

**A COMPARATIVE STUDY TO DETERMINE THE
OCCURRENCE OF INFECTIOUS DISEASES AMONG THE
TODDLERS WHO WERE FED BY THEIR MOTHERS
EXCLUSIVE BREAST FEEDING AND BOTTLE FEEDING IN
SELECTED AREAS, AT MANAMADURAI**



**A DISSERTATION SUBMITTED TO THE TAMILNADU
DR. M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE
OF MASTER OF SCIENCE IN NURSING**

MARCH – 2010



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(Affiliated to the TN Dr.M.G.R. Medical University)
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ACKNOWLEDGEMENT

I wish to express my heartfelt gratitude to **Lord Almighty** for his abundant grace, love, wisdom, knowledge, strength and blessings in making this study towards its successful and fruitful outcome.

I wish to express my sincere thanks to **Mr. P. Jeyakumar., M.A.,B.L.**, Founder, Chairman and Correspondent, **Mrs. Jeyabackiyam Jeyakumar.,M.A.**, Bursar, Matha Memorial Educational Trust, Manamadurai, for their support, encouragement and providing the required facilities for the successful completion of the study.

I am extremely grateful to **Prof. Mrs. Jebamani Augustine., M.Sc., (N), R. N., R. M.**, Principal, Professor and the H. O. D of Medical Surgical Nursing, Matha College Of Nursing, Manamadurai, for her elegant direction and valuable suggestions for completing this study.

I am privileged to express my sincere thanks to **Prof. Mrs. Kalaiguruselvi M.Sc., (N), Ph.D.**, Additional Vice Principal, Professor and Head of the Department of Child Health Nursing, Matha College of for her unending words of encouragement and guidance to carry out this dissertation.

I extend my special thanks to **Dr. Prabakar Navamani M.D, DCH**, for his valuable suggestions and guidance.

I am privileged to express my sincere thanks to **Prof. Mrs. Shabeera Banu., M.Sc., (N), Ph.D.**, Vice principal, HOD Maternity Nursing, Matha College of Nursing for her unending words of encouragement and guidance to carry out this dissertation.

I express my sincere thanks to **Prof. Mrs. Helen Rajamanikam., M.Sc., (N)**, for her guidance and help in completing this dissertation.

My deep gratitude to **Prof.Mrs. Thamarai Selvi., M.Sc. (N), Ph.D., Prof. Mrs. N. Saraswathi., M.Sc., (N), Dept.of Pediatric Nursing, Mrs. Jasline., M.Sc., (N), Ph.D., Reader, Mrs. Jasmine Sheela., M.Sc(N), Lecturer in Dept.of Pediatric Nursing, Mrs. Bharatha Sorubha Rani., M. Sc., (N), Reader, Mrs.Agnes Merin., M.Sc., (N), Lecturer, Mrs. Nandhini., M.Sc (N), Lecturer, Mrs. Pricilla., M. Sc., (N), Lecturer, Mrs.Angelin Arputhameri., M.Sc., (N), Lecturer, Mrs. Arulmozhi., M.Sc., (N), Lecturer**, for their untiring guidance and suggestion throughout my study.

I profoundly owe my sincere thanks profoundly to **Dr. M.D.Duraisamy., M. Phil., Ph.D., (Biostatistics)**, for his immense help and guidance in statistical analysis and percentage of data.

I am thankful to all the **Librarians** of Matha College of Nursing, Manamadurai for their help with assistance in obtaining the literature.

I am grateful to all the experts who by their valuable suggestions contributed to the refinement of the data collection tool and problem statement.

My thanks to all mothers who participated in the study and for extending their cooperation without which it would not have been possible to conduct the study within the stipulated time.

I am very much thankful to **Mr.Srinivasan, Mr.Palani, Mr. Mani, Mr.Tamil, Ms. Banu & Ms. Rani**, Sai Communications, Manamadurai

for their sincere effort, patience and fullest cooperation and help in bring this study in to printed form.

I am proud to acknowledge the love, support and prayers of my parents **Mr & Mrs. John Willam** and my beloved Sister **Miss. Blanie** and my in-laws **Mr & Mrs. David Raj**, my Husband **Mr. Vijay** and my beloved daughter **Shany**. I would also like to thank all my friends and special thanks to all my batchmates who gave me their support throughout this study.

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ABSTRACT

STATEMENT OF THE PROBLEM

A comparative study to determine the occurrence of infectious disease among the toddlers who were fed by their mothers exclusive breast feeding and bottle feeding in selected areas, at Manamadurai.

METHODOLOGY

The Descriptive research design is used for this study. It describes the phenomena in the real life situation. This study was conducted in selected areas at Manamadurai Town in Sivagangai District. This place is 3 kms away from Matha College of nursing, Manamadurai. Manamadurai Town has the population of about 50,000 to 70,000 people. Toddlers were about nearly 1000. Toddlers mothers were selected from the area of Anbu Nagar , Vasanth Nagar , Pandian Nagar, Railway colony, old post office street . Totally Manamadurai town has got all the facilities. The target population of this study was mothers of Toddler who was fed by exclusive breast feeding and bottle feeding. Sample size consists of 100 mothers of Toddler who met the inclusion criteria. 50 Toddlers mothers who breast fed and 50 toddlers mothers who bottle fed were selected as samples. Respondents have been selected by using the purposive sampling technique based on inclusion criteria.

OBJECTIVES

- To assess the occurrence of infectious diseases among toddlers who was fed by exclusive breast feeding.

- To assess the occurrence of infectious diseases among toddlers who was fed by bottle feeding.
- To find out the difference between the occurrence of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding
- To find out the association between infectious diseases and demographic variables of mothers of toddlers who are fed by exclusive breast feeding.
- To find out the association between infectious diseases and demographic variables of mothers of toddlers who are fed by bottle feeding.

HYPOTHESIS

- There will be a significant difference between the occurrence of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding.
- There will be a significant association between infectious diseases and demographic variables of mothers of toddler fed by exclusive breast feeding.
- There will be a significant association between infectious diseases and demographic variables of mothers of toddler fed by bottle feeding.

OPERATIONAL DEFINITION :

EXCLUSIVE BREAST FEEDING

It is the feeding of an infant or young child only with breast milk for six months.

BOTTLE FEEDING

It generally refers to use of bottles for feeding the child with commercial or evaporated milk formula.

OCCURRENCE

It refers to the incidence or happening of infectious diseases at particular area.

INFECTIOUS DISEASE

Disease which is caused by the infection or disease resulting from multiplication of micro organisms in the body (eg) communicable diseases.

ASSUMPTION

- Children who received exclusive breast feeding have high immune power and a less chance for infectious diseases
- Children who received bottle feeding are more prevalent to get infectious diseases.

LIMITATION

- The study was limited for mothers of toddler between the age group of 1 - 3 years.
- The data collection procedure was limited for 6 weeks.

PROJECTED OUTCOME

- It determine the extent to which exclusive breast feeding helps for prevention of infectious diseases.
- It determine the extent to know about infectious disease that arises due to bottle feeding.
- It determine the difference between occurrence of infectious disease of toddler fed by exclusive breast feeding and bottle feeding.

MAJOR FINDINGS OF THE STUDY

1. In exclusive breast feeding children, 6% had severe infectious diseases, 46% had moderate infectious diseases and 48% had mild infectious diseases.
2. In bottle feeding children 44%, had severe infectious diseases, 38% had moderate infectious diseases and 18% had mild infectious diseases.
3. There was a significant association between infectious diseases and selected demographic variables such as mother's educational status in exclusive breast feeding children.
4. There was a significant association between infectious diseases and selected demographic variables such as occupational status of the mother in exclusive breast feeding children.
5. There was a significant association between infectious diseases and selected demographic variables such as illness present during antenatal period in exclusive breast feeding children.

6. There was a significant association between infectious diseases and selected demographic variables such as hospitalization of child in bottle feeding children.
7. There is a significant difference between the occurrence of infectious diseases among exclusive breast feeding and bottle feeding children.

RECOMMENDATION

- ❖ A similar study can be conducted using a large sample.
- ❖ A comparative study can be carried out in both urban and rural communities.

CONCLUSION

From the above findings the investigator would like to conclude that Bottle fed toddlers were found to be affected with more infectious diseases than the breast fed toddlers. So the researcher and the nurses should create awareness among mothers to give exclusive breast feeding to their children upto six months. The nurses in the hospital should initiate baby friendly hospital policies and procedures to encourage breast feeding. Nurse administrator should arrange for workshop on breast feeding and its benefits. Nursing personnel should identify the common infectious diseases that occur in community. Researchers should be focused on behavior modification of mothers after health education. So we can prevent the infectious diseases among toddlers.

CHAPTER - I

INTRODUCTION

"Breast feeding is the cheapest, natural nutrient, in every 1 hour save 1 million births.

"Breast feeding which is necessary for immunity and growth and development process. It is helpful for prevention of infectious diseases during toddler period.

The toddler period which extends from age 1 year to approximately 3 years of age. During this toddler age group, growth and development which is mostly depend upon the nutritious diet which was fed by the mother.

Breast feeding practices are of fundamental importance for survival, growth, development, health and good nutrition of infants and children everywhere.

Exclusive Breast feeding for 4 - 6 months helps in children in terms of growth, development and nutritional status.

Breast feeding is the natural gift of feeding young child with breast milk rather than bottle or container. In adapt to toddler's developing system, providing exactly the right amount of nutrition exactly at the right time is considered to be good.

Partial breast feeding or bottle feeding which cause infectious disease mortality in developing countries.

Between the ages of 12 - 24 months, 448 milliliters of human milk which provide.

| | |
|-------------|-----|
| Energy | 29% |
| Folate | 76% |
| Protein | 43% |
| Vitamin B12 | 94% |
| Calcium | 36% |
| Vitamin C | 60% |
| Vitamin A | 75% |

Breast milk which contains anti infective factors such as bile salt, stimulated lipase which is protecting against amoebic infection. Lactoferrin binds to iron and Inhibit growth of Intestinal bacteria and Immunoglobulin A protecting against micro organisms. High levels of certain poly unsaturated fatty acids in breast milk are associated with reduced risk of child infection.

Nanjunda J. Tummric J.K.et.al (2006) conducted a study and found out that universal exclusive breast feeding for first 6 months could reduce infant mortality rate by 13%. Hence, Health education and Baby friendly Hospital policy are also initiating every mother to give exclusive breast feeding.

NEED FOR STUDY

There are so many infectious diseases which arise due to non exclusive breast feeding. In abroad, so many studies were conducted about the need of breast feeding, prevention of Infectious diseases and improvement of immune power by breast feeding technique.

- Human milk has been shown to be effective in protecting new born against respiratory infections with a decrease in incidence of hospital admission of respiratory infection.
- Fat content of human milk is composed of lipids, triglycerides, cholesterol. Function of these lipids is to allow optimum intestinal absorption of fatty acids and provide essential fatty acids and poly unsaturated fatty acids.

Colostrum which is rich in immunoglobulin, vitamin K and has a higher protein content. It has lower fat content. Transitional milk replaces colostrum when mother's milk supply starts increasing and eventually breast milk becomes primary milk source.

In 2007 at England, case control study was done by **Quigley Cumberland**. This study states that Breast feeding which protects infant against diarrhoeal diseases.

Other studies which reveal that use of bottle feeding and improper sterilization and handling of bottle lead to infectious diseases in both infant and toddler.

Study done by Jane **M. Brotanic** and **S. Halter man** states that prolonged bottle feeding upto one to two years lead to iron deficiency- Anemia.

Breast feeding which not only improve the nutritional status, but also it improves health of mother by improving maternal weight, promoting lactational amenorrhea, and prevention of breast disorders especially Breast cancer.

Exclusive breast feeding which helps to prevent allergic diseases mainly skin disorders such as Atopic dermatitis and eczema.

So as breast feeding is a natural process, she must be still be taught what to do if her baby refuses to suck? But women need help at beginning and especially with their first born babies.

Breast milk has best potential to help the babies to grow well in alter stage of child hood. This knowledge of breast feeding can save more than 2.5 lakhs babies in India that is equivalent to 22% of death among New Born.

Only 23.4% New Born across the country begin breast feeding within an hour at Birth. This rate has been improved upto 90% or more in order to achieve millennium developmental goals and to fight against malnutrition and child death in India

“Breast feeding, a vital Emergency” according to WHO, (2008).

The recent release of national family Health survey data is an indication of status of health in India. It reveals that 23.4% new born across the country are given breast milk in first hour of birth. Although there is a marginal improvement of 7.4% in early initiation of breast feeding in seven years as compared to National family Health survey II this figure is still abysmally low. rate in Mizoram is 65.4% which is highest in country , Goa 59.7% , Meghalaya 58.6%, Kerala 55.4% Tamilnadu -55.3% , Arunachal Pradesh 55%, Orissa 54.3% Maharashtra 51.% , Nagaland 51.5% ,Assam 50.6% , Uttar Pradesh and Bihar hare lowest rate of only 7.2% and 4% respectively (**Nightingale Nursing Times 2007**) .

Bhandari, et.al., (2003) assessed the feasibility , effectiveness and safety of an educational intervention to promote exclusive breast feeding upto 6 months . Study was conducted in the state of Haryana. The study suggests that promotion of exclusive breast feeding until 6 months in a developing country through existing primary health care services is feasible. It reduces the risk of diarrhea, and does not lead to growth faltering.

From these studies, it is well established that breast milk is an important factor which determine the health and overall development of a child. It also has an important role in prevention of childhood infections.

Only 51% of Indian children are exclusively fed on breast milk during first 3 months of life, while remaining 49% are not given exclusively breast milk even for 3 months (**Gupta Aaron 2000**).

For healthy growth and development of infant, breast feeding is more important. Research has shown that when a baby sucks at mother's breast, mother's uterus contracts and release a hormone called oxytocin which makes her sleepy, and reduces her pain. It helps mother and baby to develop a lovely relationship (**Herald of Health, Aug 2000**)

Breast feeding is the normal way of feeding infant and provides best from of nutrition to young babies. (**Lawrence K. A/1999**)

Mena (1999) It is nourishing and pure and it protect baby from diseases (**American Academy of Paediatrics, 1999**).

"According to 'WHO' Breast milk is perfect food for babies and it is the only proven source of fat and essential fatty acids in infant diet (**Vaury**)

"Human milk is decidedly superior for human babies" Breast feeding is naturally superior to artificial feeding. Breast feeding is often viewed by women as a critical element in maternal role attainment (**Referarge & Jefferies, 1994**).

Appropriate breast feeding practice is crucial for nutritional status of Infants growth and survival (**Kumar S. Nath. M. Raddian, 1989**)

Indian studies shows that Incidence of illness purely breast fed infants is lower than artificially fed babies, Maximum birth spacing effect is achieved when a mother fully breast feed. Breast feeding not only delays amenorrhea and also reduce likes hood of conception.

Children are most vital part in our country; Today's children are tomorrow's citizens. Children in the age group of one to 3 years are most prone to get Infectious Diseases because mothers those who are giving exclusive breast feeding are decreased in number. So in order to encourage breast feeding and prevent the infectious diseases, the investigator selected this study.

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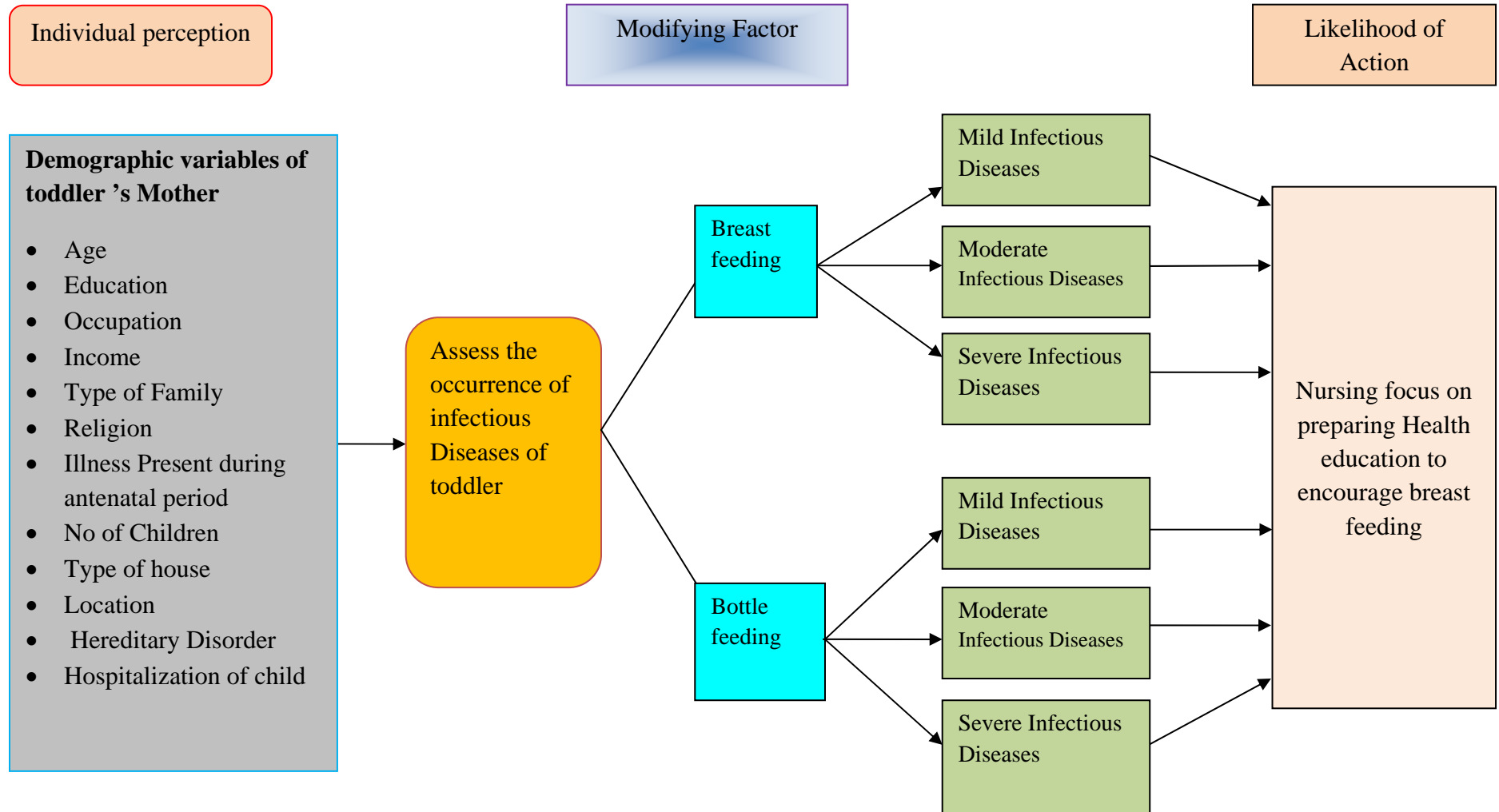
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CONCEPTUAL FRAME WORK BASED ON (HEALTH BELIEF MODEL) ROSEN STOCK 1974 & BECKER



CONCEPTUAL FRAME WORK

Rosentock's (1974) and Becker's health belief model addresses the relationship between the person's belief and behavior. It provides the way of understanding and predicting how clients will behave in relation to their health and how they will comply with health care therapies.

- The first component of this model involves the individual perception. In this study, Individual is the mothers who are having toddler. This component consists of demographic variables such as age, education, occupation, income, type of family, religion, illness present during antenatal period, number of children in the family, type of house, location of house, hereditary disorder of the family, and hospitalization of the child.
- The second component of the model consists of modifying factor. It includes assess the occurrence of infectious diseases. Identify the influencing factor of Infectious diseases, either breast feeding or bottle feeding. It involves occurrence of infectious diseases and identify the factor and classify the infectious diseases as mild, moderate and severe and uses of action to prevent Infectious diseases. Health education about breast feeding is to prevent Infectious diseases.
- The third component of the model consists of likelihood of taking action. It includes benefits of breast feeding to mothers for prevention of infectious diseases. If mothers are not following breast feeding which results in increase the prevalence of Infectious diseases.

- Encouragement of breast feeding and following of breast feeding in the life results in decreased occurrence of Infectious diseases and increase of immune power in toddler children.

CHAPTER - II

REVIEW OF LITERATURE

Review of Literature is an essential activity of scientific research Project, helped to familiarise with practical and theoretical issue related to problem and enable the researcher to avoid unintentional duplication of studies.

Review of Literature provides basis for future investigation and justifies the need of replication and throws light on feasibility of study (**Polit F. Denis, 1999**) Review of Literature done for this present study is arranged under the following section.

- 1) Advantage of Breast feeding
- 2) Effect of breast feed on prevention of infectious disease
- 3) Disadvantage of Bottle feeding.

ADVANTAGE OF BREAST FEEDING

A **UNICEF (2007)** report states that India has close to 25 million children born every year, out of these 1.9 million are under 5 children, who die in a year. Among these diseased children, 1.4 million children die just within 1 year and roughly 1 million children die within a month. Most of these deaths are associated with infant and young child malnutrition and other preventable disease caused mainly due to poor care and inappropriate infant feeding practices only 23.4%. New born across country begin breast feeding within 1 hour after birth. This rate has been improved upto 90% in order to achieve millennium developmental goals and to fight against malnutrition and child death in India.

"Mother's milk can never be defective" **Nankunda J. Tumwine J.K. et al., (2006)** conducted a study on "effect of exclusive breast feeding on reduction of infant mortality rate" at Uganda. The findings of the study show that exclusive breast feeding could reduce infant mortality rate by 13% and In Uganda, although 99% of women initiate Breast Feeding.

Dr.Wendy oddy et al., (Sep5, 2005) conducted a study at Newyork. The investigators followed 2,187 children from before birth through their 6th birthday; questioning their parents regarding various manifestations of asthma and allergy. Study results shown that children who were fed milk other than breast milk before 4 months of age experienced higher rate of all indicators of asthma and allergy. Such children were 25% more likely to be diagnosed with allergy and 30% more likely to have asthma. Children who were breast fed are less chance of allergy and asthma investigators conclude that delaying introduction of milk other than breast milk until 4 months of age may protect against asthma allergy.

M. Braod foot, J. Britten, et al., (2004) conducted a study to examine the effect of Baby Friendly Hospital initiate on breast feeding rates in Scotland. They concluded that being born in hospital that held award increased chance of being breast fed. Average breast fed babies doubles birth weight in 5 - 6 months. By one year, the typical breast fed baby will weigh about 2 ½ times of birth weight.

Dr.Lawrence Gartner (2003) conducted a study at university of chicago. His study results shown that Breast fed infants upto 21% lower risk of developing some forms of childhood leukemia when compared to babies who are bottle fed, according to a new study.

Abdulla baqui et al., (2001 March)

Conducted a study at Bangladesh, the researchers observed a group of infants born in Dhaka from birth until age 12 months during (1995 – 1998) Each baby's weight were measured at 1,3,6,9 and 12 months. Half of new born were low birth weight, pre – term about 17%, 70% of small for gestational age. Half of infant were exclusively breast fed at 1 month of age; studies shown that infants who were exclusively breast fed in first three months were on average about 95 gms heavier and 0.5 centimeter taller at 12 months than those partially or not breast fed.

Dr.H.P.Vander Meulen et al., (March 29, 2000) conducted a study between breast fed babies and bottle fed babies at General Hospital, U.K. Investigators studied a group of 625 adults born in Amsterdam between 1943, 1946 during Dutch famine. Most study participants (83%) had been exclusively breast fed during hospital stay (at least 10 days) with remainder partially bottle fed or completely bottle feed. The researchers report that group that partially breast fed had impaired insulin functioning and risk for cardio – vascular Disease. Fat content breast milk affects the metabolism of cholesterol and prevent from risk of heart disease.

David M.fergusson et al., (2000, March) conducted a study at New Zealand. His study shown than fatty acids present in breast milk is helpful for brain development, study which tracked more than 100 New Zealand children, through age 18, bolsters evidence that breast feeding helps make smarter kids but in bottle fed, fatty acids absent, which promote lasting brain development.

Vonkries R, etal (1999)

Conducted a study regarding impact of breast – feeding on over weight and obesity in children at Bavaria. Data on early feeding were collected in two rural districts. The analyses were confined to 5 & 6 year old children with German Nationality. Study results proved that reduction in the risk for overweight and obesity is more likely to be related to the properties of human milk than to factors associated with breast feeding. The preventive effect of breast feeding on overweight and obesity is an important additional argument for promotion of breast – feeding in industrialized countries.

Bhandari, et.al.,(2003) assessed the feasibility , effectiveness and safety of an educational intervention to promote exclusive breast feeding upto 6 months . Study was conducted in the state of Haryana. The study suggests that promotion of exclusive breast feeding until 6 months in a developing country through existing primary health care services is feasible. It reduces the risk of diarrhea, and does not lead to growth faltering.

EFFECT OF BREAST FEED ON PREVENTION OF INFECTIOUS DISEASES

George W. Rutherford et al., (9 Jan 2009) (School of public Health university of California) conducted a study regarding the role of breast feeding in protecting against *Helicobacter pylori* infection. It was the epidemiologic study conducted during the period of between (1984 – 2007) after abstracting data from articles. Study quality was assessed using Newcastle Ottawa scale, Results reveals that breast feeding is

protected against H. Pylori infection especially in middle and low income nations.

According to **Journal of American academy of pediatrics** (2006) a study was conducted to assess the effect of breast feeding on probability of hospitalization as a result of infectious process during first year of life, conclusion was that full breast feeding would lower the risk of hospital admission as a result of infection.

MAQ Wigley and Quimberland (2006) assessed the effect of several measures of infant feeding on diarrhea and whether these effects vary according to markers of social deprivation. They came to conclusion that breast feeding protects against diarrhea in infants in England.

A.K. Akobeng and A.V. Ramanan (2005) conducted a study on effect of breast feeding on risk of celiac disease. Back ground of the study reveals that celiac disease is a disorder that may depend on genetic, Immunologic & environmental factor. Recent observational studies suggest that Breast feeding may prevent the development of coeliae disease.(Breast feeding answer book 2003).

J. Ellestad - sayed, F. J. Wodin, L.A. Dilling (2005) 'Conducted a retrospective study' at two isolated Indian communities to determine whether the type of infant feeding was related to infection during, the first year of life. Of 158, 28 fully breast fed, 58 initially breast fed and then changed to bottle feeding and 72 fully bottle fed. Results were fully bottle fed infants were hospitalized with infectious diseases 10 times more often and spend 10 times more days in hospital during the first year of life than fully breast fed infants.

Mohebachr N & Stock J, Kull, Wickman Lilja (2005) conducted a prospective birth cohort study in Sweden. The purpose of the study was to investigate the effect of breast feeding on allergic disease in infants upto 2 years of age. Results of study showed that children exclusively breast fed for four months are more exhibited less asthma, less dermatitis & less suspected allergic rhinitis by 2 years of age and there was a significant risk in reduction of asthma related disease to partial breast feeding.

A.G. Gordon et al. (UK 2003) performed a valuable review of infant feeding studies shows a consistent 3 point higher intelligence quotient in the breast fed infants.

Juraci A. Cesar et al. (2002) conducted a study "Impact of breast feeding on admission for pneumonia during post neonatal period in Brazil. They used sample of 152 infants aged 28 - 364 days who had been admitted to hospital for pneumonia. Controls were 2391 cases in a population based case- control study. The results were infants who were not being breast fed were 17 times more likely than those being breast fed without formula milk to be admitted to hospital for pneumonia. Breast feeding protects young children against pneumonia, especially in the first months of life.

Gain Franco voglino (2002) conducted a study regarding Bacteriostatic effect of breast milk against E. coli infection. For this study he compared both breast milk and bovine milk. Result of his study conclude that in fully Breast – fed babies, all strains of E. coli are inhibited to the same extent, In fully bottle fed babies, E. coli is not inhibited, since the milk is non bacteriostatic.

R. Dagan et al (2002) conducted a study on "effect of breast feeding on prevention of infectious disease. They used sample size of 480 Jewish infants visiting a pediatric emergency room with infectious disease were compared to those of 502 health infants visiting maternal child health centers results shows that a very short breast feeding period of 2 weeks or less was more prevalent among emergency room group and was associated with increased hospitalization rate. These data emphasize the importance of breast milk in reduction of emergency room visiting and hospitalization rate.

J. Cesar (May 15,1999), Issue of British Medical Journal) states that "infants who are not being breast fed were 17 times more likely than those being breast fed without formula milk to be admitted to hospital for pneumonia" for infants under 3 Months old the study showed the risk was 61 times greater. Exclusive breast feeding was necessary for maximum protection. Children who received both mothers and formula milk had four times greater risk than those who received breast milk alone.

DISADVANTAGE OF BOTTLE FEEDING

Iuigley cowden et al (2005)

Conducted a case control study of diarrhoeal disease cases presenting to 34 general practices in England. Data were available on 304 infants (167 cases and 137 controls) The results were breast feeding was associated with significantly less diarrhoeal disease. In formula fed infants, there was significantly more diarrhoeal disease.

Jane M. Brotark, et al (2000) conducted a study to detect the relationship between prolonged bottle feeding and Iron - deficiency Anemia among toddlers. They used sample size of 2121 children age 1 - 3 years, the prevalence of iron deficiency was 6% among white, 8%

among black and 17% among Mexican American ($P < .001$) with increasing duration of bottle feeding. The results are children with prolonged bottle feeding and Mexican American children are at higher risk of iron deficiency.

SUMMARY

This chapter includes studies related to advantage of breast feeding, effect of breast feeding on prevention of infectious disease, disadvantage of bottle feeding which are relevant to study. Findings of various studies are showing contradictory ideas.

The review of literature has helped to design the study and to develop the tool in collection of data and analysis.

CHAPTER - III

RESEARCH METHODOLOGY

The research methodology indicates the general pattern of organizing the procedure of gathering valid and reliable data for an investigation. This chapter provides a brief description of the method adopted by the investigator in this study.

It includes research approach, research design, setting, population, sample size, sampling technique and criteria for sample selection. It further deals with the development of tool, validity, reliability, pilot study, procedure for data collection, plan for data analysis and protection of human subjects.

Research Approach

The Quantitative Research approach was used in this study. The purpose of the study is to assess the level of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding in selected areas at Manamadurai.

Research Design

The Descriptive research design is used for this study. It describes the phenomena in the real life situation.

Setting of the Study

This study was conducted in selected areas at Manamadurai Town in Sivagangai District. This place is 3 kms away from Matha College of nursing, Manamadurai. Manamadurai Town has the population of about 50,000 to 70,000 people. Toddlers were about nearly 1000. Toddlers mothers were selected from the area of Anbu Nagar , Vasanth Nagar ,

Pandian Nagar, Railway colony, old post office street . Totally Manamadurai town has got all the facilities.

Population

The target population of this study was mothers of Toddler who was fed by exclusive breast feeding and bottle feeding.

Sample Size

Sample size consists of 100 mothers of Toddler who met the inclusion criteria.50 Toddlers mothers who breast fed and 50 toddlers mothers who bottle fed were selected as samples.

Sampling Technique

Respondents have been selected by using the purposive sampling technique based on inclusion criteria.

Criteria for sample selection inclusion criteria

- Mothers who are willing to participate in the study
- Mothers of toddler between the age group of 1 - 3 years
- Mothers who can understand Tamil and English

Exclusion Criteria

- Mothers who are not cooperative
- Mothers of critically ill children
- Mothers who do not know Tamil and English

Selection of the Tool

Tools will be prepared after reviewing the related literature such as books, journals, past experience and also from expert opinion.

DESCRIPTION OF A TOOL :

Section : A

Deals with Demographic data of Toddlers mothers such as age, education, Religion, occupation, socio-economic status, illness present during antenatal period, Number of children in the family , Type of house, Type of family, location of house, hereditary disorders and child's Hospitalization.

Section : B

It consists of Semi structured observational checklist to assess the occurrence of infectious diseases of toddler among toddler's mother.

SCORING PROCEDURE

Observational Check list is divided into 3 categories, very often, often, None,

Very often - 1 mark

Often - 2 mark

None - 3 marks

Total questions - 20, Maximum Possible Score Was 60, Minimum Score was 20.

Level of infectious diseases

subjects were classified into follows based on their scores

Severe infectious disease - (34 - 56%)

Moderate infections disease - (57 - 78%)

Mild infectious disease - (79 - 100%)

Testing of Tool Validity

In order to ensure content validity, tool was submitted to six experts in the field of Pediatric Nursing along with the blue print, criteria. After establishing the validity, tool was translated into Tamil & English and again translated into English to validate the language.

Reliability

The test retest method was used to establish the reliability of observational checklist. The reliability of the value is 0.816.

Pilot study

Pilot study was conducted in selected areas at Manamadurai. The study was carried out on 10 toddler's mother who fulfilled the inclusion criteria of the sample. It was carried out in the same way as final study was done. In order to test the feasibility and practicability, it was conducted after obtaining permission from the department. 10 mothers who met the inclusion criteria were selected by using purposive sampling method. Pilot study was conducted by using semi structured observational Check List. The results were analyzed based on scores obtained by the Mothers. These subjects were excluded from the final study.

Data collection procedure

The data was collected for a period of 6 weeks at the areas of Manamadurai. Before the data collection, permission was obtained from Panchayat President, Manamadurai. The time scheduling for data collection was from 9.30 A.M to 4.30 P.M. The time taken for each mother was about 15 minutes. 5 - 6 mothers were assessed in a day. During this study, the mothers were very co-operative.

Data analysis

The data was analysed based on the objectives. Frequencies and percentage were computed for describing the sample characteristics. Chi-square test was computer to describe the association between infectious disease and its demographic variables.'T' test was used to find out the difference.

| S.No. | Data Analysis | Method | Remarks |
|-------|------------------------|---|--|
| 1. | Descriptive statistics | Number percentage mean Standard Deviation | Distribution of demographic variables among breast feed and bottle feed mothers |
| 2. | Inferential statistics | 'T' Test | To compare difference between infectious disease of toddler who was fed by exclusive breast feeding and bottle feeding |
| 3. | | Chi-square test | To find out the association between infectious disease of toddler fed by exclusive breast feeding and selected demographic variables of mother To find out the association between infectious disease of toddler fed by Bottle feeding and selected demographic variables of mother |

Protection of Human Rights

The dissertation committee approved the research proposal prior to the pilot study and main study permission was obtained from Head of Department of Paediatric Nursing, Manamadurai. Verbal permission was obtained from the study subjects and the data collection was kept as confidential. Assurance was given to the study subjects that anonymity of each individual should maintain.

CHAPTER – IV

ANALYSIS AND INTERPRETATION OF DATA

This Chapter deals with the description of sample, the analysis and interpretation of data collected to determine the occurrence of infectious diseases among mothers of toddler who was fed by exclusive breast feeding and bottle feeding in selected areas at Manamadurai.

OBJECTIVES

Organization of the study findings:

The data were analysed, tabulated and interpreted using descriptive and inferential Statistics. The data findings were organised and presented under the following section

SECTION – I

Characteristics of mothers who fed and Breast feed and bottle feed provides a description of sample in terms of age, education, occupation, monthly income, type of family, Religion, Illness present during Antenatal period, No of Children in the family type of house, location of house, hereditary diseases of the family and Hospitalization of the child

SECTION – II

Assess the occurrence of infectious diseases among toddler who was fed by exclusive breast feeding.

SECTION – III

Assess the occurrence of infectious diseases among toddler who was fed by bottle feeding.

SECTION – IV

Find the Difference between occurrence of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding

SECTION – V

Association between infectious diseases and demographic variables of mothers of toddlers fed by exclusive breast feeding.

SECTION – VI

Association between infectious diseases and demographic variables of mothers of toddlers fed by bottle feeding.

SECTION – I

Frequency and percentage distribution of samples on selected demographic variables of breast fed and bottle fed mothers.

TABLE – I & TABLE – II

N=50

N=50

| SL. NO | Demographic Variables | Mothers who breast fed | | Mothers who bottle fed | |
|-----------|-----------------------------------|------------------------|----------------|------------------------|----------------|
| | | Frequency | Percentage (%) | Frequency | Percentage (%) |
| 1. | Age | | | | |
| | a) Below 20 Years | 10 | 20 | 9 | 18 |
| | b) 21 to 30 years | 29 | 58 | 28 | 56 |
| | c) 31 years and above | 11 | 22 | 13 | 26 |
| 2. | Educational Status | | | | |
| | a) Illiterate | 4 | 8 | 6 | 12 |
| | b) Primary School | 17 | 34 | 10 | 20 |
| | c) Higher Secondary | 19 | 38 | 20 | 40 |
| | d) College | 10 | 20 | 14 | 28 |
| 3. | Occupation | | | | |
| | a) Daily wage earners | 9 | 18 | 1 | 2 |
| | b) Seasonal Workers | 12 | 24 | 3 | 6 |
| | c) Self employed / Private Sector | 13 | 26 | 27 | 54 |
| | d) Government Servant | 3 | 6 | 8 | 16 |
| | e) House – Wife | 13 | 26 | 11 | 22 |

| | | | | | |
|-----------|--|----|----|----|----|
| 4. | In come | | | | |
| | a) Below Rs.2000 per month | 19 | 38 | 10 | 20 |
| | b) Rs.2001 – 4000 per month | 18 | 36 | 23 | 46 |
| | c) above Rs.4001 per month | 13 | 26 | 17 | 34 |
| 5. | Type of family | | | | |
| | a) Joint family | 17 | 34 | 23 | 46 |
| | b) Nuclear family | 33 | 66 | 27 | 54 |
| 6. | Religion | | | | |
| | a) Hindu | 34 | 68 | 15 | 30 |
| | b) Christian | 14 | 28 | 28 | 56 |
| | c) Muslim | 2 | 4 | 27 | 54 |
| 7. | Illness Present during Antenatal Period | | | | |
| | a) Diabetes Mellitus | 3 | 6 | 4 | 8 |
| | b) Hypertension | 8 | 16 | 8 | 16 |
| | c) Viral Fever | 20 | 40 | 13 | 26 |
| | d) Thyroid Problem | 2 | 4 | 1 | 2 |
| | e) Tuberculosis | 2 | 4 | 1 | 2 |
| | f) None | 15 | 30 | 23 | 46 |
| 8. | No of Children in the family | | | | |
| | a) 1 | 19 | 38 | 12 | 24 |
| | b) 2 | 23 | 46 | 35 | 70 |
| | c) 3 | 8 | 16 | 3 | 6 |

| | | | | | |
|-----|--|----|----|----|----|
| 9. | Type of house | | | | |
| | a) Hut | 7 | 14 | 4 | 8 |
| | b) Pucca | 17 | 34 | 34 | 68 |
| | c) Kutchra | 26 | 52 | 12 | 24 |
| 10. | Where is your house located? | | | | |
| | a) Crowded | 29 | 58 | 8 | 16 |
| | b) Individual Place | 18 | 36 | 31 | 62 |
| | c) Heavy Traffic | 3 | 6 | 11 | 22 |
| 11. | Is your family members suffered from any hereditary disease | | | | |
| | a) Diabetes Mellitus | 17 | 34 | 9 | 18 |
| | b) Hypertension | 10 | 20 | 18 | 36 |
| | c) None | 23 | 46 | 23 | 46 |
| 12. | Hospitalization of child | | | | |
| | a) Hospitalized | 26 | 52 | 23 | 46 |
| | b) not hospitalized | 24 | 48 | 27 | 54 |

Table (1) and Table (II) shows that frequency and percentage distribution of samples according to selected demographic variables.

EXCLUSIVE BREAST FEEDING

Regarding age, Majority of mothers were 29(58%) were between 21-30 years, 11(22%) were above 30 years and 10(20%) were below 20 years.

Regarding educational status 4(8%) were illiterate, 17(34%) were primary school, 19(38%), were Higher Secondary and 10(20%) were college.

Regarding occupation, 9(18%) were daily wage earners, 12(24%) were Seasonal worker, 13(26%) were self employed 3(6%) were Government servant, 13(26%) were house wife

Regarding Income 19(38%) were below Rs. 2000 per month, 18(36%) were between Rs. 2001-400 per month, 13(26%) were above Rs.4001 per month.

Regarding family 17(34%) were in joint family, 33(66%) were in nuclear family.

Regarding religion 34(68%) were Hindus 14(28%) were Christians, 2(4%) were Muslims.

Regarding Illness 3(6%) were Diabetes mellitus, 8(16%) were Hypertension, 20(40%) Viral Fever, 2(4%) Thyroid Problem, 2(4%) got TB, 15(30%) no illness were Present

Regarding no of children 19(38%) were 1 child, 23(46%) are having 2 children and 8(16%) are having 3 children,

Regarding type of house 7(14%) were live in hut, 17(34%) were in Pucca house 26(52%) were living in a Kutcha house.

Regarding location of house 29(58%) were lived in Crowded place 18(36%) were live in individual place and 3(6%) were live in a heavy traffic,

Regarding hereditary disorders, 17(34%) were DM, 10(20%) were hypertension, 23(46%) no disorder.

Regarding Hospitalization, 26(52%) were hospitalized, and 24(48%) were not hospitalized.

BOTTLE FEEDING

Regarding Age, 9(18%) were below 20 years 28(56%) were between 21-30 years, 13(26%) were above 31 years

Regarding educational status 6(12%) were illiterate, 10(20%) were primary school, 20(40%), were Higher Secondary, 14(28%) were colleges.

Regarding occupation, 1(2%) were daily wage earners, 3(6%) were Seasonal worker, 27(54%) were self employed/ private sector 8(16%) were Government servant, 11(22%) were house wives.

Regarding Income 10(20%) were below Rs. 2000 per month, 23(46%) were between Rs. 2001-400 per month, 17(34%) were above Rs.4001 per month.

Regarding type of family 23(46%) were in joint family, 27(54%) were in nuclear family.

Regarding religion 15(30%) were Hindus 28(56%) were Christian, 27(54%) were Muslims.

Regarding Illness 4(8%) were Diabetes mellitus, 8(16%) were Hypertension, 13(26%) had Viral Fever, 1(2%) had Thyroid Problem, 1(2%) had TB and 23(46%) had no illness were Present

Regarding no of children 12(24%) were 1 child, 35(70%) were having 2 children and 3(6%) are having 3 children,

Regarding type of house 4(8%) were live in hut, 34(68%) were in Pucca house 12(24%) were living in a Kutcha house.

Regarding location of 8(16%) were lived in Crowded place 31(62%) were live in individual place and 11(22%) were live in a heavy traffic,

Regarding hereditary disorders, 9(18%) of family members are suffered from DM, 18(36%) of them suffered from hypertension and 23(46%) no hereditary disorder.

Regarding Hospitalization, 23(46%) were hospitalized, and 24(48%) were not hospitalized.

SECTION – I

TABLE – I & TABLE – II

FIGURE – 1

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHERS AGE

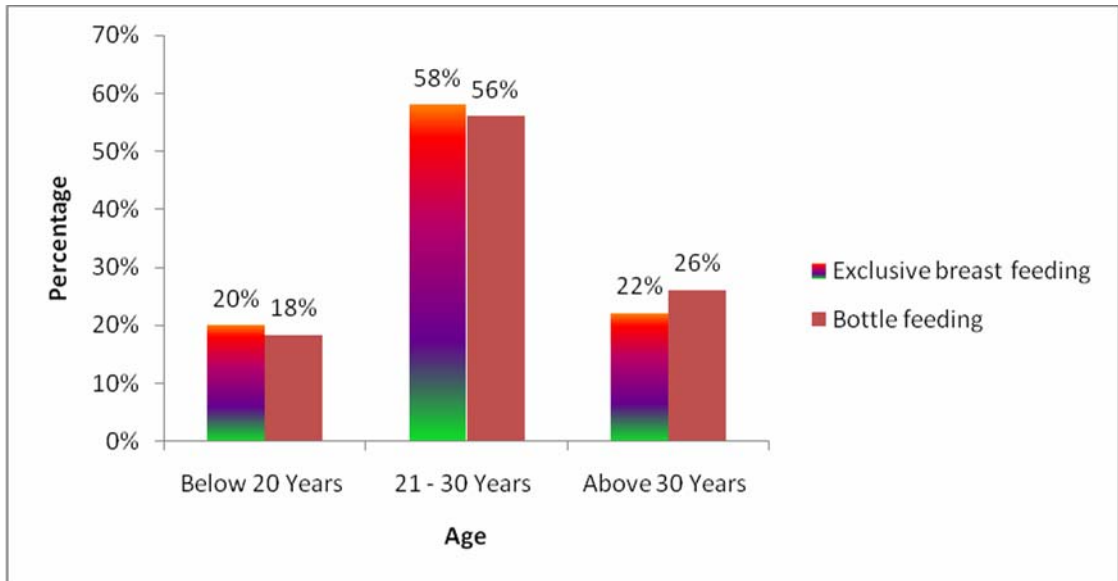


FIGURE – 2

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER'S EDUCATIONAL STATUS

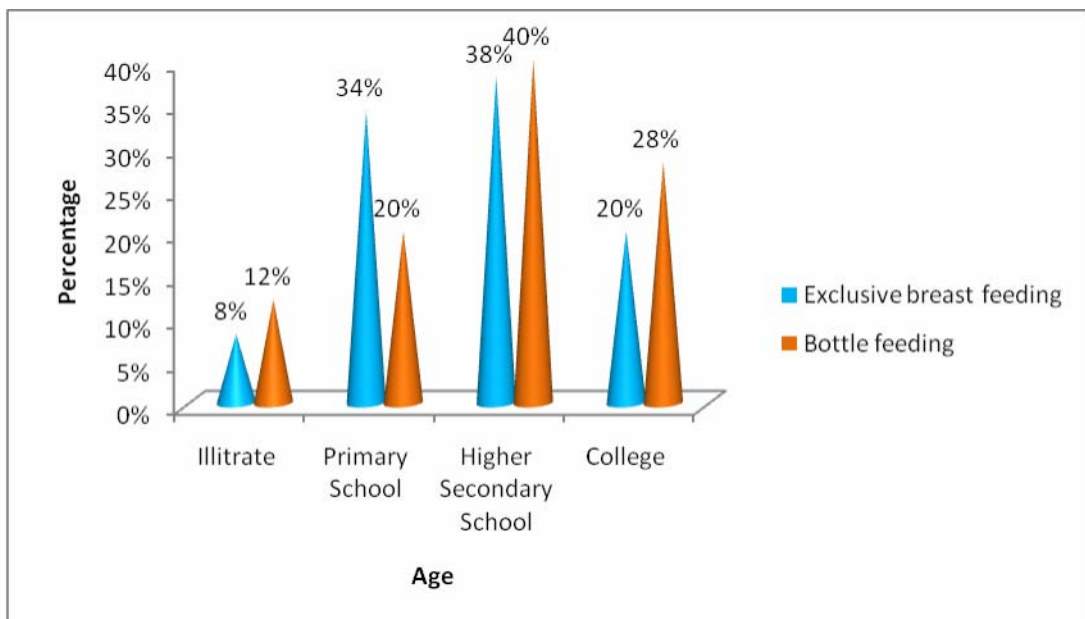
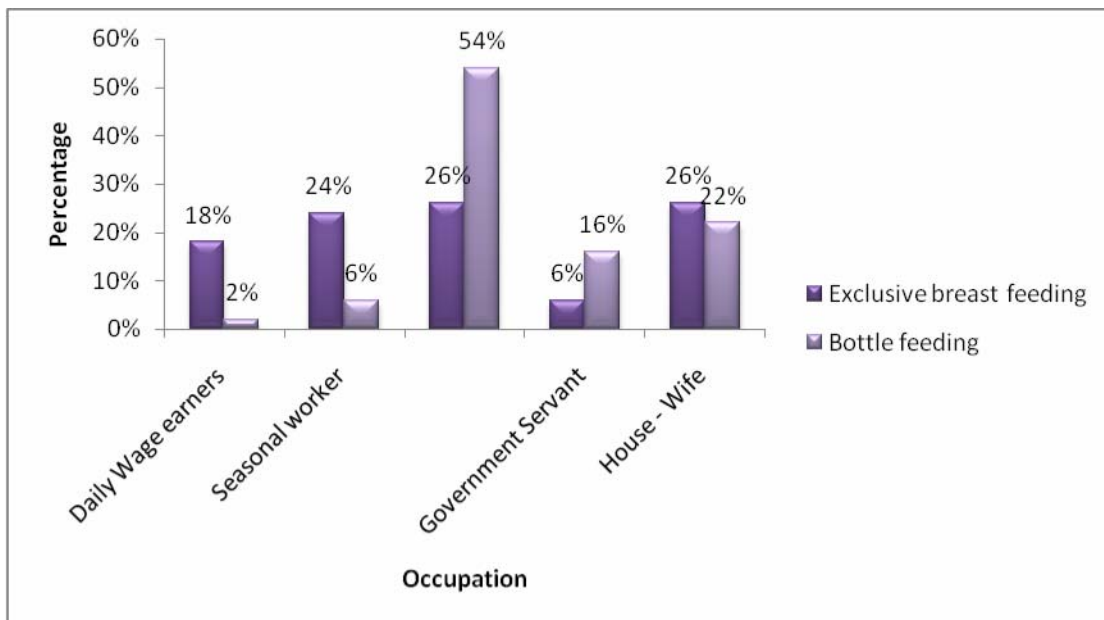


FIGURE – 3

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER'S OCCUPATION

**FIGURE – 4**

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER'S INCOME

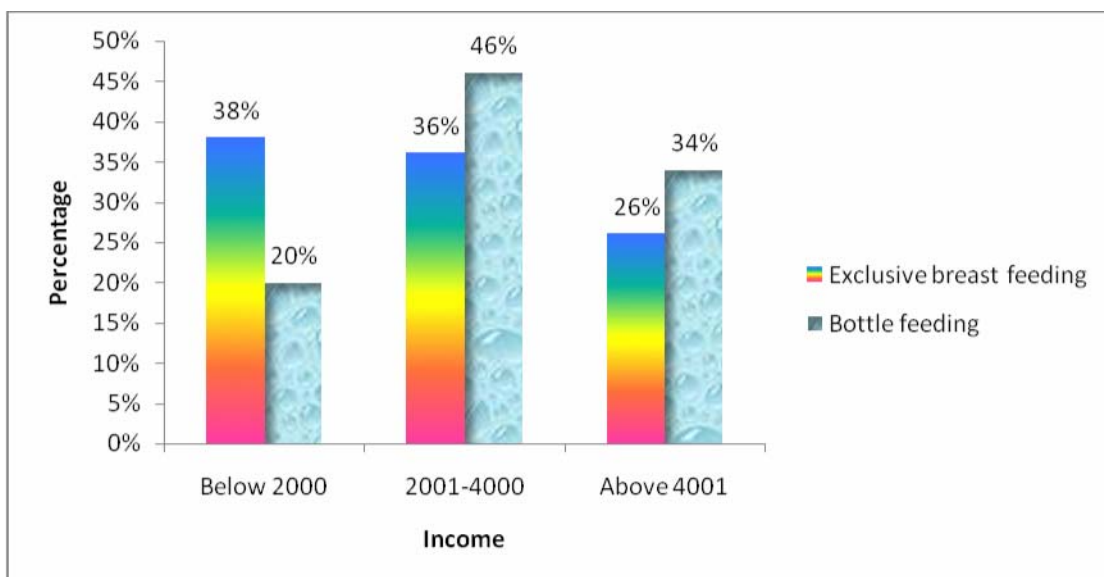


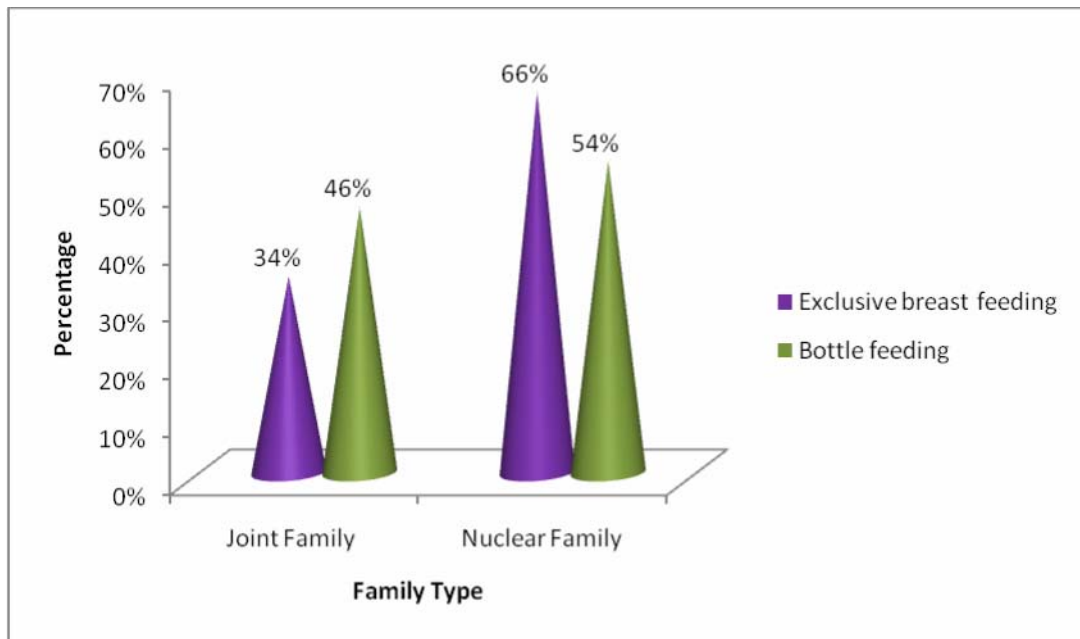
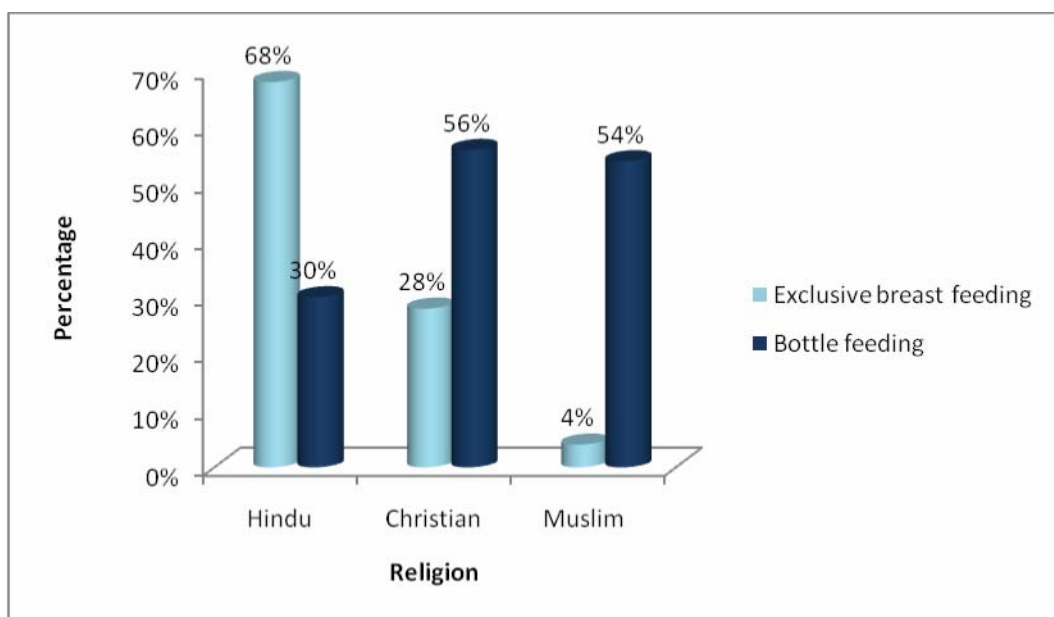
FIGURE – 5**DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER'S TYPE OF FAMILY.****FIGURE – 6****DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER'S RELIGION**

FIGURE – 7

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF MOTHER’S ILLNESS

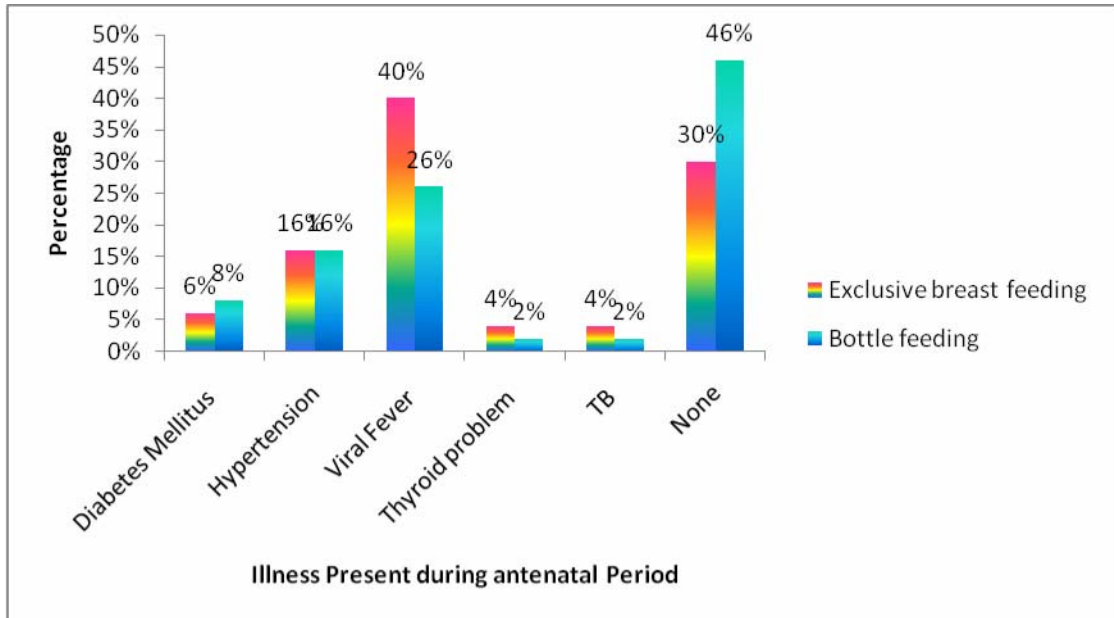


FIGURE – 8

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF NO OF CHILDREN

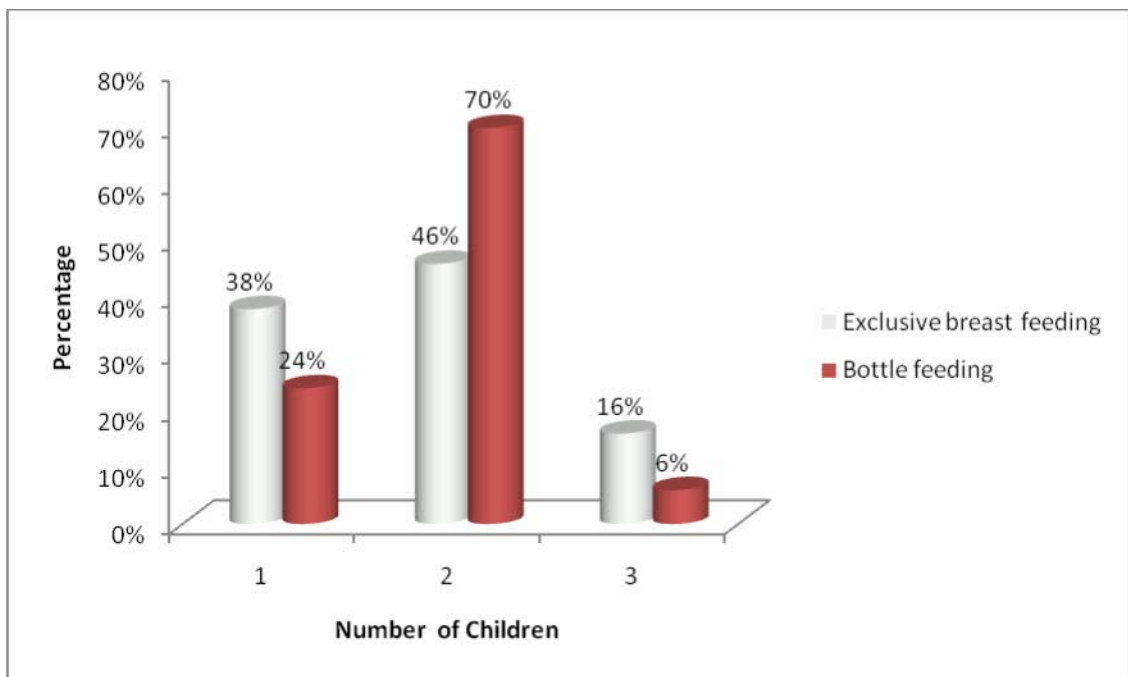


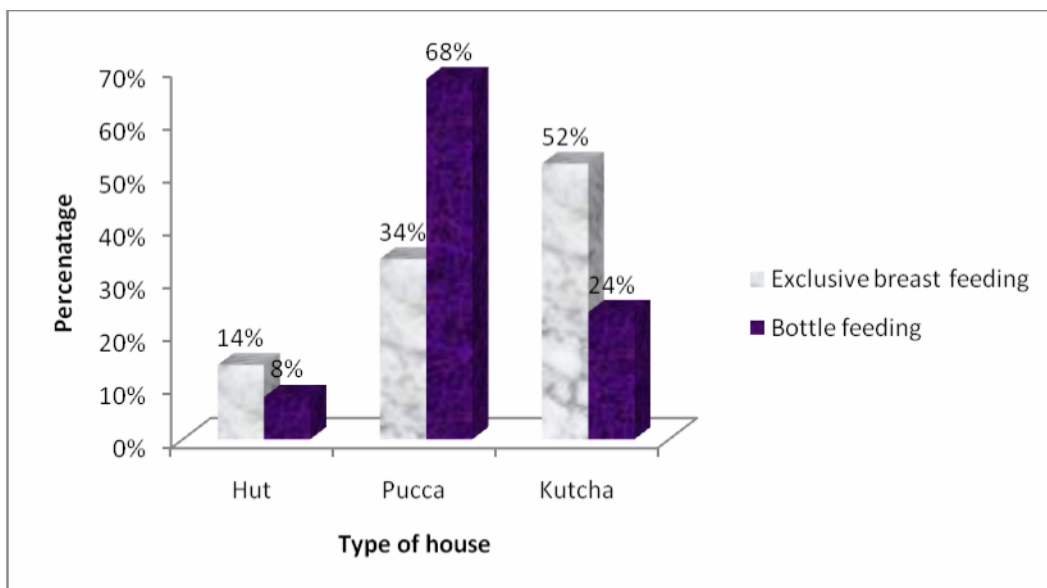
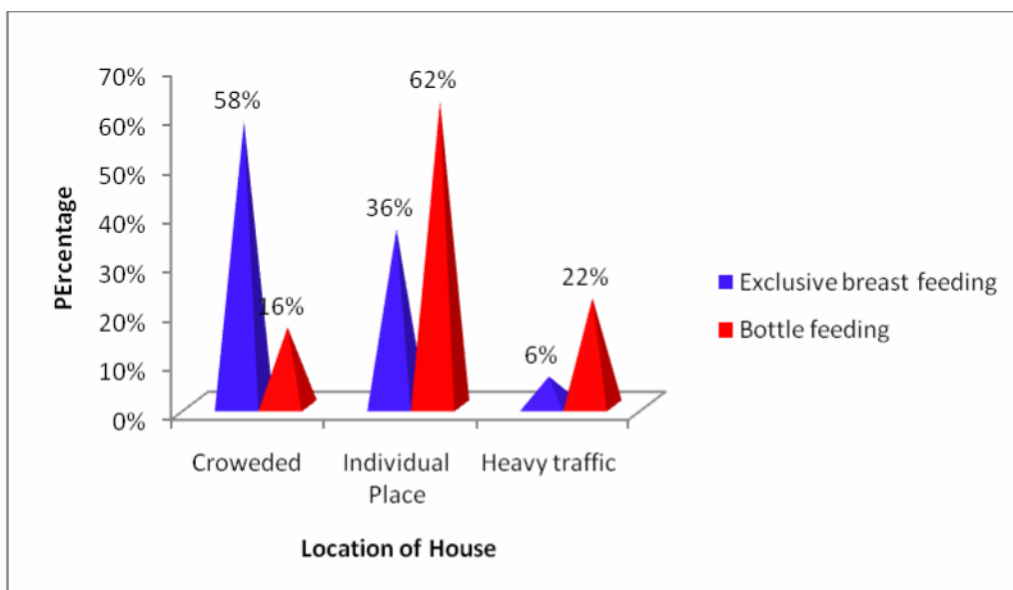
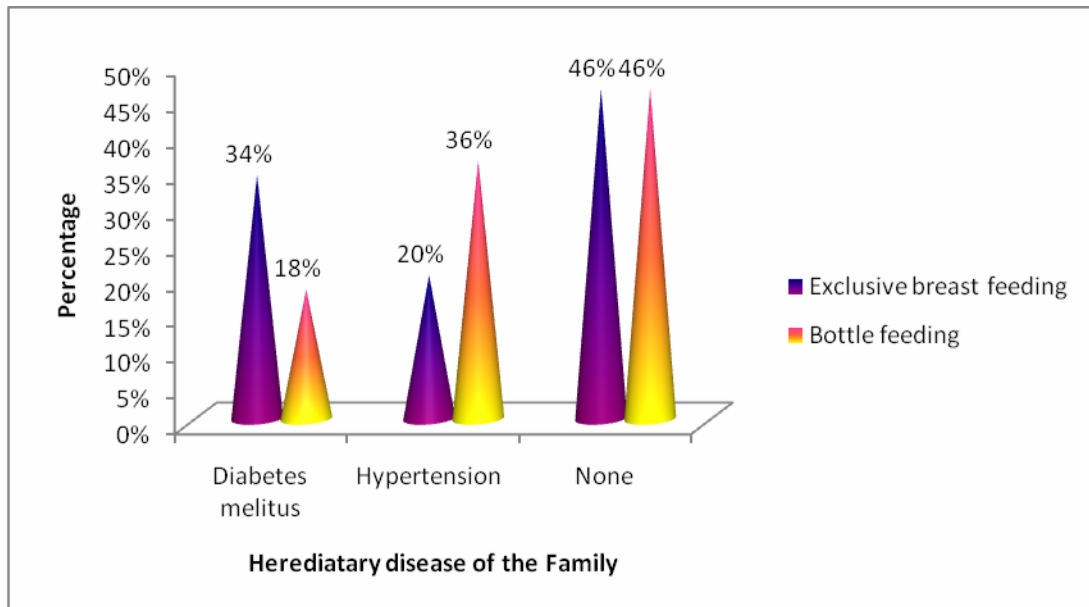
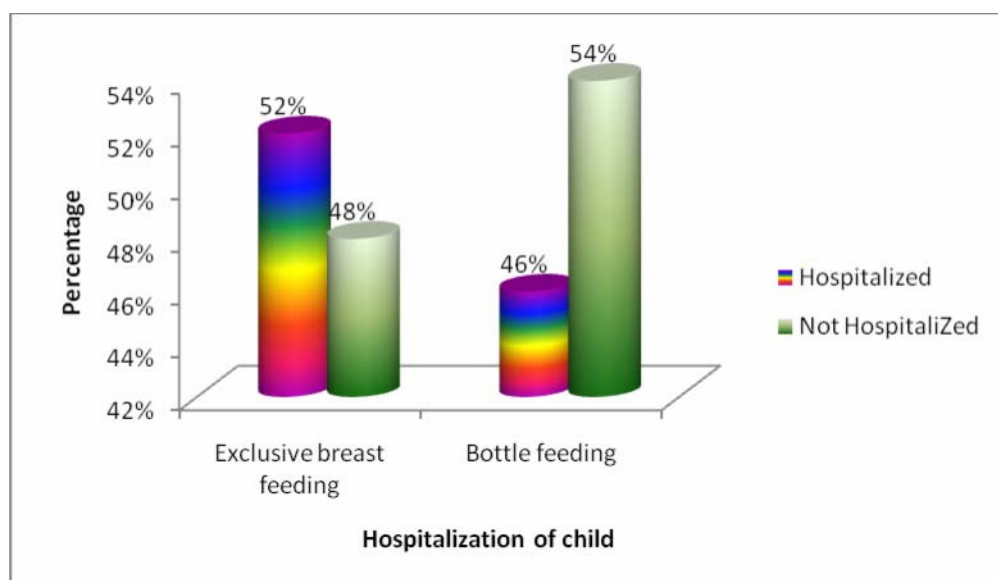
FIGURE – 9**DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF TYPE OF HOUSE****FIGURE – 10****DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF HOUSE LOCATION OF HOUSE**

FIGURE – 11

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF HEREDITARY DISEASE IN THE FAMILY

**FIGURE – 12**

DISTRIBUTION OF SAMPLES FOR BREAST FEEDING AND BOTTLE FEEDING IN TERMS OF HOSPITALIZATION OF CHILD.



SECTION – II

Table – III

Frequency and percentage Distribution of level of Infectious diseases among toddler fed by exclusive breast feeding.

| Sl. No | Level of Infectious disease | Exclusive Breast feeding (N=50) | |
|--------|------------------------------|---------------------------------|------------|
| | | Frequency | Percentage |
| 1 | Severe Infectious diseases | 3 | 6% |
| 2 | Moderate Infectious diseases | 23 | 46% |
| 3 | Mild Infectious diseases | 24 | 48% |

Table III shows that, among Exclusive breast feeding children, 3(6%) are affected with severe infectious diseases, 23(46%) are affected with moderate infectious diseases and 24(48%) are affected with mild infectious diseases.

SECTION – II

Table – IV

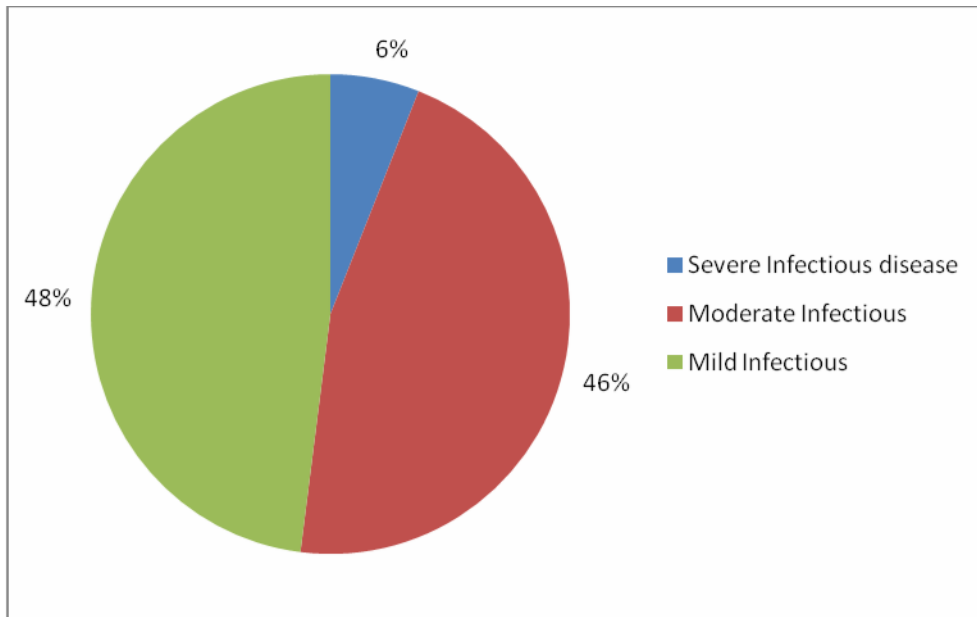
Frequency and percentage Distribution of level of Infectious diseases among toddler fed by bottle feeding.

| Sl. No | Level of Infectious disease | bottle feeding (N=50) | |
|--------|------------------------------|-----------------------|------------|
| | | Frequency | Percentage |
| 1 | Severe Infectious diseases | 22 | 44% |
| 2 | Moderate Infectious diseases | 19 | 38% |
| 3 | Mild Infectious diseases | 9 | 18% |

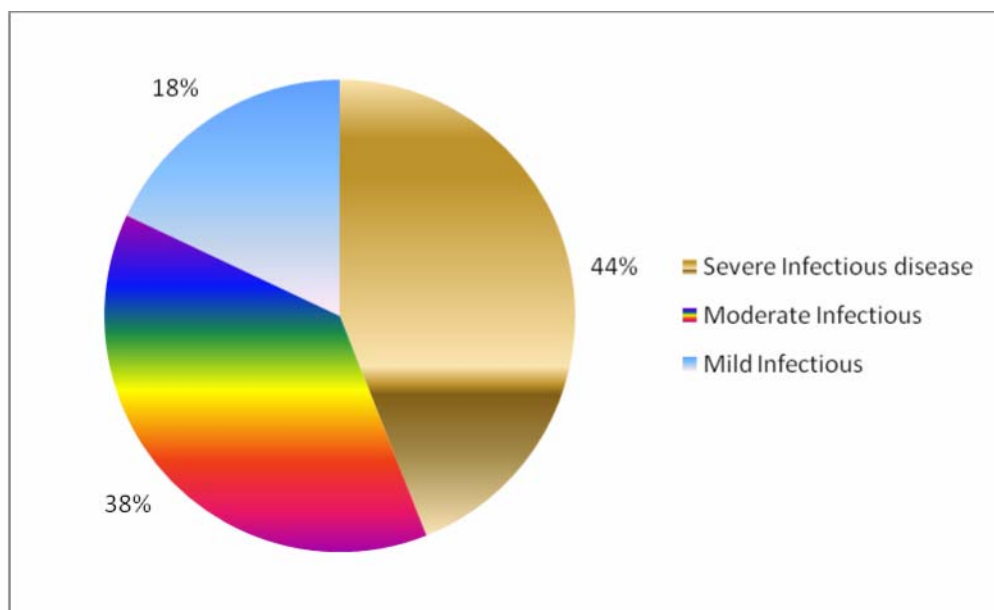
Table: IV shows that, bottle feeding children are more prone to get severe infectious diseases. About 22(44%) are affected with severe infectious diseases about 19(38%) are affected with moderate infectious diseases and about 9(18%) are affected with less infectious diseases.

SECTION – III**FIGURE – 13**

Frequency and percentage distribution of level of infectious diseases of toddler among breast feeding mothers (Pie chart)

**FIGURE – 14**

Frequency and percentage distribution of level of infectious diseases of toddler among bottle feeding mothers (Pie chart)



SECTION – IV

Table : -V

Comparison of occurrence of Infectious diseases among toddler who was fed by exclusive breast feeding and bottle feeding

| S.No | Group | Numbers | Mean | Standard Deviation | CV | 't' Value |
|------|--------------------------|---------|-------|--------------------|------|-----------|
| 1 | Exclusive breast feeding | 50 | 44.82 | 8.84 | 19.7 | * 4.278 |
| 2 | Bottle Feeding | 50 | 37.42 | 11.71 | 31.3 | |

Table: V shows that, there is a significant difference in occurrence of Infectious diseases between exclusive breast feeding and bottle feeding children.

SECTION – V

Table: VI

Association between Infectious diseases of toddler and the demographic variables of mother who gave exclusive breast feeding (N=50)

| Sl. No | Demographic Variable | Infectious disease | | | χ^2 |
|--------|--------------------------------|--------------------|----------|--------|----------|
| | | Mild | Moderate | Severe | |
| 1 | Age | | | | |
| | Below 20 years | 6 | 3 | 1 | 1.896# |
| | 21 -30 years | 13 | 15 | 1 | |
| | 31 years and above | 5 | 5 | 1 | |
| 2 | Educational Status | | | | |
| | Illiterate | 0 | 1 | 3 | ** |
| | Primary School | 1 | 16 | 0 | 62.347 |
| | Higher Secondary | 14 | 5 | 0 | |
| | College | 9 | 1 | 0 | |
| | | | | | |
| 3 | Occupation | | | | |
| | Daily wage earners | 2 | 4 | 3 | ** |
| | Seasonal Workers | 1 | 11 | 0 | 31.551 |
| | Self employed / Private Sector | 11 | 2 | 0 | |
| | Government Servant | 0 | 1 | 0 | |
| | House – Wife | 8 | 5 | 0 | |
| | | | | | |
| 4 | Income | | | | |
| | Below Rs.2000 per month | 9 | 8 | 2 | 1.942# |
| | Rs.2001 – 4000 per month | 9 | 9 | 0 | |
| | above Rs.4001 per month | 6 | 6 | 1 | |

| | | | | | |
|----|--|----|----|---|--------|
| 5 | Type of family | | | | |
| | Joint family | 9 | 8 | 0 | 1.683# |
| | Nuclear family | 15 | 15 | 3 | |
| 6 | Religion | | | | |
| | Hindu | 15 | 17 | 2 | 2.465# |
| | Christian | 7 | 6 | 1 | |
| | Muslim | 2 | 0 | 0 | |
| 7 | Illness Present during Antenatal Period | | | | |
| | Diabetes Mellitus | 0 | 0 | 3 | ** |
| | Hypertension | 4 | 4 | 0 | 71.547 |
| | Viral Fever | 15 | 5 | 0 | |
| | Thyroid Problem | 2 | 0 | 0 | |
| | TB | 2 | 0 | 0 | |
| | None | 1 | 14 | 0 | |
| 8 | No of Children in the family | | | | |
| | 1 | 8 | 9 | 2 | 1.872# |
| | 2 | 11 | 11 | 1 | |
| | 3 | 5 | 3 | 0 | |
| 9 | Type of house | | | | |
| | Hut | 4 | 3 | 0 | 1.120# |
| | Pucca | 9 | 7 | 1 | |
| | Kutchha | 11 | 13 | 2 | |
| 10 | Location of house | | | | |
| | Crowded | 14 | 14 | 1 | 4.353# |
| | Individual Place | 9 | 8 | 1 | |
| | Heavy Traffic | 1 | 1 | 1 | |

| | | | | | |
|----|---|----|----|---|--------|
| 11 | hereditary disease of the family | | | | |
| | Diabetes Mellitus | 9 | 6 | 2 | 4.199# |
| | Hypertension | 3 | 7 | 0 | |
| | None | 12 | 10 | 1 | |
| 12 | Hospitalization of child | | | | |
| | Hospitalized | 12 | 13 | 1 | 0.646# |
| | not hospitalized | 12 | 10 | 2 | |

*** Significant**

Not Significant

Table VI shows that, there is a significant association between the Infectious diseases and Educational status of the mother, there is significant association between the infectious diseases and occupational status of the mother, there is a significant association between the infectious diseases and illness present during antenatal period, And in this study there is no association found between Infectious diseases and selected demographic variables such as Age, Income, Type of family, religion, No of children, Type of house, location of house, hereditary disorder of family and hospitalization of child in exclusive breast feeding child.

SECTION - VI

TABLE – VII

Association between the infectious diseases of toddler and the demographic variables of mother who gave Bottle feeding.

(N=50)

| S. No | Demographic variable | Infectious disease | | | χ^2 |
|-------|--------------------------------|--------------------|----------|--------|----------|
| | | Mild | Moderate | Severe | |
| 1 | Age | | | | |
| | Below 20 years | 0 | 3 | 6 | 3.883# |
| | 21 – 30 Years | 6 | 10 | 12 | |
| | 31 years and above | 3 | 6 | 4 | |
| 2 | Educational Status | | | | |
| | Illiterate | 1 | 1 | 4 | 3.412# |
| | Primary School | 3 | 3 | 4 | |
| | Higher Secondary | 3 | 8 | 9 | |
| | College | 2 | 7 | 5 | |
| 3 | Occupation | | | | |
| | Daily wage earners | 0 | 1 | 0 | 3.092# |
| | Seasonal worker | 0 | 1 | 2 | |
| | Self – employed private sector | 6 | 10 | 11 | |
| | Government servant | 1 | 3 | 4 | |
| | House – Wife | 2 | 4 | 5 | |
| 4 | Income | | | | |
| | Below Rs 2000 per month | 1 | 3 | 6 | 1.768# |
| | Rs2001 – 4000 per Month | 4 | 10 | 9 | |
| | Above Rs 4001 per Month | 4 | 6 | 7 | |
| 5 | Type of family | | | | |
| | Joint family | 3 | 8 | 12 | 1.344# |
| | Nuclear Family | 6 | 11 | 10 | |

| | | | | | |
|----|--|---|----|----|---------|
| 6 | Religion | | | | 3.181# |
| | Hindu | 4 | 3 | 8 | |
| | Christian | 4 | 13 | 11 | |
| | Muslim | 1 | 3 | 3 | |
| 7 | Illness Present during Antenatal period | | | | 14.572# |
| | Diabetes Mellitus | 1 | 2 | 1 | |
| | Hypertension | 0 | 2 | 6 | |
| | Viral Fever | 3 | 6 | 4 | |
| | Thyroid Problem | 1 | 0 | 0 | |
| | TB | 1 | 0 | 0 | |
| | None | 3 | 9 | 11 | |
| 8 | No of children in the family | | | | 1.540# |
| | 1 | 2 | 4 | 6 | |
| | 2 | 7 | 13 | 15 | |
| | 3 | 0 | 2 | 1 | |
| 9 | Type of house | | | | 4.271# |
| | Hut | 0 | 2 | 2 | |
| | Pucca | 7 | 10 | 17 | |
| | Kutchra | 2 | 7 | 3 | |
| 10 | Location of house | | | | 1.728# |
| | Crowded | 1 | 4 | 3 | |
| | Individual Place | 7 | 11 | 13 | |
| | Heavy Traffic | 1 | 4 | 6 | |
| 11 | Hereditary disorder of the family | | | | 3.641# |
| | Diabetes Mellitus | 0 | 5 | 4 | |
| | Hypertension | 3 | 6 | 9 | |

| | | | | | |
|----|---------------------------------|---|----|----|-----------------|
| | None | 6 | 8 | 9 | |
| 12 | Hospitalization of child | | | | |
| | Hospitalized | 0 | 3 | 20 | ** |
| | Not hospitalized | 9 | 16 | 2 | 32.510 (Sig) |

* Significant

Not significant

Table: VII

Shows that, there is a significant association between the infectious diseases and hospitalization of child and there is no association between Infectious diseases and demographic variables such as age, educational states, Occupation, Income, type of family, religion, illness, no of children, type of house , location of house and hereditary disorder of family in bottle fed child.

CHAPTER – V

DISCUSSION

The Aim of the study was to determine the occurrence of infectious diseases among mothers of toddler who was fed by exclusive breast feeding and bottle feeding.

The methodology of the study was a descriptive research design. The setting of the study was Manamadurai Town which was located 3 kms away from college of Nursing. The sample size was 100, respectively, 50 breast feeding mothers and 50 bottle feeding mothers were selected. A purposive sampling technique was used to select the samples.

The data collection tools used were demographic variables, semi-structured observational checklist to assess the infectious diseases of toddler among breast feeding and bottle feeding mothers. The content validity and reliability was established for all the tools. The pilot study was done on 10 mothers who met the sampling criteria.

During the period of data collection, the data were collected from mothers by using the tool, which has been already prepared by the investigator. The findings of the study have been discussed in terms of objectives and hypothesis stated for the study.

OBJECTIVES OF THE STUDY WERE

1. To assess the occurrence of infectious diseases among Toddlers who were fed by exclusive breast feeding

2. To assess the occurrence of infectious diseases among toddlers who were fed by bottle feeding
3. To find out the difference between occurrences of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding.
4. To find out the association between infectious diseases and demographic variables of mothers of toddler fed by exclusive breast feeding
5. To find out the association between infectious diseases and demographic variable of mothers of toddler fed by bottle feeding

OBJECTIVE - 1:

To assess the occurrence of Infectious diseases among Toddlers who were fed by exclusive breast feeding.

A descriptive statistics (frequency & percentage) was used to analyze the occurrence of infectious diseases among exclusive breast feeding children. Table 3 shows that 3 (6%) of the children in the category of severe infectious diseases, 23 (46%) of the children in the category of moderate infectious diseases and 24(48%) of the children in the category of mild infectious diseases.

The researcher found that exclusive breast feeding children have less infectious diseases when compared to bottle feeding children. This study was supported by a study by **American Academy of paediatrics** (2006) a study was conducted to assess the effect of breast feeding on

prevention of infectious diseases. Study concludes that full breast feeding lower the risk of hospital admission as a result of infectious diseases.

OBJECTIVE – 2:

To assess the occurrence of infectious diseases among Toddlers who were fed by bottle feeding.

A descriptive statistics (frequency and percentage) was used to analyze the occurrence of infectious diseases among bottle feeding children. Table 3 shows that 22 (44%) of children have severe infectious diseases, about 19 (38%) of them have moderate infectious diseases and 9 (18%) of them have mild infectious diseases.

The researcher found that bottle feeding children were more prone to get infectious diseases.

This study was supported by a study done by **Juraci A cesar.et. al** (2002) . They used sample of 152 infants aged 28-364 days who had been admitted to hospital for pneumonia. Controls were 2391 cases in population based case – control study. The results reveal that children who were bottle feed were 17 times more likely to get pneumonia than breast feed children.

OBJECTIVE – 3:

To find out the difference between the occurrences of infectious diseases of toddler fed by exclusive breast feeding and bottle feeding.

The null hypothesis (H_0) for this objective is , there will be no significant difference in occurrence of infectious diseases between breast feeding and bottle feeding children.

The t – Test was used to find out the difference in occurrence of infectious diseases between breast feeding and bottle feeding and it was found out that there is a significant difference ($t=4.278$) between breast feeding and bottle feeding children.

A similar study was done by **J.Ellestad sayed** 2005 to determine occurrence of infectious diseases between breast feeding and bottle feeding children at two Isolated Indian communities. Results were occurrence of infectious diseases is 10 times more often and 10 times more in bottle feed children than fully breast – fed infants.

OBJECTIVE – 4:

To find out the association between infectious diseases and demographic variables of mothers of Toddler fed by exclusive breast feeding.

The null hypothesis (H_0) for this objective is, there will be no significant association between infectious disease and selected demographic variables such as Age, Income, Type of family, Religion, Numbers of children in the family, type of house, location of house, hereditary disorder of family and Hospitalization of child.

The chi-square was used to find the association between Infectious diseases and selected demographic variables of mothers of toddler fed by exclusive breast feeding. The result shows that there is a significant

association between infectious diseases and selected demographic variables such as education ($\chi^2=62.347$) Occupation ($\chi^2=31.551$) Illness present during antenatal period ($\chi^2=71.547$) Therefore the investigator partially rejects the null hypothesis (H_0).

OBJECTIVE – 5:

To find out the association between Infectious diseases and demographic variables of mothers of toddler fed by bottle feeding.

The null hypothesis (H_0) for this objective is , there will be no significant association between then Infectious diseases and demographic variables such as Age, Educational status, Occupation, Income, Type of family, Religion, Illness present during antenatal period, No of children in the family, Type of house, location of house and hereditary disorder of the family.

The chi- square was used to find out the association between infectious diseases and selected demographic variables and there is significant association between Infectious diseases and selected demographic variables such as hospitalization ($\chi^2=31.510$) so the investigator partially reject the null hypothesis (H_0)

The study was supported by a study done by **R.E. Gilbert** et al in year (1992). His study was to determine the risk factor of sudden Infant death syndrome in bottle fed babies. His results reveal that patterns of smoking, parental employment status account for most of the apparent association with bottle feeding.

CHAPTER – VI

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This Chapter deals with the summary of the study and conclusion. It clarifies the implications of Nursing practice and recommendations for further research in the field.

SUMMARY

A study was conducted to determine the occurrence of infectious diseases among toddlers who were fed by exclusive breast feeding and bottle feeding in selected areas at Manamadurai. The research design of the study is descriptive research design. The total 100 toddlers mothers were selected by purposive sampling method. An equal number of 50 breast feeding and bottle feeding mothers were selected.

The conceptual model of the study was health belief model.

A semi structured observational checklist was prepared by Investigator, consisting of 2 Parts. Tool consists of section (a) Demographic variables, Section (b) semi structured observational checklist to assess the level of infectious diseases among toddlers.

Level of infectious diseases

- * Severe Infectious diseases – (34 – 56%)
- * Moderate Infectious diseases – (57 – 78%)
- * Mild Infectious diseases – (79% - 100%)

The Gathered data were tabulated, grouped and analyzed. Descriptive and inferential statistics i.e. (frequency, percentage, chi square, Independent t –test with unequal variances) were used for analysis. Descriptive statistics used were frequency and percentage.

Graphical representation such as bar and pie diagrams were made. The level of significance for testing hypothesis was 0.05.

MAJOR FINDINGS OF THE STUDY

1. In exclusive breast feeding children, 6% had severe infectious diseases, 46% had moderate infectious diseases and 48% had mild infectious diseases.
2. In bottle feeding children 44%, had severe infectious diseases, 38% had moderate infectious diseases and 18% had mild infectious diseases.
3. There was a significant association between infectious diseases and selected demographic variables such as mother's educational status in exclusive breast feeding children.
4. There was a significant association between infectious diseases and selected demographic variables such as occupational status of the mother in exclusive breast feeding children.
5. There was a significant association between infectious diseases and selected demographic variables such as illness present during antenatal period in exclusive breast feeding children.
6. There was a significant association between infectious diseases and selected demographic variables such as hospitalization of child in bottle feeding children.
7. There is a significant difference between the occurrence of infectious diseases among exclusive breast feeding and bottle feeding children.

DELIMITATIONS:

- * Due to time constraints only 50 samples of mothers of toddler from breast feeding and bottle feeding were selected.
- * Age Group was only mothers of toddler between (1-3) Years.

IMPLICATIONS

Breast milk is important, because it provides immunity to infant and is vital for the baby. It is important in reducing infant morbidity and mortality. Infectious diseases are more common in bottle – fed toddler. So it is important to arrange for health education programs in all hospitals and villages to encourage all mothers both antenatal and postnatal to give breast feeding to their babies. It will initiate promotion of good health and prevention of infectious diseases.

NURSING PRACTICE

It is the responsibility of the nurse educator to teach the mother about breast feeding techniques ,its advantages and disadvantages of bottle feeding. Nurse educators with the help of community leaders and through staff nurses conduct meetings ,conferences, Seminars where they can explain them about the importance of breast feeding.

NURSING EDUCATION

Education helps the individual to learn new things and thereby plays an important role in changing behaviour of learner. Therefore nurses need to equip themselves with knowledge regarding breast feeding techniques, advantages, prevention of infectious diseases according to the mother's level of understanding.

- Nurses at post graduate level need to develop skill in preparing educative materials that are effective and useful which are suitable to the understanding level of participants of the teaching programme.

- Nursing personnel should be given in service education to update their knowledge, attitude and practice regarding breast feeding to improve abilities in identifying learning needs of mothers.
- Nursing personnel should identify the common infectious diseases that occur in community.

NURSING ADMINISTRATION

The nurse administrator should plan to organize education programs for nursing personnel regarding breast feeding so that it will be helpful for them to impart Encouragement to mothers. Nurse administrator should motivate nursing personnel to participate and conduct health education programs for mothers.

- This study will help the nursing administrator to prepare adequate learning materials for giving health education to all the mothers
- The nursing administrator should arrange for work shop on breast feeding and its benefits .
- The nursing administrator can promote breast feeding by insisting hospital policies and procedures.
- The nursing administrator must encourage budding nurses to write articles on breast feeding , which can be published in local newspaper and magazines .

NURSING RESEARCH

The result of the present study shows that occurrence of infectious diseases is more common among bottle feed children. Researchers should be focused on behaviour modification of mothers after health Education. Nurse researcher should focus on occurrence of infectious diseases in infant and toddler age group and should also involve mothers and nurses to identify their role in promotion of health of child.

- It is essential to identify and understand present level of knowledge attitude and practice of breast feeding
- It is necessary to give information regarding disadvantage of bottle feeding
- This study will motivate other investigators to conduct further studies regarding this topic

RECOMMENDATION

On the basis of the findings of the study, it is recommended that

1. A similar study may be replicated on large samples with different demographic variables.
2. A similar study may be conducted to assess the knowledge and practice of the mothers regarding breast feeding.
3. A similar comparative study can be conducted to find out the prevalence of infectious diseases in urban and rural children.
4. A similar study can be conducted among breast feeding and bottle feeding children from all the areas in the city.

CONCLUSION

From the above findings the investigator would like to conclude that Bottle fed toddlers were found to be affected with more infectious diseases than the breast fed toddlers. So the researcher and the nurses should create awareness among mothers to give exclusive breast feeding to their children upto six months. The nurses in the hospital should initiate baby friendly hospital policies and procedures to encourage breast feeding. Nurse administrator should arrange for workshop on breast feeding and its benefits. Nursing personnel should identify the common infectious diseases that occur in community. Researchers should be focused on behavior modification of mothers after health education. So we can prevent the infectious diseases among toddlers.

REFERENCES

1. A.k Akobeng, AV Ramanan (2006) "Effect of Breastfeeding on risk of the coeliac Disease: a systematic review and Meta analysis of observational studies," *BMJ Archives of Disease in Childhood* 91(9), 39-42.
2. Achar S.T, Viswanathan J(2000) "Text Book of Pediatrics", Madras, Orient Long Man.
3. Alex K. Anderson (2005) "A Randomized Trial Assessing the efficacy of peer counseling on Exclusive Breastfeeding in a predominantly Latina Low – Income Community", 159(9), 836-841.
4. Amal K.Mitra, Amal J. Khoury, et al (2003) "The Loving support Breastfeeding Campaign: Awareness and practice of Health Care providers in Mississippi." *JOGNN Clinical Research* 32,763-760
5. Antonio J. Ledo (2005)" Breastfeeding and pacifier use in Brazil" *Indian Journal of pediatrics.* 72,209-212
6. Arun Gupta (2007) " Breastfeeding: The 1st Hour save more the one million Babes! *Nightingale Nursing Times.*
7. Basavanthapa, B.T. (2002) "Community Health Nursing" New Delhi, Jaypee Brothers Medical Publishers.
8. Bhandari. N.,Bahl, et al(2003) "effect of the community Based promotion of exclusive breastfeeding on diarrhoeal illness and growth: a cluster randomized controlled trial, "lancet, 361,(9365),1418-1423.
9. "Breast feeding linked to less bedwetting"-*Medicine and Health.*(2006)
- 10.Christine Adams et al (2001)"Breastfeeding trends at community Breastfeeding centre: An Evaluative Survey" *JOGNN Clinical studies.*30 (4), 392-400.

11. Cindey Lee Dennis (2002) "Breastfeeding Initiation and Duration: A 199-2000 Literature Review", Journal of obstetrics Gynecology and Neonatology in review.(JOGNN)31(1),12-32.
- 12.Dennis.C.L and Faux (1999),"Development a psychometric testing of Health.22,399-409.
- 13.Diane.L.Spatz (2005) "the Breastfeeding Care Study: A model for education nursing students", Journal of nursing Education. 44(9),432-434.
- 14.Dorothy Marlow. R(2006),"Text book of pediatrics Nursing" Philadelphia, Saunders Publications.
- 15.Dr.Mrs. Kasthuri sundar Rao(2004)"An Introduction to community Health Nursing",Fourth Edition.B.I. Publications Pvt.Ltd Chennai.
- 16.Elizabeth K (2002) "Fundamentals of pediatrics" Bangalore,paras publications.
- 17."Feeding of Normal & Low Birth weight Babies",(2006) Nighthingale Nursing Times.
- 18.Ghai O.P (2003)5th Edition, "Essential of pediatrics".
- 19.Goel N, Alam. S., (2003),"predictive factors for non-exclusive breastfeeding in urban Aligarh", Current Pediatrics,7(1),37-42.
- 20.Jamaica (2006) "Mental stimulation-Breastfeeding develops better vision & higher score". University of West Indies.
- 21.Jan Riordan and Kathy Gill-Hopple (2001) "Breastfeeding care in multicultural populations", Clinical Issues,30(2),216-223.
- 22.Jo Carol Chezem et al (2003) "Breastfeeding Knowledge, Breast feeding Confidence; and infant feeding plans; Effects on Actual Feeding Paractices."JOGNN Clinical Research. 32(1), 40-47.
- 23.Joan E. Dudgeon (2004) "Becoming a role model; the breastfeeding Trajectory of Hong Kong women breastfeeding Longer than 6 months". International Journal of Nursing Studies.

24. K. Park M.B.B.S. M.S (2007) "Park's Text Book of preventive and social medicine", 19th Edition, M/S Banarsids Bhanot publishers, Jabalpur.
25. Kameswararao A.A (2004) "Breastfeeding Behaviour of Indian women", Indian Journal of community Medicine. 29 (2), 6-64.
26. Kull. I. Wickman and et al (2002) "Breast feeding and Allergic diseases in Infants – a Prospective birth cohort study", Archives of Diseases in childhood. 87, 478-481.
27. M. Broad foot, et al (2005) "The Baby Friendly Hospital Initiative and Breast feeding rates in Scotland", Archives of a Disease in childhood. 90 (2), 114-116.
28. Madheswari Murgesan (2005) "Excluding Breastfeeding up to six months", Nightingale Nursing Times.
29. MAQ uigly et al (2006) "How Protective is Breastfeeding against Diarrhoeal Disease in Infants in 1990's England? A case – control study", - pediatrics. 118(3), 12-32.
30. Marie Tarrant et al (2005) "Immigration, Race/ Ethnicity and social and Economic factors as predictors of breastfeeding initiation", Archives of pediatrics and Adolescent Medicine.
31. Marilyn B.J Hockerberry (2005) "Wong's Essentials of pediatrics" 7th Edition. Mosby publication.
32. Mohebachr .N. and Stock .J (2003) "The Breastfeeding answer book."
33. Mrs. Nanthini subbiah (2003) "A study to assess the knowledge, Attitude, practice and problems of postnatal mothers regarding Breastfeeding." The Nursing Journal of India .LXXXIV (8), 177-179.

34. Nam Mi kang et al (2005) "Evaluation of the Breastfeeding Intervention program in a Korean community health centre". *International of Nursing Studies*.42,409-413
35. papinczack T.A, and Turner C.T (2000) "An analysis of personal and social factors influencing initiation and duration of breastfeeding in a large Queensland maternity Hospital ", *Breastfeeding Review*, 8(1), 25-33.
36. parthasarathy (1999) "IAP Text Book of pediatrics" New Delhi, Jaypee Brothers Medical publishers.
37. polit D.F and Hugler H.P (1995), *Nursing Research Principles and Methods*", Philadelphia, J.B. Lippincott Company.
38. Rao. V et al (2000) "Knowledge, Attitude and Practice of Mothers Regarding Breastfeeding and immunization in rural Karnataka", *Karnataka Pediatric Journal*, 14(4), 16.
39. Roberta Cricco-Lizza (2006), "student Nurses' Attitudes and Beliefs about breastfeeding ", *Journal of professional Nursing*, 22(5) 314-321.
40. Ruoweili et al (2001) "Prevalence of Breastfeeding in the United states", *pediatrics*.
41. Sara L.Gill (2001) "The Little Things; perceptions of Breastfeeding support", *JOGNN Clinical Studies*.30,401-409.
42. sarah K.F Kong and Diana T.F.Lee (2004) "Factors influencing Decision to Breastfeeding," *Issues & Innovations in Nursing Practice*.46(4),369-379.
43. Sundar Rao,P.S.S (2004) "An Introduction to Bio-statistics", New Delhi, prentice Hall of Indian private limited.
44. Suraj Gupta,(2001) "the short text book of pediatric Nursing", 9th Edition, New Delhi. Jaypee Brothers publications.

45. "the perinatal Nurses role in supporting Breastfeeding ",(2005) Nightigale Nursing Times.
46. Vijayalashmi S. and Raman A.V (2002) "Beastfeeding techniques in prevention of nipple sore", The Nursing Journal of India.LXXXXIII,(8),173-175.
47. www.breastfeeding.com
48. www.breastfeedingbasics.org
49. www.elsevier.com
50. www.Kartoo.com
51. www.pediatrics.com
52. www.pubmed.com
53. www.worldbreastfeedingweek.org
54. www.medline.com
55. Yadav R.J and singh p(2004)"knowledge, Attitude and practice of mothers about Breastfeeding in Bihar", Indian Journal of community MedicineXXIX,(3),130-131.

APPENDIX – I
LETTER SEEKING EXPERT’S OPENION FOR CONTENT
VALIDITY OF TOOL

From

Mrs. Blanshie Rajila William
M.Sc Nursing II Year,
Matha College Of Nursing,
Manamadurai.

To

Respected Madam/Sir.

Sub: Requesting opinion and suggestion for content validity of tool.

I am a final year Master Degree Nursing student in Matha College of Nursing, Manamadurai. In partial fulfillment of master degree in Nursing I have selected the topic given below, for the Research Project to be submitted to Dr. MGR Medical University, Chennai.

Problem statement: “A Comparative Study To Determine The Occurrence Of Infectious Diseases Among The Toddlers Who Were Fed By Their Mothers Exclusive Breast Feeding And Bottle Feeding In Selected Areas, At Manamadurai”.

I request you to kindly validate the tool and give your expert opinion for the necessary modification and I would be happy if you could refine the problem statement, the objectives and the semi structured observational checklist.

I have enclosed the following with this letter,

1. Problem statement, Objectives of the study, Tool – 1 Demographic data.
2. Observational checklist for assessing infectious diseases.

Thanking You

Place: Madurai

Yours sincerely,

Date:

(Mrs. Blanshie Rajila William)

APPENDIX- II
LETTER SEEKING PERMISSION TO CONDUCT STUDY

To

Respected Sir/madam,

Sub: Matha College of Nursing, Manamadurai – Dissertation work of M.Sc. Nursing student, in selected areas.

I am to state that **Mrs. Blanshie Rajila William** is one of our final years M.Sc. Nursing student, Matha College of Nursing, Manamadurai has to conduct a research project, as the partial fulfillment of university requirements for the degree of Master of Science in Nursing.

The statement of the problem is:

“A Comparative Study To Determine The Occurrence Of Infectious Diseases Among The Toddlers Who Were Fed By Their Mothers Exclusive Breast Feeding And Bottle Feeding In Selected Areas, At Manamadurai”.

I request you to kindly permit her to do the research in your esteemed hospital and give your valuable guidance and suggestions.

Thanking you

Place: Madurai

Yours faithfully

Date:

**Prof. Mrs.Jebamani Augustine M.Sc (N),
Principal.**

APPENDIX- III

LIST OF EXPERTS

DR. PRABHAKAR NAVAMANI M.D, DCH,
NAVAMANI CHILD SPECIALITY HOSPITAL,
MADURAI,
TAMILNADU.

MRS. THAMARAISELVI, M.SC. (N),
PROF. OF OBG DEPARTMENT,
MATHA COLLEGE OF NURSING,
MANAMADURAI.

MRS. BHARATHA SORUBHA RANI, M.SC., (N)
PROF. OF COMMUNITY HEALTH NURSING,
MATHA COLLEGE OF NURSING,
MANAMADURAI.

MRS. JESSY, M.SC., (N),
LECTURER OF PEDIATRIC NURSING,
C.S.I. COLLEGE OF NURSING,
MADURAI.

MRS. LISHA, M.SC (N),RN.RM,
LECTURER OF PEDIATRIC NURSING,
COLLEGE OF NURSING,
SANKARAN KOVIL,
TIRUNELVELI DISTRICT.

APPENDIX - IV

TOOL

SECTION – A

[DEMOGRAPHIC DATA]

Name of the mother :

Address :

1. Age of the mother
 - a) Below 20 years ()
 - b) 21 to 30 years ()
 - c) 31 years and above ()

2. Educational Status
 - a) Illiterate ()
 - b) Primary School ()
 - c) Higher Secondary ()
 - d) College ()

3. Occupation
 - a) Daily Wage earners ()
 - b) Seasonal Worker ()
 - c) Self-employed / Private Sector ()
 - d) Government servant ()
 - e) House – wife ()

4. Income
 - a) Below Rs. 2000 per month ()
 - b) Rs. 2001 - 4000 per month ()
 - c) Above Rs. 4001 per month ()

5. Type of Family
- a) Joint Family ()
 - b) Nuclear Family ()
6. Religion
- a) Hindu ()
 - b) Christian ()
 - c) Muslim ()
7. Illness present during Antenatal Period
- a) Diabetes Mellitus ()
 - b) Hypertension ()
 - c) Viral Fever ()
 - d) Thyroid problem ()
 - e) Tuberculosis ()
 - f) None ()
8. No of Children in the family
- a) 1 ()
 - b) 2 ()
 - c) 3 ()
9. Type of house
- a) Hut ()
 - b) Pucca ()
 - c) Kutcha ()
10. Where is your house located?
- a) Crowded ()
 - b) Individual place ()
 - c) Heavy traffic ()

11. Is your family members suffered from any hereditary disease?

- a) Diabetes Mellitus ()
- b) Hypertension ()
- c) None ()

12. Hospitalization of a child

- a) Hospitalized ()
- b) Not Hospitalized ()

TOOL

SECTION – B

Semi – Structured Observational Checklist to assess the Occurrence of Infectious diseases of Toddler among Toddler’s Mothers

Name of Mother :

Date :

Type of Feeding : Bottle Feeding / Exclusive Breast Feeding

Age of Child : 2 Years / 3 Years

Please (✓) Give the tick mark to right answer

| Sl. No | Name of the Infectious disease/ Symptoms | Occurrence | | |
|--------|---|--|--|-------------------|
| | | Very Often (More than 3 times or 3 times) (1) Mark | Often (1 – 2 times) (2) Marks | None (3) Marks |
| 1. | <u>Gastro - Intestinal System</u> <u>Diarrhoea</u> Passing frequent loose stools | | | |
| 2. | <u>Communicable Disease</u> Tuberculosis (Primary Complex) Loss of weight, fatigue, low grade fever | | | |
| 3. | <u>Chicken pox:</u> Presence of eruptions in the body, follows stages as macules, Papules, Vesicles | | | |

| | | | | |
|-----|---|--|--|--|
| 4. | <u>Measles</u> Presence of Koplik's spot, tiny white papules surrounded by red area | | | |
| 5. | <u>Mumps</u> Pain on chewing and tenderness beneath the angle jaw | | | |
| 6. | <u>Poliomyelitis</u> Flaccid Paralysis with reduced muscle tone and absence of movement | | | |
| 7. | <u>Diphtheria:</u> Brassy cough, hoarseness of voice, excoriation of nose and upper lip | | | |
| 8. | <u>Pertussis</u> (Whooping cough) Bronchitic cough, more severe rapid about 10-15 times during 24 hours | | | |
| 9. | <u>Tetanus:</u> Inability to suck and open the mouth, locked jaw. | | | |
| 10. | <u>Typhoid Fever</u> Continuous high grade fever, abdominal pain | | | |
| 11. | <u>Hepatitis</u> Skin looks yellow, urine become dark, sclera (yellow) | | | |

| | | | | |
|-----|---|--|--|--|
| 12. | <u>Respiratory Tract Infection</u> <u>Common Cold</u> Running, nose, sneezing | | | |
| 13. | <u>Asthma</u> Presence of Persistent wheezing | | | |
| 14. | <u>Pneumonia</u> Dyspnoea tachypnoea, tachy cardia | | | |
| 15. | Flu fever or Viral Fever Severe fatigue, sore throat, cough | | | |
| 16. | <u>Worm Infestation</u> Perineal Irritation, presence of white patches, Itching at anal region, abdominal distension. | | | |
| 17. | <u>Skin Disorder</u> Impetigo Presence of rashes and Itching on nail & fingers | | | |
| 18. | <u>Other Infections</u> <u>Conjunctivitis</u> Sticky discharge from eyes, redness, unable to open | | | |
| 19. | <u>Head lice</u> Presence of lice on hair & Scalp | | | |
| 20. | <u>Meningitis</u> Inflammation of brain with presence of severe head ache, Vomitting & Stiff neck with fever | | | |

Note:

- If Symptoms Occur for 3 or more than 3 times (very often)
- If symptoms occur for 1-2 times (often)
- If no symptoms (None)

Scorings:

- Very Often(1 mark)
- Often (2 Marks)
- None (3 Marks)

Level of Infectious Diseases

- Severe: (34-56 %)
- Moderate (57-78%)
- Mild (79-100 %)

தனிநபர் பற்றிய புள்ளி விவரம்

பகுதி - I

1. தாயின் வயது

- அ. 20 வயதிற்கு கீழ்
- ஆ. 21 -30 வயது
- இ. 31 வயதிற்கு மேல்

2. கல்வி நிலை

- அ.படிப்பறிவின்மை
- ஆ.தொடக்க கல்வி
- இ. மேல்நிலைக்கல்வி
- ஈ. கல்லூரிக்கல்வி

3. தொழில்

- அ. தினக்கூலி
- ஆ. சில மாதங்களில் மட்டுமே வேலை செய்தல்
- இ. தனியார் துறை
- ஈ. அரசுத் துறை
- உ. இல்லத்தரசி

4. மாத வருமானம்

- அ. ரூபாய் இரண்டாயிரம்
- ஆ. 2001-4000 ரூபாய்
- இ. 4001 ரூபாய்க்கு மேல்

5. குடும்ப நிலை

- அ. தனிக்குடித்தனம்
- ஆ. கூட்டுக் குடும்பம்

6. மதம்

- அ.இந்து
- ஆ.கிறிஸ்தவர்
- இ. இஸ்லாமியர்

7. கர்ப்பகாலத்தில் ஏதேனும் நோய்களில் தாய் அவதிப்பட்டாரா ?

- அ. சர்க்கரை நோய்
- ஆ. இரத்தக்கொதிப்பு
- இ. வைரஸ் காய்ச்சல்
- ஈ. தைராய்ட் பிரச்சனை
- உ. காச நோய்
- ஊ. இல்லை

8. குடும்பத்தில் உள்ள குழந்தைகளின் எண்ணிக்கை

- அ. 1
- ஆ. 2
- இ. 3

9. வீட்டின் நிலை

- அ. குடிசை
- ஆ. ஓட்டு வீடு
- இ. மாடி வீடு

10. வீடு இருக்கும் இடம்

- அ. அதிக கூட்ட நெரிசல் உள்ள பகுதி
- ஆ. தனிப்பட்ட இடம்
- இ. அதிக சாலைப் போக்குவரத்து நிறைந்தப் பகுதி

11. உங்கள் குடும்ப உறுப்பினர்கள் யாராவது கீழ்ப்பட்ட பரம்பரை நோய்களில் அவதிப்படுகிறாரா ?

- அ. சர்க்கரை நோய்
- ஆ. இரத்தக் கொதிப்பு
- இ. இல்லை

12. மருத்துவமனையில் குழந்தையின் அனுமதி

- அ. அனுமதிக்கப்படவில்லை
- ஆ. அனுமதிக்கப்பட்டுள்ளது

பகுதி - II

வரையறுக்கப்பட்ட சிறிய அட்டவணை

குழந்தைகளிடம் காணப்படும் தொற்றுநோய்ப் பற்றி தாயாரிடம் கேட்டறிதல் :-

தாயின் பெயர் :
 நாள் :
 குழந்தையின் வயது :
 சரியான பதிலுக்கு (✓) குறிக்க வேண்டும்

| வ. எண் | தொற்றுநோயின் பெயர் அறிகுறிகள் | அடிக்கடி (3அல்லது 3க்கு மேல்) | எப்பொழுது தாவது (1-2 முறை) | இல்லை |
|--------|---|--------------------------------|----------------------------|-------|
| 1. | வயிற்றுப் போக்கு அடிக்கடி குழந்தை மலம் கழித்தல் | | | |
| 2. | காச நோய் எடை குறைவு, உடல் சோர்வு, காய்ச்சல் | | | |
| 3. | சின்னம்மை உடலில் கொப்பளங்கள் வந்துப் பொட்டுதல் | | | |
| 4. | மணல் வாரி அம்மை உடலில் சிறிய வேர்க்குரு வருதல் அதை சுற்றிலும் சிவப்பு தடிமன் ஏற்படுதல் | | | |
| 5. | பொன்னுக்கு வீங்கி உணவு உண்ணும் போது வலி ஏற்படுதல் மற்றும் கன்னம் வீங்கி இருத்தல் | | | |
| 6. | போலியோ நோய் கால்கள் உணர்ச்சியற்ற நிலையில் இருத்தல் மற்றும் கைகால்களில் அசைவின்மை | | | |
| 7. | தொண்டை அடைப்பான் இருமல், சத்தத்தில் மாற்றம் ஏற்படுதல் மூக்கு மற்றும் மேல் வாயில் கிழிவு அல்லது பிளவு ஏற்படுதல் | | | |
| 8. | கக்குவான் இருமல் வறட்டு தொடர் இருமல்,24 மணி நேரத்திற்குள் 10 முதல் 15 முறை வருவது | | | |
| 9. | இரண ஜன்னி தசைகளை இறுக்கும் ஒருவித கொடிய நோய், வாய் திறக்க முடியாமல் இருத்தல் | | | |
| 10. | டைபாய்டு காய்ச்சல் தொடர்ச்சியான அதிக காய்ச்சல் மற்றும் வயிற்றுவலி காணப்படுதல் | | | |
| 11. | மஞ்சள் காமாலை தோல் மஞ்சள் நிறமாக காணப்படுதல், சிறு நீரில் மஞ்சள் வெளிப்படுதல் மற்றும் கண்களில் மஞ்சள் நிறம் காணப்படுதல் | | | |
| 12. | ஜலதோஷம் மூக்கில் சளிவெளியேறுதல் மற்றும் தும்மல் ஏற்படுதல் | | | |
| 13. | ஆஸ்துமா தொடர்ச்சியான இழுப்பு ஏற்படுதல் | | | |

| வ. எண் | தொற்றுநோயின் பெயர் அறிகுறிகள் | அடிக்கடி (3அல்லது 3க்கு மேல்) | எப்பொழுது தாவது (1-2 முறை) | இல்லை |
|--------|--|--------------------------------|----------------------------|-------|
| 14. | நிமோனியா காய்ச்சல் மூச்சு விட சிரமம், அதிக இதயத் துடிப்பு மற்றும் அதிகமாக மூச்சு விடுதல் | | | |
| 15. | வைரஸ் காய்ச்சல் அதிக சோர்வு, காய்ச்சல், இருமல், மற்றும் தொண்டை வலி காணப்படுதல் | | | |
| 16. | பூச்சிக் கடி அல்லது குடல் புழு பாதிப்பு உடலில் அரிப்பு, வெள்ளைப்படை பாதிப்பு, ஆசனவாய் மற்றும் வயிற்றில் அரிப்பு, வயிறு மந்த நிலையில் காணப்படுதல் | | | |
| 17. | தோல் நோய் உடலில் சிவப்பு தடிப்பு ஏற்படுதல் மற்றும் விரல்கள், நகங்களில் அரிப்பு ஏற்படுதல் | | | |
| 18. | கண் நோய் கண்களிலிருந்து நீர் மற்றும் பழுப்பு வடிதல், கண்கள் திறக்க முடியாமல் இருத்தல் | | | |
| 19. | தலையில் பேன்களின் பாதிப்பு தலைமுடி உதிர்தல் மற்றும் இரத்தச் சோகை காணப்படுதல் | | | |
| 20. | மூளைக்காய்ச்சல் ஒருவகையான மூளையைத்தாக்கும் நோய், அதிக தலைவலி ,வாந்தி மற்றும் காய்ச்சல் ஏற்படுதல், கழுத்து அசைக்கும் போது வலி காணப்படுதல் | | | |

குறிப்பு :

அடிக்கடி : 3 அல்லது 3க்கு மேல் அறிகுறிகள் இருத்தல்
எப்பொழுதாவது : 1முதல் 2முறை வரை இருத்தல்
இல்லை : அறிகுறிகள் தென்படவில்லை

மதிப்பெண்கள்

அடிக்கடி : (மதிப்பெண் 1)
எப்பொழுதாவது : (மதிப்பெண் 2)
இல்லை : (மதிப்பெண் 3)

அதிக பட்ச மதிப்பெண் : 60
குறைந்த பட்ச மதிப்பெண் : 20

நிலை

அதிகமான தொற்று நோய் பாதிப்பு (34-56 %)

மிதமான தொற்று நோய் (57%-78%)

குறைவான தொற்று நோய் (79%-100%)

APPENDIX – VI

HEALTH EDUCATION ON EXCLUSIVE BREAST FEEDING




EXCLUSIVE BERASTFEEDING AND ITS BENEFITS

Exclusive breastfeeding means the infant receives breast milk only and no other liquids, not even water or complementary foods with the exception of undiluted vitamin/ mineral drops or syrups, and medicines. No other fluids should be given at birth even when the climate is hot because the mother's milk contains all the water the baby needs. Babies need no other fluid until the age of 6 months. Water supplementation leads to reduced desire to suck and is a dangerous source of infection as well. Giving other supplements reduces the baby's desire for mother's milk. Exclusive breastfeeding contributes to better intelligence.

THCHNIQUES OF BREASTFEEDING

It is essential to use the right techniques (particular way of doing) while breast feeding to prevent the problems to both mother and baby. Mother should assume a comfortable position while breastfeeding and she should provide a comfortable position to the baby and also to enjoy the breastfeeding and be successful in it.

Preparation of the mother:

-  Keep nails cut short to minimize the chance of infection
-  Wash both hands with soap and water and keep them dry.
-  Clean the breast with water during bath.

Preparation of the baby

- If there is discharge from the eyes or nose of the baby, remove it before feeding.
- If wet, change the napkin of the baby before feeding.

Position of mother and baby

- 🍁 Mother sits comfortable by supporting the back.
- 🍁 Hold the baby with both arms.
- 🍁 Place a pillow in the lap of the mother under the baby's body.
- 🍁 Look /talk to the baby for a few seconds before putting to breast.
- 🍁 Hold the baby's head slightly raised over body in a flexed position.
- 🍁 Support the baby with arms.
- 🍁 Make sure that the baby is facing the mother.
- 🍁 Keep the baby in such a way that baby's abdomen touches mother's abdomen.
- 🍁 Turn the baby's face towards the breast.

Feeding techniques

- ✓ Support the breasts with the free hand by placing three finger. (Middle, ring and little finger) beneath the breast.
- ✓ Hold the nipple between fore finger and middle finger.
- ✓ Tickle the baby's lips gently with nipple finger.
- ✓ Wait until the bay's mouth is wide open.
- ✓ Insert the nipple completely and also the majority of the areola into the mouth of the baby.

- ✓ Hold baby's mouth and chin a close to breast.
- ✓ Keep the nostrils free from obstruction.
- ✓ Keep the baby awake (by moving/touching the cheek/ patting the baby/ massaging the ear pinna).
- ✓ Start feeding from one breast and then put the baby to other breast.
- ✓ Feed the baby for about 15to20 minutes or till the baby is satisfied.

Remove the baby from the breast feeding by pressing the cheeks and depressing the lower jaw, so that the baby leaves the nipple spontaneously.

After care

- Burp the baby by holding the baby over the mother's shoulder.
- Pat on the back of the baby in an upward direction to remove the air during feeding. This will prevent vomiting.
- Place the baby in the bed or cradle in a side –lying position preferably right side or place the baby in supine position with head turned to one side.
- Wipe the baby's mouth with mother's wet finger.
- Clean the nipple after feeding with water.
- Dry the nipple with a clean cloth.

Positions used for breast feeding

- Sitting position –you can sit with back supported by a wall, chair or pillow.
- Side- lying position –you can lie down by turning to one side and keep a pillow under the head.

Four signs of good body position

1. Hold the baby's head, neck and body in a straight line.
2. Baby's face should be directly in front of mother's breast.
3. Hold the baby's body close to mother's body.
4. Support baby's whole body, not just the head.

Signs of good /correct attachment

- Baby's chin is close to the breast.
- Baby's mouth is wide open and the lower lip is turned outwards.
- More areola (brownish tissue) is visible above the baby's mouth than below it.
- No pain in the nipple during breastfeeding.

Physiology of lactation

A hormone called 'prolactin' is responsible for the secretion of breast milk. Sucking of the baby on the breast helps to increase the amount of prolactin by stimulating pituitary gland, and that's why frequent feeding is advised as it helps to increase the secretion of breast milk.

DIET OF LACTATING MOTHERS :-

In order to remain healthy and to have adequate amount of breast milk (quality /quantity) lactating mother should take an extra meal per day, which will provide more energy to them. Inadequate nutrition (not enough food) of the mother can cause poor milk production. mother's diet

should contain more protein, iron and calcium. From the day of delivery onwards she can take the normal food. Breastfeeding mothers need more calories in the food is important than quantity. More fluid intake by the mother will not increase the size of the belly of the mother or affect the baby with cold. They can include meat, fish, egg, milk products in their diet. If you are a vegetarian include more dhal in your food and soya bean, as you need more iron, taken vegetables, especially green leafy vegetables.

FEEDING PROBLEMS AND ITS MANAGEMENT

During breastfeeding there are some problems likely to occur specially due to poor positioning of the baby at breast. Most of the research studies and literature say that the major problems which the mothers find difficult to feed are engorgement of breast, soreness of nipple, retracted nipple and insufficient milk. These problems can be easily prevented by simple measures.

A) Engorgement of Breast

Engorgement of breasts affects the mother in the first two to three weeks after delivery. It usually occurs due to excessive collection of milk in the breast.

Causes

- Delay in starting breast feeds.
- Early removal of the baby from the breast while feeding.
- Incomplete feeding of breast milk

Prevention and management as follows

This problem can be prevented and managed as follows

- Feed the baby immediately after birth and feed frequently or on demand.
- If the baby does not intend to consume enough milk, to make the breasts soft, express the remaining milk after each feeding.
- Express the milk manually by hand or mechanically using a syringe or pump.
- Put a cloth soaked in warm/cold water on the breast to relieve pain. Do this several times a day.
- Continue to express as often as necessary to make the breasts comfortable until the engorgement stops.

B) Sore Nipple/Cracked Nipple

This is a condition in which there is a crack across the nipples or at the base of the nipple. There will be redness and pain while feeding.

Causes

- Baby 's sucking in an incorrect position
- Allowing the baby to suck for a long time in a wrong position.
- Sudden removal the baby from the breast while sucking.
- When the nipples are flat it is difficult for the baby to grasp the nipple properly.

Prevention and management

- Avoid soap for clean the breast
- Expose the nipple to open air as much as possible between feeds.
- Maintain correct feeding position. Do not continue too breast feeds the baby on sore nipple.
- Apply a drop of mother's milk after each feed on the nipple and the brownish part surrounding the nipple.

C) Retracted Nipple /Inverted Nipple

Retracted Nipple is the condition in which the nipple is drawn backward. This makes it difficult for the baby's mouth to have attachment to the breast.

Management

- Nipple should be manually stretched and rolled out several times a day.
- A plastic syringe is used to draw out the nipple before the baby is put to the breast.

D) Insufficient milk

Many mother complain that they do not have enough milk

Causes

- Lack of confidence
- Not breastfeeding frequently
- Hurried breastfeeding
- Night feeds stopped early
- Poor sucking position.

Management

- Do not stop breastfeeding
- Be confident that you can produce enough milk.
- Rest more and relax while feeding the baby.
- Eat well and drink plenty of fluids
- Feeding the baby more often is very important. Put the baby to the breast every one or two hours and at any time the baby seems hungry. It helps in greater production and free flow of milk.

Every year during the first week of August the Government celebrates breast feeding week to create awareness of breastfeeding among the public.

SUMMARY

To summarize the topic we have discussed about

1. Care of breasts during lactation.
2. Preparation and initiation of breast feeding.

3. Importance of colostrums.
4. Advantages of breast feeding both for the mother and the baby.
5. Indications and contraindications of breast feeding.
6. Interval, duration and signs of adequacy of technique of breast feeding.
7. Exclusive breast feeding, its benefits and technique of breast feeding.
8. Diet of lactating mothers.
9. Feeding problems and its management.

CONCLUSION

The knowledge about breast feeding, its techniques and problems will help you to apply this knowledge while feeding the baby. It will enable you to use right technique and reduce the feeding problems and continue the breast feeding till the breast milk is available. Exclusive breast feeding prevents disease and promotes “GOOD HEALTH”.

குடும்ப நலக்கல்வி

தாய்பாலூட்டுதல் முறை

- ❖ மூன்று விரல்களால் (நடுவிரல், மோதிர விரல் மற்றும் சுண்டு விரல்) மார்பகத்தின் அடிப்பகுதியை தாங்க வேண்டும்.
- ❖ நடுவிரலுக்கும் ஆள்காட்டி விரலுக்கும் நடுவில் மார்பகக்காம்பை பிடிக்க வேண்டும்.
- ❖ குழந்தையின் உதடுகளை மார்பகக்காம்பால் மெதுவாகத் தடவி உணர்வடையச் செய்ய வேண்டும்.
- ❖ குழந்தையின் வாய் நன்றாகத் திறக்கும் வரை காத்திருக்க வேண்டும்.
- ❖ மார்பகக் காம்பை குழந்தையின் வாயினுள் முற்றிலுமாக செலுத்த வேண்டும்.
- ❖ குழந்தையின் முகத்தை மார்பகத்திற்கு அருகில் வைக்க வேண்டும்.
- ❖ குழந்தையின் நாசி, மார்பகத் தசைகளால் அடையாதவாறு பார்த்துக் கொள்ள வேண்டும்.
- ❖ குழந்தை விழித்திருக்குமாறு செய்ய வேண்டும். (கன்னத்தை தடவுதல் / முதுகைத் தட்டுதல் / காது மடல்களை தடவுதல்)
- ❖ முதலில் ஒரு மார்பகத்தில் பாலூட்டியபின் அடுத்த மார்பகத்தில் பால் புகட்ட வேண்டும்.
- ❖ குழந்தை திருப்தியடையும் வரை அல்லது 15 முதல் 20 நிமிடங்கள் வரை பாலூட்டலாம்.
- ❖ பாலூட்டுதல் முடிந்தபிறகு குழந்தையின் கன்னத்தை இலேசாக அழுத்தி கீழ்த்தாடையை கீழே இழுப்பதால் குழந்தை மார்பகத்தை தானாக விட்டுவிடும்.

தாய் மற்றும் குழந்தையின் நிலை

மார்பகத்தோடு இணைக்குமுன் ஓரிரு வினாடிகள் குழந்தையின் முகத்தை பார்த்து பேச வேண்டும்.

தாய் மற்றும் குழந்தையின் நிலை

- தாய் வசதியாக நிமிர்ந்து உட்கார்தல்.
- கரங்களால் குழந்தையின் தோளோடு சேர்த்து அணைக்க வேண்டும்.
- குழந்தைக்கு அடியில் ஒரு தலையணையை வைக்க வேண்டும்.
- மார்பகத்தோடு இணைக்குமுன், ஓரிரு வினாடிகள் குழந்தையின் முகத்தை பார்த்து பேச வேண்டும்.
- குழந்தையின், உடம்பை விட, தலை சற்று மேலோங்கி இருக்குமாறு பிடித்துக் கொள்ள வேண்டும்.
- குழந்தையின் உடம்பை கரங்களால் தாங்கிக் கொள்ள வேண்டும்.
- குழந்தையின் உடல் முழுவதும், தாயை நோக்கி இருக்குமாறு பார்த்துக் கொள்ள வேண்டும்.
- தாயின் வயிற்றுப் பகுதியம் குழந்தையின் வயிற்றுப்பகுதியும் ஒன்றிணைந்து காணப்பட வேண்டும்.
- குழந்தையின் முகத்தை மார்பகத்துக்கு நேராகத் திருப்ப வேண்டும்.

குழந்தை, போதுமான அளவு பால் அருந்தியதற்கான அறிகுறிகள்

- தாய்ப்பாலூட்டியபின் குழந்தை, தானாக மார்பகக் காம்பை விட்டு விலகுதல்.
- நீண்ட நேரம் உறங்குதல்.
- கண்விழித்த பிறகு குழந்தை, சுறுசுறுப்புடனும், எச்சரிக்கை உணர்வுடனும் இருத்தல்.
- பிறந்த முதல் வாரத்திற்குப் பிறகு, சீராக எடை அதிகரிக்கும்
- குழந்தை ஒரு நாளைக்கு 6 முதல் 8 தடவை வரை சிறுநீர் கழிக்கும்.

தாய்ப்பாலூட்டுவதால் தாய்க்கு ஏற்படும் நன்மைகள்

- ✚ தாய்ப்பாலூட்டுதல், தாயின் கர்ப்பப்பை தனது பழைய நிலைக்கு திரும்ப உதவுகிறது.
- ✚ ஒரு குறிப்பிட்ட காலம் வரை, அடுத்து கர்ப்பந்தரித்தலைத் தடுக்கிறது.
- ✚ மார்பகப் புற்று நோயைத் தடுக்கிறது.
- ✚ தாய்ப்பால் என்பது, குழந்தைக்குத் தேவையான, இயற்கையான, மலிவான ஆகாரமாகும்.
- ✚ பிற வகையான பாலைத் தயாரிக்கும் நேரத்தையும் சக்தியையும் தாய்க்கு மிச்சப்படுத்துகிறது.
- ✚ தாய்ப்பால் எப்பொழுதும் எளிதாகக் கிடைக்கக் கூடியது.
- ✚ தாய்-சேய் பிணைப்பை மேலும் வலுப்படுத்துகிறது.

தாய்ப்பாலூட்டுவதால் குழந்தைக்கு ஏற்படும் நன்மைகள்

- தாய்ப்பால், கிருமிகளற்று சுத்தமாக இருப்பதால் வயிற்றுப்போக்கு மற்றும் நோய்பரவுதலைக் குறைக்கிறது.
- குழந்தையின் வளர்ச்சிக்கு உதவும் புரதம், கார்போஹைட்ரேட் மற்றும் கொழுப்பு ஆகியவைகளுடன் வைட்டமின்களையும், கனிமங்களையும் சேர்த்து வழங்குகிறது.
- தாய்ப்பால் ஆயத்தமாக, வெதுவெதுப்பாக, புதிதாகக் கிடைக்கக்கூடியது.
- தாய்ப்பாலூட்டுதல் அடிக்கடி நடைபெறுவதால் தாய்-சேய் உறவு மேலும் இணைக்கமடைகிறது.
- ✓ தாய்ப்பால் அருந்தும் குழந்தைகள் ஒவ்வாமையால் பாதிக்கப்படுவது அரிது.
- ✓ தாய்ப்பால் அருந்துதல், குழந்தைப்பருவ புற்றுநோயை அகற்றுகிறது.

குழந்தையை தயார்படுத்துதல்

- * குழந்தை நனைந்திருந்தால் துடைத்து சுத்தப்படுத்தி வேறு துணியை மாற்ற வேண்டும்.
- * கால நிலைக்கு ஏற்றவாறு, சுத்தமான துணியால் குழந்தையை பொதிந்து வைக்க வேண்டும்.
- * குழந்தை சவுகரியமாக இருப்பதை உறுதி செய்ய வேண்டும்.
- * சிறிது நேரம், குழந்தையை, அருகாமையில் கரங்களால் அணைத்து அன்பும், பாசமும் காட்டுதல், தாய்க்கும் குழந்தைக்கம் மனாீதியான நிறைவு ஏற்படுகிறது.
- * இப்போது குழந்தைக்கு தாய்ப்பாலூட்ட ஆரம்பிக்கலாம்.

புட்டிப்பால் கொடுக்கக்கூடாது



முடிவுரை

முதல் ஆறு மாத காலம் எல்லாத் தாய்மாரும் தங்கள் குழந்தைகளுக்கு தாய்ப்பால் கொடுக்க வேண்டும். புட்டிப்பால் கொடுக்கக்கூடாது. இதன் மூலம் குழந்தைகளை பல்வேறு தொற்றுநோய்களிலிருந்து பாதுகாக்கலாம்.