

For the 11 multiparous women, 10 reported they got ideas about infant-feeding from books and three of those also received the information from radio, television, and newspapers. Six of those thought that the mass media, especially books was a very important source of information about infant-feeding, with 2 women reporting that it was important for them. The remaining 3 thought that it was not important for them, although these 3 included one woman who did not get information from the mass media.

4. Knowledge about advantages and disadvantages of infant-feeding method

The advantages and disadvantages of breast-feeding as indicated by the women are presented in table 4.9 and 4.10. Most frequently stated advantages of breast-feeding referred to the advantages for babies (eg. perfect food, heathier baby, providing immunity). When considering the disadvantages most women made reference to the difficulties of breast-feeding for mothers.

On the contrary, the advantages of bottle-feeding referred to the advantages for the mother (See table 4.11). The most frequently stated disadvantages referred to the baby not getting the best benefit and the mother wasting time in its preparation (See table 4.12). These data were collected at the first interview but comparable data were obtained at the last interview (12-13 weeks, see page 160-161).

5. Knowledge of appropriate period of breast-feeding

Of the 20 primiparous women, 11 reported that breast milk was sufficient for the baby without supplementary food for 2-4 months with another 2 reporting that it was sufficient for 5-6 months. The remaining 7 stated that they did not know how long they should feed their babies without supplementory foods. Most multiparous women reported a longer period of time of feeding their babies without supplementary food. Of the 11 multiparous women, 9 mentioned that it was possible to feed up to 6 months, with only one reporting that she did not know the period of time. The remaining one stated that she was uncertain and guessed that it was about 2-3 months. Both of the last 2 had not succeeded in breast-feeding their previous children.

Table 4.9 Knowledge about advantages of breast-feeding*

	Primiparous Women (20)	Multiparous Women (11)
Best for the baby	16	10
Helps bonding	15	8
Convenience for mother	5	4
Helps mothers physically	6	2
Saves money	-	1

* Most women gave more than one answer. These data were collected at 3-5 days postnatally.

Table 4.10 Knowledge about disadvantages of breast-feeding

	Primiparous Women (20)	Multiparous Women (11)
No disadvantages	4	4
No one else can feed the baby	1	3
Restricts mother	3	2
Hard at beginning	4	-
Sore nipples	2	-
Wetness around nipples	1	-
Feel uncomfortable feeding in front of people	3	-
Need to be careful of mother's food intake	1	-
Time consuming	-	1
Don't know	1	1

Table 4.11 Knowledge about advantages of bottle-feeding*

	Primiparous Women (20)	Multiparous Women (11)
No advantages	4	-
Some one else can help	5	4
Doesn't restrict mother	4	4
Father can be close to the baby	2	1
Know how much milk the baby gets	1	-
As alternative for people who can't breast-feed	-	1
Not painful	2	-
Easy to learn, convenient	2	-
Don't know	2	2

* A few subjects gave more than one answer (interviewed at 3-5 days postnatally).

Table 4.12 Knowledge about disadvantages of bottle-feeding*

	Primiparous Women (20)	Multiparous Women (11)
Easier to pick up infection	1	2
Time consuming	7	8
Not best food for baby (more difficult to digest)	9	3
Less closeness to the baby	6	1
Expensive	3	-
Don't know	2	1

* Most subjects gave more than one answer.

6. Knowledge of adequate milk consumption

Of the 20 primiparous women, 18 stated that they decided whether babies were getting enough milk by observing their behaviour (e.g., how well they slept, how many times they cried, how contented they were). Two of those also mentioned the baby's weight gain, with the remaining 2 reporting that they did not know how to decide about it. For the multiparous group, all respondents were confident concerning this decision and their answers were similar to the primiparous women's answers.

7. Past experience and breast-feeding decision

Twelve respondents from the primiparous group had prior to experience in baby sitting, while 3 did not have any experience with a baby. Breast-feeding had never been observed by one primiparous woman. Almost all of the respondents anticipated that breast-feeding would be easy for them, except one woman who was not sure of its ease.

For the multiparous women, 8 respondents breast-fed their previous children for a period of 9 - 18 months. Another 2 were able to breast-feed their previous child for only one week, with the remaining 1 breast-feeding for 5 weeks. All of the respondents expected to breast-feed their babies. Their previous experiences in breast-feeding were found to result in greater confidence by the 8 women who had breast-fed longer previously.

Coping Ability

1. Coping abilities with new experiences

Of the 20 primiparous women, 18 reported that they enjoyed new experiences while the other 2 did not feel comfortable with new experiences. For the multiparous women, all respondents usually enjoyed their new experiences.

2. Expectation of coping abilities with breast-feeding

Most respondents from both groups expected that they would cope well with feeding their babies. However, 6 primiparous and 1 multiparous women reported that they were uncertain of their abilities to cope with feeding their babies.

3. Expected ease of breast-feeding

Eleven primiparous and ten multiparous women reported that they expected breast-feeding to be easier to manage than bottle-feeding. The reasons given by both groups were similar, that is, no preparation, less time consuming, and convenience. Another reason given by a primiparous woman was that all a mother had to do was to look after her nipples. The remaining 9 primiparous and 1 multiparous women stated that they were uncertain of the ease of breast-feeding which means that they did not choose this feeding method because of its ease.

Physical Factors

The majority of the respondents enjoyed good health during their pregnancy, although one respondent from the primiparous group got asthma throughout her pregnant period. However, she reported that her health had not influenced her decision on the feeding method.

Lifestyle

1. **Work situation and work plans**

The work situation had not influenced the choice of feeding method for 18 respondents from the primiparous group. One of the remaining 2 chose breast-feeding because it would be easier for her to organise this around her work than the other method. The last one planned to stop work after having a baby because her work situation would interfere with breast-feeding her baby. She thought that breast-feeding the baby had to come before her work.

Of the 20 primiparous women, 13 had not planned to return to work for the first year of the baby's life. They felt that they needed to spend the time with their babies. Only 4 women reported that they planned to return to the work force, one had maternity leave for only 2-3 weeks and another 2 women planned to be on leave for about 12 months. The last one intended to return to work after the baby was about 6 months old and the rest were uncertain. Reasons given included reference to the following; one reported that her work was very important for her life, with another reporting that it depended on their economic situation and their baby's needs.

Of the 11 multiparous women, 3 reported that they had worked outside the home before having this baby. One of those planned to continue working after 6 weeks, initially on a part-time basis because she loved her job. Another planned to work part-time

after 3 years because she needed to look after the baby for that length of time. The last did not plan to return to work permanently because her husband preferred her to be at home and also she planned to travel. Those who planned to continue working, reported that their work situation did not influence their choice of feeding method.

2. Other activities planned for the future

All respondents planned to continue their activities, whether these were activities at home and/or activities outside the home. Of the 20 primiparous women, 12 reported that they had outside activities (i.e., netball group, rugby group, women's support group, church group, Y.M.C.A. group, sports club, jogging, and dancing). Eight primiparous as well as 5 multiparous women had only home activities (i.e., sewing, gardening, handcraft, reading, and farming). The remaining 6 of the primiparous women had outside activities (kindergarten society, exercise group, church group and so on).

3. Smoking pattern

Seven respondents from the primiparous group had smoked cigarettes before pregnancy. Four of these gave up smoking permanently early in their pregnancies. For the multiparous group, two respondents had smoked before having this baby and they still continued smoking but slightly less. This means that having the baby impinged on changing the smoking pattern of women. For discussion on early weaning and smoking see page 194.

4. Expectation of feeding method which affects the lifestyle

Ten respondents from the primiparous group expected that bottle-feeding would change their lifestyles more than breast-feeding because it took more time to prepare. Five thought that breast-feeding would change their lifestyles more. The reasons given were as following;

"not be able to socialise as much as before",

"a mother has to do by herself",

"a mother has to look after herself more than usual (food)",

"breast-feeding should be done privately".

Another 4 expected that there was no difference between both methods of feeding in the aspect of changing mothers' lifestyles. The remalning 1 reported that she did not have any idea about this.

For the multiparous group, 10 respondents expected that bottle-feeding would change their lifestyles more than breast-feeding. All of them referred to their previous experiences saying that "bottle-feeding takes more time for preparation, a lot of work to do". Three of those also reported that breast-feeding would be easy for them to manage (not having to carry things when going out). The remaining one thought that there was no difference between the two methods in the aspect of changing mothers'

lifestyles because a mother had to prepare bottles for water or juice while she breast-fed her baby.

This shows that most women had a positive anticipation of breast-feeding method rather than bottle-feeding, even the women who had not succeeded in breast-feeding with previous children.

Cultural practices

1. Knowledge of how own mothers were fed

58 % of all respondents were breast-fed themselves, while 35.6 % were bottle-fed. Of the 20 primiparous women, 12 were breast-fed themselves, 7 were bottle-fed, with one not knowing how she was fed. For the multiparous women, 6 respondents were breast-fed, 4 were bottle-fed, and again one woman did not know how she was fed.

2. Knowledge of duration of friends and relative experiences of breast-feeding

Most respondents had friends and/or relatives who enjoyed and succeeded in breast-feeding (See Table 4.13). Table 4.13 suggests that there may be an association between having problems with breast-feeding and the length of breast-feeding. Friends who had problems were reported as breast-feeding their babies for a shorter time than friends who did not have difficulties. The problems reported were sore nipples, hard to cope, not enough milk, feeling of anxiety and discomfort.

3. Discussion about breast-feeding between women with husband, immediate family, and friends

Most respondents from the primiparous group were likely to discuss breast-feeding with their husbands and friends, but only 3 reported that they discussed it at all widely with their husbands, immediate family, and friends. Four did not discuss breast-feeding with anyone, with another 3 reporting that they discussed it with their friends only. For the multiparous group, 6 respondents did not discuss breast-feeding with anyone, with only one reporting that she discussed it widely with her immediate family, friends and other relatives. The remaining 4 discussed it with either their husbands or immediate family or friends.

Table 4.13 Knowledge of friends' experiences of breast-feeding

Friend's experience	Length of time of breast-feeding (months)**				
	Never	= > 3	3 - 6	6 - 9	> 9
No friends breast-fed	2, 1	-	-	-	-
Friends had problems with breast-feeding	-	2, -	-	-	-
Friends breast-fed successfully	-	-	2, -	8, 2	2, 6
Friends had varied experiences both in success and having problems*	-	-	1, -	-	1, 1
Don't know friends' experience	-	2, 1	-	-	-
Total	2, 1	4, 1	3, -	8, 2	3, 7

* Coded according to maximum duration of breast-feeding experiences of friends.

** Figures for the primiparous women are given first.

4. The consistency of cultural practice

The consistency of cultural practice concerning breast-feeding by each woman is summarised in Table 4.14. Three components were assessed to indicate consistency of cultural practice concerning breast-feeding, that is;

- the knowledge of how the respondents were breast-fed themselves,
- their husbands preferred breast-feeding, and
- their relatives succeeded in breast-feeding experiences.

If the respondent had all three components in cultural practice, she would be coded as showing high consistency between practice and her social environment. If she reported only 2 component she would be coded as showing moderate consistent, and if she had only 1 or none components, she would be coded as showing low consistency of this. Table 4.14 shows that the majority of both groups received moderate consistency of cultural practice concerning breast-feeding.

Table 4.14 The degree of consistency of cultural practice concerning breast-feeding by the women

Consistency of cultural practice	Primiparous Women	Multiparous Women	Total
High	3	-	3
Moderate	10	7	17
Low	7	4	11
Sample size	20	11	31

Social Factors Influencing the Decision Concerning Infant-feeding

When the women were asked who or what had been most influential in their decision concerning breast-feeding, most respondents referred to their partners as the person who influenced them the most. Their own mothers and antenatal classes were reported as influencing the primiparous women rather than the multiparous women, while the multiparous women mentioned their friends and relatives as influencing them more than the primiparous women did. Only one woman from each group indicated that no one influenced them but that their own convictions were the decisive factor (See Table 4.15)

Table 4.15 Who or what influenced the women's choice of breast-feeding* (Total number of sample = 31)

	Classifying influence of choice			
	1st influence	2nd influence	3rd influence	Total*
Partner	10, 4	4, 2	- -	14, 6
Mother	6, 1	3, 1	-, 1	9, 3
Partner's family	- -	- -	2, 1	2, 1
Friends and relatives	1, 4	4, 2	2, -	7, 6
Woman's own decision	1, 1	-, 1	- -	1, 2
Antenatal class	1, 1	3, 1	5, 1	9 3
Family doctor	- -	- -	1, -	1, -
Mass media	2, -	1, 1	1, -	4, 1

* Figures for the primiparous women are given first. Some respondents gave only one or two responses.

Summary

The sample was 31 postpartum women (primiparous women = 20, multipqrous women = 11). All women in the present study elected to breast-feed their babies and almost all of them made the decision to breast-feed their babies prior to pregnancy or at an early stage of pregnancy. The common reason for choosing breast-feeding was that it was more beneficial for baby. Most

multiparous women planned to breast-feed their babies for 10-12 months, while most primiparous women intented to do so for 4-6 months.

More than half the women in each group thought that children were not necessary for a couple's happiness. The majority of both groups reported that being a mother was very important for them. Most women in both groups had a positive attitude to seeing someone breast-feed in public and believed that breast-feeding would not isolate them from others. Additionally, the majority of respondents did not mind feeding their baby in front of others.

Most women had a knowledge about preparation for breast-feeding. The primiparous group prepared their breasts during pregnancy more than did the multiparous group (15 and 5 respectively). Antenatal classes were frequently reported as the source of breast preparation. All women who attended antenatal classes found that they received more advice on the advantages of breast-feeding than of bottle-feeding.

When considering the advantages of breast-feeding, all women referred to the baby's benefits and they gave the difficulties for mothers as its disadvantages. Most women considered in the opposite way for the bottle-feeding by referring to its advantages for the mother.

The majority of the women knew how long breast-milk alone was sufficient for the baby without supplementary food and they also knew how to decide whether or not the baby was getting enough milk.

Books were most often mentioned by most women in both groups as the important source of information about breast-feeding, while other mass media (television, radio, and newspapers) were mentioned only a little.

Eight out of eleven multiparous women had breast-fed their previous child for a period of 9-18 months, while the others gave up breast-feeding before 2 months. Almost all primiparous women had seen someone breast-feed before having their own babies.

Most women reported that they enjoyed new experiences and anticipated that they would be able to cope well with feeding their babies. Half the primiparous women and nearly all the multiparous women expected breast-feeding to be easier to manage than bottle-feeding.

Nearly all of the women enjoyed good health during pregnancy, with one primiparous woman having asthma. She reported that her health did not influence her decision of feeding methods.

Most women reported that work situation and work plans had not influenced the choice of feeding method. Only two women planned to continue working in the early postpartum period and they mentioned that their work would not interfere with breast-feeding. All respondents planned to continue their normal activities both at home and outside home. Most of them expected that bottle-feeding would change their lifestyles more than breast-feeding.

Seven primiparous and two multiparous women had smoked cigarettes before pregnancy. Four primiparous women gave up when they were pregnant.

Half the primiparous and all multiparous women expected that bottle-feeding would change their lifestyles more than breast-feeding because it took more time to prepare.

More than half of the women from each group were breast-fed themselves. Most women had friends and relatives who enjoyed and succeeded at breast-feeding. Most primiparous women were likely to discuss breast-feeding with their husbands, immediate families, and friends. Most of them had a modarate consistency of cultural practice.

Most primiparous women also mentioned that their partners and own mothers had the greatest influence on their decisions to breast-

feed, while the majority of multiparous women referred to their partners and friends as the persons who influenced them the most. Antenatal classes were reported by many primiparous women as supportive to their decisions.

ACTUAL EXPERIENCES OF BREAST-FEEDING DURING HOSPITALIZATION

Initiation of Breast-feeding

Of the 20 primiparous women, 14 reported that they put their babies on to the breast within an hour after delivery. Four began their first feeding during 3-4 hours after delivery. The remaning 2 began feeding their babies more than 4 hours after delivery because of having abnormal deliveries. Of interest is the fact that those two women who began their first feeding after more than 4 hours, one had changed to bottle-feeding before the second interview and the other mixed breast-feeding and bottle-feeding during the third month after delivery because of not having enough milk.

Of the multiparous women, 10 began breast-feeding within an hour after delivery, with only one reporting that she started breast-feeding her baby 3-4 hours after delivery because she had a caesarean section, and she had changed to bottle-feeeding during the second month after delivery.

Frequency of breast-feeding in first days

The average frequency of breast-feeding in the primiparous group was 4.63 times during the mothers' waking hours (S.D. = 1.46) and 2.22 times during their sleeping hours (S.D. = 0.87), the range of breast-feeding was from 3 to 9 times and from 1 to 4 times during waking and sleeping hours respectively. One subject was excluded from the calculation because her baby had mainly expressed milk from other women.

For the multiparous group, the respondents seemed to breast-feed their babies during the waking hours more frequently than the primiparous group. The average frequency of their breast-feeding was 5.18 times, and the range was from 4 to 7 times. The average frequency of breast-feeding during their sleeping hours was 2.27 times (S.D. = 0.65), the range being from 1 to 3.

Most respondents breast-fed their babies on demand feeding (2 - 3 hourly), with only 6 primiparous women reporting that they nursed their babies on schedule feeding every 4 hours. The reason give for this was "the baby was sleepy", "the mother had no milk of her own".

Of interest is the fact that 2 of those women who breast-fed their babies on schedule feeding, had changed to bottle-feeding at six days and ten weeks after delivery respectively. Another 2 mixed breast-feeding and bottle-feeding during the second and the

third month after delivery respectively.

Accommodation arrangements in maternity unit

All respondents were accommodated on a "rooming in" basis with those in rooms sending their babies to the nursery for the night, with the staff wakening the women when their babies needed feeding. However, women who stayed in a single or double room were allowed to keep their babies with them at night if they requested

In the present study, there were 4 primiparous and one multiparous women who reported that they kept their babies with them at night during their hospitalization. Other women reported that their babies were taken from their rooms between 7.00 to 11.00 pm.

The most worrying thing for women during hospitalization

All respondents were asked about the above in an open-ended question. Table 4.16 shows that the respondents from the primiparous group were worried about aspects of the baby's care. Most of them had discussed their worries with nurses. For the multiparous group, most respondents were worried about incorporating the new baby into the family at home. Specific worries included the division of their time between all children, and ways of reducing the other children's jealousy of the baby. Many women discussed these worries with their partners and family rather than with nurses.

Table 4.16 The most worrying thing for women during hospitalisation*

	Primiparous Women (20)	Multiparous Women (11)
1. Worried about aspects of baby:	14	2
Not doing the right things for the baby (i.e. bathing, feeding, etc.)	8	1
Crying	2	-
Cord care	1	-
Poor sucking	2	1
Cot death	1	-
2. Worried about mothers' physical:	3	1
Milk not coming in	1	-
Started sore nipples	1	-
Not getting enough sleep at night	1	1
3. Worried about going home:	3	1
Coping with new baby at home	2	-
Other children	-	5
Work and house work	1	2
4. Not worried about any thing	1	4

* A few respondents gave more than one answer.

The Most Unexpected Thing for Women Concerning Feeding Their Babies

For most respondents from the primiparous group unexpected things which happened were negative rather than positive. Six respondents expected that the baby would go straight on the breast and they would have no trouble, but the reality was not as they imagined. Three respondents did not expect sore nipples, and the hardness and the fullness of the breasts especially when the milk came in. Another 3 had unexpected things in a positive way. One reported that she wondered how the milk arrived so quickly and how women worked physiologically, with another reporting that she wondered at how the baby knew so well what to do. The last one stated that the feeling of love of her baby was a new experience for her. Another respondent who never expected the contraction of the uterus during the first feeding, thought that she had had another baby in her uterus. The remaining 7 reported that there had been nothing unexpected in breast-feeding.

For the multiparous group, 10 respondents stated that there had been nothing unexpected in relation to breast-feeding, with one reporting that her breast was not full and hard when the milk first came in as she had expected.

The Things Women Found Hardest with Breast-feeding

Table 4.17 shows that the primiparous women had more difficult experiences in breast-feeding than the multiparous women. "Getting the baby on the breast properly" was the hardest thing for most primiparous women, whilst only 2 multiparous women reported this and they had not been successful in breast-feeding on previous occasions. "Soreness of breasts especially when the milk first came in" was often stated as the hardest thing for them to cope with. The other hardest things reported were "not being able to predict how much milk the baby got and not knowing if the baby should be hungry". "The clothes got wet when the milk let down".

The Nicest Experience with Breast-feeding during Hospitalization

"The closeness between mother and baby" was reported as the nicest experience with breast-feeding by all multiparous women and 15 primiparous women. "Breast-feeding was a very comfortable thing to do" was reported by one primiparous woman. One mentioned relaxation and calmness as the nicest experience for her, with another reporting that she contented herself with feeding the baby. The remaining 2 reported that they did not know what the nicest experience was. It was hard to answer in that period of time.

Table 4.17 The things women found hardest with breast-feeding during hospitalisation

	Primiparous Women (20)	Multiparous Women (11)*
Getting the baby on the breast properly	12	2
Waking up at night	1	-
Soreness of breasts and nipples	4	2
Painful of the cesarean wound when breast-feeding	1	-
Others	-	2
Do not find anything hard	2	6

* One multiparous woman gave more than one response.

Ease or Difficulties of Breast-feeding

Table 4.18 summarises the actual experience of all women during hospitalization. These data were collected within 3-5 days after delivery. The majority of the respondents had found breast-feeding was easy to manage. The reasons given for ease were that they had no physical problems (sore nipples, breast discomfort), and their babies also sucked very well. One primiparous and one multiparous women also reported that they received a lot of help from the staff. The reason given for the difficulties of breast-

feeding were sucking problem, sleepy baby problem, and a painful caesarean wound. Many primiparous women also mentioned that breast-feeding was not as natural as they had thought.

Table 4.18 Self-assessment of breast-feeding skills by women during hospitalisation

	Primiparous Women	Multiparous Women	Total
Easy to manage	13	9	22
Uncertain	3	1	4
Difficult to manage	4	1	5
Sample size	20	11	31

The Best Advice Concerning Breast-feeding for Women during Hospitalization

The data relating to advice that women received from the hospital were collected retrospectively in the second interview, using an open-ended question "What was the best advice that you received from nurses while you were in hospital?" The subjects reported different opinions.

Table 4.19 shows that the primiparous women received more advice about breast-feeding than the multiparous women. "How to put the

baby on the breast properly" and " nipple care" were the most frequently reported by the primiparous women as the best advice that they received from nurses during hospitalization.

However, three women suggested that nurses should give more information about how to put the baby on the breast. Two had mentioned that the nurses should explain how to do it and then let a mother do it by herself, rather than to manage it without explanation.

It is interested to note that 2 respondents stated that they did not receive any good advice. Subsequently, one of those was found in the second interview to have changed to bottle-feeding. She also suggested that nurses should not expect new mothers to know how to be able to do everything, therefore more advice and supervision should be given to the mothers.

For the multiparous group, most respondents did not receive any advice because they had had breast-feeding experiences previously and had not had any problems caring for the new baby. Two women who had not succeeded in breast-feeding their previous children, reported that nurses gave them only general advice, and they could not say anything in particular about nurses' advice. It is of interest to note that both of them had changed to bottle-feeding by the third and fourth interviews. Another woman who had not succeeded in breast-feeding her previous child reported

that nurses were very helpful. "To be patient and the problem would be solved" was the best advice that she received from the nurses during hospitalization.

Table 4.19 The best advice concerning breast-feeding for women during hospitalisation

	Primiparous Women (20)*	Multiparous Women (11)
Nipple care	4	1
How often the baby is fed	3	-
To be rested and relaxed	2	1
To be patient, do not give up	3	1
How to put the baby on the breast	4	-
How to increase the mllk supply	-	1
General advice	4	2
No advice received	2	5

* Some primiparous women supplied more than one answer.

The Best Help Concerning Breast-feeding from Nurses during Hospitalization

Table 4.20 shows that the respondents from the primiparous group had received much more encouragement about breast-feeding than the women from the multiparous group. Four multiparous women reported that they did not receive any particular help because they were able to care for themselves and did not request any help from the nurses. "Help to get the baby onto the breast properly" was the most frequently reported by the primiparous women as the best help from nurses during hospitalization, whilst 4 multiparous women reported that "availability and willingness of the service" was the best help that they received from the nurses.

Additional Assistance Required from Nurses during Hospitalization

The data were collected in the first interview. Of 20 primiparous women, 7 reported that they did not need any more assistance from nurses than they received. Five mentioned that they needed reassurance that they were doing the right thing for their babies. Four reported that they needed nurses to encourage them to breast-feed continually. Another 2 wanted some more helps with alleviating sore nipples. Of the last 2, one needed nurses help expressing the milk with the breast-pump, with the other reporting that the good understanding between nurses and patients was the best help that she needed.

Table 4.20 The best help concerning breast-feeding from nurses during hospitalisation

	Primiparous Women (20)*	Multiparous Women (11)
Helping to get the baby onto the breast properly	15	1
Showing how to hold the baby	1	-
Showing how to take the baby off the breast	1	-
Reassurance that women are doing the right thing	4	-
Encouraging women to rest as much as possible	-	1
Availability and willingness of the service	2	4
General encouragement and support	2	1
No particular help received	-	4

*Some primiparous subjects gave more than one answer.

Of the 11 multiparous women, 7 did not want any additional help from the nurses, while 3 reported that they needed only encouragement and support from nurses. The remaining one reported that she preferred nurses not to do things too much.

Dislike about Nurses' Assistance during Hospitalization

Fourteen primiparous and all multiparous women reported that they did not find anything that they disliked about nurses' help. Three primiparous women found that different nurses always gave different advice. Two reported that this made a mother confused at the beginning. They did not know which advice would be the best way. One felt that this could be very upsetting and very frustrating for a new mother. However, 2 of those also mentioned that it was a good thing to have several opinions to try at a later time. A mother was able to select the way that she preferred and do it by herself. Another 2 primiparous women mentioned that they disliked the way that a nurse put the baby on the breast. They felt it hurt their babies. The remaining one felt that some staff did not have enough confidence to care for the babies and this lessened her confidence to look after her baby as well.

Sources of the Most Encouragement for Breast-feeding during Hospitalization

These data were collected retrospectively at the second interview (2-3 weeks postnatally). Table 4.21 shows that the nurses were the predominant source of encouragement for breast-feeding during hospitalization. The reason given was that most respondents felt that nurses gave consistency of care, reassurance (making sure everything was all right), encouragement to breast-feed, and support by saying they were doing well. For the women who referred to their baby as the greatest source of encouragement for nursing, they mentioned that their babies learned how to suck very well. "Postnatal class" was referred to as the best encouragement by one multiparous woman. She explained that knowing about the advantage of breast milk was very helpful for her. "Other mothers" was also referred to as the person who gave them the best encouragement. The reason given was that they shared the experience of breast-feeding with each other.

Table 4.21 Reported sources of the most encouragement about breast-feeding during hospitalization

Source of encouragement	Primiparous Women (20)*	Multiparous Women (11)
Nurse	16	5
Partner	2	-
Baby	1	1
Friends and relatives	1	-
Other mothers	1	1
Postnatal class	-	1
None	1	3

*Two primiparous women gave more than one answer.

Evaluation of Services concerning Breast-feeding by the Women

All women were asked retrospectively at the second interview (7-8 weeks postnatally) about how helpful the advice from antenatal classes, and postnatal classes during hospitalization was.

1. **Antenatal Classes**

Seventy seven percent of women reported that they attended the breast-feeding class as part of the antenatal class during their pregnancy. Only two primiparous and five multiparous women reported that they did not attend the class. More primiparous

than multiparous women (P = 11, M = 2) who attended the class found that it was very helpful. Three primiparous and one multiparous women mentioned that the class was moderately helpful. Three women in each group thought that it was slightly helpful. The remaining a primiparous woman reported that it was not helpful. She commented that nurses should examine a mother's nipples before delivery because she did not realise that she had inverted nipples until her baby was born.

Most women reported that the lecture was very helpful and the opportunity for discussion and asking questions was also useful. Apart from seven primiparous women, the women in both groups reported that they were adequately prepared for breast-feeding during their pregnancies. Five primiparous women found that they did not have enough preparation, whilst 2 primiparous women were uncertain of their preparation for breast-feeding.

Several women, especially the new mothers, suggested that nurses should add more instruction about nipple preparations at the antenatal class. Some commented that they should give more information about the time consuming nature of the breast-feeding method and the problems of this method (e.g., it would not be easy at the start, it would be painful when the milk first came in). One multiparous woman suggested that a mother should receive more detailed information about the benefits of breast milk in respect to the physiology of breast milk.

2. Circumstances of Postnatal Unit

One primiparous woman had changed to bottle-feeding before the second interview. At the second interview, all the women (P = 19, M = 11) who were breast-feeding were asked retrospectively whether the ward layout and the ward routine encouraged breast-feeding.

Most women reported that the ward layout encouraged breast-feeding, especially, for anyone who was in a single room. Six primiparous and three multiparous women reported that they felt it did not encourage breast-feeding. Some mentioned that it was hard for a new mother to be in a big room. A few complained about a lot of visitors in the ward. However, most women reported that the ward routine encouraged breast-feeding. The reasons given by many women were that;

- the hospital routine was flexible e.g. routine work was kept waiting until women finished breast-feeding, the meal would be warmed if they had been breast-feeding at a meal time.

- the nurses were very concerned to encourage breast-feeding, e.g. giving more time to women, breast-feeding classes were provided.

However, three women had indicated no encouragement from the ward routine. They had pointed out that the ward situation was so

busy that they were not able to adjust. Additionally, two women were not sure because of the crowded situation in the ward which may make a mother nervous, thus breast-feeding may not be encouraged. A few primiparous women suggested that breast-feeding in the ward could possibly be encouraged more if:

- the baby is with the mother as much as possible
- some nurses continuously visited a mother in the first days, particularly for the new mother and if possible nurses experienced in breast-feeding would be preferable.

3. Postnatal Class

A woman's attendance at postnatal classes depended on their free time. Postnatal classes were offered mostly every day (except on Saturday) in aspects of baby care, breast-feeding, going home, home safety and milk talk.

Twenty out of thirty-one women reported that they had attended at least one postnatal class. Nine primiparous and 2 multiparous women reported that they had not attended any postnatal classes at hospital. Most women (P = 8, M = 6) who attended the class reported that it was very helpful. One primiparous and 2 multiparous women found it was moderately helpful. The remaining two primiparous and one multiparous women, mentioned that it was mildly helpful.

4. Postnatal Advice from Nurses

Most women reported that they received adequate advice from nurses during their hospitalization, except for three primiparous women who felt that they had not been given enough advice from nurses. In this group was one women who had changed to bottle-feeding before the final interview. Additionally, 2 multiparous women mentioned that they had not received any advice form nurses because they were able to do everything themselves.

Besides, of the 20 primiparous women, 7 reported that they found different nurses gave different advice (e.g., changing the nappy, feeding position, duration of feeding, etc.). Some commented that the different advice made them frustrated and they were not sure which was the best way. All multiparous women reported that they did not receive any conflicting advice. This may be because they did not receive as much advice as the primiparous women.

Summary

The majority of women (P = 14, M = 10) began breast-feeding their babies immediately after delivery and fed their babies on demand. Most women were accommodated on a "rooming in" basis in large rooms, with the staff wakening the women when their babies needed feeding. More than half the primiparous women worried about aspects of baby's care (bathing, feeding, holding) while many multiparous women worried about coping with other children when going home.

Most primiparous women found that "getting the baby on the breast properly" was the hardest thing to cope with when breast-feeding. When considering that breast-feeding was easy or hard to manage, 13 primiparous and 9 multiparous women assessed it to be easy for them because of no physical problems and baby's sucking ability.

For most primiparous women the unexpected things which happened to them were negative rather than positive (e.g., the baby would not go straight on the breast as they imagined). The nicest experience with breast-feeding during hospitalization reported by most women was the closeness between mother and baby.

"Getting the baby onto the breast properly" was reported by most primiparous women as the best advice and help from nurses during hospitalization. Nearly half the multiparous women reported that they did not receive any advice and help from nurses concerning breast-feeding as they had had breast-feeding experiences previously and they were able to care themselves.

Most women when asked about additional assistance from nurses reported that they were satisfied with the help that they had actually received. Many primiparous women needed continual encouragement and reassurance from nurses.

Of the 7 primiparous women who found that different nurses gave different advice, three complained that conflicting advice could

create confusion and frustration for a new mother. Some did not like the rough way nurses put the baby on the breast.

Most women (P = 16, M = 5) referred to nurses as the predominant source of encouragement during hospitalization. Some women indicated their babies and other people as being the next source of encouragement for breast-feeding. It was found that of the two primiparous women who reported that they did not receive any good advice from nurses, one had changed to bottle-feeding at six days after delivery. In addition, the two multiparous women who did not succeed breast-feeding previously were not able to mention anything in particular about good advice and help from nurses. Both of them had changed to bottle-feeding before the end of the collection period. In contrast, another multiparous woman who also failed in breast-feeding a previous child mentioned that nurses were very helpful during hospitalization and she still breast-fed at the final interview.

Most women (P = 18, M = 6) attended antenatal classes and found them helpful in various degrees -- mild to very helpful. Several primiparous women suggested that nurses should add more instruction about problems of breast-feeding, nipple preparation at the antenatal class. Most women found that ward layout and ward routine encouraged breast-feeding due to its flexibility and concern. The women who stayed in a single room found ward layout encouraging whereas some women who were in a shared room found such conditions less encouraging.

Fewer women attended postnatal classes than antenatal classes, but most of them found the classes generally helpful (9 primiparous and 2 multiparous women did not attend the class). Most women, nevertheless, found that they received adequate advice from nurses during hospitalization except 3 primiparous women reported in the contrary. One of those 3 who had not received advice from nurses had changed to bottle-feeding before the final interview.

ACTUAL EXPERIENCE OF BREAST-FEEDING AT HOME OVER 12 WEEKS

As women changed to bottle-feeding, the number of respondents were reduced in the subsequent interviews due to the focus of the thesis on breast-feeding.

Frequency of Breast-feeding at Home Over 12 Weeks

Table 4.22 shows that the number of night feeds for both groups had been decreasing over the period of the interviews. The mean, range and standard deviation of feeding times are shown in the table.

Introduction of Solids

At the final interview, most women reported that they had not introduced "solids" to their baby. Only 4 primiparous women reported that they gave solids to the baby. Of those four most started when the baby was about 2.5-3 months old and gave it once a day or a week. Only one primiparous woman mentioned that she started introducing it at two months of age (gave it once a day). She also reported that her baby was overweight at the final interview.

Table 4.22 Frequency of breast-feeding during day and night time after discharge*

Mean, Range, and S.D. of feeding times	The amount of feeding					
	2-3 weeks		7-8 weeks		12-13 weeks	
	Day	Night	Day	Night	Day	Night
Average:						
Primiparous group	5.34	1.68	5.63	0.63	5.31	0.28
Multiparous group	5.04	1.72	5.95	0.90	5.67	0.67
Range:						
Primiparous group	4-8	0-3	4-8	0-3	3-7	0-1
Multiparous group	4-7	1-2	4-10	0-2	4-9	0-2
Standard Deviation:						
Primiparous group	1.38	0.70	1.69	0.76	1.20	0.46
Multiparous group	1.08	0.47	1.54	0.88	1.27	0.71
Sample size	P = 19, M = 11		P =19, M =10		P =18, M =9	

*The number of subjects was reduced from initial sample (P = 20, M = 11) as the woman changed to bottle-feeding.

The Rest Experience after Discharge

Most women reported at each interview that they were able to rest at some time during the day, except for two multiparous and four primiparous women who mentioned that they did not take a rest during the day. One woman in each group also reported at the third interview that they had started working outside the home (part-time and fulltime respectively).

Most of them also reported that they had enough time for sleep at night. Nine primiparous and 5 multiparous women reported this at all home interviews. Particularly, at the final interview, all women in both groups who still breast-fed, reported that they had enough time for sleep at night. Most of them mentioned that it was because their baby did not wake up during the night or they were able to sleep longer than during the first two months while some mentioned that they got used to waking up at night. Only 2 multiparous women reported that they had not enough rest either day or night at the second and third interviews. One mentioned at the third interview that her baby woke up more than three times at night because of his sickness and she had two young children to take care of at home. The other woman reported that she had not enough rest because she had started work in a part-time job at the third interview, and occasionally she also did some work late at night. However, at the final interview, both of them reported that they had enough sleep at night and they were still breast-feeding their babies.

The Places Where Women Prefer Not to Breast-feed

Most of the women (P=13, M=7) reported that they preferred not to breast-feed in some public places (see Table 4.23). Six primiparous and 4 multiparous women mentioned that they had not found any places where they would not breast-feed. This group included 2 multiparous women who had changed to bottle-feeding before the final interview.

Table 4.23 The places where women preferred not to breast-feed*

	Primiparous Women	Multiparous Women
In town/in pubic	7	2
Church	2	1
Restaurant	4	3
Shopping centre	2	1
Inconvenient places (cold/noisy)	-	2
In front of strange people	4	-
In front of old people/men	2	-
No places reported	6	4
Sample size*	19	11

* Some sujects gave more than one answer.

The Things Women Found Hardest with Breast-feeding

Table 4.24 shows that the pressure of time and the number of tasks was most frequently reported as the difficult evidence concerning breast-feeding at all home interviews. At the second interview (the first interview at home) the time that the baby demanded was reported most as the hardest thing with breast-feeding (7 out of 30). Some women mentioned that either they were not able to do other tasks, or had to interrupt their routine work because of their difficulties with breast-feeding. At the third interview, "waking up during the night" was often reported as their major difficulty (5 out of 29). However, "time/pressure of number of tasks" was continually reported at all home interviews by only one multiparous woman. Three primiparous and 4 multiparous women also mentioned the same problem at two interviews.

This Table indicates that the multiparous women found more difficulties in the aspect of managing time than the primiparous women. However, the primiparous women faced the difficulties relating to babies and feeding in general more than the multiparous women. The other difficulties of feeding the baby reported were;

-inconvenient to breast-feed outside the home,

-insufficient milk,

-not knowing the milk quantity that the baby got, and

-going out at night.

"Not finding anything hard" was reported consistently at all home interviews by one multiparous and 2 primiparous women. Five primiparous women also reported that they had not found anything hard concerning breast-feeding at two interviews. This group of 5 women included one woman who changed to bottle-feeding within the third month after delivery.

It is interesting to note that during the interview period the number of women who reported any difficulties with breast-feeding was obviously decreasing. Eighty per cent of all subjects (N =24) reported having difficulties in the second interview, whilst 65.5 per cent and 48.1 per cent (N=19, N=13) reported this in the third and the final interviews respectively. This implies that women are able to adjust and cope with the problems better in the later periods.

Table 4.24 The things women found hardest with breast-feeding at home over 12 weeks postnatally

	2nd 2-3 Weeks interview P	M	3rd 7-8 Weeks interview P	M	4th 12-13 Weeks interview P	M
Time/pressure of number of tasks:	8	8	7	6	3	4
Pressure of time/other tasks						
- General	5	5	5	2	3	2
- Other children	-	2	-	1	-	-
- Tiredness/rest	3	1	2	3	-	2
The difficult things about the aspect of babies :	4	1	-	-	5	-
- Refuse to suck	3	-	-	-	2	-
- Unsettled	1	1	-	-	-	-
- Getting a lot of wind	-	-	-	-	2	-
- Overfeeding	-	-	-	-	1	-
The difficulties relating to feeding the baby :	3	-	4	2	1	-
- Soreness of nipples	2	-	1	-	1	-
- Have to prepare bottle	-	-	1	1	-	-
- Other	1	-	2	1	-	-
Not finding anything hard	4	2	8	2	9	5
Sample size*	9	11	19	10	18	9

* The sample number reduced from the initial sample as the women had changed to bottle-feeding.

The Nicest Experience with Breast-feeding after Discharge over 12 Weeks

Table 4.25 summarised the nicest experience with breast-feeding. Over the three months period of lactation, "closeness between mother and baby" was often reported by the majority of the women as the nicest experience for them. In the second interview, several women also mentioned that breast-feeding seemed to create a good bond between the mother and the baby, they felt closer contact with their babies. "Spending the time with baby in order to know each other more" was often reported in this period. In the third and the fourth interviews, many respondents were contented with seeing the baby growing well. This was reported by the primiparous women rather than the multiparous women.

Problems in breast-feeding experienced after leaving hospital

As women changed to bottle-feeding, the number of respondents was reduced in the subsequent interviews, due to the focus of this thesis on breast-feeding. At each interview after discharge from the hospital, a list of problems (e.g. question 26 in the second interview) was used to find the difficulties that women often experience with breast-feeding. Table 4.26 shows that problems with breast-feeding were most common at the second interview, (the first interview at home), and the problems reported decreased in the later interviews. At the final interview (twelve weeks after delivery), the ten primiparous and all

multiparous women who still breast-fed reported that they did not find any problems with breast-feeding.

At the second interview, "soreness of nipples" was most frequently reported with breast-feeding by both groups of the women. At the third interview, 3 primiparous women still reported sore nipples being a problem and one woman in this group still had this problem at the final interview. She was about to change to bottle-feeding at that time.

Not enough milk" was reported at all home interviews by one primiparous woman. However, she still breast-fed and used supplementory milk to feed her baby at the final interview. The same problem was also reported by one multiparous woman who had changed to bottle-feeding by the third interview (7-8 weeks). "Insufficient time for both family routine and young children" was reported by 3 multiparous women at both the second and the third interviews.

Table 4.25 The nicest experience with breast-feeding over 12 weeks posnatally

	2-3 Weeks 2nd interview		7-8 Weeks 3rd interview		12-13 Weeks 4th interview	
	P	M	P	M	P	M
Closeness between mother and baby	15	3	12	5	11	5
Relaxing and comfortable	2	3	-	-	-	-
Getting the chance to rest	-	-	2	1	1	1
Enjoy being a mother	-	-	1	-	-	-
Giving the best food for the baby	-	3	-	-	-	2
Making the baby satisfied	1	3	-	-	1	1
Spending the time with baby	1	4	-	2	-	2
Satisfying to see the baby growing well	-	-	7	2	6	1
Convenient and easy to do	2	-	-	-	1	-
Nothing	1	-	-	1	-	-
Sample size*	19	11	19	10	18	9

* Some women gave more than one answer.

It is of interest that at the home interviews 3 primiparous and 1 multiparous women reported finding no problems with breast-feeding. Among the primiparous group, it was surprising to note that one woman had changed to bottle-feeding by the fourth interview because of insufficient milk although she had not reported any problems with breast-feeding at previous interviews. This cast some doubt on the validity of aspects of her responses to earlier interviews. Two multiparous women who had changed to bottle-feeding reported more problems than the other multiparous women at the second interview.

From the list of problems, all women were asked to identify the problems in their breast-feeding experiences that had bothered them the most. At the second interview, many women mentioned one major problem. By the third interview, fewer women reported any one problem as being greater than other problems. Fourteen primiparous and 9 multiparous women reported one major problem at the second interview. At the third interview only 10 primiparous and 6 multiparous women reported having one major problem. At the final interview, none of the multiparous and only four primiparous women reported having one main problem that bothered them.

At the second interview, the most common major problem reported by primiparous and multiparous women was different. "Soreness of nipples" was most frequently reported by primiparous women (6 out

of 14), where as, "no time for other young children" was reported the most by multiparous women (3 out of 9). At the third interview the same women reported having one major problem but the problem was often different. "Illness of respondent" was most frequently reported by the primiparous women (3 out of 10) (See Health Problem). "No time for other young children" was reported most often by the multiparous women (2 out of 6).

At the final interview, of 4 primiparous women, 3 reported the same problems as previously. The rest reported a different problem.

Table 4.26 Problem in breast-feeding experienced after leaving hospital

Problems	2-3 weeks 2nd interview		7-8 weeks 3rd interview		12-13 weeks 4th interview	
	P	M	P	M	P	M
Maternal Problems:						
Not enough milk and milk dried up	1	1	3	2	3	-
Breast discomfort	6	5	5	1	3	-
Soreness of nipples	9	6	5	-	1	-
Breast infection	1	1	1	1	1	-
Illness of mother	-	1	3	1	1	-
Don't like to breast-feed in public	4	-	3	-	-	-
Return to work	-	-	1	-	-	-
Infant Problems:						
Poor sucking/refused to suck	4	1	1	2	1	-
Excessive crying of the baby	1	1	3	3	-	-
Illness of the baby	1	-	-	1	-	-
Family Problems:						
Insufficient time with family routine	8	4	3	1	1	-
No time for other young children	-	4	-	3	-	-
Other	1	-	-	1	-	-
No Problems at all	3	1	4	2	10	9
Sample size*	19	11	19	10	18	9

*Many subjects gave more than one answer.

Over all home interviews, none of the women were found to report that the same major problem was bothering them. But one woman in each group reported the same problem at the second and the third interviews. Three primiparous women did so at the third and the final interviews.

To sum up, the major problem of breast-feeding was reported by most women as being a temporary problem. The most common major problems reported were soreness of nipples, and the pressure of time.

Pleasure in Ability to Cope with Breast-feeding

By the time of the second interview, all the women (P=19, M=11) who continued breast-feeding stated that they were pleased with the way they had been coping with breast-feeding. Most women reported that their babies seemed to be satisfied with breast-feeding, putting on weight and progressing very well.

At the third interview, some women, especially the primiparous women mentioned that they were not sure of their ability to breast-feed at the first stage but once they overcame the initial problems, they found it easy and had not had further problems. These data included the responses of the 2 multiparous and 1 primiparous women who had changed to bottle-feeding before the final interview.

It is of interest that one multiparous woman reported that she was pleased with her ability because she did not expect to breast-feed at all. However, she had changed to bottle-feeding by the time of the fourth interview.

At the final interview, of 18 primiparous women, 3 reported that they were disappointed at not breast-feeding their babies as long as they had expected. One reported that her milk dried up so that she was able to breast-feed only 1-2 times a day at that time. Another complained that she desparately wanted to breast-feed her baby but the baby refused to suck her milk. She was able to breast-feed only once a day. The last one had difficulty with sore nipples and was about to change to bottle-feeding at that time.

The remaining 15 primiparous and 9 multiparous women reported that they were satisfied with their ability to cope with breast-feeding because they had no problems, and their babies were healthy and contented at that stage. Besides, some mentioned that they enjoyed doing it even though it was hard at the beginning.

Pattern of Living after Discharge

All women found that they had changed their pattern of living after leaving the hospital. Most women indicated that they had more visitors than normal over the first few weeks, following the baby's birth. Their routine work, pattern of going out and so on had been reported as changing, evidence which is described in the following section.

1 Work

All of the 20 primiparous women used to work outside the home before having the baby. By the final interview only one primiparous woman reported that she had started her work again and she was still breast-feeding at this time.

Of the 11 multiparous women, 3 used to work outside the home before having this baby. Only one woman reported that she had started her work part-time at the third interview. These two women who still worked after having a baby, indicated that they had a flexible work situation where they were able to either take the baby with them or work at home occasionally.

2 Pattern of Going out

At the second interview, all women (P=20, M=11) reported that they had gone out for certain reasons since leaving the hospital (i.e. shopping, business, visiting and church). Most women took their babies with them to all of the places that they went, except that 4 primiparous and 3 multiparous women reported that they did not take their babies when shopping. Only two multiparous women reported that they did not take the baby when going out. Most women in both groups reported that they went out for short periods and nursed their babies before going out. Nine primiparous and three multiparous women mentioned that they also nursed their babies outside the home if it was necessary. Two primiparous and one multiparous women also mentioned that they expressed milk to give by bottle in the case of longer outings.

At the later interview, of the 19 primiparous women, 11 reported that they were able to go out more than in the first month and 10 of those also found that it was generally so at the final interview. The remaining 1 woman had changed to bottle-feeding before the final interview. Another 4 reported that they went out less than the last month because it took a lot of organization. However, two of those 4 mentioned that they were able to go out more at the final interview. The remaining 4 stated that their pattern of going out was the same as the first month and at the final interview three of those 4 reported this to be so. The remaining one mentioned that she was out less than during the second month because her baby had had a leg operation. Of the 11 multiparous women, 4 reported that their pattern of going out had changed from the first month, they went out more by the third and the final interviews. This group of women included two who had changed to bottle-feeding at the third and the fourth interviews. Three women mentioned that by the third interview, their patterns of going out were the same as the second interview and also found that there was no change at the final interview. Three of them also had one child at home who was under 3 years old.

Another three women reported at the third interview, they went out a little more than the first month and also had the same pattern of going out at the final interview. Two of these had

two other children under 5 years old at home. The remaining one, who also had two children at home, reported that she went out less at the third and the final interviews. This implies that the mothers who had small children at home had more difficulties in going out than the others.

3 Hobbies and Activities

After discharge from the hospital, of the 19 primiparous women, 4 found that they had no free time to devote to their hobbies over the three months of data collection. One of these 4 women reported that she had taken up a new activity at the second interview by attending a postnatal class at Parents Centre. Eight women reported that at the second interview, they had not done any hobbies, however, they had started on some hobbies at the third interview (i.e. knitting, reading, gardening, exercise, and jogging) and continued this at the final interview. This group included one woman who had changed to bottle-feeding at the final interview. The remaining 7 reported that at the second interview, they had found time for a few hobbies (i.e. reading, gardening, sewing) and also had more time to do so at the third and the final interviews.

At the second interview, of the 11 multiparous women, 5 reported that they had no time for hobbies and also three found that they had no free time at all the following interviews. The rest mentioned that they had found time for their hobbies (sewing,

playing with other children) at the third end the final interviews. The remaining 6 reported at the second interview, they had done one of the following kinds of hobbies:-gardening, knitting, reading. Two of these reported the same at all the following interviews. One reported at the third interview that she did not have time for her hobbies since her baby's sickness but, at the final interview she was able to do more things. The last 3 reported that they had more time to do activities at all the following interviews. This group of 3 included two women who had changed to bottle-feeding before the final interview.

Major Change of Women's Lifestyle after Leaving Hospital

At each of the interviews after discharge, all women were asked, using an open-ended question, about the major change that they had noticed in their lifestyle since their babies arrived. The sample size decreased from the initial sample (P=20, M=11) over the interview period because some changed to bottle-feeding.

At the second interview, most women when describing their lives since leaving the hospital, said that they were very busy. Their routine work had been changed because of spending more time with their babies. Three primiparous women stated that they were more relaxed being at home rather than being in hospital. The pressure of time was reported by most women as the major change in their pattern of living (see Table 4.27). Most women were home more than previously. "Spending more time with the baby"

was most frequently reported by the women in both groups. "Not having enough time to give to the older child" was also reported by one multiparous women. It is of interest to note that only one primiparous woman reported that "sharing in love with her baby" was the major change in her lifestyle. She had nevertheless changed to bottle-feeding before the final interview. With two multiparous women who had changed to bottle-feeding before the final interview, one reported that she got less sleep than normal. The other mentioned that her routine work had been changed.

Fifteen primiparous and all multiparous women stated that they expected these changes in their lives before having a baby, except that one primiparous woman reported that the baby had demanded more time than she expected. In addition, four primiparous women were uncertain of their anticipations about the changes in their lives. However, most women found that these changes were not difficult to cope with except for two primiparous women who mentioned that they found it hard to cope with. Additionally, 2 multiparous women were uncertain of their ability to cope with the changes. One, who was not sure how to cope with her tiredness, had changed to bottle-feeding at the third interview. The other was uncertain of her ability to cope with caring for one young child and the baby at the same time.

Table 4.27 Major change of women's lifestyle during the first two weeks postnatally*

	Primiparous Women (20)	Multiparous Women (11)
Spending more time with baby	8	7
Not enough time for themselves/ husband	6	1
Pattern of the routine tasks changed	5	2
Pattern of going out changed (not being able to go out freely)	4	3
Pattern of sleeping changed	1	1
Lack of independence	3	-
More work to do	2	1
Other	1	1

* Most women gave more than one answer.

At the third interview, of 19 primiparous women, 8 still reported changes in their lives concerning the pressure of time (not enough time for themselves, baby made more demands than expected, and not being able to go out freely). Two of those reported that it was difficult to cope with these changes. The rest mentioned

that their pattern of living had been changed in a positive way (i.e. being able to go out more, having more time to do other tasks, being more confident). This group included one woman who changed to bottle-feeding before the final interview.

For the multiparous group, (M=10) 6 women reported that they had still had the same experiences as at the previous interview (i.e. baby more demanding, staying home more). One woman mentioned that it was difficult to cope with her baby's sickness (her baby had bronchitis). The other mentioned that she was uncertain of her ability to cope with her tiredness. However, both of them were still breast-feeding their babies at the final interview. The remaining 4 reported that, as with the primiparous women their lifestyles had changed in a positive way. This group of women included one woman who had changed to bottle-feeding at the final interview.

At the final interview, of 18 primiparous women, 5 reported that there were negative changes in their lifestyles. Three of those had previously reported negative changes in the former interview. The remaining 13 found that they had positive changes in their lifestyles. (i.e. more confident, easier to organise time, baby making less demands, being able to sleep more).

Of 10 multiparous women, 4 reported that they still had no time for themselves. The rest found that their lifestyles had changed

in a positive way. One of the women in this group had changed to bottlefeeding at the final interview.

Responsibility for Household Tasks and Baby Tasks

1. Household Tasks

The women were asked about household tasks and help received from other people at all home interviews. A list of household tasks; shopping, cooking, dish washing, household cleaning, washing clothes, ironing, gardening, and looking after other children, were used as indicators of the pattern and change.

At the second interview (2-3 weeks postnatally) most women reported that their family patterns had been changed after discharge from the hospital. Most mentioned that their husbands helped with household tasks more than usual, particularly shopping, looking after other children. During the first two weeks after leaving the hospital, some mentioned that they had their family and relatives staying with them and helping with general tasks. The people who helped them were husband, own mother, mother-in-law, sister, friends and their children. Only 5 out of 20 primiparous women reported that their family pattern was the same as before having a baby. This group included one woman who had changed to bottle-feeding before the final interview. Additionally, 4 out of 11 multiparous women said that their family patterns had not been changed after having this baby. Two women in this group had changed to bottle-feeding before the final interview.

Among both group of women, at the second interview, the most frequently reported tasks done by women alone were washing clothes, ironing and cooking. Tasks performed together by both women and partners reported by primiparous women were dish washing, shopping and cleaning. For the multiparous group, tasks done by both parents most were looking after other children, and dishwashing. Gardening and shopping were reported by both groups as being the most frequent tasks done by husbands alone. Women in both groups reported that others had occasionally done dish washing, household cleaning and washing clothes. Immediate family and other relatives were found to be a major source of help.

It appeared that a similar division of household tasks was continuing in the subsequent interviews (See Appendices viii and ix). It is of interest to note that the women who worked outside the home reported that they received more help with household tasks from family and others than other women did. It was one multiparous woman who had changed to bottle-feeding at the third interview, had done almost all of the household and baby tasks by herself.

2. Responsibility for baby related tasks

At all home interviews, all women were asked by a list-provided question about the division of the baby tasks. It was found that

bathing baby, feeding baby, and attending night waking were the most frequent tasks which the women in both groups had done alone during the 12 weeks after having a baby. The most often reported tasks that women and their partners (including other children) always did together were comforting the baby, holding the baby and playing with the baby (See Appendices x and xi).

Health Problems after Leaving the Hospital

Most women reported that they had been well at all home interviews. Only two women in each group had a breast infection and took antibiotics from doctors. They thought their medication was having no affect on breast-feeding. However, one multiparous woman in this group had changed to bottle-feeding before the final interview. A few women mentioned their tiredness but did not need any medication. Nevertheless, one multiparous woman in this group had changed to bottle-feeding at the third interview.

Three primiparous women reported that they had an illness. One had flu and another had post-natal depression at the third interview. The last reported diarrhea at the final interview. However, all of them were still breast-feeding at the final interview.

Using Contraceptives

Most women reported at the third interview (7-8 weeks postnatally) that they had started practicing family planning. Two women reported at the final interview (12-13 weeks) that they had started using contraceptives, while 4 mentioned not using any contraceptive method at this time. One was about to consult her doctor and another 2 mentioned not worrying about getting pregnant again. The last one gave religion as her reason for not using contraceptives.

Of the 24 women who were using contraception, 14 reported using the pill. The reason given was that most women used to be on it before. Two primiparous women stated that they thought it did not effect the milk supply. Six women reported that their husbands used a condom. Two primiparous women gave as their reasons for using the method the fact that it did not interfere with breast-feeding. Another mentioned that the doctor suggested it. Two multiparous women whose husbands used a condom, referred to their previous experiences with the pill. They found it affected their body and mind so they did not want to use pills again. The sixth reported her husband was about to have a vasectomy. Only 3 women reported that they used natural family planning and the last one said her husband had had a vasectomy.

Advice and Encouragement for Breast-feeding from Health Professions

At all home interviews, women were asked a list of questions designed to find out what advice they received after leaving the hospital.

Table 4.28 shows that "plunket nurse" was the person most frequently reported as the professional person that they had contacted at all interviews. At the second interview "doctor" was reported as being the professional health person whom women had met the most because of the postpartum checking routine.

It was found that 8, 9 and 17 primiparous women and 6, 5, and 9 multiparous women reported that they had not received any encouragement of breast-feeding from nurses at the second, third and final interview respectively. General advice, suggestions about nutrition and saying how well the baby had progressed were described as encouragement and support given by health professionals among the respondents. Additionally, two multiparous women reported that their plunket nurses sent people to help with their housework once a week when it was necessary.

Most women reported that they appreciated what nurses had provided. General health advice, both physical and psychological support and help, company, and feedback were reported as providing the most satisfaction. However, a few women mentioned

things they did not appreciate especially those who felt that plunket nurse had not given enough time to their visit.

Dislikes about Nurses' Consultation after Leaving Hospital

Most women reported that they did not find anything that they disliked about nurses' visits or consultations. Most women mentioned that nurses are very helpful. Two primiparous women commented that nurses should spend more time with mothers. They found that Plunket nurses were very busy and were in a hurry when they visited them. One primiparous woman suggested that nurses should give more information about the kinds of food which affect the baby's stomach. She found that a nurse did not know as much as she would like.

Additionally, three multiparous women suggested visiting time. One said that a mother should receive regular visits by the same nurse. Others commented:

> "Plunket nurses should have more time to spend talking to mothers."
>
> "Nurses should sit and talk to you about anything that you want to ask. Particularly the first time mothers, they need the visit, it is very important."

Table 4.28 Women's contact with health professions

	2-3 weeks postnatally		7-8 weeks postnatally		12-13 weeks postnatally	
	P	M	P	M	P	M
Plunket nurse	18	10	15	10	11	8
Hospital nurse	3	1	1	-	-	-
Public health nurse	2	1	-	1	2	1
Doctor	5	1	15	10	2	4
Doctor's practice nurse	2	1	4	2	1	2
No one	-	-	1	-	7	1
Sample size	20	11	19	11	18	10

Sources of Help

At all home interviews the women were asked in an open-ended question, whom they sought help from about problems associated with breast-feeding (Table 4.29). It can be seen that more than half of the women in each group reported that they had needed no help. This group of women included two who had changed to bottle-feeding before the final interview. The plunket nurse was the person whom the majority of women consulted concerning breast-feeding problems (-sore nipples, breast discomfort, excessive crying of the baby). For health problems (e.g. breast

infection, illness of women and babies), they reported that they consulted their doctors. They sought help from their husbands and relatives for problems caused the pressure of time. Almost all of the women reported that they knew about the La Leche League organisation except for two primiparous women. Only one primiparous woman received advice from a member of this group after discharge from hospital, with one multiparous woman reporting that she got a lot of support from this group.

Table 4.29 Sources of help sought by the women over 12 weeks after delivery

	2–3 wks (2nd interview)		7–8 wks (3rd interview)		12–13 wks (4th interview)	
	P	M	P	M	P	M
Husband	2	2	1	-	-	-
Relative and friend	2	1	-	1	1	-
La Leche members	1	-	-	-	-	-
Midwife and/or nurse	6	2	5	3	2	-
GP or other doctor	3	1	2	2	1	-
No help needed	11	5	13	7	14	9
Sample size	19	11	19	10	18	9

Help Needed from Family and Others

At all home interviews, all women were asked about what would be the best help they could get with breast-feeding from family and others.

At all home interviews, most women in both groups reported that they needed support and encouragement from family and others.

Many commented;

> "It is helpful, if mothers have someone to help with the household tasks."
>
> "Carry on with my work, when the baby needs to be fed."

Some reported they needed to be accepted by family and others:

> "I hope that they will not expect me to take too much responsibility for other household tasks."
>
> "I hope that male relatives and others can understand and accept me if I feed in front of them."

Some primiparous women also mentioned that they needed help from professional staff;

> "Give me the advice, encouragement, and reassurance that I'm doing the right thing."

One primiparous woman also stated;

"I suppose, I need advice and encouragement from doctors or nurses rather than from family. If I have problems, I can ask them."

Most multiparous women reported not only the support and encouragement with their work that they needed but also help to mind other children.

However, of the 19 primiparous women, 5 reported at all home interviews that they did not want any help from family and others. They mentioned they had to cope by themselves and one stated that if she had had any problems, she would ask for help from nurses. It is of interest to note that one multiparous woman reported at the first two interviews at home, that she did not need any help from others. It was found that she changed to bottle-feeding before the final interview. Additionally, one primiparous woman who had changed to bottle-feeding before the final interview reported at the third interview that a mother needed a lot of support from the husband.

At the final interview, it was found that about half of the women in each group reported that they did no need any help from family and others. It implies that they were able to adjust and cope well with breast-feeding.

Sources of the Most Encouragement for breast-feeding Over 12 Weeks

All women were asked at each home interview about who gave them the best encouragement with feeding over the past month. Table 4.30 shows that partners were most frequently reported by the women in both groups as the source of encouragement of breast-feeding. Most mentioned that their husbands helped them with other jobs and continually supported them. For women who referred to the baby as the greatest source of encouragement, they reported that their babies seemed to be satisfied with breast-feeding, they were growing well and were healthy. Professional staff were referred to as the best encouragement by many women. They reported that they received advice about how to increase the milk supply, how to take care of the nipples as well as receiving encouragement and support from them. Most women mentioned that most people gave general support for them by saying that they were doing a good job and the baby was growing well. Of interest, only one primiparous woman reported at all home interviews that nobody gave her the best encouragement of breast-feeding. However, she was still breast-feeding at the final interview.

Encouragement of Breast-feeding for Other People by Women

At the final interview, of 18 primiparous women who were still breast-feeding, 5 reported that they had encouraged their friends and relatives to breast-feed. Of 9 multiparous women, 4

mentioned that they had given some advice to their friends and other people who had just had a new baby.

Suggestions for a New Mother

The women were asked about advice that they would give to women who had just had a baby according to their experiences.
Both primiparous and multiparous groups made similar suggestions, which those were as follows;

- New mothers should not be too worried about whether breast-feeding will be successful. Try to be relaxed.

- Persevere and be patient; keep on trying and do not give up easily.

- Seek encouragement from others, particularly professional staff, when problems occur.

A few techniques were also suggested by both groups of women. For example, a mother should drink more fluid and eat good foods. One primiparous woman suggested that a mother should put the baby on the breast as soon as possible. Morever, a few women mentioned that one should not force oneself to breast-feed if one didn't feel like doing it or didn't feel comfortable doing it.

Table 4.30 Reported sources of the most encouragement about breast-feeding over the three months after leaving hospital

	During the 1st month		During the 2nd month		During the 3rd month	
	P	M	P	M	P	M
Partner	9	6	7	5	6	4
Baby	5	4	4	1	4	2
Own mother	2	-	2	-	2	-
Friends & relatives	2	-	-	1	2	-
Nurse	4	2	4	3	-	1
Doctor	-	-	2	-	-	-
La Leche League	-	-	-	1	-	-
Other	-	-	-	2	1	-
No one	4	2	2	1	5	2
Sample size	19	11	19	10	18	9

A View of Advantages and Disadvantages of Breast-feeding

At the final interview (Appendix iv), all women who were still breast-feeding were asked about their present view of the advantages and disadvantages of breast-feeding. Most women indicated "best for baby" in the aspect of nutrition and health,

"help bonding" and "convenience, ease" as the major advantages of breast-feeding (See table 4.31). The primiparous group obviously appeared to report more disadvantages than the multiparous group (See table 4.32). When compared with the knowledge about the advantages and disadvantages of breast-feeding reported at the first interview (3-5 days postnatally), it was found that "convenience" was increasingly indicated by both primiparous and multiparous women at the final interview (refer Table 4.31, 4.32 and 4.10, 4.11). There was not much difference between the knowledge and the actual experience of the disadvantages of breast-feeding.

Table 4.31 Major advantages of breast-feeding reported by women at 12 weeks

	Primiparous Women	Multiparous Women
Best for baby	10	5
Helps bonding	8	4
Convenience and ease	11	9
Helps mothers' physically	-	1
Saves money	1	1
Sample size	18	9

Table 4.32 Major disadvantages of breast-feeding reported by women at 12 weeks

	Primiparous Women	Multiparous Women
No disadvantages or difficulties	5	4
Restrict mother	2	5
Hard at the beginning	3	-
Wetness around nipples	2	-
Feel uncomfortable to feed in front of others	1	-
Need to be careful of mothers' intake	1	-
Need to be careful of nipples and breast problems	4	-
Difficult to give up	1	-
Difficult to wear dress during lactation	1	-
Sample size	18	9

Summary

Most women reported at each interview that they had enough time to rest and to sleep during the day and night. The number of night feeding of both groups had been decreasing over the interview periods. At the final interview, only 4 primiparous and 1 multiparous women had introduced "solids" to their babies once a day or once a week.

Most of the women (P = 13, M = 7) identified at least one public place where they prefered not to breast-feed (in town, church, restaurant, ect).

Nearly every woman reported at least one or two difficult experiences concerning breast-feeding during the first three months after delivery. The pressure of time and the number of tasks to be accomplished. At all home interviews the time that the baby demanded was reported by the women from both groups as the most difficult aspect of breast-feeding. Most multiparous women were concerned about this problem rather than the primiparous women, while many primiparous women had more difficulties in the aspects of baby and feeding.

However, the number of women who reported the difficulties with breast-feeding were obviously decreasing over the interviewing period. Promblems in breast-feeding experienced after leaving hospital were most common reported at the second interview (2-3

weeks postnatally). Soreness of nipples, breast discomfort, insufficient time with family routine were most frequently reported by both groups. However, these major problems of breast-feeding experiences were reported by most women as a temporary problem except 1 primiparous women sufferred from soreness of nipples at all home interviews and she was about to change to bottle-feeding at the final interview.

Most women referred the closeness between mother and baby, the baby's health as the nicest experience with breast-feeding.

All women found that they had changed their patterns of living after leaving the hospital. The first few weeks after delivery was found to be the period of the greatest change of their lifestyles. The pressure of time was reported by most women as the major change in the pattern of living. Their routine work, pattern of living, pattern of going out had been changed because of spending more time with the baby. Most women had no free time for any hobbies or other activities during this period. During the second and the third months, most women apperared to manage the time better than the first month. They had had more time to do other activities. The women who had small children at home had more difficulties in going out than the others.

When going out, most women took their babies with them to almost all of the places that they went, and they nursed their babies

before going out. In the case of longer outings, a few women expressed milk to give by bottle. Many women also mentioned that they had nursed their babies outside home if it was necessary.

Most women started practising family planning by the third interview (7-8 weeks postnatally), the method most widely being used was the oral contraceptive pill.

It was found that two out of the four women who changed to bottle-feeding due to insufficient milk, started using an oral contraceptive before changing the feeding method. Additionally, four out of six primiparous women who mixed breast-feeding and bottle-feeding reported using the contraceptive pill before using supplementary milk.

After leaving the hospital "plunket nurse" was also reported as the predominant source of advice that the women relied on espectially in early period. Most women appreciated the general advice, support and help that nurses had provided at all home interviews. Over the period of study the women increasingly reported that they did not receive any encouragement with breast-feeding from plunket nurses.

Some commented that plunket nurses had not given enough time to their visits and they suggested that nurses should give more time with the mothers especially for the new mothers.

Responsibility of household and baby tasks, partners were often reported at all home interviews as the person who helped with household tasks particularly shopping and looking after other children. Some women mentioned that other people helped with general task during the first few weeks after delivery. The two women who work outside the home received more help wiht household tasks from family and others than other women.

On the contrary, one multiparous woman who had changed to bottle-feeding had done almost all of the household tasks and the baby tasks herself. Additionally, of eight who reported that their family patterns were the same as before having the baby, two had changed to bottle-feeding before the final interview. Most women in both groups indicated that household tasks needed to be shared by others.

Health problems, 2 women in each group had a breast infection during the first two months after delivery. Three primiparous women had an illness (a flu, diarrhea, and postnatal depression). All of them were still breast-feeding.

Less than half of the sample needed help concerning breast-feeding from family and others after leaving hospital. However, most women mentioned that household tasks and looking after other children needed to be shared by others on some occasions. It

would be helpful if someone was able to take over in this circumstance.

Partners were most frequently reported by the women from both groups as the source of encouragement breast-feeding at all home interviews. It is noteable that the women who did not receive enough encouragement and support from their partner and family appeared to discontinue breast-feeding earlier than others. One primiparous woman who had changed to bottle-feeding suggested that a breast-feeding mother needed a lot of support from her husband. Similarly, the two multiparous women who had changed to bottle-feeding had never mentioned their husbands or their families as the sources of encouragement at the first few interviews such as others.

At the final interview, 5 primiparous and 4 multiparous women reported that they had encouraged the friends and relatives to breast-feed. Some women also gave suggestions concerning breast-feeding for the new mothers, such as the need for persevere; not being too worried; seeking encouragement from others. These may reflect some problems associated with the early stage of breast-feeding that may prevent women from succeeding in breast-feeding.

It was noticed that all women either who changed to bottle-feeding or mixed bottle-feeding and breast-feeding did not contact any organisation. It is surprising that although almost

all women knew the La Leche Leage organisation, only one received help from this network after having a baby.

When compared with the knowledge about the advantages and disadvantages of breast-feeding reported at the first interview, it was found that convenience was increasingly indicated by both groups at the final interview.

ANTICIPATED EXPERIENCE COMPARED WITH ACTUAL EXPERIENCE

Attitude to Breast-feeding

At each interview women were asked how they felt about breast-feeding in comparison with their expectation of it. Data concerning their expectations was collected at the first interview.

Of the 20 primiparous women, 7 both anticipated that breast-feeding would be easy to manage and also reported this to be the case at all interviews. Four anticipated that it would be easy and also found generally that it was so except on one occasion when they were unsure. Four were unsure of their expectations of breast-feeding but thereafter they reported (at all interviews) that it was easy. Two were uncertain of their expectation of it, and at the first interview, both of theem reported finding breast-feeding hard. However they later reported at all home interviews that it was easy. Of the remaining 3 primiparous women, who had changed to bottle-feeding or were about to by the

last interview, two were unsure of their expectations and at the first interview reported breast-feeding to be hard. One changed almost immediately to bottle-feeding while the other persisted for three months although regularly reporting that breast-feeding was hard. The third woman expected breast-feeding to be hard and, in contrast, she later reported it to be easy. She nevertheless had changed to bottle-feeding within the third month after delivery for other reasons.

Of the eleven multiparous women, 10 both anticipated that breast-feeding would be easy and also reported this to be the case at all interviews. However, this group of ten included two women who were unsuccessful at breast-feeding their first baby and who changed to bottle-feeding before the end of data collection (For discussion of early weaning see page 181 - 183). The remaining one who had also been unsuccessful in breast-feeding her first baby was unsure of her expectation of breast-feeding. At the first interview she reported that it was hard but thereafter her reported experience of breast-feeding was that it was easy.

Personal responses to breast-feeding in front of people

At each interview all respondents were asked how they felt about breast-feeding in front of strange people in comparison with their expectation collected at the first interview. Of the 20 primiparous women, 11 both anticipated that they would not mind breast-feeding in front of others, and also reported this to be

so at all interviews. Three expected that they would not mind nursing in front of others. One of those reported at two interviews that she would not mind but at the other interview she reported that she nursed her baby only in a private place. Another one found that it was embarrassing to do it during the first two months and she later reported at the last interviews that she did not mind doing it. The last one reported at all interview that she felt a little embarrassment at breast-feeding in front of others.

Two women both anticipated that it would be very embarrassing to breast-feed in front of others and also reported it to be so in their experience at the first interview. At the second interview, one had changed to bottle feeding. The other reported at both the second and third interviews that she nursed her baby only in a private room. However, at the final interview, she did not mind nursing her baby in front of others.

Three expected that it would be embarrassing to nurse in front of others. One of these found it to be so at the first interview, and she later reported (at the second interview) that she breast-fed only in a private place. However, thereafter, she felt that she did not mind doing it in front of others. Another one reported that she nursed only in a private room at the first interview although she later reported it would not bother her to feed in front of others. She, nevertheless, had changed to

bottle-feeding within the third month after delivery. The last one reported (at all interviews) that she did not mind breast-feeding in front of other people. The remaining one was uncertain of her expectation and at the first interview reported her embarrassment at breast-feeding in front of others. She later reported that she mostly nursed her baby only in a private room.

Of the 11 multiparous women, all respondents both expected that they would not mind breast-feeding in front of others and also reported this to be so at all interviews.

Attitude to breast-feeding in isolation from others

The comparison between the attitude to breast-feeding in isolation from others and the women's actual experience of it at each interview was shown as follows. Data concerning their expectations was collected at the first interview.

Almost all respondents from the primiparous group expected that breast-feeding would not isolate them from others, except for one primiparous women who had no idea about this. At the second interview, she found that breast-feeding isolated her from others only when her baby needed to be fed. However, she later reported, that she did not feel isolated from others.

At the third interview, 4 primiparous women reported that they felt breast-feeding isolated them from others. Three of those

felt that they were isolated only at feeding time (i.e. they had to go away from people in some places when the baby needed to be fed), whereas one found that she had spent more time at home and had not seen people as often as she used to before. However, later, in the final interview, three of these reported that they had not found that breast-feeding isolated them from others, while the fourth woman reported that she felt isolated at feeding time. For the multiparous group, all respondents both anticipated that breast-feeding would not isolate them from other people, and also reported this to be so at all interviews.

The Effect of Breast-feeding on Sex Relations

The data relevant to the effect of breast-feeding on sex relations were collected in the third and the fourth interviews. All respondents were asked whether they thought breast-feeding affected their sex relations at present. These data were compared with their expectations which were asked for in the second interview. One subject of each group was excluded from the responses due to changing to bottle-feeding at the second interview, and the third interviews.

Of the 19 primiparous women, 14 both anticipated that breast-feeding would not affect their sex relations and also, reported this to be so at all interviews. Two expected that it would affect their sex relations. Subsequently, one reported at both interviews that it had not affected her. The other reported at

the third interview that it had affected her sex relations because of spending time feeding the baby. But in the final interview, she found breast-feeding had not affected her. The remaining three had no idea about their expectations in this aspect. Two reported (at all interviews) that it did not affect them. Although, one of those had changed to bottle-feeding within the third month after delivery. The last one reported at both interview that breast-feeding had affected her sex relations since she felt full and had sore breasts.

Of the ten multiparous women, 8 expected that breast-feeding would not affect their sex relations, and also reported this to be so at both interviews. This group included one woman who had changed to bottle-feeding at the final interview. Two anticipated that breast-feeding would affect their sex relations, and also subsequently one reported this to be so at both interviews. She believed that breasts should function only for producing milk for the baby at that stage, and also she felt too tired to have a relationship with her husband. The remaining one reported at the third interview that it affected her sex relations because of her tiredness. However, at the final interview, no effect was reported.

Past experience with infant-feeding

At the second interview (2-3 weeks postnatally) all subjects were asked whether their previous experiences with babies helped with the way they fed this baby. Almost all primiparous women (16 out of 19) reported that their experiences with other children had not helped with the way they fed their own babies. Some mentioned that they had not had any experiences with babies. The remaining 3 reported that they had more confidence in the aspect of taking care of the baby (bathing, holding) from their experiences with other babies but it did not help with breast-feeding. One who used to work in the maternity area had a special comment:

> "I have a lot to do with the babies but the actual breast-feeding is the real art, not just the preparation for it. The actual breast-feeding is totally different thing which I had never done before."

Of the 11 multiparous women, 8 who had succeeded in breast-feeding their previous child, reported that they had more confidence in breast-feeding their new babies. The remaining 3 reported that ther previous experiences did not help with feeding this baby because they had used bottle-feeding.

Expectation of Breast-feeding Duration

At the final interview, all women (P=18, M=9) who were still breast-feeding were asked if they would breast-feed their babies as long as they planned initially. Eleven out of the 18 primiparous women and all multiparous women reported that they intended to breast-feed as long as their initial plans. Five primiparous women stated that they would breast-feed their babies for a shorter time than their initial plans. The reason given was not having adequate milk, nipple problems, and the constraints of breast-feeding. The remaining 2 indicated that they would breast-feed longer than their initial plans because they found it helpful for their babies. When asked if they would breast-feed another baby again, almost all women mentioned that they would breast-feed if they had another child, except for one primiparous woman who had depression at the third interview, and gave a contrary response that she might not breast-feed.

Summary

Attitude to breast-feeding, responses to the feeding in front of people, attitude to breast-feeding in isolation from others, effect of breast-feeding on sex relations, past experience with infant feeding and expectation of breast-feeding duration were the major experiences that women were asked about.

At each interview, women were asked how they felt about these experiences in comparison with their expectation of it. Data

concerning their expectations was mostly collected at the first interview (3-5 days postnatally). Most multiparous and more than half the primiparous women expected that breast-feeding would be easy to manage and also found generally that it was so at all interviews.

About half primiparous and all multiparous women both anticipated that they would not mind breast-feeding in front of others, and also reported this to be so at all interviews.

Almost all respondents expected that breast-feeding would not isolate them from others, and a few women felt that they were isolated from others only at feeding time in their actual experience.

Fourteen primiparous and 8 multiparous women anticipated that breast-feeding would not affect their sex relations and also reported this to be so at all interviews. A few women found that breast-feeding had affected their sex relations during the interview periods but the final interview none of them mentioned its affect.

Almost all primiparous women reported that their previous experiences with othe children had not helped with the way they fed their own babies. On the contrary, 8 multiparous women who had succeeded breast-feeding previously reported that they had more confidence in breast-feeding the present baby.

Eleven out of 18 primiparous and all multiparous women reported at the final interview that they intended to breast-feed their babies as long as their initial plans. The others would breast-feed shorter time than their initial plans because of insufficient milk, nipple problems, and the constraints of breast-feeding. Almost all women planned to breast-feed another baby except one who had depression and who gave a contrary response.

It can summarise that more than half the primiparous women indicated that they did not see any difference between what actually happened. Although some of them had reported a difference between the interview periods, finally they indicated no different from what they expected.

A COMPARISON BETWEEN CONTINUATION AND DISCONTINUATION OF BREAST-FEEDING

Method of Infant-feeding over 12 Weeks after Delivery

At the final interview (12-13 weeks postnatally), it was found that most women were still breast-feeding (See Table 4.33). Only 4 women had changed to bottle-feeding. Six primiparous women who used both supplement milk and breast milk gave the reason that they did not have enough milk especially at evening time. Two of those six also mentioned that their babies refused to suck their

milk. They were able to breast-feed them only 1 or 2 times a day. One primiparous woman reported at the final interview that she was about to wean her baby because she was unable to cope with the soreness of nipples. She had reported having difficulties in breast-feeding at all interviews. Additionally, she did not begin feeding her baby until 3-4 hours after delivery.

It is of interest to note that the 2 women who partially breast-fed only 1 or 2 times a day, one had a marriage problem. She reported at the third interview she was very upset with the baby's father which made her unable to eat enough food, thereby decreasing her milk supply. She was one of the 3 primiparous women who still continued smoking after having a baby. The other woman had a sleepy baby (having sucking problems at first) and also did not begin feeding her baby until 24 hours after delivery because of having complications after delivery.

From Table 4.33, the multiparous women (N=2) who began to use mixed bottle-feeding and breast-feeding, moved quickly to using bottle only. Primiparous women, on the other hand, who began to use mixed feeding continued with mixed feeding over an extended period. One woman began a mixed approach by the first interview at home (2-3 weeks) and was still using the approach at the final interview. This woman, however, reported at all interviews that she did not like to breast-feed in front of others and always

breast-fed only in a private room. She also did not start to feed her baby until 3-4 hours after delivery. It is of interest to note that she had a higher education than both women who practiced mixed feeding and who discontinued breast-feeding.

Table 4.33 Methods of Infant-feeding after Delivery

Time after delivery	Feeding Methods					
	Breast only		Bottle only		Mix	
	P	M	P	M	P	M
3-5 days	20	11	-	-	-	-
2-3 weeks	18	10	1	-	1	-
7-8 week	16	9	1	1	3	1
12-13 weeks	12	9	2	2	6	-

The reasons for continuation of breast-feeding

At each interview after discharge, all women who still breast-fed were asked about the reasons for continuation of breast-feeding. Most women referred to the advantage of breast-feeding for babies and themselves as the reason for doing this. At all home interviews, "convenience and ease of breast-feeding" was most frequently reported by the women in both groups. The second most frequent reason was that the baby was healthy (growing well, progressing well). The other reasons given for continuation of breast-feeding were enjoyment, closeness, good nutrition and an economic reason.

Discontinuation of Breast-feeding

There were four women (two from each group) who had changed to bottle-feeding during the interview period as mentioned earlier. Two primiparous women had changed to bottle-feeding at 6 days and 10 weeks after delivery, the two multiparous women at 6 and 8 weeks. The primiparous women were in their 20s, the multiparous women in their 30s. None of them had education beyond high school and all were housewives. Their family incomes varied between $15,000 - $25,000 per annum. Most notably the only two women in this study who had a caesarean delivery, one from each group, weaned their babies within 1 week and 6 weeks postnatally. Both began feeding their babies more than 4 hours after delivery.

The two multiparous women appeared not to be receiving adequate encouragement and support from their family and others when asked about the person who gave the best encouragement for breast-feeding at all interviews. Neither mentioned receiving support from their husbands or family at any interview. In this, they differed from all other subjects. Both of them reported more problems in breast-feeding experiences than others of their group during the first weeks after delivery and they also did not succeed in breast-feeding a previous child. Additionally, it was observed that they were the only 2 women amongst the multiparous group who smoked cigarettes.

The two primiparous women who weaned their babies early reported not receiving adequate support from others after their delivery. One who had changed to bottle-feeding at 6 days reported that she did not receive any good advice during hospitalization, and also never discussed infant-feeding methods with any one before having a baby. The other mentioned needing more support from her husband at the third interview. Additionally, these two primiparous women seemed to have a negative attitude to breast-feeding. They did not like to see someone breast-feeding and thought that not every woman was able to breast-feed. They also were very embarrassed at breast-feeding in front of others during hospitalization (This was reported by only one woman who continued breast-feeding).

Moreover, all four women indicated uncertainty about their ability to breast-feed. One primiparous woman reported that her mother was unable to breast-feed, while another gave the reason that not every woman is able to breast-feed. In addition, the two multiparous women gave the reason that they had failed to breast-feed their previous children. Three of the four women were not breast-fed themselves. It seems that the women who discontinued breast-feeding had more difficult experiences with breast-feeding, less support from families, and less education than others (See Table 4.34).

Reasons for Changing to Bottle-feeding

Both primiparous women gave a similar reason for giving up breast-feeding, that of not having enough milk to feed their babies. One of those mentioned her baby was too hungry. Slightly different from the primiparous women, two multiparous women who had similar problems reported in addition to not having enough milk that they were unable to cope with the very demanding nature of the baby (need to be fed every 2-3 hours), one of those complained about her tiredness, although she reported that she preferred breast-feeding to bottle-feeding.

Table 4.34 Factors associated with duration of breast-feeding at 12 weeks

	Breast only		Partially		Bottle only	
	P	M	P	M	P	M
	(N=12)	(N=9)	(N=6)	(N=0)	(N=2)	(N=2)
Maternal education beyond high school	6	3	2	-	-	-
Previous failure of BF	-	1	-	-	-	2
Caesarean delivery	-	-	-	-	1	1
Initial lack of confidence of ability to breast-feed	2	1	1	-	2	2
Not breast-fed themselves	2	1	3	2	2	1
No encouragement received in breast-feed from husband/baby during the first 2 months	1	-	2	-	1	2
Baby first sucked more than 1 hour after delivery	1	-	4	-	1	1
Difficulties to manage with BF during hospitalization	2	1	3	-	2	1

Suggestions from Women Who Discontinued breast-feeding

From their experience of failing to breast-feed for a long time, some suggestions thought to be useful for other women were given by these four subjects. The two primiparous women implied that they needed help and support from others particularly during the first days and also needed a lot of support from their husbands.

> "You should know that it's not natural to get the baby on the breast properly as other people thought. You need a lot of help for the first few days."

Therefore, women should be aware of getting help and support as well as being patient. The two multiparous women suggested needing advice about how to prepare oneself rather than getting help and support. One commented that women should prepare their nipples well before having a baby, whilst the other suggested having enough rest and drinking a lot of fluid.

Comparison between Breast-feeding and Bottle-feeding

When asked to compare bottle-feeding with breast-feeding three women agreed that bottle-feeding was easier in the sense that other people can help and it reassured them that the babies weren't hungry since they were able to know how much the babies were fed. One of those three also mentioned that she was not so tired when she bottlefed her baby. The remaining one primiparous

woman did not respond to this question. When asked about the disadvantages of bottle-feeding, only two women (one from each group) reported that bottle-feeding needs preparation and cleaning. Nevertheless, when asked about the feeding method for another baby all four women indicated that they would try breast-feeding again.

Summary

At the final interview (12-13 weeks postnatally), there were 12 primiparous and 9 multiparous women who breast-fed their baby, 6 primiparous women partially breast-fed, and 2 women from each group had changed to bottle-feeding. Two primiparous who had changed to bottle-feeding at 6 days and 10 weeks after delivery, and two multiparous women at 6 and 8 weeks postnatally.

The women who either used supplementary milk only or mixed breast- and bottle-feeding gave the main reason that they did not have enough milk. The reasons for continuation of breast-feeding were the advantages for the baby, enjoyment, closeness and economic reason.

The 4 women who had changed to bottle-feeding had several critical experiences and had characteristics that distinguished them from others as follows:

- None of them had education beyond high school.
- Three women were not breast-fed themselves.

- The 2 women who had a caesarean section were no longer breast-feeding. In addition, their babies were breast-fed initially longer than two hours after delivery.
- All of them indicated uncertainty about their ability to breast-feed during hospitalization.
- Three women had more difficulties experience with breast-feeding and less support from families than others.
- Two multiparous women did not succeed in breast-feeding a previous child and they were only the two women amongst the multiparous group who smoked cigarettes.

All of them found that bottle-feeding was easier than breast-feeding in the sense that other people could help and they were able to know how much the baby was fed. All of them indicated that they would try breast-feeding again for another baby.

CHAPTER 5

DISCUSSION, IMPLICATIONS AND CONCLUSIONS

This study is concerned with the early breast-feeding period. It describes factors which influence a woman's choice of breast-feeding and exploresa broad range of factors associated with the continuation or discontinuation of breast-feeding. This chapter contrasts the findings presented in Chapter 4 with those of other studies, and draws out some of the implications for nursing. Once again, the five objectives set out on page 4 have been used as the basis for organising the material. Conclusions are presented in the light of the theoretical framework set out in Table 2.1, Chapter 2.

While the summaries at the end of each section in Chapter 4 give a brief statement on each topic studied, this chapter highlights those findings that can contribute to a body of knowledge with respect to breast-feeding on four bases:

- Congruence with the objectives stated in this thesis;
- Relationship with the theoretical framework;
- Relevance to findings in other studies;
- Relevance to nursing with particular reference to Thailand.

WHEN THE DECISION ABOUT FEEDING METHOD WAS MADE?

All women in the present study breast-fed their babies in the immediate postnatal period and almost all of them made the decision to breast-feed their babies prior to pregnancy or at an early stage of pregnancy. This finding is similar to that found in other studies of western cultures and to other studies within New Zealand (Eastham et al., 1976; Ekwo et al., 1983; Gunn, 1984; Mackey and Fried, 1981). This suggests that those teaching in antenatal classes should take account of this in planning how they can best encourage breast-feeding. It is too late for teachers in these classes to influence the selection of an infant feeding method as this decision has been taken by the time women attend such classes.

The commonest reason given here for choosing breast-feeding is similar to that found in other studies (Jeffs, 1977; Yeung et al., 1981). That is, it is seen as more beneficial for the baby (refer Table 4.2). However, many primiparous women mentioned at interview that they decided to breast-feed by not considering the alternative. This may reflect the value that the society places on breast-feeding as the most desirable infant-feeding method.

The primiparous women planned for a shorter period of breast-feeding than the multiparous women (refer Table 4.3). Perhaps the multiparous women who have succeeded in breast-feeding the previous child have more experience in judging what is an

appropriate period for themselves and their child. The reasons for the selected length of breast-feeding given by both groups referred to the baby's health (see Appendices vi, vii). It is therefore possible to conclude that concern with the health of the baby seems to influence the breast-feeding period as well as the selection of the infant feeding method. Planning for a shorter period may be due to a lack of knowledge or a lack of confidence among primiparous women. This suggests that the topic of the length of the breast-feeding period should be discussed in antenatal classes.

PERSONAL AND SOCIAL FACTORS ASSOCIATED WITH THE SELECTION OF BREAST-FEEDING AS A METHOD OF INFANT-FEEDING

The following discussion deals with factors that are associated with the selection of breast-feeding. The categorisation of factors is based the theoretical framework (refer Table 2.1) and only significant factors are discussed here.

Demographic Factors

No sound conclusion can be reached as to the relationship between demographic characteristics and the selection of feeding method due to the high initial refusal rate and small sample in this study. It is, nevertheless, noteworthy that those women demonstrated different demographic characteristics (i.e., age, parity, education, and family income: see Table 4.1) and they all intended to breast-feed their babies. This is consistent with Gunn (1984) and Yeung et al. (1981) who previously found that

there were no significant differences in the ages, socio-economic status and the parity of woman breast-or bottle-feeding on discharge from hospital.

Unfortunately, although 48 women were eligible to take part in the study, 17 of these refused or withdrew from the study at an early stage. This refusal rate seriously affects the analysis of the demographic factors. It is not possible to demonstrate as did Salmond (1975) that women of higher social class and lower parity are more likely to breast-feed than the others.

However, considering the demographic characteristics of women, it seems that education has an association with the continuation of breast-feeding. None of the women in the present study who had education beyond high school discontinued breast-feeding before the final interview.

Personal Value System

While all the women had a positive attitude to breast-feeding in general, many primiparous women expected that they would feel embarrassed when breast-feeding in front of others. Thus, the embarrassment of breast-feeding was not a powerful influence on the selection of this method. This differs from studies in England (see for example Eastham et al., 1976; Bacon & Wylie, 1976; Jeffs, 1977) in which it was found that the embarrassment of breast-feeding was an important factor influencing women's

decision against breast-feeding. As the primiparous women in this study did report feeling embarrassed, care needs to be taken in hospital and in the community to ensure privacy for mothers while nursing their babies. This is particularly important for mothers with first babies.

Knowledge Concerning Breast-feeding

Most women from both groups knew about the superiority of breast-feeding. They related the advantages of breast-feeding to the health of the baby and considered the difficulties for mothers as the disadvantages (see Table 4.9 and 4.10). Despite the disadvantqges for them they made their decision on the basis of what is best for the baby. This is similar to other studies (For example, Bloom et al., 1982a; Gunn, 1984; Jeffs, 1977) which found that the main reason for choosing to breast-feed was its greater advantages for the baby than formula.

Generally, all women had some knowledge of breast-feeding and most of them, especially the primiparous women prepared themselves for breast-feeding during pregnancy. This suggests that nurses at antenatal clinics may need to check out what mothers know before giving information.

Previous Experience of Breast-feeding

Previous experience of infant-feeding seems to be an important part of the decision to breast-feed. Most multiparous women had

been successful in breast-feeding their previous children and almost all primiparous women had seen someone breast-feeding before having their own babies. This indicates that most women had a favourable background for breast-feeding. This finding is consistent with Jeffs's study (1977). She found that women were significantly more likely to breast-feed if they had seen other babies being breast-fed and the multiparous women tended to choose the same feeding method to feed subsequent children as they used with their first child.

Besides, previous breast-feeding experiences influenced the continuation of breast-feeding as two out of three women who previously failed to breast-feed, abandoned breast-feeding before the final interview. This is supported by other studies (Barnes & Barnes, 1976; West, 1980). This finding implies that mothers who were not successful in breast-feeding a previous child need more support and encouragement. Therefore, nurses need to be aware of the necessity of giving as much support and encouragement to those women as possible.

Coping Ability

Most women reported that they enjoyed new experiences and anticipated that they would be able to cope well with feeding their babies. However, of the two primiparous women who did not feel comfortable with new experiences and were uncertain of their abilities to cope with feeding, one discontinued breast-feeding

before the final interview and one reported depression at the third and fourth interviews. This is supported by West's (1980) study which showed that several women volunteered lack of confidence in their ablity to breast-feed or being anxious or unrelaxed during breast-feeding as their reason for weaning their babies before six weeks. This suggests that confidence of women in their ability to breast-feed is one of the important factors in continuing breast-feeding. Therefore, nurses need to consider ways to encourage mothers to gain more confidence.

Physical Factors

Physical factors related to the health of the mother could not be related to the women's decision concerning the feeding method, as almost all women in the study enjoyed good health during pregnancy.

However, a caesarean operation seems to be an important factor which inhibits the success of breast-feeding. This finding is similar to that of Boulton & Flavel (1978) who found that mothers having caesarean section breast-fed significantly less often at discharge from hospital than others. There were only 2 women in the present study who had a caesarean section and both of them changed to bottle-feeding before the end of the study period. Other researchers suggest that the caesarean delivery precludes early mother-infant contact and early initiation of breast-feeding which influences the length of breast-feeding (de Chateau et al., 1977; Salariya et al., 1978).

Cultural Practice

It would appear that cultural factors influence the selection of the breast-feeding method. Table 4.14 shows that the majority of both groups received moderate consistency of cultural practice concerning breast-feeding (see definition on page 97). More than half the women were breast-fed themselves. This is supported by Trlin's study (1982) which showed that approximately 75 % of women born between 1950-1954 were breast-fed (aged between 31-35 at the period of this interview). Furthermore, Trlin indicated that the incidence of breast-feeding reflected public and professional attitudes. He found that the practice of breast-feeding had a positive relationship with discussion, encouragement, and support or advice coming from each source identified (maternity unit staff, partner, family and others). Similarly, in the present study, most primiparous women were likely to discuss breast-feeding with their partners and friends. Most women in both groups also had friends and relatives who enjoyed and succeeded in breast-feeding.

When considering who or what most influenced the choice to breast-feed, most primiparous women referred to their partners and their own mothers, while partners and friends were reported as most influencing multiparous women. The antenatal class was referred to by many primiparous women as influencing them but it was as the second and third influence (see Table 4.15). This is

similar to the previous studies (for example, Bloom et al., 1982a; Jones & Belsey, 1977). This finding implies that professionals have less influence on women's decision to breast-feed than non-professionals.

It can be concluded that there are many factors which play a part in a mother's decision to breast-feed as follows:

- having a positive attitude to breast-feeding,
- having knowledge about the benefit of breast-feeding,
- family and friends being supportive of breast-feeding,
- having a consistency of cultural practice concerning breast-feeding and social acceptability of breast-feeding, and
- having previous experience of breast-feeding.

Lifestyle

1. **Planning to return to work** after having a baby did not relate to the feeding method chosen. This is supported by Mackey & Fried (1981). However, it appeared that the work situation may not be an important factor inhibiting breast-feeding if it is flexible, as the women who continued working in the early post-partum period stated that their work did not interfere with breast-feeding. This is consistent with Langford's (1978) findings.

2. **Smoking patterns:** Being pregnant seems to change the smoking pattern of women (many women gave up smoking when they

were pregnant). This may be why smoking patterns did not appear to be related to women's decision to breast-feed. However, smoking patterns seem to influence the duration of breast-feeding as other studies found (Meyer, 1979; Yeung et al., 1981; Whichelow & King, 1979). Three out of 5 women in the present study who still smoked cigarettes after having a baby faced the problem of insufficient milk and two of those changed to bottle-feeding before the final interview, while the other mixed breast-feeding and bottle-feeding. Lawrence (1980) noted that smoking immediately before nursing can inhibit the letdown reflex. It is possible that women who smoke cigarettes might be unable to produce adequate amounts of milk and this leads them to stop breast-feeding early.

3. **Other activities planned for the future** did not have any influence on the women's choice of infant-feeding methods. All subjects planned to continue their activities, both home and outside activities. Moreover half the primiparous women and almost all the multiparous women expected that bottle-feeding would change their lifestyles more than breast-feeding. This contrasts with other studies in western countries which found that women who selected bottle-feeding gave the reason that bottle-feeding was more convenient and allowed them more social life (For example, Golub, 1978; Jones & Belsey, 1977; Yeung et al., 1981).

ANTICIPATED EXPERIENCE COMPARED WITH ACTUAL EXPERIENCE

The results did not show a significant difference of the experiences that women anticipated and actually faced after delivery, especially the multiparous women almost all of whom did not indicate any difference.

Therefore, the study fails to suggest any factor that may affect breast-feeding. Nevertheless, past experience in breast-feeding appeared to encourage women in gaining more confidence and intention to breast-feed longer than others who did not have such experience.

CRITICAL EXPERIENCES OF BREAST-FEEDING DURING THE FIRST THREE MONTHS

This discussion concerns critical experiences that influence breast-feeding and its continuation and cessation.

Initiation of Breast-feeding

The evidence from this study shows that the women who continued breast-feeding (except in one case) were those who fed their babies within one hour after delivery. Three out of 5 women who fed their babies after one hour finally changed to bottle-feeding. This finding is consistent with de Chateau et al. (1977) and Salariya et al. (1978) in which initiation of breast-feeding and frequent feeding can affect the extent of the nursing period.

Accommodation

Starling et al.(1979) found that women who roomed-in with their babies for more than 12 hours a day had a significantly higher rate of continuation of breast-feeding. Although there were a few women in the present study in a single room, most women were accommodated on a "rooming in" basis in larger rooms in which they were able to keep their babies all day and they were woken to feed their babies as needed at night.

The Most Unexpected Thing for Women Concerning Breast-feeding

Nearly half the primiparous women had unexpected things which happened to them in a negative way as many of them did not expect the troublesomeness of feeding (the baby did not attach to breast properly, sore nipples, pain of breasts and so on). These responses seem to reflect an inadequate preparation for the common problems of breast-feeding during their pregnancies. Some women also suggested that antenatal classes should give more information on the possible problems a mother is likely to face. This is something that nurses could well consider.

The Hardest Thing and Problems with Breast-feeding

1. At Hospital. Most primiparous women found that "getting the baby onto the breast properly" was the hardest thing to cope with in breast-feeding (see Table 4.17). This is consistent with other studies (see for example Beske & Garvis, 1982; Houston et

al., 1981; Whichelow, 1979). It seems that women who found breast-feeding hard to manage during hospitalization tended to wean their babies or use supplementary milk earlier than others (see Table 4.34).

2. **At Home.** It was found that difficulties concerning breast-feeding were reported most often at 2-3 weeks postnatally (see Table 4.5) which confirms what other researchers had found (Beske & Garvis, 1982; Houston et al., 1983; West, 1980). Nearly every woman in the present study reported at least one or two difficult experiences concerning breast-feeding during the first three months after delivery (see Table 4.26). Soreness of nipples, breast discomfort and insufficient time for the family routine were the most frequently reported problems. The time pressure from the number of tasks was most frequently reported at all home interviews by the women in both groups as the difficult aspect of breast-feeding.

Although two women in each group had a breast infection during the first two months, neither stopped breast-feeding or found it too difficult to cope with this problem. This finding is similar to other studies (Applebaum, 1970; Devereux, 1970) which indicated that the majority of subjects continued to nurse successfully during and after mastitis.

Pattern of Living after Discharge

The first few weeks afthe delivery were found to be the period of the greatest change in lifestyle. Pressure of time was reported by most women as the major change in the pattern of living (see Table 4.27). This implies that mothers need more help with household and other tasks during the first weeks after discharge. This is an important question for nurses to address, and may involve increased assistance from others as well as input from nurses.

While many women mentioned that they nursed their babies outside home if it was necessary, most women (P=13, M=7) could identify at least one public place in which they preferred not to breast-feed (see Tabe 4.23). This reflects the values of society according to which breast-feeding is not accepted as the natural thing to do anywhere and at any time as occurs in some countries. The other was unable to locate any similar studies which described these changes in the pattern of living.

Using Contraceptives

Most women (N = 24) had started practising family planning by the third interview. The method most widely used was the oral contraceptive pill. The present study was not designed to draw a conclusion that the pills had brought about a diminuition of milk supply as shown in Whichelow's study (1979). However, the data is consistent with this conclusion.

Advice and Help at Hospital

Advice and help from nurses during hospitalization seems to be an important factor in encouraging the continuation of breast-feeding. Most women referred to nurses as the predominant source of encouragement during their hospitalization, since nurses were the main professional group who were in close contact with the women. Women who received more advice and help from nurses seem to breast-feed their babies longer than those who did not receive enough advice and help. This is supported by many researchers (for example, Hall, 1978; Jelliffe and Jelliffe, 1978; Sloper et al., 1977).

It appears that encouragement, guidance, and reassurance from nurses' helps women with breast-feeding during hospitalization. Many women in the present study appreciated the availability and willingness of the service provided by nurses. "How to put the baby on the breast" and "nipple care" were most frequently reported as valued advice and help received by the women, particularly the primiparous group.

Comments from the women concerning conflicting advice, the rough way nurses put the baby on the breast, and the lack of confidence of the staff to care for the baby provide useful insights which may lead to improved services.

Source of Encouragement At Home

The present study suggests that nurses have been a major influence on breast-feeding as many women who had problems concerning breast-feeding and who continued breast-feeding stated that they received a lot of help and support from nurses. However, lack of time to cope with difficulties was complained of by several women, so nurses could consider ways of ensuring that new mothers especially receive the attention that they need.

Encouragement and help with household tasks from the husband especially but also from family members seems to be an important factor influencing the continuation of breast-feeding. The women who received more support and help from husband and family breast-fed longer than those who lacked support. This finding is similar to other studies (for example, Rousseau et al., 1982; Starling et al., 1979). Not only did women feel that they often had too many tasks to do, but they also found that at feeding times especially, if someone was able to take over in this circumstance, it would be helpful. The availability of someone to mind other children was an important need of the multiparous women as well.

A View of Breast-feeding

It is worthwhile to point out that most women who continued breast-feeding, when asked at the final interview, insisted that the advantages of breast-feeding as best for baby's health, for

bonding, and for convenience. Additionally, they advised new mothers to seek encouragement from other women when they had problems. They felt that encouragement was crucial for breast-feeding mothers and they themselves gave advice and support to others. Therefore, interaction and information with other mothers, support from health professionals, and encouragement and support from partners and/or family appear to be a major factor for women to succeed in breast-feeding.

Continuation and Discontinuation of Breast-feeding

At the final interview, there were 18 primiparous and 9 multiparous women who were still breast-feeding although some of the primiparous women mixed breast-feeding and bottle-feeding because of insufficient milk (see Table 4.33). Four women had changed to bottle-feeding.

Most women who continued breast-feeding beyond three months mentioned the benefits of breast milk for the baby's health, and convenience for themselves as the major reason for continuing. The result is similar to that found by Yeung et al.(1981).

All four women who terminated breast-feeding in the first three months felt that they were not producing sufficient milk. This is similar to the findings in studies reported by Bacon and Wylie (1976) in England, Cole (1977) in Massachusetts, Gunn (1984) in New Zealand, Sjolin et al. (1977) in Sweden. The two multiparous

women also volunteered that they were unable to cope with a very demanding baby. It was noticed that all women who gave up breast-feeding had made the decision to stop before consulting the doctor or nurses. Thus they did not see these people as sources of help for their problems. Most of them also implied that they did not receive adequate advice and help from nurses, especially the woman who gave up breast-feeding before leaving the hospital. This suggests that consistent support might have helped the women to find a more appropriate solution which would have allowed breast-feeding to continue. As supported by Houston et al.'s (1981) study, none of the mothers who received consistent additional home support in the form of fortnightly visits until weaning, stopped breast-feeding because of insufficient milk.

The present study found that the women coped with breast-feeding under difficult circumstances. Many women need help with other tasks so they can breast-feed as they wish to do. The factors leading to discontinuing breast-feeding indicate a need for increased home support. Therefore, health professionals need to study ways of encouraging family and friends to support mothers. Where this latter support is not available, structured help should be developed. Further study is required to determine what systems of support can be made practical and effective, and whether these support systems are meeting the needs of mothers.

RELEVANT FACTORS FOR APPLICATION TO THAI SITUATION

As mentioned earlier in chapter 1, the incidence of infection and diarrhea, morbidity, and mortality in infancy are related to breast-feeding. The more mothers who breast-feed, the less likely it is that babies will suffer from those problems. In Thailand, it was found that breast-feeding has declined rapidly. This was indicated by the fact that breast-feeding of infants aged 0-2 years decreased by 20% from 83% in rural areas and by 14% from 49% in urban areas between 1969-1981 (Kamnuansin, 1982). Moreover, it was found that the percentage of breast-feeding in Bangkok dropped from 90% at birth to 40% on discharge day and the rate continued declining to 20% at one month (Durongdej, 1983). In addition, it was also found that 76% of mothers living in Bangkok and 62% of rural mothers were using artificail milk in the first month of the baby's life (Gaither 1980, p.18).

The problems of the decline in breast-feeding in Thailand suggest that something needs to be done before they are more cumulative. Although causes of the decline in breast-feeding seem to be rather complicated as they involve many national aspects such as economy and the social system, it is believed that the finding of this study provide suggestions for Thailand.

In Bangkok over 90% of mothers are hospitalized for delivery a post partum care. Then support and encouragement in breast-

feeding during this period becomes a key factor in breast-feeding promotion in Thailand. The decrease in the percentage of breast-feeding already demonstrated may be due to policies on breast-feeding that have been traditionally implemented in hospitals for many years.

Firstly, after delivery the baby will be immediately taken from mothers for at least 12-24 hours for routine checks and an examination for complications. The reason is that it assures the safety of the baby and the mother would be able to rest after delivery. Moreover, during their 12-24 hours stay in the neonatal unit, babies are fed with a bottle supplement such as water or formula milk. This will be carried on if a mother has difficulty in establishing a milk supply.

Secondly, hospital routine does not support breast-feeding as it is task-oriented and inflexible, with the feeding schedule being based on the clock rather than on the baby. These conditions are not conducive to breast-feeding. Thirdly, as a consequence of being task-oriented, there has been a lack of teaching and guidance for nurses about how to manage breast-feeding in the early stages after delivery.

New programmes with respect to improving maternal care such as the avoidance of the separation between infant and mother should encourage mothers to breast-feed immediately after delivery.

There should be on demand breast-feeding, and the discouragement of bottle-feeding in health care institutions, should be provided for the mothers. Postnatal support both in hospital and at home. However, without educating professionals in hospitals and the community about breast-feeding, this change may not be accomplished, since it was found in the present study that nurses had played a major role in supporting and encouraging women to breast-feed. Therefore, before attempting to teach a new mother, the nurse must be sure that her suggestions are based on adequate knowledge and a well-developed hospital policy.

Not only in the hospital but also at home, there are unfavourable conditions for breast-feeding. At home the breast-feeding experience of women in rural areas differs from the experience of those in the cities. Women in rural areas live extended families and tend to receive better support and help concerning breast-feeding and baby care from family and friends than do the women who live in cities. It would be very helpful for the promotion of breast-feeding if traditional patterns of baby care are not interfered with in rural areas where breast-feeding is still the most favoured method. Women living in cities are often seperated from their families, and planned support from health professionals, and others may be needed.

In Thailand, it was found that 38% of women had to stop breast-feeding their babies because of returning to the work force

(Durongdej, 1983) where breast-feeding facilities were usually not provided. By providing mothers with adequate maternity leave and nursing breaks when she commences work, the continuation of breast-feeding would be maintained. Moreover, provision of creches and nurseries will also help to increase the opportunities for the working mother to nurse her child in the middle of a working day. However, the programme will need support and reinforcement from health professionals and government to work out the plan for this problem.

However, one should bear in mind that Thailand is an agriculturally based country with a population of nearly 60 million living in an area of only twice the size of New Zealand with a population of approximately 3 million. Most Thai families are under severe economic pressure. This, over a decade, has forced women to work outside to earn income to support their families. Therefore, a lesser concern with the quality of family life, in particular the bringing up of their children has become one of the major problems of Thai society. A large population and an unstable economy also raises the problem of effective public services that government and community would be able to provide for the society. With such a large number of people in the Thai community, an inadequacy of social and public services are inevitable for Thai people. It is already known that there are approximately 2,900 doctors and 8,695 nurses and midwifes in Thailand which gives an average of one nurse for every 1870

persons (Division of Health Statistics, 1983) as compared with one nurse per 114 persons in New Zealand (Department of Health,1985). Therefore, implementation of recommendations made in this part of the study are subject to the modifications and constraints imposed by the national problems of Thailand in the 1980's.

CONCLUSIONS

This study has explored factors which influence women's decisions to breast-feed and which favour the continuation of breast-feeding. It can be concluded that personal-social factors do influence the decision to breast-feed. Most women in this study had a positive attitude to breast-feeding, since they knew that breast-feeding is superior to formula-milk. Their families and friends were supportive of this method. Most women in this study had had a successful experience of breast-feeding and/or had friends and relatives who succeeded in breast-feeding. It is not surprising, therefore, that all women in this study elected to breast-feed.

The data presented in this study supports the proposition that success with breast-feeding is associated with a number of factors including previous experiences in breast-feeding, help and support. Changing to artificial feeding is associated with factors such as pressure of other tasks, lack of support, and lack of success with previous breast-feeding.

Help and support from families and professionals is one of the most important factors in the continuation of breast-feeding. The data showed that help and support from professionals both at hospital and at home encouraged women to continue breast-feeding while help and support from families in things such as household tasks reduced the pressure of time for women. It is essential that families, friends and professionals are well informed on how best to give this support.

Finally, the findings in this study do have relevance for the improvement of the incidence of breast-feeding among Thai mothers. The auther is planning to implement them in the maternity unit of a provincial Thai hospital.

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APPENDIX I

Structured Questionnaire I

MASSEY UNIVERSITY

DEPARTMENT OF NURSING STUDIES

Thank you for agreeing to help me with my work. As you may remember, I am interested in learning about the influences on a mother's choice as to how she feeds her baby. As well as the things you thought of in making your decision, I need to know about your situation and how the baby changes this. In order to learn about the decisions, I am going to ask you a whole variety of things, each time including questions relating both to your life style and to your selection of a feeding method.

Section 1

First I am going to ask you about your pattern of living before your baby was born.

1. Did you work outside your home before this baby was born?

   ☐ Yes ☐ No

   If 'yes', continue. If 'no' ask question 19 and continue.

2. Do you intend to continue working?

   ☐ Yes ☐ No ☐ Not sure

3. Why is that? _____

   (From question 2, if answer 'no/not sure' ask question 17 and continue, if answer 'yes' continue.)

4. For how long do you plan to be on leave? _____

5. How did you decide on this length of leave? _____

6. When you return to work, will you be in the same job as now?

   ☐ Yes ☐ No ☐ Don't know

   (If 'yes/no' ask questions 7 - 12 and go to 19 and continue. If 'don't know' ask questions 13 - 18 and continue)

7. How far is your (new) work from home? _____

8. How many hours do you work per day? _____

9. What kind of work are you doing? _____

10. Is there a creche in your office or near your office?

    ☐ Yes ☐ No ☐ Not sure

11. Will they allow you to take your baby when you go to work?

    ☐ Yes ☐ No ☐ Don't know

12. How did your work situation influence your choice of method of feeding? _____

13. What kind of work do you plan to do in the future? _____

14. How many hours do you plan to work per day? _____

15. Would you prefer to return to your present job?

    ☐ Yes ☐ No ☐ Don't know

16. If 'no or don't know' why is that? _____

17. Has your choice of feeding method influenced you to change your working pattern?

    ☐ Yes ☐ No ☐ In part

18. If 'yes' or 'in part'. How is it affected? _____

19. Have you been a member of groups or organisations such as hobbies, sports or church groups?

☐ Yes ☐ No

If 'yes' continue. If 'no' ask question 24 and continue.

20. What groups or organisations in the community have you belonged to?

_____

21. Did you hold any office?

_____

22. Do you expect to continue with these now that _____ (baby's name) is born?

☐ Yes ☐ No ☐ Don't know

If 'no' or 'don't know' continue. If 'yes', ask question 24 and continue.

23. How do you expect to change? _____

24. What were your hobbies before your baby was born?

_____

(If none offered, ask how did you spend your leisure time?)

25. Do you expect to continue with these now that your baby is born?

☐ Yes ☐ No ☐ Don't Know

26. Did you smoke cigarettes before you became pregnant?

☐ Yes ☐ No

(If 'no', ask question 29 and continue)

27. If 'yes', will having this baby change your pattern of smoking at all?

☐ Yes ☐ No ☐ Don't know

28. If 'yes', how is that?

_____

29. How easy will it be to fit your baby into your pattern of living?

☐ Very easy ☐ Easy ☐ Not easy

29a. What things do you think of in deciding how easy it will be to fit your baby into your pattern of living? _____

Later I will ask you about the relative advantages and disadvantages of breast feeding and bottle feeding. Now I am interested to learn how each would fit into your life style.

30. Which method of feeding, either breast or bottle, do you think will change your life style most?

☐ breastfeeding ☐ bottlefeeding ☐ no difference

31. How is that? _____

Section 2

In this part, I would like to ask you about your health during your pregnancy.

1. Did you have any health problems that needed medication during your pregnancy?

   ☐ Yes ☐ No

   If 'yes', continue. If 'no', ask question 9 (BF) or 10 (AF)

2. What was your problem?

   _____

3. What kind of medication did you take during your pregnancy?

   _____

4. Do you still need to continue taking the medication?

   ☐ Yes ☐ No (If 'no', ask question 7)

5. If 'yes', do you think that these medications will affect your milk in any way?

   ☐ Yes ☐ No ☐ Don't know

6. If yes, how is it affected? _____

7. Did your problem influence your decision concerning feeding your baby at all?

   ☐ Yes ☐ No

8. If 'yes', how influenced? _____

9. (Breast-feeding group) Did you always think you would be able to breast-fee satisfactorily?

   ☐ Yes ☐ No ☐ Not sure

10. (Bottle-feeding group) Did you ever think you would have been able to breast-feed satisfactorily?

    ☐ Yes ☐ No ☐ Not sure

    If 'yes', ask the next section. If 'no' or 'not sure', ask question 11 and go to next section.

11. Why not?

    _____

Breast-feeding only rest of this section

12. Do you have nipple or breast problems at present?

    ☐ Yes/ or uncertain ☐ No

    If 'yes', continue. If 'no', ask the next section.

13. What are your problems?

_____

14. How do you manage that problem?

_____

15. What help do you receive from nurses?

_____

16. What help do you receive from your doctor?_____

Section 3

Now I want to change to ask about your previous experiences with babies.

1. This is your first baby, isn't it?

   ☐ Yes ☐ No

   If yes, ask questions 2 - 5. If no, ask question 6 and continue.

2. What contact have you had with other babies, both in the past and during your pregnancy? (e.g. baby sitting)

   _____

3. Did you ever hold a newborn baby before the birth of your own baby?

   ☐ Yes ☐ No

4. Did you ever see someone breast-feed before the birth of your own baby?

   ☐ Yes ☐ No

5. If yes, did they seem to be finding it easy?

   ☐ Yes ☐ No ☐ Not sure

   (If breast-feeding go to question 20. If bottle-feeding go to next section)

6. How many children do you have?

   _____

7. Are any of them adopted?

   ☐ Yes ☐ No

   If all adopted, go to question 10, otherwise continue question 8 relevant only to natural born.

8. Were they normal deliveries?

☐ Yes ☐ No

9. If no, why was that?

_____

10. What are their ages now?

_____

11. Did you ever breast-feed (her/him) any of them?

☐ Yes ☐ No

If yes, continue. If no, ask questions 16 - 18.

12. How many of your children did you breast-feed?

_____

13. How long did you breast-feed your children?

_____

14. Have you experienced any problems with feeding?

☐ Yes ☐ No

15. If yes, what was that?

_____

16. Did you plan to feed this baby in the same way as your last baby?

☐ Yes ☐ No

17. If no, why is that?

_____

18. How do you use your previous experience in feeding this baby?

_____

If both methods have been used, ask question 19 and continue. If only bottle-feeding has been used, ask the next section.

19. How would you compare bottle-feeding with breast-feeding?

_____

_____

If breast-feeding only at present, continue with these questions.

20. Did you prepare your breasts during your pregnancy?

☐ Yes ☐ No

If yes, ask questions 21 and 22. If no, go to the next section.

21. Who suggested that this would be a good idea?

---

22. Did anyone else support this suggestion?

Section 4

I would like to ask you a few questions on how you cope with new experiences.

(For primiparae)

As this is your first baby, there will be some new experiences for you.

(For multiparae)

Each new baby is unique and a little different from all others.

1. Do you usually enjoy new experiences?

☐ Yes ☐ No, unsure

If yes, ask questions 2 and 3, then 8 (primiparae) or 9 (multiparae).
If no, unsure, ask question 4 and continue.

2/3. Do you like your new experience to provide you with a challenge?

☐ Yes ☐ No/?

4. Do you really dislike having to cope with new experiences or do you generally just get by?

---

5. If 'really dislike', why is that? (and then ask question 8 or 9)

---

6. If 'generally get by', are there some you prefer?

☐ Yes ☐ No

7. If yes, which are these?

---

8. (For primiparae)

Did you expect you would cope with feeding your baby in the way you usually cope with new things?

☐ Yes ☐ Not sure ☐ No

9. (For multiparae)

Did you expect you would cope with feeding your new baby as well as you ever did?

☐ Yes ☐ Not sure ☐ No

10. Overall, would you say you are coping well with your new baby, at the present time?

---

11. What is the thing that worries you most at present?

---

12. Have you shared this with anyone else?

Section 5

Now I would like to change and to ask you about feeding methods used by your family and friends.

1. Does your mother live near you?

☐ Yes ☐ No

2. Did she ever mention or suggest a feeding method for you?

☐ Yes ☐ No ☐ Don't remember

3. If yes, what sort of thing did she say?

---

4. Did she breast-feed you or did she use a bottle?

☐ Breast-feed ☐ Bottle-feed ☐ Don't know

5. Does your partner live with you?

☐ Yes ☐ No

(If no, go to question 10, if 'yes' continue.)

6. Did he ever mention or suggest a feeding method?

☐ Yes ☐ No

7. If yes, what sort of thing did he say?

---

8. Has your partner's family ever mentioned or suggested a feeding method to you?

☐ Yes ☐ No ☐ Don't remember

9. If yes, what sort of thing did they say?

---

10. Do you have close friends or relatives living near you?

11. If yes, did they ever mention or suggest a feeding method?

☐ Yes ☐ No ☐ Don't remember

12. If yes, what sort of thing did they say?

_____

13. Are any of these close relatives or friends either nurses or doctors?

☐ Yes ☐ No

14. If yes, were they more important to you in making your decision than your other friends?

☐ Yes ☐ No

15. Would you say that most of the people you know breast-feed their babies or bottle-feed their babies?

☐ Breast-feed only ☐ Bottle-feed only ☐ Mixed

If breast-feeding or both methods continue. If bottle-feeding only ask question 18 and continue.

16. How long did she/they breast-feed her/their baby/babies?

_____

17. How did she/they find breast-feeding? _____

(mention - enjoyment, practical things, problems....) If a general answer is given, e.g. O.K., don't know, ask "Did they ever mention anything specific about breast-feeding?)

18. How did she/they find bottle-feeding?_____

19. Have you got any ideas or knowledge about infant feeding from:

(a) books?

☐ Yes ☐ No

(b) radio?

☐ Yes ☐ No

(c) television?

☐ Yes ☐ No

(d) newspapers?

☐ Yes ☐ No

20. How important were these as sources of information?

☐ very important ☐ important ☐ not important

21. Do you have a family doctor?

☐ Yes ☐ No

22. Did he ever mention any feeding method?

☐ Yes ☐ No ☐ Don't remember

23. If yes, what sort of thing did he say?

---

24. Did you go to antenatal classes?

☐ Yes ☐ No

25. If yes, were these at the hospital or at a parent centre?

☐ hospital ☐ parent centre

26. What sort of things were mentioned there?

---

27. Were they of any help to you in deciding how to feed your baby?

☐ Yes ☐ No ☐ Not sure

28. From these people and things mentioned above, who or what has been most influential on your decision concerning infant feeding?

(Please rank in order by putting the number in each block)

☐ mother
☐ partner
☐ partner's family
☐ other relatives
☐ friends
☐ friends/relatives who are nurses or doctors
☐ family doctor
☐ antenatal classes
☐ mass media

Section 6

We have talked a lot about your situation and its relationship to the method of feeding you have selected for your baby. Now, I would like to ask you about how you are feeding your baby and how you decided on this method.

1. Which method did you feed baby the first time after your delivery?

   ☐ breast-feeding ☐ bottle-feeding

2. How is your baby being fed at present?

   ☐ breast only ☐ bottle only ☐ mixed

   If the feeding method has changed, ask questions 3 and 4, then go to question 6 and continue. If no change of method, ask question 5 and continue.

3. Why did you change the feeding method from the first time?

   _____

4. Which method did you intend to feed your baby before your baby was born?

   ☐ breast-feeding ☐ bottle-feeding ☐ don't know

5. Did you always intend to feed your baby this way?

   ☐ Yes ☐ No

6. When did you decide tobreast-feed/bottle-feed? (Specific as possible)

   _____

7. Why did you decide to breast-feed/bottle-feed?

   _____

8. How long do you plan to breast-feed/bottle-feed?

   ☐ less than 1 month
   ☐ 1 - 3 months
   ☐ 4 - 6 months
   ☐ 7 - 9 months
   ☐ 10 - 12 months
   ☐ more than 12 months
   ☐ D.K.

9. Why is that?

   _____

10. Do you expect breast-feeding/bottle-feeding to be easy for you?

    ☐ Yes ☐ No ☐ not sure

    If yes, continue. If no, not sure, go to question 13.

11. If yes, will it be easier than the other?

☐ Yes ☐ No

12. Why will breast-feeding/bottle-feeding be easier for you to manage than bottle-feeding/breast-feeding?

_____

13. What do you see as being the **advantages** of breast-feeding for baby, yourself and your family? _____

14. What do you see as being the **disadvantages** or difficult things of breast-feeding for baby, yourself and your family? _____

15. Does the method of feeding affect the relationship between the mother and her baby in any way?

☐ Yes ☐ No ☐ Don't know

16. If yes, how is that?

_____

17. What do you think of as being the **advantages** of bottle-feeding for baby, yourself and your family?

_____

18. What do you think as being the **disadvantages** of bottle-feeding for baby, yourself and your family?

_____

19. Do you think that children are necessary for a couple's happiness?

☐ Yes ☐ No ☐ Don't know.

20. How important to you is it to be a mother?

☐ very important ☐ important ☐ not important

21. In the past, how have you felt when you saw someone breast-feeding in public?

☐ disapprove ☐ don't mind ☐ pleased

☐ other _____

22. How did you think you would feel if you had to breast-feed in front of people who are not close friends or relatives?

☐ very embarrassed ☐ embarrassed ☐ not mind

☐ other _____

23. Do you think breast-feeding isolates a woman from others at all?

☐ Yes ☐ No ☐ Don't know

24. How is that?

_____

Bottle-feeding only, ask question 25, and then go to the last section (Section 9)
Breast-feeding, go to the next section.

25. Could you sum up for me that you think were the most important things you thought about in selecting bottle feeding as fitting best into your pattern of living?

_____

Section 7

I am going to ask you about your present experiences of feeding your baby.

1. When did you feed your baby for the first time?

☐ within an hour after delivery
☐ 3 - 4 hours later
☐ more than 4 hours after delivery

2. How often do you feed your baby?

☐ on demand feeding (2 - 3 hourly)
☐ on schedule feeding every 4 hours
☐ other _____

3. How many times did you breast-feed your baby during your waking hours yesterday?

_____

4. How many times did you feed your baby last night during your normal sleeping hours?

_____

5. Does your baby stay with you at night?

☐ Yes ☐ No

6. If no, when was she/he taken from your room?_____

7. How long do you think breast-milk will be sufficient for your baby without supplementary foods (as a main meal)?

_____

8. How do you decide your baby is getting enough milk?

_____

9. Do you feel very embarrassed when feeding your baby in front of others?

☐ Yes ☐ No

10. If no, do you feel embarrassed at all?

☐ Yes ☐ No

Section 8

I would like to ask you just a few last questions about breast-feeding that sum-up your feelings about how you are coping with breast-feeding at the present time.

1. How do you feel you are getting on with breast-feeding at present?

☐ Fine ☐ So,so ☐ Difficult

2. Generally, have you found breast-feeding easy or hard to manage?

☐ Easy ☐ Not sure ☐ Hard

3. Why is that? _____

4. What is the hardest thing to cope with, with breast-feeding?

_____

5. What is the nicest thing about breast-feeding? _____

6. What is the most unexpected thing you have found in feeding your baby?

_____

_____

7. What is the best help that the nurses have given you with feeding your baby?

_____

8. What is one thing you haven't liked about the help from nurses?

_____

9. What would be the best help you could get with breast-feeding at present?

_____

Section 9

Finally, I need to ask you some questions about yourself.

1. May I ask your age? _____

2. What was the last level you completed in school? _____

3. Have you done any study since then?
(e.g. at a Technical Institute, teaching or at a university)

_____

4. What is your present occupation?

_____

5. If answer 'a housewife', what was your occupation before becoming a housewife?

_____

6. (a) What was your total family income last year?

- ☐ under $10,000
- ☐ $10,000 - $14,999
- ☐ $15,000 - $19,999
- ☐ $20,000 - $24,999
- ☐ > $25,000

OR

(b) What is your total family income for a week?

- ☐ < $250
- ☐ $250 - $349
- ☐ $350 - $499
- ☐ > $500

7. Who contributes most of this? _____

Thank you very much for your help.

(Breast-feeding only - I will contact you again in about three weeks at your home, the next questionnaire will be shorter. To help me, could I have your home address and phone number. Do you expect to be at home in about three weeks?)

APPENDIX II

Structured Questionnaire II

MASSEY UNIVERSITY

DEPARTMENT OF NURSING STUDIES

Questionnaire 2

Thank you for your help with my first questionnaire.

Now I am interested in learning about your experiences of feeding after leaving the hospital and how it changes your living pattern. In order to learn about these experiences, I am going to ask you a whole variety of things, including questions relating to the encouragement you get about feeding from other people.

MASSEY UNIVERSITY

DEPARTMENT OF NURSING STUDIES

Section 1

First, I am going to ask you about your pattern of living after leaving the hospital.

1. How would you describe your life since leaving the hospital?

_____

_____

2. Have you been out for any of the following reasons since leaving the hospital?

shopping	movies
business (eg, pay bills)	hobbies
work (paid employment)	church
visiting (day)	other
visiting (evening)	

If you haven't been out at all then ask question 3, otherwise go to question 4.

3. Why haven't you been out? (now to question 7)

_____

4. Did you ever take your baby with you on any of these occasions?

yes no

If yes continue, if no ask question 6 and continue.

5. Which places did you take your baby with you?

_____

6. For longer outings how did you manage baby's feeding?

_____

7. Have you had any visitors since leaving the hospital?

yes no

If yes continue, if no go to question 9 and continue.

8. Are there more visitors than usual?

yes no not sure

.../2

9. Do you telephone your friends more than before your baby was born?

yes no not sure

Now I'd like to find out about your family routines over the past two weeks.

10. Here is a list of household tasks. Who mostly does these jobs at the present time?

	Mother	Father	Other
Shopping			
Cooking			
Dish washing			
Household cleaning			
Washing clothes			
Ironing			
Gardening			
Looking after other children			

10a Has anyone else helped with these jobs at all? _____

11. Was this your family pattern before your baby was born?

yes no

If no continue, if yes go to question 13 and continue.

12. What is different

_____

Now I'd like to find out about your baby tasks.

13. Who does these jobs at the present time?

	Mother	Father	Other
Bathing baby			
Nappy changing			
Putting down baby			
Attending night waking			
Comforting baby			
Singing to baby			
Holding baby			

.../3

	Mother	Father	Other
Playing with baby			
Preparing bottle			
Feeding baby			

14. Do these other people help every day or just occasionally?

_____

15. Are you able to rest during the day?

yes no sometimes

16. Do you have enough time for sleeping at night?

yes no uncertain

17. Why is that?

_____

18. When I spoke to you in hospital you said your hobbies included _____. Have you had any time for any of these since (baby) _____ was born?

yes no not much

19. Have you taken up any new activities/hobbies that fit in better with having a baby?

yes no

20. If yes, what is that?

_____

21. Do the above activities just about <u>cover your day</u> or are there <u>other things you do</u> as well?

If answer yes, <u>there are other things</u>, continue

If no, ask question 23 and continue.

22. What is that?

_____

23. What has been the major change you have noticed in your lifestyle since (baby) arrived?

_____

24. Did you expect this change?

yes no not sure

.../4

25. Are there other changes in your lifestyle?

yes no

26. If yes, what are they?

_____

_____

27. Overall, do you find these changes difficult to cope with?

yes no not sure

Section 2

Now I am going to ask you about your feeding experience.

1. Which method do you feed your baby at present?

Breast only

Bottle only

Mixed

If answer bottle only continue.

If answer breast only/mixed ask question 14 and continue.

2. When did you decide to stop breast-feeding?

_____

3. Did you talk this over with your (a) husband, (b) mother, (c) friend?

yes no

4. Did you talk to a nurse at all?

yes no

5. If yes, was she helpful at all?

yes no not sure

6. When did you begin to bottle feed?

_____

7. What was the thing you disliked most about breast-feeding?

_____

8. Was that the major reason you decided to change the method of feeding?

yes no not sure

.../5

9. If no/not sure, what other reasons did you have for changing?

_____

10. If yes, what else?

_____

11. Here is a list of problems or difficulties some women experience with breast-feeding. Please indicate ones you have experienced.

a) Poor sucking/refused to suck

b) Not enough milk/milk dried up

c) Illness of your baby

d) Illness of yourself

e) Excessive crying of the baby

f) Sore nipples

g) Breast discomfort eg, engorgement, wetness around nipple

h) Breast infection

i) No time for other young children

j) Insufficient time for family routine

k) Return to work

l) Don't like to breast-feed in public

m) Other (specify) _____

12. Is bottle feeding proving to be easier than breast-feeding?

yes no not sure

13. Why is that?

_____

14. From your feeding experience, what would be the best help that women could get with breast-feeding?

_____

_____

Breast-feeding only continue

Bottle feeding go to Section 4

15. How many times did you feed your baby during your waking hours yesterday?

_____

.../6

16. How many times did you feed your baby during your sleeping last night?

---

17. How do you feel when you breast-feed your baby in front of people who are not close friends or relatives?

very embarrassed — do not mind

embarrassed — feed only in private

18. Are there places you go where you prefer not to breast-feed?

yes no don't know

19. If yes, which places are these?

---

20. Do you think breast-feeding will affect your sex relations?

yes no don't know

21. If yes, how is that?

---

22. Do you find that breast-feeding isolates you from others at all?

yes no don't know

23. If yes, how is that?

---

24. Does your previous experience with babies help with the way you feed this baby?

yes no not sure

25.a. If yes, how does it help?

---

b. If no, why doesn't it help?

---

26 Here is a list of problems or difficulties that women often experience with breast-feeding. Please indicate ones you have experienced?

a) Poor sucking/refused to suck

b) Not enough milk/milk dried up

c) Illness of your baby

d) Illness of yourself

.../7

e) Excessive crying of the baby

f) Sore nipples

g) Breast discomfort eg, engorgement, wetness around nipple

h) Breast infection

i) No time for other young children

j) Insufficient time with family routine

k) Return to work

l) Don't like to breast-feed in public

m) Other (specify) _____

27. Which problem has bothered you the most?

_____

28. Why is that?

_____

29. For each problem experienced, has it been a regular problem?

yes no sometime

_____

_____

_____

30. What do you think is the cause of this?

_____

_____

_____

31. What have you done about it?

_____

_____

_____

32. Was it helpful?

yes no not sure

33. Have you sought help from anyone for these problems?

yes no

34. If yes, who were these?

---

35. Was this helpful? Yes No Not sure

36. Have doctors helped with any of these problems?

yes no

37. Have nurses helped with any of these problems?

yes no

37a. If yes, how did they help?

---

38. What help with other sorts of problems have nurses given?

---

39. Generally, have you found breast-feeding easy or hard to manage?

easy hard not sure

40. Why is that?

---

41. Are you pleased with the way you have been coping with breast-feeding so far?

yes no not sure

42. What did you think of in deciding this?

---

43. Have you ever thought of changing to bottle feeding?

yes no

44. If yes, when will you change to bottle feed?

---

45. Why did you decide to continue breast-feeding?

---

46. What would be the best help you could get with breast-feeding from family and others at present?

_____

_____

47. What advice would you give about breast-feeding to women who have just had a baby?

_____

_____

Section 3 (Breast-feeding only)

I would like to ask you about your health after leaving the hospital until now.

(Item A, ask only mothers who have health problems in the first interview)

A. In our first interview you said you had health problems that required _____ (medication name). Are you still taking this medication?

yes no

1. Do you have any health problems that are of concern to you at present?

yes no

If yes continue, if no go to Section 4.

2. What is your health problem?

_____

3. How do you manage that problem?

_____

4. Do you take any medications for that problem?

yes no

5. If yes, do you think your medication will affect breast-feeding?

yes no don't know

6. What help do you receive about this from your nurse?

_____

7. What help do you receive about this from your doctor?

_____

Section 4

I would like to ask you about the advice and encouragement that you received about breast-feeding when you were pregnant and also when you were in hospital.

(Questions 1-6 ask only mothers who attended antenatal class. Otherwise ask question 7 and continue).

From your first answers you said you attended antenatal class at

_____

1. In light of your present experience, how helpful was the advice you received about breast-feeding from antenatal class during your pregnancy?

   very helpful moderate helpful

   mildly helpful not helpful

2. Were the lectures helpful?

   yes no not sure

3. Was the opportunity for discussion/asking questions useful?

   yes no not sure

4. What things do you think should be added to the way that people are prepared for breast-feeding?

   _____

   _____

5. Overall, do you think you were adequately prepared for breast-feeding during your pregnancy?

   yes no not sure

6. If no, not sure, why was that?

   _____

7. Did you attend classes during your hospitalization?

   yes no

If yes continue, if no ask question 9.

8. In light of your present experience, how helpful was the advice you received from post natal classes during your hospitalization?

   very helpful mildly helpful

   moderately helpful not helpful

Now I would like to ask you about the advice and encouragement you received concerning breast-feeding from nurses and others throughout your stay in hospital.

9. Overall, do you think you received adequate advice about breast-feeding from nurses during your hospitalization?

   yes no not sure

10. Did they all give similar advice?

    yes no not sure

.../12

11. If no, not sure, what was different?

_____

12. What was the best advice you received about breast-feeding while you were in hospital?

_____

13. Who gave it to you? _____

14. Do you have any suggestions about nurses' advice that you received during your hospitalization?

yes no not sure

15. If yes, what is that?

_____

_____

16. How encouraging were nurses about breast-feeding during your hospitalization?

strongly encouraging mildly encouraging

moderately encouraging not encouraging

17. Do you think the ward layout encourages breast-feeding?

yes no not sure

18. Do you think the ward routine encourages breast-feeding?

yes no not sure

19. If yes, how did it encourage breast-feeding?

_____

20. Do you have any suggestions about the encouragement of breast-feeding that you received during your hospitalization?

yes no

27. If yes, what is that?

_____

_____

22. Who gave you the best encouragement about breast-feeding during your hospitalization?

a) Doctor

b) Nurse

c) Other hospital staff

d) Partner

e) Baby

f) Own mother

g) Other mothers

h) Friends and relatives

i) No-one

j) Other (specify)

23. What was the encouragement you received from this person?

_____

Now I would like to ask you about the advice and encouragement you received about breast-feeding from nurses and others since leaving the hospital.

24. Who of the following have you seen since you came home?

a) Your doctor

b) Doctor's practice nurse

c) Plunket nurse

d) Hospital nurse

e) Public health nurse

25. Can you suggest one thing you appreciate about her/his visit?

_____

26. Can you suggest one thing you dislike about his/her visit?

_____

27. Is there anything else you would like to add about these visits?

_____

28. What encouragement have you received about breast-feeding from a nurse since leaving hospital?

_____

_____

29. Have you been to any groups since leaving hospital to learn about child care? Yes No (if no ask question 32)

30. If yes, what are they?

_____

31. Do you know of an organisation called the La Leache League?

yes no

If yes continue, if no ask question 35.

32. Do you know what they do?

yes no not certain

33. If yes, have you received advice or help from the members of this group?

yes no

34. If yes, what is that?

_____

_____

35. Who has given you the best encouragement about feeding at present?

a) Nurse

b) Doctor

c) Partner

d) Baby

e) Own mother

f) Other mothers

g) Friends and relatives

h) La Leache League

i) No one

j) Other (specify)

36. What was the encouragement you received from this person?

_____

37. What is the hardest thing about feeding (your baby) at present?

_____

_____

38. What are the things you enjoy about feeding your baby at present?

_____

_____

Thank you very much for your help.

Breast-feeding: I will interview you again when your baby is about two months old. Do you expect to be at home at this time? I will contact you before I come.

Artificial feeding: I will interview you again when your baby is about three months old. Do you expect to be at home at this time? I will contact you before I come.

APPENDIX III

Structured Questionnaire III

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Thank you for your help with my second questionnaire. Now I would like to learn whether there are changes in your experiences of feeding from our last conversation. As well, I would like to know how your living pattern has changed.

SECTION 1

First, I am going to ask you about your pattern of living at the present time.

At the last interview I asked you several things about your life style. Now I would like to ask about whether these have been changed.

1. Has your pattern of going out changed over the past month?

   yes no don't know

2. If yes, what is different from last month?

   _____

3. Have your hobbies changed?

   yes no

4. If yes, what is different from last month?

   _____

5. Have your activities (being a member of groups) changed?

   yes no

6. If yes, what is different from last month?

   _____

7. Do you work outside your home (for payment)?

   yes no

If yes continue, if no go to question 13.

8. Do you work part time or full time?

   _____

9. How many hours do you work per day?

   _____

10. What kind of work are you doing?

    _____

11. Is there a cheche in your office or near your office?

    yes no

12. Do they allow you to take your baby when you go to work?

    yes no

.../2

13. Are there any other changes in your life style from last month?

yes no

14. If yes, what is different from last month?

_____

Now I would like to find out your family tasks.

15. Who does these jobs at the present time?

				Previous Pattern		
		Father	Mother	Others	Father	Mother	Others
a.	Shopping						
b.	Cooking						
c.	Dish washing						
d.	Household cleaning						
e.	Washing clothes						
f.	Ironing						
g.	Gardening						
h.	Look after other children						

15a. Has anyone else helped with these jobs at all?

yes no

15b. If change, why? [Ask up to (2)]

_____

_____

.../3

I would like to find out your baby tasks.

16. Who does these jobs at the present time?

				Previous Pattern		
		Father	Mother	Others	Father	Mother	Others
a.	Bathing baby						
b.	Nappy changing						
c.	Putting down baby						
d.	Attending night waking						
e.	Comforting baby						
f.	Singing to baby						
g.	Holding baby						
h.	Playing with baby						
i.	Preparing bottle						
j.	Feeding baby						

16a. Do these other people help you every day or just occasionally?

_____

16b. If change, why? [Ask up to (2)]

_____

_____

17. Are you able to rest during the day?

Yes no sometimes

18. Do you have enough time for sleeping at night?

Yes no

19. Why was that?

_____

20. Do the above activities just about cover your day or are there other things you do as well?

_____

If answer yes, there are other things, continue

If no, ask question 22 and continue

.../4

21. What is that?

_____

22. What would you say, has been the major change you have noticed in your life style since over last interview?

_____

_____

23. Did you expect this change?

Yes no not sure

24. Over all, do you find these changes difficult to cope with?

Yes no not sure

SECTION 2

Now I am going to ask you about your feeding experience.

1. Which method do you feed your baby at present?

breast only

bottle only

mixed

If answer bottle only continue

If answer breast only/mixed ask question 15 and continue.

2. When did you decide to stop breast-feeding?

_____

3. Did you talk this over with your

a) husband b) mother c) your friends?

Yes no

4. Did you talk to a nurse at all?

Yes no

5. If yes, was she helpful at all?

Yes no not sure

6. When did you begin to bottle feed?

_____

.../5

7. What was the thing you disliked most about breast-feeding?

_____

8. Was that the major reason you decided to change the method of feeding?

Yes no not sure

9. If no/not sure, what other reasons did you have for changing?

_____

10. If yes, what else?

_____

11. Here is a list of problems or difficulties some women experience with breast-feeding. Please indicate ones you have experienced.

a) Poor sucking/refused to suck

b) Not enough milk/milk dried up

c) Illness of your baby

d) Illness of yourself

e) Excessive crying of the baby

f) Sore nipples

g) Breast discomfort eg, engorgement, wetness around nipple

h) Breast infection

i) No time for other young children

j) Insufficient time for family routine

k) Return to work

l) Don't like to breast-feed in public

m) Other (specify) _____

12. Is bottle feeding proving to be easier than breast-feeding?

Yes no not sure

13. Why is that?

_____

14. From your feeding experience, what would be the best help that women could get with breast-feeding?

_____

_____

.../6

Breast-feeding only continue

Bottle feeding go to Section 4

15. How many times did you feed your baby during your waking hours yesterday?

_____

16. How many times did you feed your baby during your sleeping last night?

_____

17. How do you feel when you breast-feed your baby in front of people who are not close friends or relatives?

very embarrassed embarrassed

not mind feed only in private

18. Are there places you go where you prefer not to breast-feed?

Yes no don't know

19. If yes, which places are these

_____

20. Do you think breast-feeding affects your sex relations?

Yes no don't know

21. If yes, how is that?

_____

22. Do you find that breast-feeding isolates you from others at all?

Yes no don't know

23. If yes, how is that?

_____

23. Here is a list of problems or difficulties that women often experience with breast-feeding. Please indicate ones you have experienced over the last month.

a) Poor sucking/refused to suck

b) Not enough milk/milk dried up

c) Illness of your baby

d) Illness of yourself

e) Excessive crying of the baby

f) Sore nipples

g) Breast discomfort eg, engorgement, wetness around nipple

h) Breast infection

i) No time for other young children

j) Insufficient time with family routine

k) Return to work

l) Don't like to breast-feed in public

m) Other (specify) _____

25. Which problem has bothered you the most?

_____

26. Why is that?

_____

27. For each problem, has it been a regular problem?

Yes no sometimes

_____

_____

_____

28. What do you think is the cause of this?

_____

_____

_____

29. What have you done about it?

_____

_____

_____

30. Was it helpful?

Yes no not sure

.../8

31. Have you sought help from anyone for these problems?

Yes No

32. If yes, who were these?

_____

33. Was this helpful?

Yes no not sure

34. Have doctors helped with any of these problems?

Yes no not sure

35. Have nurses helped with any of these problems?

Yes no not sure

36. What help with other sorts of problems have nurses given?

_____

37. Generally, have you found breast-feeding easy or hard to manage?

Easy hard not sure

38. Why is that?

_____

39. Are you pleased with the way you have been coping with breast-feeding so far?

Yes no not sure

40. Why is that?

_____

(Questions 41-43 ask only those who answered "no" in question 41 last interview)

41. Have you ever thought of changing to bottlefeed?

Yes no

42. If yes when will you change to bottlefeed?

_____

43. Why did you decide to continue breast-feeding?

_____

44. What would be the best help you could get with breast-feeding from family and others at present?

_____

_____

SECTION 3 (Breast-feeding only)

I would like to ask you about your health at present.
(Ask only mothers who have health problems in the second interview)

1a. In our last interview you said you had health problem _____ _____. Do you have that problem at present?

Yes no

1b. Do you have any other health problems that are of concern to you at present?

Yes no

If yes, continue. If no, go to question 8 and continue.

2. What is your health problem?

_____

3. How do you manage that problem?

_____

4. Do you take any medications for that problem?

Yes no

5. If yes, do you think that medication will affect breast-feeding?

Yes no

6. What help do you receive from nurse?

_____

7. What help do you receive from your doctor?

_____

8. Have you started practicing family planning?

Yes no

9. If no, why not?

_____

10. If yes, which method is presently being used?

relying on breast-feeding condom

pill loop

rhythm other _____

.../10

11. Why did you select that method?

_____

SECTION 4

I would like to ask you about the advice and encouragement that you received about breast-feeding over the last month.

1. Who of the following have you seen during this month?

   Your doctor

   Doctor's practice nurse

   Plunket nurse

   Hospital nurse

   Public health nurse

2. Can you suggest one thing you appreciate about this consultation?

   _____

3. Can you suggest one thing you dislike about this consultation?

   _____

4. Is there anything else you would like to add about these visits?

   _____

5. What advice and encouragement have you received about breast-feeding from nurses during this month?

   _____

6. Have you received encouragement for breast-feeding from your partner, your mother, your close friend, your relatives, your neighbour and others over the last month?

   Yes no

7. If yes, how did they encourage you?

   _____

   _____

   _____

8. Did any of these people discourage you from breast-feeding?

   Yes no

.../11

9. If yes, in what ways?

_____

10. Have you approached anyone else for help with breast-feeding?

Yes no

11. If yes, who?

_____

12. Who has given you the best encouragement with feeding over the past month?

Doctor

Nurse

(Le Lache League - only if previously mentioned)

Partner

Baby

Own mother

Other mothers

Friends and relatives

No one

Other _____

13. What was the encouragement you received from this person?

_____

14. What is the hardest thing about feeding (your baby) at present?

_____

15. What are the things you enjoy about feeding (your baby) at present?

_____

Thank you very much for your help.

I would like to interview you just one more time when your baby is about three months old. Do you expect to be here at that time?

I will contact you before I come.

APPENDIX IV

Structured Questionnaire IV

MASSEY UNIVERSITY

DEPARTMENT OF NURSING STUDIES

Thank you for your help with my earlier questionaire. This is the last time I will need to interview you. In this interview I would like to learn whether these are changes in your experiences of feeding from our last conversation. As well, I would like to know how your living pattern has changed. Often you will find questions are similar to those in an earlier questionaire. I do this as I am interested in the changes that occur over the weeks.

SECTION 1

First, I am going to ask you about your pattern of living at the present time.

At the last interview I asked you several things about your life style. Now I would like to ask about whether these have been changed.

1. Has your pattern of going out changed over the past month?

Yes No Don't know

2. If yes, what is different from last month?

---

3. Have your hobbies changed?

Yes No

4. If yes, what is different from last month?

---

5. Have your activities (being a member of groups) changed?

Yes No

6. If yes, what is different from last month?

(7-12 Ask only those who haven't worked in the last questionaire)
If worked outside at last interview ask Question 9,13 and continue.

7. Do you work outside your home (for payment)?

Yes No

If yes continue, if no go to 16.

8. Do you work <u>part time</u> or <u>full time</u>?

9. How many hours do you work per day? .....

10. What kind of work are you doing? .....

11. Is there a creche in your office or near your office?

Yes No

12. Do they allow you to take your baby when you go to work?

Yes No

(And then go to Q.16)

13. Has anything changed in your work situation (e.g.the type of work, the amount of time worked, creche facilities)

14. How easy is it for you to breastfeed?

.....

15. What is the most difficult in terms of managing breastfeeding?

.....

16. Are there other changes in your life style from last month?

Yes No

17. If yes, what is different from last month?

.....

Now I would like to find out about your family tasks over the past month.

18. Who does these jobs at the present time?

	Present Pattern			Previous Pattern		
	Father	Mother	Other	Father	Mother	Other
Shopping						
Cooking						
Dish washing						
Household cleaning						
Washing clothes						
Ironing						
Gardening						
Looking after other children						

19. Has anyone else helped with these jobs at all?

Yes No

20. If change, why does it change? (Ask up to (2))

_____

_____

Now I would like to find out about your baby tasks.

Who does these jobs at the present time?

	Present Pattern			Previous Pattern		
	Father	Mother	Other	Father	Mother	Other
A. Bathing baby						
B. Nappy changing						
C. Putting down baby						
D. Attending night waking						
E. Comforting baby						
F. Singing to baby						
G. Holding baby						
H. Playing with baby						
I. Preparing bottle						
J. Feeding baby						

22. Do these other people help you <u>every day</u> or <u>just occasionally</u>?

23. If change, why does it change? (Ask up to (2))

24. Are you able to rest during the day? _____

Yes No Sometimes

25. Do you have enough time for sleeping at night?

Yes No Uncertain

26. Why was that?

_____

27. Do the above activities just about <u>cover your day</u> or are there <u>other things</u> you do as well?

If answer yes,<u>there are other things</u>, continue if no, ask Q 29 and continue.

28, What is that?

_____

29. What would you say, has been the major change you have noticed in your lifestyle since our last conversation?

_____

_____

30. Did you expect change?

Yes No Not sure

31. Overall do you find these changes difficult to cope with?

Yes No Not sure

SECTION 2

Now I am going to ask you about your feeding experience.

1. Which method do you feed your baby at present?

Breast only

Bottle only

Mixed

If answer bottle only continue. If answer breast only /mixed ask Q 24 and continue.

2. When did you decide to stop breastfeeding?

_____

3. Did you talk this over with your (1) husband, (2) mother, or (3) your friends?

Yes No

4. Did you talk to a nurse at all?

Yes No

5. If yes, was she helpful at all?

Yes No Not sure

6. When did you begin to bottle feed?

_____

7. What was the thing you disliked most about breastfeeding?

_____

8. Was that the major reason you decided to change the method of feeding?

Yes No Not sure

9. If no/not sure, what other reasons did you have for changing?

_____

10. If yes, what else?

---

11. Here is a list of problems or difficulties some women experience with breastfeeding.
Please indicate ones you have experienced.

A. Poor sucking/ refusing to suck
B. Not enough milk/milk dried up
C. Illness of your baby
D. Illness of yourself
E. Excessive crying of the baby
F. Sore nipples
G. Breast discomfort e.g. engorgement, wetness around nipples
H. Breast infection
I. No time for other young children
J. Insufficient time for family routine
K. Return to work
L. Don't like to breastfeed in public
M. Other (specify).....

12. Is bottle feeding proving to be easier than breastfeeding?

Yes No Not sure

13. Why is that?

---

14. Have you ever changed the kind of milk powder?

Yes No

15. If yes, why did you change it?

---

16. Have you introduced "solids" to (baby) yet?

Yes No
If yes continue, if no go to Q.19.

17. When did you start?

---

18. How often do you give it to (your baby)?

---

19. What do you think as being the major advantages of bottle feeding from your experience?

---

20. What do you think as being the disadvantages of bottle feeding from your experience?

_____

_____

21. From your experience about infant feeding, how would you compare bottle feeding with breast feeding?

_____

_____

22. Could you sum up for me what you think were the most important things to help new mothers about breastfeeding?

_____

_____

23. If you have another baby would you try to breastfeed again?

Yes No Not sure

Breastfeeding only continue, Bottle feeding go to section 4

24. Have you introduced "solids" to 'baby' yet?

Yes No

If yes continue, if no go to Q.27

25. When did you start?

_____

26. How often do you give it to your baby?

_____

27. How many times did you feed your baby during your waking hours yesterday?

_____

28. How many times did you feed your baby during your sleeping last night?

_____

29. How did you feel when you breastfeed your baby in front of people who are not close friends or relatives?

very embarrassed embarrassed
not mind feed only in private

30. Are there places you go where you prefer not to breastfeed?

Yes No Don't know

31. If yes, which places are these?

---

32. Do you think breastfeeding affects your sex relations at present?

Yes No Don't know

33. If yes, how is that?

---

34. Do you find that breast feeding isolates you from others at all?

Yes No Don't know

35. If yes, how is that?

---

36. Here is a list of problems or difficulties that women often experience with breastfeeding.
Please indicate ones you have experienced over the last month.

A. Poor sucking/refused to suck
B. Not enough milk/milk dried up
C. Illness of your baby
D. Illness of yourself
E. Excessive crying of the baby
F. Sore nipples
G. Breast discomfort e.g. engorgement, wetness around nipples
H. Breast infection
I. No time for other young children
J. Insufficient time with family routine
K. Return to work
L. Don't like to breastfeed in public
M. Other (specify) .....

37. Which problem has bothered you the most?

---

38. Why is that?

---

39. For up to three problems has it been a regular problem?

Yes No Sometimes

40. What do you think is the cause of this?

_____

_____

_____

41. What have you done about it?

_____

_____

_____

42. Was it helpful?

Yes No Not sure

43. Have you sought help form anyone for these problems?

Yes No

44. If yes, who were these?

_____

45. Was this helpful?

Yes No Not sure

46. Have doctors helped with any of these problems?

Yes No Not sure

47. Have nurses helped with any of these problems?

Yes No Not sure

48. What help with other sorts of problems have nurses given?

_____

49. Generally, have you found breastfeeding easy or hard to manage?

Easy Hard Not sure

50. Why is that?

_____

51. Are you pleased with the way you have been coping with breastfeeding so far?

Yes No Not sure

52. Why is that?

_____

53. What would be the best help you could get with breastfeeding from family and others at present?

_____

_____

54. Do you think you will breastfeed your baby as long as you planned initially?

Yes No Not sure

If yes ask 55 and go to 58. If no/not sure, ask Q. 56 and continue.

55. What is the major reason that you decided to continue breastfeeding?

_____

_____

56. Why have you decided to change from your initial plan?

_____

_____

57. When will you change to bottlefeed?

_____

58. If you have another child, would you breastfeed again?

Yes No Not sure

SECTION 3 (breastfeeding only)

I would like to ask you about your health at present.
(Ask only mothers who have health problems in the third interview)

1a. In our last interview you said you had health problem

_____. Do you have that problem at present?

Yes No

1b. Do you have any other health problems that are of concern to you at present?

Yes No

If yes, continue. If no, go to Q. 8 and continue.

2. What is your health problem?

_____

3. How do you manage that problem?

_____

4. Do you take any medications for that problem?

Yes No

5. If yes, do you think that medication will affect breast-feeding?

Yes No

6. What help do you receive from nurse?

_____

7. What help do you receive from your doctor?

_____

(Q. 8 - 10 ask only mothers who answered no in the last interview)

8. Have you started practicing family planning?

Yes No

9. If no, why not?

_____

10. If yes, which method is presently being used?

relying on breastfeeding condom

pill loop

rhythm other _____

11. Why did you select that method?

_____

SECTION 4

I would like to ask you about the advice and encouragement that you received about infant feeding over the last month.

1. Who of the following have you seen during this month?

   Your doctor

   Doctor's practice nurse

   Plunket nurse

   Hospital nurse

   Public health nurse

2. Can you suggest one thing you appreciate about this consultation?

   _____

3. Can you suggest one thing you dislike about this consultation?

   _____

4. Is there anything else you would like to add about these visits?

   _____

5. What advice and encouragement have you received about breastfeeding from nurses during this month?

   _____

6. Have you received encouragement for breastfeeding from your partner, your mother, your close friend, your relatives, your neighbour and others over the last month?

   Yes No

7. If yes, how did they encourage you?

   _____

   _____

   _____

8. Did any of these people discourage you from breastfeeding?

   Yes No

9. If yes, in what ways?

   _____

10. Have you approached anyone else for help with breastfeeding?

Yes No

11. If yes, who?

_____

12. Who has given you the best encouragement with feeding over the past month?

Doctor
Nurse
(Le Lache League - only if previously mentioned)
Partner
Baby
Own mother
Other mothers
Friends and relatives
No one
Other _____

13. What was the encouragement you received from this person?

_____

14. Have you given encouragement to other people about infant feeding since (baby) arrived?

Yes No

15. Who was that?

_____

16. What is the hardest thing about feeding (your baby) at present?

_____

17. What are the things you enjoy about feeding (your baby) at present?

_____

Breastfeeding Only

18. From your experience about breastfeeding, could you sum up for me, what you think as being the major advantage of breastfeeding?

_____

_____

19. What do you think as being the disadvantages or difficult things of breastfeeding?

_____

_____

20. Could you sum up for me, what you think are the most important things to help new mothers succeed in breastfeeding?

_____

_____

Finally, I would like to thank you very much for the generous help that you have given me over the interviewing period. The questions have not always been easy but you have been very patient. I wish you and (baby name) all the best in the future.

The last questionaire for the mothers who stop breastfeeding at the second interview (3 weeks postpartum) third interview (7 - 8 weeks)

I would like to ask you about your experiences of bottlefeeding at present.

1. How are you getting on with bottle feeding? _____

2. Have you ever changed the kind of milk powder? _____

Yes No

3. If yes, why did you change it? _____

4. Have you ever found bottle feeding easy or hard to manage?

Easy Not sure Hard

5. Why is that?

6. What do you see as being the major advantages of bottle feeding from your experience?

_____

7. What do you see as being the disadvantages or difficult things of bottle feeding from your experience?

_____

8. From your experience of infant feeding, how would you compare bottle feeding with breastfeeding?

_____

_____

9. Could you sum up for me what you think were the important things to help mew mothers about breastfeeding?

_____

_____

10. If you have another baby, would you try to breast feed again?

Yes No Not sure

Thank you very much for your help that you have given me over the interviewing period. The questions have not always been easy but you have been very patient. I wish you and (baby name) all the best in the future.

APPENDIX V

Introduction Letter for the Interview

Massey University

PALMERSTON NORTH, NEW ZEALAND TELEPHONES. 69-079, 69-089, 69-099.

In reply please quote:

26 August 1985

My name is Apirach Sakulneya. I am a Masterate student from Thailand, doing a project to find out about infant feeding, both what influences a mother's choice about how she feeds her baby and also her experiences of breast-feeding. I believe that the long term results of this study can be used to help mothers in both New Zealand and Thailand. I hope that you will enjoy participating in the study.

There are questions about your decision to feed your baby which I would like yo to answer during your hospitalisation. This interview should take about three quarters of an hour.

As the second focus of this study is on breast-feeding, it is only those mother who have decided to breast-feed that I will want to interview again. If you do decide to breast-feed your baby, I would like to interview you again about your feeding experience. This would involve two or three more interviews in your ow home, the next time being when your baby is aged about three weeks. The last interview will be when your baby is three months old. Each of these later interviews should last about half an hour.

If you are agreeable, to save time and to save me taking notes, I would like to record our conversation to allow me to write it up accurately later. Only a number would be used to identify the person interviewed and your name would not appear on the tape. The tape will be wiped after I have taken notes. If you would prefer that I do not tape the interview, I would need to be able to take notes. If you decide to participate, you can withdraw from this study whenever you wish. To do this you just need to phone either myself or my supervisor. If you do decide to withdraw, no further action would be taken by me.

When I write the project up, no one will be identifiable by name or in any othe way. Anything you say is confidential to this study and will not be used in any other way. If you want further information, you can contact me (telephone 78733), or my supervisor, Marion Pybus (telephone 69099, ext 8329).

I will contact you again tomorrow to see if you are willing to participate and if so, our first conversation will take place at that time.

Thank you for your assistance,

Apirach Sakulneya

Apirach Sakulneya

APPENDIX VI

Planned length of time of breast-feeding and reason given by primiparous women

Time (months)	Reason
10 - 12 (n=4)	- It can protect cot death, it is good for the baby. - Breast-feeding may be preventive to food allergies, so it is unneccessary to introduce solids too early. - It would be too tired if a mother has breast-fed longer than one year. - By that time the baby has start to get teeth.
7 - 9 (n=5)	- Do not want to see the older infant is still on breast-feeding. - At that time, the baby's teeth get to shape and can drink with a cup. - The baby and mother can more independent each other.
4 - 6 (n=8)	- It is good enough for baby. - The baby can start taking other food after 5-6 months. - Not sure, it depends on the baby and on how she manages.
Do not know (n=3)	- It depends on the baby. - no reason.

APPENDIX VII

Planned length of time of breast-feeding and reason given by multiparousus women

Time (months)	Reason
More than 12 (n=2)	- It is a good start in life for the baby and enjoyed her previous experience. - From previous experience, the baby needed to be fed about that time, the mother enjoyed feeding and it was easier for the mother.
10 - 12 (n=6)	- The longer the mother can feed, the better it is for the baby. - The mother need not to prepare anything. - The baby will be able to drink or to eat with a cup. - It is long enough for the baby to wean itself. - The baby will not have any problem in weaning after that length of time from previous experience.
7 - 9 (n=5)	- The baby can wean itself.
4-6 (n=1)	- Give the baby a good start.
Do not know (n=1)	- Did not succeed in breast-feeding at first child.

APPENDIX VIII

DIVISION OF HOUSEHOLD TASKS BETWEEN PRIMIPAROUS WOMEN AND OTHERS OVER 12 WEEKS

TASKS	SHOPPING			COOKING			DISH WASING			HOUSEHOLD CLEANING			WASHING CLOTHES			IRONING			GARDENNING			LOOK AFTER OTHER CHILDREN		
MONTH	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
SUBJECT NUMBER																								
1	P	S	S	W	S	S	M	S	S	W	W	W	W	W	W	W	W	W	P	P	P	-	-	-
2	S	S	S	S	P	P	S	S	S	S	S	S	W	S	S	W	S	W	N	W	S	-	-	-
3	S	P	S	S	S	W	S	S	S	S	M	S	F	M	S	W	S	G	N	S	S	-	-	-
4	W	W	W	S	W	S	W	W	W	W	W	W	W	W	S	W	W	S	P	S	S	-	-	-
5*	W	S	-	W	S	-	S	S	-	W	S	S	W	W	-	W	W	-	S	S	-	-	-	-
6	W	F	F	W	W	W	W	W	W	W	W	W	F	F	W	N	N	N	N	N	N	-	-	-
7	G	F	S	G	O	S	O	O	S	O	O	M	W	F	W	N	N	N	N	O	S	S	M	S
8	M	F	S	F	W	W	M	W	M	F	W	W	F	W	W	W	W	W	O	S	M	-	-	-
9	S	S	W	S	S	S	M	M	S	S	S	S	W	W	W	W	W	W	P	P	P	-	-	-
10	W	W	W	W	W	W	S	S	M	F	M	M	W	W	W	W	W	W	W	W	W	W	W	S
11	W	S	W	F	F	F	O	O	O	O	F	F	O	S	S	O	W	W	O	O	F	-	-	-
12	P	W	P	W	F	S	W	W	W	N	W	S	W	W	W	W	N	W	P	F	W	-	-	-
13	W	S	O	W	W	F	W	M	O	W	S	F	W	W	F	N	N	O	N	N	O	-	-	-
14*	W	-	-	W	-	-	S	-	-	W	-	-	W	-	-	W	-	-	W	-	-	-	-	-
15	S	S	S	W	S	S	S	S	S	W	S	S	W	S	S	W	W	W	N	P	P	-	-	-
16	S	S	S	S	S	M	S	S	M	W	W	S	W	W	M	W	W	M	N	N	M	-	-	-
17	P	W	S	W	W	W	P	S	S	S	S	S	W	W	W	W	W	W	P	S	S	-	-	-
18	W	W	W	W	W	S	P	P	P	S	S	W	W	W	W	W	W	W	P	S	S	-	-	-
19	W	W	W	W	W	W	W	P	S	N	S	S	N	W	W	N	N	N	N	N	W	-	-	-
20	S	S	S	P	S	S	P	P	S	W	W	W	W	W	W	N	W	W	S	S	S	-	-	-

* The woman had changed to bottle feeding before the final interview.

P = Partner did the task by himself.
W = Woman did the task by herself.
S = Partner and woman did the task.
O = Others did the task.
M = Partner, woman, and others did the task.
F = Woman and others did the task.
G = Partner and others did the task.
N = Nobody did the task.

APPENDIX IX

DIVISION OF HOUSEHOLD TASKS BETWEEN MULTIPAROUS WOMEN AND OTHERS OVER 12 WEEKS

TASKS	SHOPPING			COOKING			DISH WASING			HOUSEHOLD CLEANING			WASHING CLOTHES			IRONING			GARDENNING			LOOK AFTER OTHER CHILDREN		
MONTH	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
SUBJECT NUMBER																								
1	P	W	W	P	W	W	P	S	W	W	W	W	F	F	W	N	W	W	W	W	W	W	M	S
2	P	P	P	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	N	N	P	P	S	S
3	W	W	W	M	W	S	W	W	W	O	F	F	O	W	W	W	W	W	P	P	P	S	S	S
4	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	S	S	S	S	S
5*	S	W	-	S	S	-	S	S	-	S	W	-	S	W	-	S	S	-	P	S	-	N	N	-
6*	W	W	-	W	W	-	W	W	-	W	W	-	F	W	-	W	W	-	W	S	-	W	W	-
7	W	W	S	W	S	S	S	S	S	W	W	S	W	W	W	W	W	W	S	S	S	S	S	S
8	S	S	W	W	W	W	P	P	P	O	O	O	W	W	W	W	W	W	P	P	P	S	S	S
9	P	P	P	W	W	W	S	S	S	S	G	M	M	W	W	W	F	F	P	P	P	S	M	S
10	S	W	W	S	W	S	G	W	W	W	W	W	W	W	F	W	W	F	N	W	W	S	S	M
11	W	W	W	W	W	S	W	M	S	W	W	W	W	W	W	W	W	N	W	W	N	S	S	S

* The woman had changed to bottle feeding before the final interview.

P = Partner did the task by himself.
W = Woman did the task by herself.
S = Partner and woman did the task.
O = Others did the task.
M = Partner, woman, and others did the task.
F = Woman and others did the task.
G = Partner and others did the task.
N = Nobody did the task.

APPENDIX X

DIVISION OF BABY TASKS BETWEEN PRIMIPAROUS WOMEN AND OTHERS OVER 12 WEEKS

TASKS	BATHING BABY			NAPPY CHANGING			PUTTING DOWN BABY			ATTENDING NIGHT WAKING			COMFORTING BABY			SINGING TO BABY			HOLDING BABY			PLAYING WITH BABY			PREPARING BOTTLE			FEED BAB	
MONTH	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2
SUBJECT NUMBER																													
1	W	S	S	W	W	S	W	W	W	W	W	W	S	S	S	S	W	W	M	S	S	M	S	S	N	N	N	W	W
2	W	W	W	S	S	S	S	S	S	W	N	N	S	S	S	S	S	S	S	S	S	S	S	S	N	N	N	W	W
3	W	S	S	S	M	M	S	S	M	S	N	N	S	S	M	S	S	S	M	S	M	M	S	M	N	S	S	W	S
4	W	W	W	W	W	W	W	W	W	W	W	W	S	S	S	N	N	S	S	S	S	S	S	S	N	N	N	W	W
5*	W	W	-	S	S	-	S	S	-	S	N	-	S	S	-	S	S	-	S	S	-	S	S	-	N	N	-	W	W
6	W	W	F	S	W	F	S	W	M	W	W	W	S	W	W	S	W	W	N	F	M	M	F	M	N	W	W	W	F
7	W	W	W	W	W	W	W	W	W	W	W	W	M	M	S	W	W	N	M	M	M	M	M	M	N	N	N	W	W
8	W	M	M	M	M	M	M	M	M	W	W	W	M	M	M	N	M	M	M	M	M	M	M	M	N	N	N	W	W
9	S	S	S	S	S	S	W	S	S	S	N	N	S	S	S	S	S	S	S	M	S	S	M	S	N	N	N	W	W
10	W	W	W	S	S	S	S	W	W	W	W	N	M	S	S	N	W	N	M	M	M	N	M	M	N	N	N	W	W
11	W	W	W	W	W	W	W	S	W	W	W	W	W	M	M	W	W	W	F	M	M	F	M	M	N	N	N	W	W
12	W	G	S	S	M	S	S	M	S	S	P	S	S	M	S	W	M	S	S	M	S	S	M	S	N	W	S	W	M
13	W	W	W	W	W	F	W	W	F	W	W	W	S	F	F	S	F	F	S	M	M	S	M	F	N	N	W	W	W
14*	W	-	-	W	-	-	W	-	-	W	-	-	S	-	-	N	-	-	S	-	-	N	-	-	N	-	-	W	-
15	W	W	W	W	W	W	W	S	S	W	W	W	S	S	S	S	S	S	S	W	S	S	S	S	W	O	S	W	F
16	W	W	W	W	W	S	W	S	S	W	W	W	S	S	S	S	S	S	S	S	S	S	S	S	N	N	W	W	W
17	S	W	W	S	W	S	S	S	W	W	W	N	S	S	S	S	S	S	S	S	S	S	S	S	W	W	S	W	S
18	W	W	S	W	S	S	W	S	S	W	W	W	S	S	S	P	W	P	S	S	S	S	S	S	N	N	N	W	W
19	S	S	W	S	S	W	S	S	W	S	S	N	S	S	S	S	S	S	S	S	S	S	S	S	N	N	N	W	W
20	W	S	S	W	S	S	S	S	S	W	W	N	S	S	S	W	S	S	S	S	S	N	S	S	N	N	N	W	W

* The woman had changed to bottle-feeding before the final interview.

P = Partner did the task by himself.
W = Woman did the task by herself.
S = Partner and woman did the task.
O = Others did the task.
M = Partner, woman, and others did the task.
F = Woman and others did the task.
G = Partner and others did the task.
N = Nobody did the task.

APPENDIX XI

DIVISION OF BABY TASKS BETWEEN MULTIPAROUS WOMEN AND OTHERS OVER 12 WEEKS

TASKS	BATHING BABY			NAPPY CHANGING			PUTTING DOWN BABY			ATTENDING NIGHT WAKING			COMFORTING BABY			SINGING TO BABY			HOLDING BABY			PLAYING WITH BABY			PREPARING BOTTLE			FEED BAB
MONTH	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2
SUBJECT NUMBER																													
1	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	F	F	M	M	W	M	N	N	W	W	W
2	W	W	W	W	W	W	W	W	W	W	W	W	S	S	S	S	W	S	S	S	S	S	S	S	N	N	N	W	W
3	W	W	W	W	W	M	S	S	M	M	W	W	M	M	M	S	M	M	M	M	M	M	M	M	N	N	N	W	W
4	W	W	W	S	S	S	S	S	S	W	W	W	S	S	S	W	W	W	S	S	S	S	S	S	N	N	N	W	W
5*	W	W	-	S	S	-	S	S	-	S	N	-	M	S	-	S	M	-	M	M	-	M	M	-	N	W	-	W	M
6*	W	W	-	W	W	-	W	W	-	W	W	-	W	S	-	N	W	-	S	S	-	M	W	-	W	W	-	W	W
7	W	W	W	W	W	W	S	S	W	W	W	N	W	W	S	O	F	O	M	S	M	M	M	M	N	N	N	W	W
8	W	W	S	S	S	S	S	S	S	W	W	W	S	S	S	W	S	S	S	S	S	M	S	S	N	N	N	W	W
9	W	W	W	W	S	S	W	S	S	W	W	W	S	M	M	P	P	P	S	M	M	M	M	M	N	W	W	W	M
10	W	W	W	S	W	W	W	W	W	W	W	W	S	W	W	N	N	W	S	S	S	N	S	M	N	N	N	W	W
11	W	W	W	W	W	W	W	W	S	W	W	N	S	M	S	W	M	W	S	S	S	S	S	S	N	N	N	W	W

* The woman had changed to bottle-feeding before the final interview.

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