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for HUEC 3012
of
The University of the West Indies

Title: Factors influencing breastfeeding among women in south Trinidad

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**FACTORS INFLUENCING BREASTFEEDING AMONG WOMEN
IN SOUTH TRINIDAD.**

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Supervised by

Dr. Isabella Granderson

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ABSTRACT

Background: The drive for breastfeeding is a global priority because of its many long and short term benefits to infant, mother and the society in general. The benefits include adequate and appropriate nutrition; protection against infections; cognitive development in childhood; emotional well being, economic benefits; spacing of pregnancies; quicker return to pre-pregnancy weight and protection from breast and ovarian cancers. Many factors influence the choice of breastfeeding practises. Those that were identified in the study were personal, social, cultural, facilities and environmental factors.

Aim: To identify the factors that influence breastfeeding among women attending three postnatal clinics in south Trinidad.

Design and Methods: Seventy women attending three postnatal clinics located at 31 from Marabella, 10 La Romaine and 29 Roy Joseph in the county Victoria, south Trinidad were identified to participate in the study. Convenience samples of breastfeeding mothers were derived from the clinics. The research instrument was a self administered questionnaire. Descriptive analysis such as frequencies and percentages, cross – tabulations and chi- square test have been used in the data analyses.

Results: Personal, social, local facilities and environment, as well as cultural factors were noticed to have both an enhancing and inhibiting effect on mothers' breastfeeding decisions. There were no significance with breastfeeding knowledge with age, education and occupation, among mothers in the three health centres.

Conclusions: It is evident that mothers who participated in this study are familiar with the breastfeeding practices; however there is need for further information to be given to remove some of the fallacies they follow.

1. INTRODUCTION

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants and has a unique biological and emotional influence on the health of both mother and child (World Health Organization/United Nations International Children's Emergency Fund 2003).

The World Health Organization strongly advocates breastfeeding as the best source of nourishment for infants and young children. Breastfeeding is one of the most effective ways to ensure child health and survival. However, exclusive breastfeeding has been reported as being less frequently practiced and this contributes to over a million avoidable child deaths each year. (World Health Organization 2009).

The Caribbean Food and Nutrition Institute states that, the term exclusive breastfeeding refers to giving an infant no other food or drink, not even water, apart from breast milk (including expressed breast milk), excepting drops of syrups consisting vitamins, mineral supplements or medicines (Caribbean Food and Nutrition Institute 1999). Exclusive breastfeeding is recommended up to six months of age, with continued breastfeeding along with appropriate complementary foods up to two years of age or beyond (WHO 2010).

The drive for breastfeeding is a global priority because of its many long and short term benefits to infant, mother and the society in general (Sloan, Seaneen, et al 2006). The benefits of breastfeeding are well documented and include adequate and appropriate nutrition; protection against infections; cognitive development in childhood; emotional well being; economic benefits; spacing of pregnancies; quicker return to pre-pregnancy weight and protection from breast and ovarian cancers (Kurzewski, K and J. Meeks Gardener 2004, Sloan, Seaneen, et al 2006). Optimal breastfeeding of infants under two years of age has the greatest potential impact on child survival of all preventive interventions, with the potential to prevent 1.4 million deaths in children under five in the developing world. Breastfed children have at least six times greater chance of survival in the early months than non- breastfed children. Breastfeeding

drastically reduces deaths from acute respiratory infection and diarrhoea, two major child killers, as well as from other infectious and chronic diseases. More recently, breastfeeding has also been associated with reduced incidence of later disease such as Type 1 Diabetes Mellitus (Kurzewski K and J Meeks Gardner 2004). The World Health Organization and United Nations International Children's Emergency Fund recommendations on breastfeeding are as follows: initiation of breastfeeding within the first hour after birth; exclusive breastfeeding for the first six months; and continued breastfeeding for two years or more, together with safe, nutritionally adequate, age appropriate, responsive complementary feeding starting in the sixth month.

While breastfeeding rates are no longer declining at the global level, with many countries experiencing significant increases in the last decade, only 38% of children less than six months of age in the developing world are exclusively breastfeeding and just 39% of 20-30 months old benefit from the practice of continued breastfeeding (United Nations International Children's Emergency Fund 2008).

Many influencing factors affect the choice of breastfeeding practises. The selected factors that may influence the breastfeeding decision are identified as personal, social, cultural, facilities and environmental factors. Other influences' include mass media and personal influences. Based on these factors, a conceptual framework was developed to provide guidance.

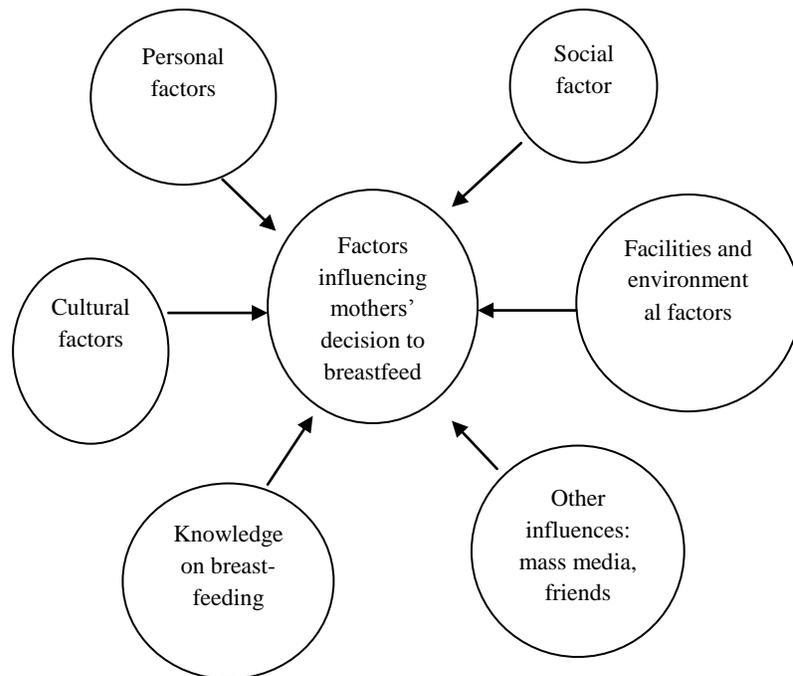


Figure 1 Conceptual framework for the decision to breastfeed (Sarah Kong, K.F., and Diana T.F. Lee)

Trinidad is a multi-ethnic and multi-cultural society with a population of 1, 229,953 (2009). It is estimated that 39.5% of the population is of African descent, 40.3% is of East Indian descent, 18.4% is of mixed racial ancestry and the remaining is Caucasian, Asian and others.

Health-care in Trinidad is provided by various Regional Health Authorities. The Baby- Friendly Hospital Initiative (BFHI) launched in 1991, is an effort by UNICEF and the World Health Organization to ensure that all maternities, whether free standing or in a hospital, become centres of breastfeeding. The Sangre Grande Hospital of the Eastern Regional Health Authority has met the criteria and has passed external assessment according to the Global Criteria for the BFHI, and as of April 2002 is the only certified baby- friendly Hospital in Trinidad and Tobago (Eastern Regional Health Authority 2010)

The South West Regional Health Authority (SWRHA) is responsible for the administration and management of the San Fernando General Hospital, Area Hospital Point Fortin, the Princess Town District Health Facility, Couva District Health Facility and 33 Health Centres scattered throughout the

region. The boundaries of the Southwest Regional Health Authority encompasses more than one third of the land surface of Trinidad, extending from Couva in the North to Icacos in the South West, Moruga in the South East and Tabaquite in the North West. The population in this region is approximately five hundred thousand (500,000) (Government of the Republic of Trinidad and Tobago 2010).

There are twelve health centres in county Victoria; one of the counties within SWRHA. Three health centres from this district were chosen, namely La Romaine, Marabella and Roy Joseph. In 2005, the last recorded census for Victoria showed that it has a population of 218,700 (Gwillim Law 2005). In 2004, the estimated birth rate for Trinidad is 12.75 births/ 1000 population and the population growth rate is estimated at -0.71 births/ 1000 population; total estimated fertility rate is of 1.77 children born/ woman. 15% of live births were due to teenage pregnancies (Pan American Health Organization, World Health Organization 2003).

The aim of this study is to identify the factors that influence breastfeeding among women attending three postnatal clinics in the county Victoria district in south Trinidad. The objectives are to determine the factors that influence women in their decision to breastfeed or not, in south Trinidad, assess the women's knowledge regarding breastfeeding practices, determine how breastfeeding knowledge varies by age, gender, education and occupation among the mothers and to identify the challenges encountered in breastfeeding.

1.2 RATIONALE

Recently, due to the prevalence of juvenile chronic diseases such as Type I Diabetes, mothers are resorting to breastfeeding their babies. Apart from this, it has been recognized that The World Health Organization, United Nations International Children's Emergency Fund, Caribbean Food and Nutrition Institute and The Informative Breastfeeding Services have been advocating the advantages of breastfeeding, yet there are many who still do not practice breastfeeding.

Breastfeeding drastically reduces deaths from acute respiratory infection and diarrhoea, two major 'child killers', as well as from other infectious diseases. Children who are breastfed are healthier and this could have positive effects, such as lowering of national health care cost among other advantages. The levels of breastfeeding are unacceptably low in Trinidad, about 15 to 20 percent, says Hazel Brown a Representative for the Network for the Advancement of Women. According to Hazel Brown in an article in the Express dated 2007, she thinks that this country needs a national breastfeeding policy to promote breastfeeding.

The common factors that influence mothers' breastfeeding are personal, social, cultural, knowledge, facilities and the environment. As a result, it is with keen interest that I have embarked on this study to identify the factors that influence breastfeeding among women in the districts in county Victoria in south Trinidad. The results of my study can inform the society of these factors, the knowledge of which will impact our community.

1.3 LITERATURE REVIEW

Among the many reasons for the cessation of breastfeeding, insufficient milk supply is often reported as being the main reason for such. In a study of factors influencing the decision to breastfeed in Hong Kong, 67.9% perceived insufficient breast milk as a barrier to breastfeeding (Kong, Sarah K.F., and Diana T.F. Lee 2004).

Personal factors were identified as important in women's decision to breastfeed. About 54 % of the mothers reported that their own decision was ranked as the most important factor that had influenced their first infant feeding intention, followed by husbands' advice (9.6%). An overwhelming majority strongly agreed that breastfeeding made babies closer to them and breastfeeding made them feel important. Thus it was showed that the sense of self- worth associated with breastfeeding is viewed positively by most mothers.

Half of the respondents did not agree that the physical pain and discomfort associated with breastfeeding discouraged them. Seaneen Sloan et al (2006) reported in their study that the most common reason for breastfeeding cessation in the first week was pain. Concern that the baby was not getting enough milk and difficulty in latching on were the next most commonly cited reason for cessation at this stage. Returning to work was the most common cited reason for terminating breastfeeding between three and six months.

Qualitative responses revealed that mothers were proud to talk about why they choose breastfeeding because of its benefits to their babies (Kong, Sarah K.F., and Diana T.F. Lee 2004). In the study "Reasons why mothers decide to breastfeed or bottle feed their babies and factors influencing duration of breastfeeding", mothers were asked to recall why they had planned to breastfeed or not, and this was compared with maternal age. Across all age groups, "Breast is best" or the statement "it benefits baby" were cited as the main reasons for women wanting to breastfeed. Among the mothers who had not planned to breastfeed, the main reason cited was that breastfeeding was not an attractive option. Previous

experiences also appeared to have an influence on feeding intentions .Conversely 16 % of the mothers had not planned to do so because of previous negative experiences such as physical pain, baby being miserable, and this was cited as the second most cited reason for not breastfeeding (Sloan, Seaneen et al 2006).

Also, it has been reported that apart from some mothers ceasing to breastfeed their infant, many mothers engage in partial breastfeeding, when the infant suppose to be exclusively breastfed. In the Caribbean, a high proportion of women have always provided their infants with additional food items, along with breast milk. The items have changed from primarily ‘bush teas’ and orange juice to water and commercial formulae (Kurzewski K and Meeks Gardner 2004).

Sarah Kong and Diana Lee (2004), in their study stated that social factors also were important and are reported by many studies as determinants of breastfeeding decisions. Husbands’ support was identified in this study as important. A majority of mothers strongly agreed or agreed that encouragement and support in breastfeeding from their husbands were important to them. However, a significant number, 54.3 % agreed that breastfeeding caused mothers to be “socially tied down.”

The majority (89.1%) agreed that breastfeeding is a natural human activity, but 74.8% considered that it was unacceptable to breastfeed in public. This was seen in their response of feeling embarrassed if someone other than husband and health care workers saw them breastfeeding their babies. Among the reasons given for the cessation of breastfeeding, over 200 mothers (88.2%) in this particular study agreed that lack of privacy for breastfeeding in public places was a barrier to breastfeeding. Furthermore in Hong Kong, the workplace and public facilities were both considered not supportive of breastfeeding. The overcrowded, urban living conditions were considered as a barrier to breastfeeding.

Rose Afriyie (2006) in an article reported that the United States lacks support for breastfeeding mothers. She states that for many new mothers, dirty looks from passers-by, the fear of being asked to leave an establishment, and other expressions of public disapproval often deter them from breastfeeding,

leaving their babies without the essential nutrients in breast milk that help fight infection. Although permitted by the federal law, mothers are often discouraged from breastfeeding in public places because of the over- eroticization of women's' breasts, equating the act of feeding a baby to demonstration of indecency. Furthermore, some mothers may even be discouraged from breastfeeding in public by their own husbands.

Breastfeeding is said to be a private luxury not afforded to women who live with large families, work at places that do not have adequate facilities or for women who must travel with their newborns on public transportation.

Much emphasis has been recognized of the fact that a supportive environment is significant to the initiation and continuation of breastfeeding among mothers. Lara Pickford – Gordon (2005) in an article in the Trinidad and Tobago's Newsday, commented on the fact that in Trinidad, the Mount Hope Women's Hospital was working hard towards achieving the name "baby friendly" hospital by the United Nations International Children's Emergency Fund and World Health Organization, while Sangre Grande hospital boasted of being the first to achieve that status. In order to attain baby friendly status, health facilities must implement the 10 Steps to Breastfeeding (Appendix I).

Recommendations and successful examples from friends were more significant in encouraging women to choose breastfeeding. It is encouraging that over half of the respondents reported that they were convinced by health care workers advice (Kong, Sarah K.F., and Diana T.F. Lee 2004). Seaneen Sloan et al (2006), in their study reported out also that positive as well as negative experiences of others were cited as reasons for breastfeeding or not doing so.

Milk formula advertisements have been identified as an important factor in influencing mothers' decisions on infant feeding. Sarah Kong, K.F., and Diana T.F. Lee 2004, indicated in their study, that a majority of mothers disagreed that milk formula advertisements had influenced their infant feeding decisions. However, a quarter of the respondents agreed that they were influenced by the advertisements.

They stated that the positive findings may be due to the fact that the Hong Kong Government prohibited advertisements of infant formulae through the mass media.

In an article, a research was organized which focused on more than 500 pregnant women. It was seen that women who received promotional material from formula manufacturers stopped breastfeeding earlier than women who did not receive the material (Nation's Health 2000). In another article, it was shown that low income mothers in particular, in the United States are at higher risk of being influenced by infant formula and thus discouraging them from breastfeeding (Arias Donya C 2006).

Yusuff Ali, in an article in the Newsday recalled that a few decades ago powdered milk was being pushed ruthlessly in Trinidad and Tobago. However much of the advertising had to be watered down in the wake of some serious campaigning by supporters of breast milk. In the latest controversy, an advertisement for formula milk was banned for misleading parents about its ability to boost the immune systems of babies (2009).

The major sources of breastfeeding information were reported as being that of antenatal talks (47.4%), books and pamphlets (26.5%), and friends and relatives (16.5%). Doctors (48.7%) were slightly more popular than midwives (40.9%) when seeking advice about infant feeding methods (Kong, Sarah K.F., and Diana T.F. Lee 2004).

One of the elements to empower a woman to breastfeed is that she possesses ample knowledge to make decisions. Breastfeeding choice and success are usually associated with higher breastfeeding knowledge. Mothers seem to know a great deal about breastfeeding, however, their demand for more breastfeeding knowledge was also great (Kong, Sarah K.F., and Diana T.F. Lee 2004).

1.4 AIM

The aim of this study is to:

Identify the factors that influence breastfeeding among women attending three postnatal clinics in south Trinidad.

1.5 OBJECTIVES

1. To determine the factors that influence women to breastfeed in south Trinidad.
2. Assess the breastfeeding women regarding their knowledge on breastfeeding practices.
3. Determine how breastfeeding knowledge varies by age, gender, education and occupation among mothers.
4. To identify the challenges encountered in breastfeeding.

2. METHODOLOGY

The aim of this study is to identify the factors that influence breastfeeding among women attending three postnatal clinics in south Trinidad.

2.1 Subjects/ Participants

Women attending three postnatal clinics located at Marabella, La Romaine and Roy Joseph in the county Victoria, south Trinidad were identified to participate in the study. All mothers with an infant between the ages of birth to 2 years of age attending postnatal clinics in south Trinidad were selected. The sample comprise of 70 mothers between the ages of 16 – 44 attending the clinics. Mothers less than 16 years of age for whom parental consent had to be granted were not selected to participate in this study. The study was carried out during the month of April, 2010. Permission to conduct the study was obtained from the South West Regional Health Authority and the Primary Health Care Nurse of Victoria.

2.2 Design

Convenience samples of breastfeeding mothers were derived from the clinics. Geographic distribution of mothers is as follows: 10 mothers from La Romaine, 31 from Marabella and 29 from Roy Joseph. The health centres were visited on Mondays from 8am – 12midday, 1:30 am – 3pm and Tuesdays from 9 am – 1 pm.

2.3 Questionnaire/ Conduct of Study

The questionnaire contains 35 questions, which were divided into three sections. Section A of the questionnaire examines demographic characteristics of the participants and contains 11 questions. Section B examines breastfeeding practises and challenges and contains 10 questions. Section C examines breastfeeding knowledge of mothers and contains 0 – 15 true or false questions (Appendix III). The questionnaire was pretested on three mothers with similar characteristics of the study population. Questionnaire was adjusted based on the feedback provided.

Personal interviews were carried out at the clinics. The participated were briefed on the confidentiality and purpose of the study before each questionnaire was completed. The research instrument was a self administered questionnaire.

2.4 Statistical Analyses

The data were coded and analyzed using the Statistical Package for the Social Sciences (SPSS) (Version 12, 2005, SPSS, Chicago, IL). Descriptive analysis such as frequencies and percentages, cross – tabulations and chi- square test have been used in the data analyses. Fifteen breastfeeding practice questions were provided with a possible knowledge score of 0 – 15. Correct responses received one point each, wrong responses received zero. The maximum score was fifteen.

3. RESULTS/ FINDINGS

Table 1 shows the demographic characteristics of mothers.

	Marabella		La Romaine		Roy Joseph	
	n (31)	%	n (10)	%	n (29)	%
Age (years)						
18-24	14	45.2	3	30.0	7	24.1
25-34	12	38.7	5	50.0	14	46.3
35-44	4	12.9	8	20.0	6	20.7
Other	1	3.2	-	-	2	6.9
Ethnicity						
African	12	38.7	4	40.0	12	41.4
Indian	7	22.6	3	30.0	8	27.6
Mixed	12	38.7	3	30.0	9	31.0
Marital Status						
Single	11	35.5	1	10.0	6	20.7
Married	10	32.3	6	60.0	13	44.8
Living with someone	10	32.3	3	30.0	10	34.5
Religion						
Hindu	6	19.4	1	10.0	6	20.7
Muslim	3	9.7	1	10.0	-	-

Christian	22	71.0	8	80.0	23	79.3
Other	-	-	-	-	-	-
Level of Education						
Less than prim. School	1	3.2	-	-	-	-
Completed Primary school	5	16.1	1	10.0	2	6.9
Completed High school	18	58.1	6	60.0	16	55.2
Completed Tec. Voc.	6	19.4	3	30.0	8	27.6
Completed University	1	3.2	-	-	3	10.3
Occupation						
Professional	3	9.7	2	20.0	6	20.7
Clerical/ Sales/ Service	3	9.7	-	-	7	24.1
Sales personnel	3	9.7	1	10.0	3	10.3
Craft/ Labour	4	12.9	-	-	2	6.9
Self Employed	1	3.2	-	-	1	3.4
Student	1	3.2	1	10.0	3	10.3
Unemployed	16	51.6	6	60.0	7	24.1
Household Mthly Income						
\$1000-\$3000	13	41.9	3	30.0	4	13.6
\$3000-\$6000	12	38.7	-	-	7	24.1
\$6000-\$9000	3	9.7	5	50.0	10	34.5
More than \$10,000	3	9.7	2	20.0	8	27.6

Job Status of Baby's Father						
Fulltime	12	38.7	3	30.0	20	69.0
Part-time/ Shift	13	41.9	7	70.0	5	17.2
Unemployed	3	9.7	-	-	1	3.4
Not sure	3	9.7	-	-	3	10.3
Number of children						
1 child	17	54.8	5	50.0	13	44.8
2 Children	7	22.6	1	10.0	7	24.1
More than 2	7	22.6	4	40.0	9	31.0

The ages of the mothers ranged from 16 – 46. At the Marabella health centre, 31 mothers participated in the study. 45.2% were within the age range of 18 – 24, 38.7% were within the age range of 24-34, 12.9% were within the age range of 35-44 and 3.2% other. At La Romaine, 10 mothers participated in the study. 50.0% were within the age range of 25-34, 30.0% were within the age range of 18-24 and 20.0% were within the 35-44 age range. Twenty nine mothers from Roy Joseph health centre participated in the study. 46.3% were within the age range of 25-34, 24.1% were within the age range of 18-24, 20.7% were within the age range of 35-44 and 6.9% were other.

Most of the respondents at the Marabella, La Romaine and Roy Joseph health centres were of African descent, 38.7%, 40.0% and 41.4% respectively. At the Marabella health centre, 38.7% were also of mixed descent and 22.6% were of East Indian descent. At La Romaine, 30.0% of the mothers were both of East Indian and Mixed descent. Thirty one percent (31.0%) of the women at Roy Joseph were of mixed descent and 27.6% were of East Indian descent.

35.5% of the sample at Marabella were single and 10% respectively were both married and living with someone. At La Romaine 60% were married, whereas 44.8% of the sample at Roy Joseph was married. 30% of the sample at the La Romaine was living with someone and 10% were single. At Roy Joseph, 34.5% were living with someone and 20% were single

At the three health centres- Marabella, La Romaine and Roy Joseph, 71.0%, 80% and 79.3% respectively were Christians. 19.4% were Hindus and 9.7% were Muslims at Marabella. 10% of the sample was both Hindus and Muslims at the La Romaine Health Centre and at Roy Joseph 20.7% were Hindus.

At Marabella, 58.1% of the sample completed High school, 19.4% completed Technical Vocation, 16.1% completed Primary school, 3.2% completed less than Primary school and completed University. La Romaine Health Centre, 60% completed High school, 30% completed Technical Vocation and 10% completed Primary school. Of the sample that participated in the study at Roy Joseph, 55.2% completed High school, 27.6% completed Technical Vocation, 10.3% completed University and 6.9% completed Primary school.

With regard to Occupation, 51.6% of the sample at Marabella was unemployed, 12.9% craft/labour, Professional Clerical/ service and Sales personnel 9.7% each and 3.2% with student and self employed. At the LA Romaine health centre, 60% were unemployed, 20% Professional and 10% both sales and student. 24.1% of the sample at Roy Joseph were unemployed and Clerical/Service, 20% Professional, 10.3% were Student and Sales personnel and 3.4% self employed.

41.9% had a household monthly income of \$1000- \$3000 at the Marabella health centre, whereas 38.7% had \$3000-\$6000, 19.7% for both \$6000-\$9000 and more than \$10000. At La Romaine, 50% had a household monthly income of \$6000-\$9000, 30% \$1000-\$3000 and 20% more than \$10000. 34.5% of the sample at Roy Joseph had a household monthly income of \$6000-\$9000, 27.6% had more than \$10000, 24.1% \$3000-\$6000 and 13.4% had \$1000-\$3000.

41.9% of the baby's father at Marabella was employed part time/shift, 38.7% was employed full time, 9.7% of the sample were unemployed, 9.7% were unsure of their baby's father job status. 70% of the baby's father at La Romaine was employed part time/shift and 30% were employed full time. At Roy Joseph, 69% of the baby's father was employed full time, 17.2% were employed part time/shift, 10.3% were unsure of the job status of their baby's father and 3.4% were unemployed.

54.8% of the mothers at Marabella, 50% at La Romaine and 44.8% at Roy Joseph had only one child. Mothers at Marabella, 22.6% had two children and 22.6% had more than two. 40% of the mothers at La Romaine more than two children and 10% had two. 31% of the mothers at Roy Joseph had more than two children and 24.1% had two.

Table 2 shows Factors influencing mothers to breastfeed.

Personal Factors	n	%
1. Breastfeeding is economical/ convenient	3	4.3
2. Breastfeeding makes the baby closer to me (bonding).	32	45.7
3. Breastfeeding benefits both infant and myself.	14	20.0
4. Knowledge on breastfeeding.	5	7.1
Social Factors	n	%
1. Encouragement and support from significant other.	13	18.6
2. Encourage and support from family/friends/relatives.	12	17.1
3. Experience of other mothers.	7	10.0
4. Radio and television documentaries.	1	1.4
5. Information from fliers, brochures, etc	6	8.6
Local facilities and environmental factors	n	%
1. Availability of adequate facilities.	1	1.4
2. Baby friendly facilities/ environment.	1	1.4
Cultural Factors	n	%
1. Traditions from mothers and grandmothers	35	50.0
2. Religious beliefs	5	7.1

45.7% of the mothers stated that participated in the study were breastfeeding their infant because it makes the baby closer to them (bonding), 20% stated breastfeeding benefits both infant and myself, 7.1% owing to knowledge on breastfeeding and 4.3% breastfed because breastfeeding is economical and convenient.

18.6% breastfed because encouragement and support from significant other, 17.1% encouragement and support from family, friends or relatives, 10% experience of other mothers, 8.6% information from fliers, brochures, etc and 1.4% information on breastfeeding from radio, television, etc were social factors that influence mothers in their decision to breastfeed their infant.

Local facilities and environmental factors such as availability of adequate facilities and baby friendly facilities or environment also had a small influence on mothers in breastfeeding of their infant. 1.4% of the mothers were influenced by these two factors.

50% of the mothers, who participated in the study and breastfeeding, were influenced by the traditions from their mothers and grandmothers to breastfeed infant, and 7.1% by religious beliefs.

Table 3 showing Factors influencing mothers not to breastfeed.

Personal Factors	n	%
1. Insufficient breast milk	9	12.9
2. Physical pain and discomfort	6	8.9
Social Factors	n	%
1. Work resumption.	4	5.7
2. Wide variety of formulas on the market.	1	1.4
Local facilities and environmental factors	n	%
1. Lack of adequate facilities at work, public, etc.	1	3.4
2. Unsanitary conditions.	1	3.4

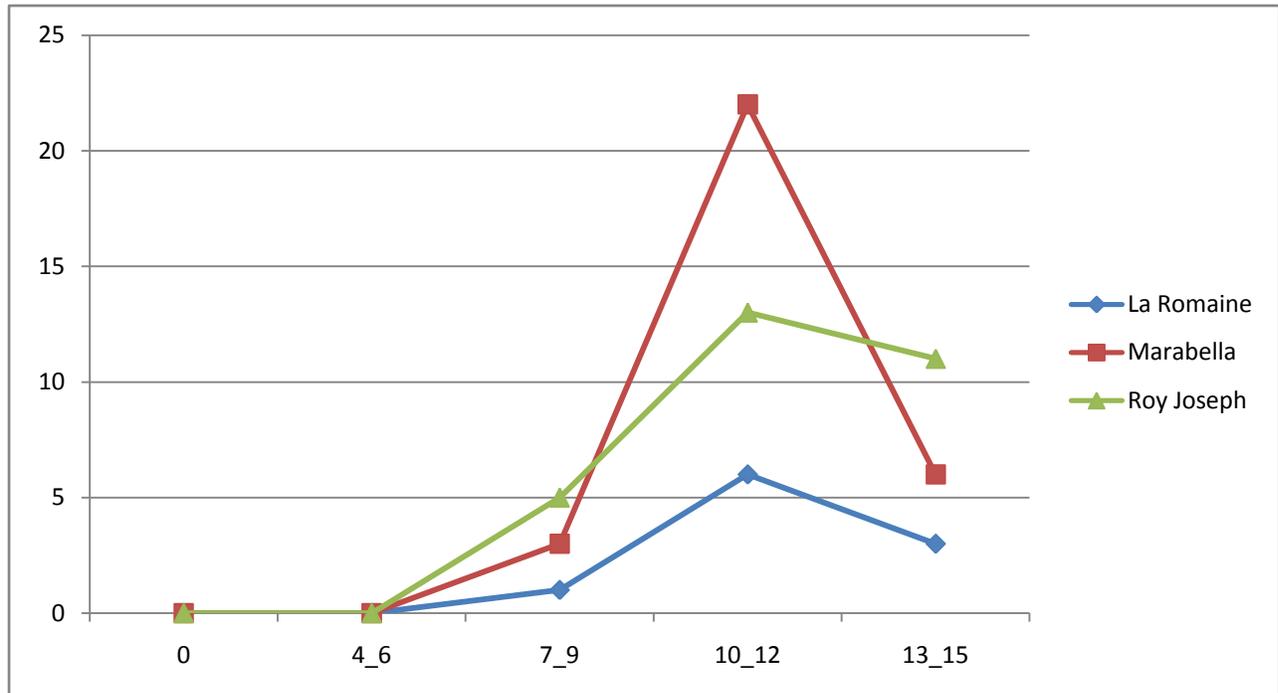
12.9% of the mothers stated insufficient breast milk and 8.9% physical pain and discomfort were the personal factors that discouraged them from breastfeeding infant. 5.7% of the mothers who were not breastfeeding infant stated that resuming work and 1.4% stated wide variety of milk formulas on the market were the social factors that influenced them not to engage in breastfeeding practises. 3.4% state that lack of adequate facilities at work, public, etc and unsanitary conditions influenced them from breastfeeding infant.

Table 4 shows Distribution of Breastfeeding knowledge scores of mothers at the three Health Centres.

MOTHERS AT HEALTH CENTRES	PERCENTAGE				TOTAL
	< 50%	50 – 69%	70 – 89%	90 – 100%	
La Romaine	-	3	5	2	10
Marabella	-	7	22	2	31
Roy Joseph	-	7	15	7	29
TOTAL	0	17	42	11	70

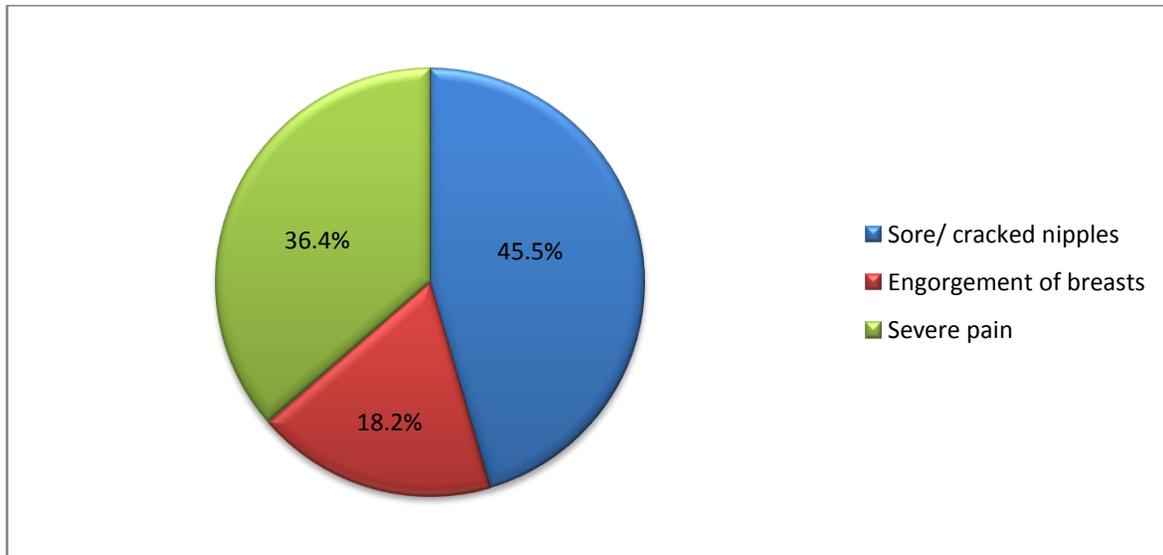
At the La Romaine health centres, 3 mothers scored between 50-69%, 5 mothers scored between 70-89% and 2 mothers scored between 90-100% in the knowledge test. Seven of the mothers at the Marabella health centre scored between 50-69%, 22 scored between 70-89% and 2 scored between 90-100%. At the Roy Joseph health centre, 15 mothers scored between 70-89%; and between 50-69% and 90-100% 7 mothers each.

Graph 1 shows Frequency distribution of breastfeeding knowledge scores among mothers at the three health centres.



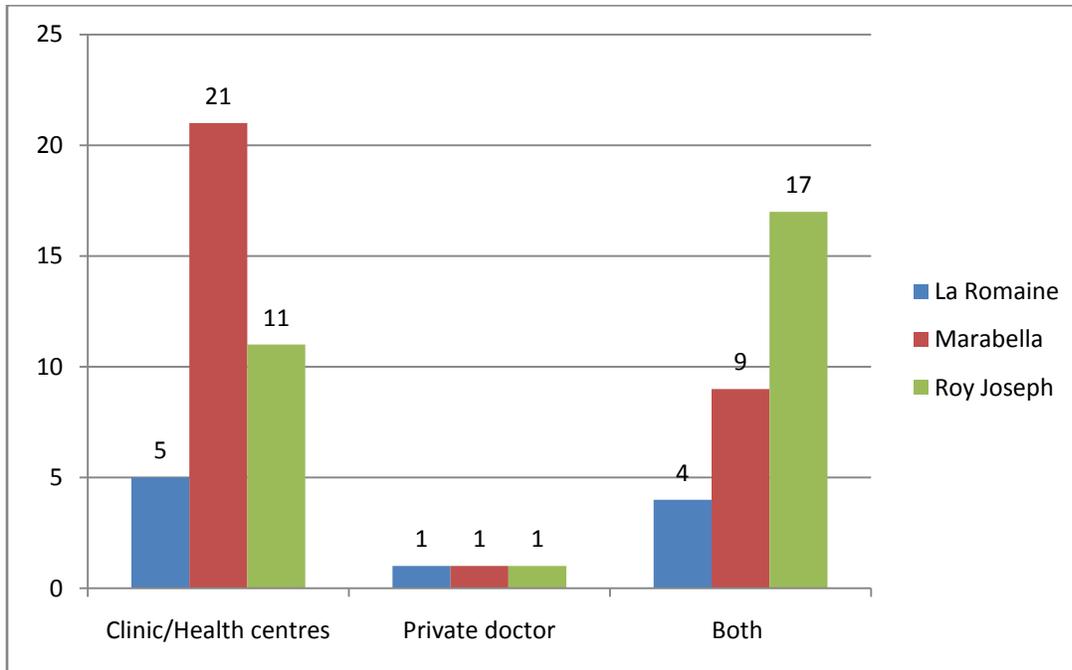
From the frequency, it can be seen that the majority of the mothers at any of the health centres scored between 10 -12 marks in the knowledge test.

Graph 2 shows Discomfort experienced while breastfeeding among mothers.



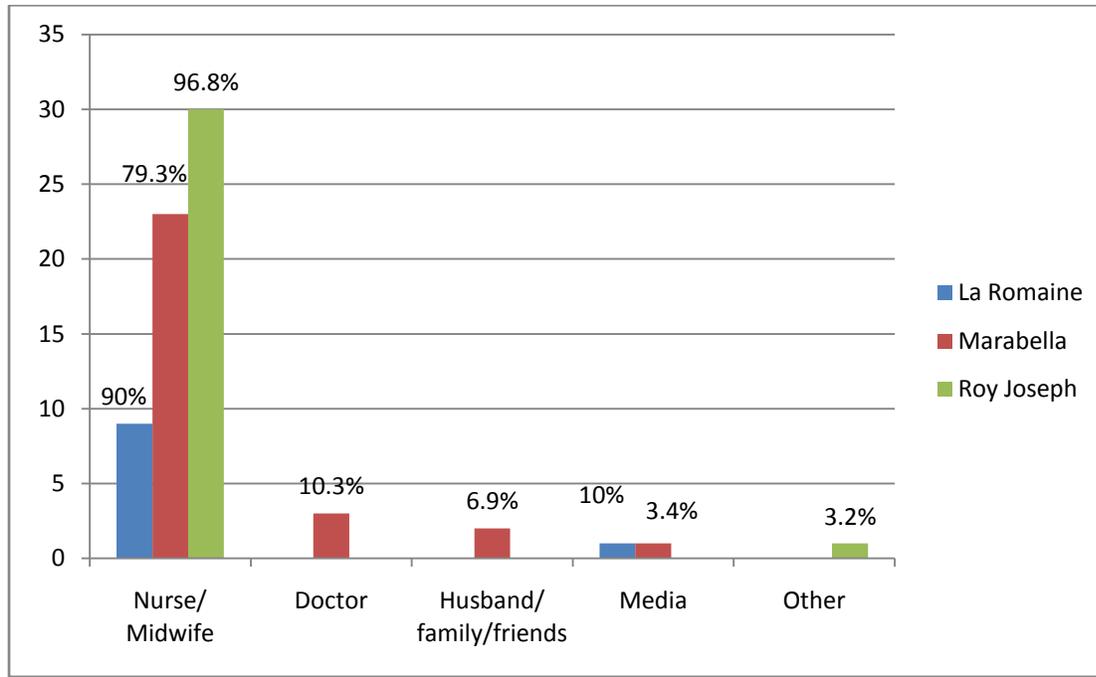
Out of the 51 mothers who stated that they were presently breastfeeding, 44 mothers experienced pain and discomfort while breastfeeding. 45.5% of the mothers experienced sore or cracked nipples, 36.4% severe pain and 18.2% engorgement of the breasts.

Graph 3 shows Where mothers obtained care during pregnancy.



67.7% of the mothers from Marabella, 50% from La Romaine and 37.9% mothers from Roy Joseph received their care from the clinic or health centres during pregnancy. 58.6% of mothers from Roy Joseph, 40% from La Romaine and 29% from Marabella received care during pregnancy from both private doctor and the clinic/health centre. 10% from La Romaine, 3.4% from Roy Joseph and 3.2% of the sample from Marabella received care from private doctor alone during pregnancy.

Graph 4 shows Sources of breastfeeding information obtained by mothers.



96.8% mothers from Marabella, 90% of the mothers from La Romaine and 79.3% of the mothers from Roy Joseph obtained most of their information on breastfeeding from nurses or midwives.

All 70 mothers who participated in the study agreed to the statement that breastfeeding is necessary for the nursing infant.

4. DISCUSSION

The aim of this study is to identify the factors that influence breastfeeding among women attending three postnatal clinics, in south Trinidad. In this study, personal, social, local facilities and environment; as well as culture were noticed to be the factors that have both enhancing and inhibiting effect on mothers' breastfeeding decisions. In a study by Oweis Arwa et al (2009), breastfeeding practices among Jordanian women, they reported that the woman's mother and her personal experiences were the main factor that influenced them to choose breastfeeding, especially among multipara women with previous experiences of having breastfed their children. In this study, there were evidences that 45.7% of the mothers stated that the personal factor, breastfeeding makes the baby closer to them and social factor experience from other mother 10% influence them to engage in breastfeeding practices. 12.9% of the mothers who were not breastfeeding their infant, insufficient breast milk was the barrier for such experience. In a study, published in 2004, personal physical factors related to inadequate breast milk were perceived as a barrier to breastfeeding (Kong, Sarah K.F., and Diana T.F. Lee 2004).

Encouragement and support from significant other, 18.6% and 17.1% from family/friends/relatives were two of the major social factors influencing mothers to breastfeed. Kong and Lee (2004), in their study reported that the majority of the mothers agreed that encouragement and support from their husbands were important. Husband's opinion was ranked as the second most important factor in influencing the mother's decision. In this study, 5.7% of the mothers who were not presently breastfeeding their infant, work resumption was the major factor contributing to such. Findings in a study showed that 37.8% of the women discontinued breastfeeding because the mother returned to work. Mothers who resumed work could be forced to start bottle-feeding and start supplementation. Such decisions become necessary when preparing the infant to go to a nursery (Oweis Arwa, Asmahan Tayem and Erika Sivarajan Froelicher 2009). It was also noticed that mothers in the study were not highly influenced by the mass media, perhaps this could be due to work that is being done by WHO, PAHO, UNICEF, TIBS, etc in implementing breastfeeding.

The lack of provision of facilities in public places and at work did not have much influence on mothers' decision to breastfeed or not. But there is still need for improvement in this area in south, Trinidad.

Grandmothers' infant feeding practices influence new mothers' decision to initiate and continue breastfeeding. Grandmothers who breastfed may transmit not only practical knowledge of how to breastfeed, but also their confidence that breastfeeding is the normal way to feed an infant. Their information may be inadequate at times, for example supplementing breastfeeding with water or other culturally preferred food (Grassley Jane and Valerie Eschiti et al 2008). 50% of the women in this study who were breastfeeding stated that traditions from their grandmothers and mothers influenced them in making this decision to breastfeed.

One of the elements to empower a woman to breastfeed is that she has sufficient knowledge to make decisions. Breastfeeding choice and success are usually associated with higher breastfeeding knowledge (Kong, Sarah K.F., and Diana T.F. Lee 2004). In the knowledge test the statement, "Newborns should be fed a bit of boiled water every day, even if breastfed" had the highest incorrect rate at 89.3%, followed by "breastfeeding will not ruin the shape of your breasts. Pregnancy affects breast shape more than breastfeeding" with an incorrect answer rate of 57.1%. Another apparently difficult question, with an incorrect response of 37.1%, was "when the infant starts to develop teeth, breastfeeding should cease. The statement "formula feeding is more nutritious than breast milk (98.6%) of the mothers answered accurately. The majority of the mothers at either health centres scored between 10 -12 marks.

There were no significance with breastfeeding knowledge with age, education and occupation, among mothers in the three health centres.

Breast problems such as sore nipples and engorged breasts were common among breastfeeding mothers. Nurses have an important role and responsibility to counsel mothers to prevent painful nipples

and breasts and promote continuation of breastfeeding (Oweis Arwa, Asmahan Tayem and Erika Sivarajan Froelicher 2009).

The limitations of the study are the time allotted to do the study was too short, the size and demographics of the study sample presented was unavoidably too small, questionnaires were not designed to accommodate low literacy levels of some mothers and the sample used in the study was not representative of the county Victoria as a whole.

5.CONCLUSION

To identify the factors that influence breastfeeding among women attending three postnatal clinics in south Trinidad was the aim of the study. This study has identified the various personal, social, local facilities and environmental and cultural factors that influence mothers in their decision to breastfeed or not to breastfeed their infants. It is evident that mothers who participated in this study are familiar with the breastfeeding practices; however there is need for further information to be given to remove some of the fallacies they follow. The findings indicated that there were no significance with breastfeeding knowledge with age, gender, education and occupation among mothers in the three health centres.

REFERENCES

- Afriyie, Rose. 2006. "U.S. Lacks Support for Breastfeeding Mothers." *National Now Times* 38, no.3. 17. Academic Search Complete, EBSCO host (accessed March 12, 2010)
- Ali, Yuseff. 2009. "Formula vs breast milk". *Trinidad and Tobago's Newsday*.
- Arias, Donya C. 2006. "Infant formula marketing can discourage U.S. breastfeeding." *Nation's Health* 36, no.2:7. (Academic Search Complete, EBSCO host)
- Caribbean Food and Nutrition Institute. 1999. *Guidelines for young child feeding in the Caribbean: Jamaica*.
- Davis Floyd, Yvonne. 2010. Eastern Regional Health Authority: The Baby Friendly Hospital Initiative. <http://www.erha.co.tt/html/services.html>
- Government of the Republic of Trinidad and Tobago. 2010. Ministry of Health- South West Regional Health Authority. <http://www.health.gov.tt/sitepages/default.aspx?id=91>
- Grassley, Jane, and Valerie Eschiti. 2008. "Grandmother Breastfeeding Support: What do mothers need and want?" *Birth: Issues in Perinatal Care* 35, no.4: 329-335. Academic Search Complete, EBSCO host (accessed March 12, 2010)
- Kong, Sarah K.F, and Diana T.F. Lee. 2004. "Issues and Innovations in Nursing Practice Factors influencing decisions to breastfeed." *Journal of Advanced Nursing* 46.no.4:369-379. (Academic Search Complete, EBSCO host)
- Kurzewski, K and J. Meeks Gardener. 2004. Breastfeeding patterns among 6 week old term infants at the University Hospital of the West Indies. *West Indian Medical Journal* 54: (1) 28.
- Nation's Health: "Formula ads shorten breastfeeding." 2000: Vol30 Issue 3, 24. Academic Search Complete, EBSCO host (accessed March 12, 2010)

Odette, Loney. 2007. "The Breastfeeding Issue To breastfeed or not". Trinidad and Tobago Express.

Oweis, Arwa, Asmahan Tayem, and Erika Sivarajan Froelicher. 2009. Breastfeeding practices among Jordanian women. "International Journal of Nursing Practice 15, no. 1:32-40. Academic Search Complete, EBSCOhost (accessed March 12, 2010)

Pan American Health Organization. 2003. http://www.paho.org/English/DD/AIS/cp_780.htm

Pickford- Gordon, Lara 2005. Mt Hope aims for 'baby friendly status'. Trinidad and Tobago's Newsday.

Sloan, Seaneen, Helga Sneddon, Moira Stewart and Dorota Iwaniec. 2006. "Breast is best? Reasons why Mothers decide to breastfeed or bottle feed their babies and factors influencing the duration of breastfeeding." Child care in Practice. Vol12, no. 3:283 – 297. (Academic Search Complete, EBSCO host)

United Nations International Children's Emergency Fund. 2008. Breastfeeding: Impact on child survival and global situation. http://www.unicef.org/nutrition/index_24824.html accessed 20th April, 2010.

World Health Organization. 2003. Protecting, promoting and supporting breastfeeding: the special role of maternity services. Geneva.

World Health Organization. 2009. "10 facts on breastfeeding".

<http://www.who.int/features/factfiles/breastfeeding/en/index.html>

World Health Organization. 2010. "Breastfeeding".

<http://www.who.int/topics/breastfeeding/en/>

I. Ten Steps to Successful Breastfeeding.

Every facility providing maternity services and care for newborn infants should:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within half hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from the infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in – that is, allow the mothers and infants to remain together – 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers (also called dummies/ soothers) to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospitals or clinics.

II. **Letter of Identification and Purpose of Study of the student.**

Department of Agricultural Economics and Extension,

University of the West Indies,

St. Augustine Campus,

Trinidad.

Dear Mother,

I am a student at the University of the West Indies, Trinidad campus, pursuing **Human Nutrition and Dietetics**. As part of the requirements for the course, I am conducting a study on **“Factors that influence breastfeeding among mothers in south Trinidad”**.

I am therefore kindly requesting your participation in completing this questionnaire. I thank you for your participation and wish to insure you that the information collected will be treated with strictest confidence.

Yours Respectfully,

Naketa Mitchell

University Student

III. QUESTIONNAIRE

TITLE: Factors Influencing Breastfeeding among Women in south Trinidad.

Date of interview _____

(day/ month/ year)

Other _____

Health Centre _____

SECTION A – DEMOGRAPHICS

1. Age

18-24

25-34

35-44

Other _____

2. Ethnicity

African

Indian

Caucasian

Chinese

Mixed

Other _____

3. Marital Status

Single

Married

Living with someone

4. Religion

Hindu

Muslim

Christian

Other _____

5. Level of education

Less than primary school

Completed primary school

Completed high school

Completed Tec. / Voc.

Completed University

6. Are you presently employed?

Yes

No

7. Occupation

- Professional (teacher, nurse, etc)
- Clerical/ service/ sales
- Sales personnel
- Crafts/ Labor
- Self employed
- Student
- Unemployed
- Other (please specify) _____

8. Household Monthly Income

- 1000 – 3000
- 3000- 6000
- 6000- 9000
- More than 10,000
- Other _____

9. Job Status of Father

- Full time
- Part time/ shift
- Unemployed
- Not sure

10. Number of children you have (including this

one):

- 1 child
- 2 children
- More than 2

11. Age of nursing infant

SECTION B

12. At present are you breastfeeding infant?

Yes

No

13. Which of these breastfeeding methods do you practice?

Partial breastfeeding

Exclusive breastfeeding

14. Have you experienced any discomfort while breastfeeding infant?

Yes

No

b. If yes, please specify:

Sore/ cracked nipples

Engorgement of breast

Breast abscess (swelling)

Severe pain

Other (please specify) _____

15. If working, have you resumed your job away from home?

Yes

No

N/A

b. If yes, are you still breastfeeding your infant?

Yes

No

N/A

16. Are there any adequate facilities at work to support breastfeeding?

Yes

No

N/A

b. If yes, what is the condition of these facilities?

Very good

Good

Fair

Poor

N/A

17. Where did you go for care during pregnancy?

Clinic/ Health Centre

Private Doctor

Both

None

18. Where did you obtain information of breastfeeding?

Doctor

Nurse/ Midwife

Husband/Family/ Friends

Media

Other (please specify) _____

19. Do you think that breastfeeding is necessary for the nursing infant?

Yes

No

20. If breastfeeding, what factors have influenced your decision to breastfeed?
(see attached)

21. If not breastfeeding, what factors have influenced your decision not to breastfeed? (see attached)

SECTION C

KNOWLEDGE TEST (Tick True/ False)

1. Breastfeeding can allow my body weight to return to normal earlier. **T** **F**
2. Breastfeeding should cease when women resume work after maternity leave. **T** **F**
3. Breast milk prevents babies from getting allergies, colds, diarrhoea and colic. **T** **F**
4. When you do not breast feed regularly, the breast milk becomes sour. **T** **F**
5. It is the frequency of breast feeding as well as the milk removed from the breast that stimulates further milk production. **T** **F**
6. Only breast milk promotes optimal health and development. **T** **F**
7. Mothers' diet does not affect the quality of breast milk. **T** **F**
8. When the infant starts to develop teeth, breastfeeding should cease. **T** **F**
9. Breast milk supplies all nutrients, including water, which the infant requires for about the first 6 months of life. **T** **F**
10. Newborns should be fed "a bit of boiled water" every day even if breastfed. **T** **F**
11. Formula feeding is more nutritious than breast milk. **T** **F**
12. Children who are breastfed by mothers, who work away from home, are less healthy than those whose mothers do not work away from home. **T** **F**
13. Almost all women can breastfeed, regardless of breast size. **T** **F**
14. Women who have had C-section can breastfeed comfortably by using different positions. **T** **F**
15. Breastfeeding will not ruin the shape of your breasts. Pregnancy affects breast shape more than breast feeding. **T** **F**

If breastfeeding, which of these factors mostly influence you in your decision to breastfeed?

Tick which one applies.

Personal factors		
	1. Breastfeeding is economical and convenient	
	2. Breastfeeding is enjoyable	
	3. Breastfeeding makes the baby closer to me (bonding)	
	4. Breastfeeding makes me feel important	
	5. Breastfeeding benefits both infant and myself	
	6. Breastfed before (successful)	
	7. Knowledge on breastfeeding	
	8. Socio economic status	
	9. Doctor/ midwife etc advice	
	10. N/A	

Social Factors		
	1. Encouragement and support in breastfeeding from significant other is important	
	2. Support from family, friends or relatives during breastfeeding	
	3. Support from social groups e.g. TIBS	
	4. Experience of other mothers.	

	5. Radio and television documentaries provide information on breastfeeding	
	6. Information in the form of fliers, brochures on breastfeeding	
	1. Advertisements supporting breastfeeding	
	2. N/A	

Local facilities and environmental factors		
	1. Availability of adequate facilities	
	2. Baby friendly facilities/ environment	
	3. N/A	

Cultural factors		
	1. Traditions e.g. from mothers and grandparents on breastfeeding.	
	2. Religious beliefs	
	3. N/A	

If not breastfeeding, which of these factors mostly influence you in your decision not to breast feed? Tick which applies.

Personal factors		
	1. Breastfeeding is inconvenient	
	2. Breastfeeding makes me feel run down	
	3. Sense of being restricted	
	4. Not producing good quality milk	
	5. Insufficient breast milk	
	6. Breastfeeding makes my breast sag	
	7. The physical pain and discomfort associated with breastfeeding	
	8. Because of illness	
	9. Lack of knowledge on breastfeeding	
	10. Poor quality diet	
	11. Affects physical appearance	
	12. Socio economic status	
	13. N/A	

Social Factors		
	1. Breastfeeding gets in the way of socializing	
	2. I would feel embarrassed if someone saw me breastfeeding	
	3. Negative views of others	
	4. Work resumption	
	5. Advertisements on the use of formulas	
	6. Wide variety of infant formulas on the market to use	
	7. Insufficient information provided on breastfeeding	
	8. N/A	

Local facilities and environmental factors		
	1. Lack of adequate facilities – at work, public, etc	
	2. Unsanitary conditions	
	3. N/A	

Cultural factors		
	1. “The norm” of using infant formulas	
	2. Family Traditions	
	3. Religious beliefs	
	4. N/A	