

**“EFFECTIVENESS OF VISUAL PACKAGE ON
BREASTFEEDING TECHNIQUE AMONG ANTENATAL
MOTHERS ADMITTED AT A SELECTED HOSPITAL,
VELLORE.”**

M.Sc.(NURSING),DEGREE EXAMINATION

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OBSTETRICS AND GYNAECOLOGICAL NURSING

ARUN COLLEGE OF NURSING

No.15, THIYAGARAJAPURAM-VELLORE-1



A dissertation submitted to

THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY,

CHENNAI-600032

In partial fulfilment of the requirement for the degree of

MASTER OF SCIENCE IN NURSING

APRIL-2016

CERTIFICATE

This is to certify that this dissertation titled, “Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted at a selected hospital , Vellore.” is a bonafide work done by Mrs. R..NITHIYA, Arun College of Nursing, No.15, Thiagarajapuram-Vellore-1,submitted to The Tamil Nadu Dr.M.G.R.Medical University, Chennai in partial fulfilment of the university rules and regulations towards the award of the degree of Master of Science in Nursing, Branch III, Obstetrics and Gynaecological Nursing under our guidance and supervision during the academic period from 2013-2015.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

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ABSTRACT

Breastfeeding is an art and a skill which needs to be learnt and mastered. Some young primiparous inexperienced mothers will need some help. Breast milk is accepted as the unique nutritive food provided by nature for the newborn. It is universally acknowledged as the best and complete food for infants including sick and preterm as it fulfils their specific nutritional needs. The purpose of this study was to determine the effectiveness of a visual package on breastfeeding technique among antenatal mothers admitted at selected hospital at Vellore. The study aimed at improving the knowledge of the mothers on breastfeeding technique.

OBJECTIVES

1. To assess the level of knowledge of antenatal mothers on breastfeeding technique as measured by structured knowledge questionnaire.
2. To evaluate the effectiveness of Visual Package on breastfeeding technique for antenatal women in terms of gain in post- test knowledge scores.
3. To find the association between pre-test knowledge scores on breastfeeding technique with the selected demographic variables.

METHOD

An evaluative approach with pre-experimental one group pre-test post-test design was used for the study. The sample consisted of 30 antenatal mothers who met the inclusion criteria & chosen by purposive sampling technique. The study was conducted at the antenatal ward of Government Pentland Hospital at Vellore .

Data was collected by using the structured knowledge interview schedule. On day 1, Pre-test was conducted using the structured knowledge interview schedule, on the same day the visual package was administered with the help of lecture cum discussion with use of LCD projector. On the third day, post-test was conducted using the same tool assess the knowledge of mothers on breastfeeding technique.

MAJOR FINDINGS OF THE STUDY

The data collected was analysed using descriptive and inferential statistics. Knowledge score gained through visual package was significant as evident from the calculated 't' value ($t_{29}=16.59$; $p < 0.00$) between the mean post-test (27) and the pre-test (16) knowledge score.

Chi-square was compared to test the association between pre-test knowledge score and the selected demographic variables such as age, religion, education, occupation of family income, source of knowledge and gravida. There is no significant association between the pre-test scores of antenatal mothers and the selected demographic variables at 0.05 (highly significant) level of significance.

The visual package was found to be an effective strategy for providing information and for improving the knowledge of antenatal mothers on breastfeeding technique. It was well accepted and appreciated by the mothers. This study helped the mothers for providing knowledge on breastfeeding technique by visual package during pregnancy. The result of the study showed great need for health personnel to educate the antenatal mothers regarding breastfeeding technique.

TABLE OF CONTENTS

CHAPTER NUMBER	TITLE	PAGE. NUMBER
I	INTRODUCTION	1-10
II	REVIEW OF LITERATURE	11-30
III	RESEARCH METHODOLOGY	31-38
IV	ANALYSIS AND INTERPRETATION	39-53
V	DISCUSSION	54-58
VI	SUMMARY, CONCLUSION, IMPLICATION & RECOMMENDATION	59-65
	BIBLIOGRAPHY	66-71
	APPENDICES	

LIST OF TABLES

TABLE NUMBER	TABLE	PAGE. NUMBER
1.	Frequency and percentage distribution of demographic variables of antenatal mothers	41-43
2	Pre-test knowledge level on breastfeeding technique among antenatal mothers	44
3	Area wise analysis of pre-test knowledge score of the antenatal mothers	45
4	Post-test knowledge level on breastfeeding technique among antenatal mothers	46
5	Area wise effectiveness of visual package with mean, SD, mean percentage and ' t' value of pre-test post-test knowledge score of antenatal mothers	47-48
6	Overall effectiveness of visual package with mean, SD, mean percentage and 't' value of Pre-test post-test knowledge score of antenatal mothers	49
7	Comparison of pre-test and post-test knowledge scores	50
8	Area wise pre-test and post-test knowledge of antenatal mothers regarding breastfeeding technique.	51
9	Association between the pre-test knowledge scores of antenatal mothers and selected demographic variables	52-53

LIST OF FIGURES

SERIAL NUMBER	FIGURE	PAGE. NUMBER
1.	Conceptual Frame work	10a
2	Pre-test Post-test Design	32
3	Schematic Representation of the Research Design	32a
4	Column diagram showing the distribution of subjects according to their age	44a
5	Pie diagram showing the distribution of subjects according to their religion.	44b
6	Cone diagram showing the distribution of subjects according to educational status	44c
7	Dough nut diagram showing the distribution of subjects according to occupation	44d
8.	Pyramid diagram showing the distribution of subjects according to income of family	44e
9	Pie diagram showing the distribution of subjects according to their knowledge.	46a
10	Cylindrical diagram showing the distribution of subjects according to their gravida.	48a
11	Ogive representing cumulative frequency percentage of pre-test and post-test knowledge score of antenatal mothers	51a
12	Pyramid diagram showing the distribution of mean percentage of pre - test and post-test score on BFHI among antenatal mothers.	53a

LIST OF APPENDICES

SERIAL NUMBER	TITLE
1.	Letter requesting and granting permission to conduct main study
2.	Letter requesting expert opinion to establish content validity of the research tool and visual package
3.	Content validation certificate
4.	Letter requesting consent of the subjects for participation in the study (English)
5.	Structured interview schedule on breastfeeding technique (English)
6.	Structured interview schedule on breastfeeding technique (Tamil)
7.	Answer key
8.	Visual package (English)
9.	Visual package (Tamil)

CHAPTER –I

INTRODUCTION

Breastfeeding “is a gift that can only be given by giving oneself”

Botter J., 1990

Breastfeeding is defined as the process of feeding an infant or young child with milk from mother breasts. Babies have a suckling urge that enables them to take- in the milk, provided there is a good latch, a normal fraenum, and milk supply.¹

Children who are breastfed have better neurodevelopment outcomes, and the duration of breastfeeding also affects a child’s intelligence.² The natural immunizing factors are found in breast milk which gives body necessary fire power to fight against deadly diseases like diarrhoea, respiratory problems and allergies.³

The position of the baby during feeding must also be correct. The mother should hold the baby close enough to her body for its chin to touch her breast all the time. If the baby is not close enough to the breast, it may have to suck too hard on the nipple in order to keep in its mouth. The excess suction can damage the sensitive nipple skin. A baby must be held close enough to the breast to keep the nipple and areola in place inside its mouth without much effort. The mother has to make sure that the baby’s breathing is not obstructed in any way. The milk production increases in response to the increased sucking and again becomes satisfactory. Soreness may occur when a baby sucks in a bad position thereby it does not get enough milk and it is not satisfied, so it continues to suck. Some babies take longer to finish. But very short feeds of 1-2 minutes may leave the breast engorged, and the baby unsatisfied.

Breastfeeding is to be continued as long as the baby desires to suck by this the baby gets both foremilk and hind milk which is more nutritious. Mother should relaxed and comfortable during breastfeeding. Sitting position is to be preferred. Good latching helps baby to suck more milk easily. When nursing, the mother must hold the baby enough for its chin to touch the breast so that the nipple and areola can both go completely inside its mouth. But frequent short nursing promotes speedy healing. It would seem logical to suppose that letting the nipples 'rest' for as many hours as possible would have a healing effect. The mother should sit or lie in a comfortable position and that she can remain undisturbed. She must nurse the baby often to increase the sucking stimulus, she must regain her confidence. She herself has sufficient food, rest and sympathy. If she can manage to take a more relaxed attitude the chances are that the process will become much easier of its own accord.

Sucking difficulties may also result if child is not getting enough milk .This is usually because the reflex which is essential to enable the milk, out of the breasts is temporarily inhibited. This is the ejection reflex, it does not merely release the milk but causes muscular contraction in the breast which forces the milk out. Faulty feeding technique occurs because the infant who is used to sucking from a bottle may have difficulty sucking from a breast .The sucking techniques employed are quite different.

The bottle receiving with mouth technique consists of rounding the lips, expecting the food to come from straight in front and holding the tongue high and close to the plate. It is as if the baby was guarding against having something thrust too far into wide mouth, whereas the baby taking the breast needs to use a small in drawing action to pull the nipple into a widely opened bottle. Once the baby's technique has been adjusted to taking a bottle, it becomes harder to get him to take the breast .

The child should be offered the opportunity to suck even though it may not seem interested and it can be persuaded to suck for a few minutes at a time. This is very valuable and should be repeated 6-8 times daily.⁴

Breastfeeding has many advantages for both mothers and infants. Several factors related to the mother and the baby, however, have a negative effect on the initiation of breastfeeding. Mode of delivery is one of these factors. When delivery takes place by caesarean section, the mother becomes a surgical patient with all the inherent risks and problems. Caesarean delivery under general anaesthesia rates are currently rising in our country, but the effects of this factor on the initiation and duration of breastfeeding are unclear.⁵

For assessing the effectiveness of the breastfeeding session, it is suggested that “a baby may not look technically perfect, but if the sucking is strong and regular and the mother is pain free, chances are that the positioning is right for that mother and baby”.⁶

NEED FOR THE STUDY

A number of different factors could be contributing to this situation, one of which is an inadequate breastfeeding technique. The knowledge on correct positioning of the mother/baby pair and effective latch on and suction encourage exclusive breastfeeding. Guidance on correct breastfeeding technique in the maternity ward can reduce the incidence of women reporting low milk production.

Furthermore, incorrect attachment of the baby to the breast can cause nipple injuries, causing pain and discomfort to the mother, which can compromise breastfeeding continuation if not duly corrected.⁷

A descriptive study by was done in Karnataka on breastfeeding practices and newborn care in rural areas. The study emphasized the need for breastfeeding intervention programs especially for the mother during antenatal and postnatal check-ups and practices like discarding the colostrum and early/late weaning are still widely prevalent and need to be addressed.⁸

An observational, descriptive, cross sectional study was done by Goyal, et al., in Libya. A sample of 192 mothers participated, using WHO B-R-E-A-S-T-Feed observation form. Study result revealed that, there was poorer positioning technique among primipara (24.0%) than multipara (8.9 – 12.5%). Poor attachment was also more evident among primipara (30.0%) compared to multipara (20.9%) mothers. Parity was significantly associated with poor position and attachment. The study concluded that young and primipara mothers were more in need of support and guidance for appropriate breastfeeding techniques.⁹

If a breast is engorged the nipple may be stretched flat and not easily protractile, the baby only chews at the tip of the nipple and cannot get it far enough into the mouth to suck properly. As a result, the baby fails to extract milk and also harms the nipple. If breast have too big nipples it can easily be corrected by holding the infant a little away from the infant. A mother's nipple can become sore at any time during lactation but it is more common in the early weeks. When the nipple is flat it is difficult for the baby to grasp the nipple properly. It affects the ejection reflex.³

Another finding that merits emphasis is the elevated incidence of nipple damage, with approximately half of recently delivered mothers exhibiting some type of nipple injury. Ultrasound studies have shown that when babies latch correctly the nipple is positioned to the posterior region of the palate and is protected from friction and compression which prevents nipple trauma. A number of different studies confirm that improved breastfeeding technique results in reduced pain and nipple damage.⁷

A cross-sectional descriptive study was conducted in Manisa, Turkey, among antenatal mothers to determine breastfeeding knowledge and practices. A sample of 158 women in early postpartum period participated using a face to face questionnaire. The study result revealed that, 10.8% of women were not aware that they should offer colostrum to their babies, only 43.7% knew that they should breastfeed their baby for 2 years together with additional food, although 55.1% of women did not know how to hold their breast during the feeding. Hence, it was found that there is a

need to provide regular education on breastfeeding to the mothers particularly during pregnancy and early postpartum period.¹⁰

Effective breastfeeding technique involves the correct positioning of the infant at the breast to stimulate the oral searching reflex of the baby. With correct positioning and for successful breastfeeding the baby is encouraged to open the mouth wide and thrust the tongue forward to take the breast and then with the tongue under the areola, to express milk from the breast by slow deep sucks.⁵

A study was conducted in a rural health and training centre, Chandigarh, India. The sample consisted of mothers with children aged <2 years and those breastfeeding their babies at the time of the study. The data collection instrument was designed using standard Integrated Management of Childhood Illness (IMNCI) breastfeeding guidelines. The first part of the proforma dealt with general socio-demographic information about the mother. The second part of the proforma was used to record observations pertaining to the position of baby and its attachment with mother while breastfeeding. After recording the pre-intervention observations related to position and attachment of the baby while breastfeeding, a demonstration of correct breastfeeding practice was made to mothers. Post intervention observations were done after a gap of 10-15 days using the same proforma. The result showed that a significant number of mothers (82.8%) were keeping the baby close to them, and another significant observation (89.7%) was that the baby's neck was found deep and well in the post-intervention period. Mothers have shown significant improvement in breastfeeding time per session. The number of mothers adopting correct position and attachment increased in the post-intervention period. 40% of the mothers had shown correct position following intervention as compared to 27% mothers with babies under 6 months and had shown improvement following intervention as compared to 18% mothers with babies over 6 months. The study concluded that recommending breastfeeding guidelines are a useful tool for effective breastfeeding.¹¹

Most of the mothers adopt incorrect position and attachment while breastfeeding that leads to many breastfeeding problems. Taking this problem into consideration the investigator decided to do a research study among antenatal mothers on breastfeeding technique.

STATEMENT OF THE PROBLEM

“Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted at selected hospital, Vellore.”

OBJECTIVES

- 1.To assess the level of knowledge of antenatal mothers on breastfeeding technique as measured by structured knowledge questionnaire.
- 2.To evaluate the effectiveness of Visual Package on breastfeeding technique for antenatal women in terms of gain in post- test knowledge scores.
- 3.To find the association between pre-test knowledge scores on breastfeeding technique with the selected demographic variables.

HYPOTHESES

H₁: The mean post- test knowledge score of antenatal mothers will be significantly higher than their mean pre-test knowledge scores on breastfeeding technique.

H₂: There will be a significant association between the levels of knowledge score with selected demographic variables.

OPERATIONAL DEFINITIONS

Effectiveness

In this study, effectiveness refers to the extent to which the visual package has achieved the desired effect and measured in terms of gain in post test knowledge scores of antenatal mothers.

Visual package on breastfeeding technique

In this study, it refers to systematically formulated and organised pictures and structured written scripts displayed in the form of power point slides on breastfeeding Technique.

Breastfeeding Technique

In this study, it refers to the method of holding/positioning the baby, latch- on and practices related to Breastfeeding.

Antenatal mothers

In this study antenatal mother refers to primigravida and multigravida mothers admitted for safe confinement in a selected hospital.

ASSUMPTION

The visual package will enhance the knowledge among antenatal mothers regarding breastfeeding technique.

DELIMITATIONS

The study was delimited to antenatal mothers in the antenatal period admitted for safe confinement in a selected hospital at Vellore.

CONCEPTUAL FRAMEWORK

Conceptual framework refers to interrelated concepts or abstractions that are assembled together in some rational scheme by virtue of their relevance to a common theme; they serve as a spring board for the generation of hypotheses to be tested.¹³

The present study aimed at determining the effectiveness of a visual package on breastfeeding technique among antenatal mothers admitted to the selected hospitals at Vellore. The conceptual framework of the present study was developed by the investigator based on Imogene King's Goal Attainment Model.

This model focuses on the interpersonal relationship between the client and the nurse, in which interaction takes place between the nurse and the client and is influenced by the perception of both the nurse and the client. This interaction leads to mutual goal settings that are to be achieved by the client. In the present study, the interaction takes place between the investigator and the antenatal mothers.

PERCEPTION

Perception is a process of organising, interpreting, and transforming information from sense, data, and memory.¹⁴

In the present study, the investigator and antenatal mother perceive the need to gain knowledge regarding breastfeeding technique during pregnancy. Both the investigator and the antenatal mothers set the goal to improve knowledge of antenatal mothers on breastfeeding technique during pregnancy.

JUDGEMENT

Judgement is to take mental action or decide to act. Based on the perception, judgement was made. The investigator planned to administer a visual package in order to improve the knowledge of the antenatal mothers on breastfeeding technique.

ACTION

A sequence of behaviour involving mental and physical action.¹⁴

In this study, during the action phase, the investigator prepared the structured interview schedule to assess the knowledge, and prepared the visual package on breastfeeding technique during

pregnancy. The antenatal mothers were motivated to gain knowledge regarding breastfeeding technique during pregnancy and were interested to improve their ability on breastfeeding technique during pregnancy.

INTERACTION

It is the process of perception and communication between person and environment, between person and person, represented by verbal and nonverbal behaviours that are goal directed. In this study, during the interaction, the investigator administered a structured interview schedule and visual package during pregnancy. The antenatal mothers responded to structured interview schedule and participated in the visual package on breastfeeding technique during pregnancy. As a result of this, the antenatal mothers and the investigator entered into the transaction phase.

TRANSACTION

A process of interaction in which human beings communicate with the environment to achieve the goals those are valued¹⁴. When transaction occurs between the nurse and the client, goals are attained. In the present study, the antenatal mothers gained knowledge on breastfeeding technique.

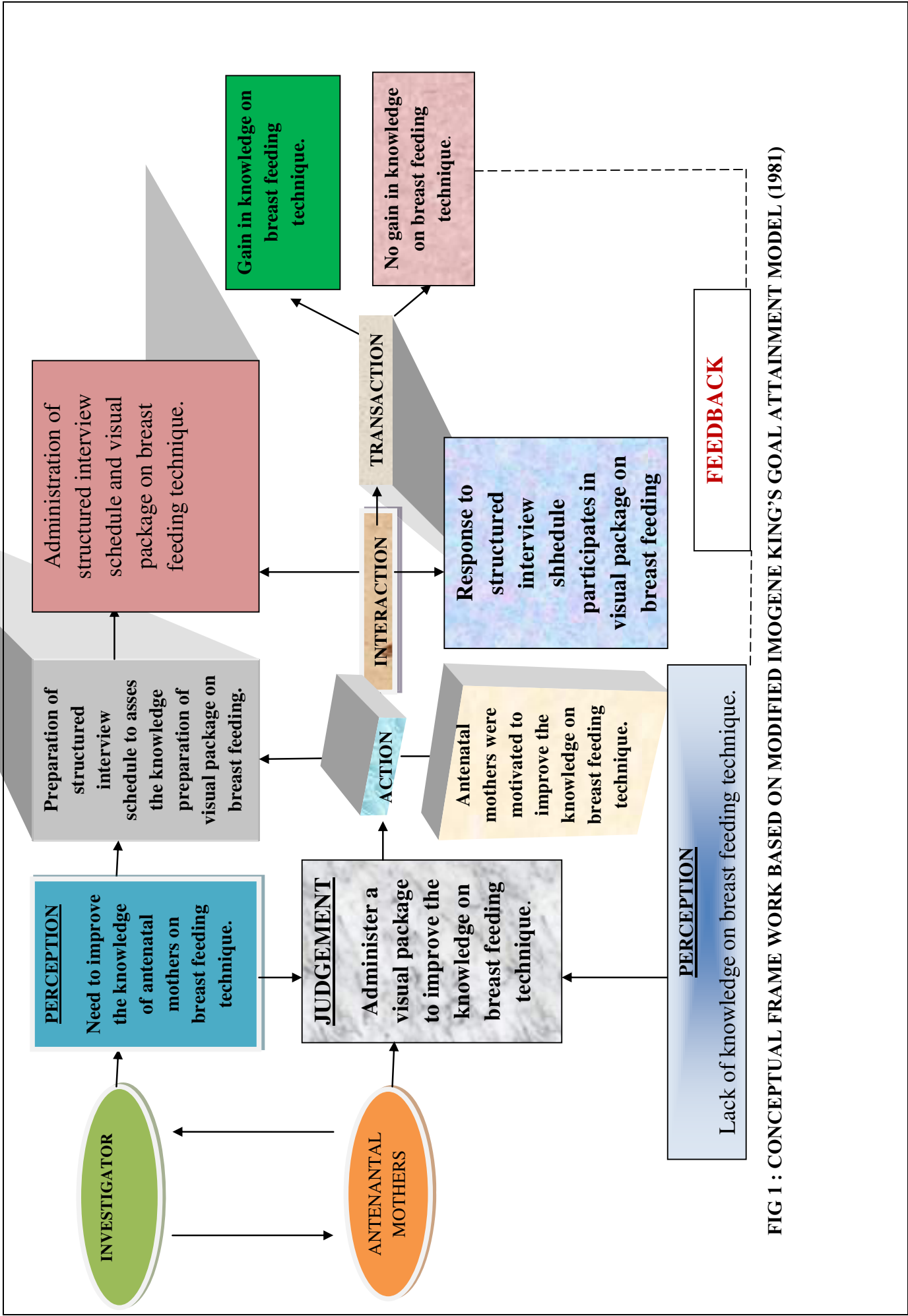


FIG 1 : CONCEPTUAL FRAME WORK BASED ON MODIFIED IMOGENE KING'S GOAL ATTAINMENT MODEL (1981)

CHAPTER -II

REVIEW OF LITERATURE

Literature review refers to the activities involved in identifying and searching for information on a topic and developing a comprehensive picture of the state of knowledge on that topic. Review of literature for the present study was organised and presented under three sections:

Section I: Literature related to non-research material.

Section II: Literature related to research material.

a. Studies related to concept of breastfeeding

b. Studies related to benefits and technique of breastfeeding

Section III: Literature related to effectiveness of visual package.

SECTION I: LITERATURE RELATED TO NON- RESEARCH MATERIAL.

Concept of breast feeding :

Towards the end of pregnancy the alveolar cells secrete a yellow fluid called colostrum. It consists partly of fluid secretions and partly of whole and fragmented alveolar cells and some white blood cells. These cells produce antibodies which help to protect both the breast itself and the intestine of the baby against infection. Human milk varies in its composition with the time of the day, with the stage of lactation, in response to maternal nutrition and because of individual variations. Foremilk is the milk which differs from hind milk, towards the end of the feed.

It contains less than the amount of protein contained in the cow's milk. More lactose than any other milk, fat provides 50% of the baby calorific requirement.³

Breastfeeding is defined as the process of feeding. *Exclusive* breastfeeding for 6 months and breastfeeding with complementary foods for at least 12 months are the ideal feeding pattern for infants. Increase in initiation and duration are needed to realize the health, nutritional, immunological, Psychological, economical, and environmental benefits of breastfeeding. Breastfeeding initiation rates have increased, but cultural barriers to breastfeeding, especially against breastfeeding for 6 months and longer, still exist.

Breastfeeding **exclusively** is recommended for a baby's first six months of life, followed by continued breastfeeding along with food until a baby is at least 12 months old. After 12 months, breastfeeding can continue as long as both mother and baby want to do it. It should be initiated immediately soon after birth, It also increases the duration of breastfeeding, while the baby suckles at breast, it stimulates milk production. Along with being a natural and beneficial source of nutrition that provides the healthiest start in life for an infant, breastfeeding also **promotes bonding** (skin to skin touch) between mother and child.¹⁶

Feeding on demand simply means feeding your baby whenever he signals that he's hungry - usually by crying or sucking on his hands - rather than according to a set schedule. The terms **"on cue" or "ad lib"** are a better way to describe feeding according to **your baby's needs than "demand" feeding**. If your baby's hunger cues are slight or nonexistent, be sure to wake him at least every three hours and encourage him to nurse. A newborn who regularly sleeps longer than three to four hours needs close monitoring to make sure he gains enough weight.¹⁷

NON-RESEARCH STUDY RELATED TO BENEFITS OF BREASTFEEDING:

Best for Baby:

Research shows that breastfed infants have fewer and shorter episodes of illness. Colostrum (the first milk) is a gentle, natural laxative that helps clear baby's intestine, decreasing the chance for jaundice to occur.

- The skin-to-skin contact encouraged by breastfeeding offers babies greater emotional security and enhances bonding.
- The activity of sucking at the breast enhances development of baby's oral muscles, facial bones, and aids in optimal dental development.
- Breastfeeding appears to reduce the risk of obesity and hypertension.
- Breastfeeding delays the onset of hereditary allergic disease, and lowers the risk of developing allergic disease.
- Breastfeeding helps the baby's immune system mature, protecting the baby in the meantime from viral, bacteria, and parasitic infections.
- Breastfeeding increases the effectiveness of immunizations, increasing the protection against polio, tetanus, and diphtheria vaccines.
- Breastfeeding protects against developing chronic diseases such as: celiac disease, inflammatory bowel disease, asthma, and childhood cancers. The benefits of breastfeeding appear to last even after the baby has been weaned.

Best for Mother

Breast milk is always fresh, perfectly clean, just the right temperature, and is the healthy choice at the least cost! Increased levels of oxytocin stimulate postpartum uterine contractions, minimizing blood loss and encouraging rapid uterine toning. From 3 months to 12 months postpartum, breastfeeding increases the rate of weight loss in most nursing mothers. Breastfeeding offers some protection against the early return of fertility. Because breastfed babies are healthier, their mothers miss less work and spend less time and money on paediatric care. Breastfeeding women report psychological benefits such as increased self-confidence and a stronger sense of connection with their babies.¹⁸

NON-RESEARCH STUDY RELATED TO BREASTFEEDING TECHNIQUE

The attributes of effective breastfeeding are positioning, latch, sucking, and milk transfer. Positioning refers to the relative physical placement of mother and infant for the purposes of breastfeeding used the term “alignment” instead of positioning, that good positioning is “the subtle interaction of mother’s and baby’s body positions and the baby’s mouth-to-breast position, correct positioning as “any of the positions that are comfortable for the baby and mother and do not interfere with the baby’s being able to draw adequate breast tissue into the mouth, remove the milk effectively, swallow and breathe freely”

Several authors have suggested that good positioning at the breast is crucial for successful breastfeeding. Good positioning prevents common breastfeeding problems, including sore nipples and ineffective feeding. With positioning may be the only assistance that mothers require for successful breastfeeding. Good positioning promotes a good latch by reducing traction on the mother’s nipples and helping keep the nipple and areola in the infant’s mouth. Poor positioning may result in nipple pain and trauma, an inhibited let down of milk, low supply, breast engorgement, and ineffective feedings.

Latch was the most frequently described characteristic associated with effective breastfeeding, also referred to as “areolar grasp” “attachment”. **“Latch** “describes the placement

of the infant 's mouth, gums, tongue, and lips in relation to the maternal nipple, areola, and breast, forming a seal between the infant 's mouth and breast to provide adequate suction during sucking .A good latch is a pre-requisite to adequate sucking and effective breastfeeding .

Optimal attachment as “the mother and her new baby being positioned in a way that allows her to facilitate her baby’s reflexes and help him or her draw in an adequate mouthful of breast tissue .”

As with poor positioning, an inadequate latch will prevent effective sucking and sufficient milk removal .Sore, abraded nipples may develop if the infant latches only to the nipple, without the tongue over the lower gum and gums placed over the lactiferous sinuses.

Effective sucking behaviour is a pre-requisite for effective oral feeding as well as a measure of behavioural organisation. Sucking has been described as the raising of the infant’s jaw, compressing the lactiferous sinuses between the upper gum and the tongue, which covers the lower gum, followed by an anterior to posterior peristaltic wave of the tongue that sweeps milk toward the end of the nipple.

Several authors suggest that the term stripping more accurately describes this action refer to it as “areolar compression” Sucking may be described as nutritive and non-nutritive depending on the rate of sucking and the presence or absence of fluid .Non-nutritive sucking, characterized by short, fast bursts of jaw movement, occurs at the start of a breastfeeding and facilitates the letdown reflex. Nutritive sucking, characterized by a slower, stronger sucking and accompanied by swallowing, occurs in response to milk flow .Both types of sucking occur during breastfeeding ,though the nutritive sucking pattern implies that milk transfer is occurring Weak, dysfunctional, or uncoordinated sucking, resulting from sleepiness, prematurity, illness, neuromotor dysfunction or anatomical variations ,may also result in inadequate milk flow.

Finally, milk transfer occurs when breast milk is passed from the mother's nipple to the infant's mouth and swallowed by the infant. Milk transfer is the cumulative result of the process of breastfeeding, which includes positioning, attachment, and suckling. However, adequate milk transfer is also contingent upon the letdown reflex occurring and the mother having adequate glandular tissue and hormonal function for milk production to occur.

The mother brings the infant's flexed body to face hers, his head cradled in the bend of her arm at the height of her nipple. With a hand lifting her breast, she brushes her nipple against his lips, waiting for him to respond with a wide open mouth. As his mouth gapes open, she moves the baby's head closer to her breast and he latches to her areola, cupping the breast and nipple with his tongue.

His lips are flanged outward and his mouth remains wide as his tongue moves rhythmically to compress the breast against the roof of his mouth. His sucking begins with a rapid tempo, quick bursts followed by brief pauses. Then, his sucking slows and the bursts are followed by swallows. A breastfeeding infant requires supplementary feeding at the breast due to inadequate weight gain and provides an example of a borderline case. The infant may be positioned appropriately to obtain a latch, the latch may be optimal, and the infant may exhibit strong, co-ordinated sucking behaviour. However, if the mother has a history of breast surgery or trauma resulting in insufficient mammary tissue, there may be little or no breast milk available to the infant, preventing sufficient breast-milk transfer. Thus an infant requiring supplementary feeding for these reasons is not exhibiting effective breastfeeding because the milk transfer is lacking or insufficient.

The concept of effective bottle-feeding is similar to the concept of effective breastfeeding. The mother must position the infant to facilitate feeding, the infant needs to latch on to the bottle nipple and exhibit sucking behaviour, and there needs to be a transfer of milk to the infant. However, the infant's method of latching, the mechanics of sucking, and the source of the

milk are significantly different from breastfeeding, and therefore bottle-feeding effectiveness would be a related case.⁶

SECTION II: LITERATURE RELATED TO RESEARCH MATERIAL.

A. STUDIES RELATED TO CONCEPT OF BREASTFEEDING

A community based study was done to assess the breastfeeding knowledge and practices among mothers regarding usefulness of breastfeeding and factors influencing breastfeeding practices in rural populations of North India. A sample of 77 mothers of infants 0-6 months were interviewed using a pre-tested semi structured questionnaire. Result revealed that, out of 77 mothers 30% and 10% exclusively breastfed their infants till 4 and 6 months of age respectively. There was 'good attachment' in 42% mother -infant pairs and 60% mothers held the infants in 'correct position'. 39% of the mothers had 'satisfactory' breastfeeding knowledge. The study concluded that, exclusive breastfeeding practices/full breastfeeding practices and breastfeeding knowledge were suboptimal among the rural North Indian mothers.¹⁹

A community based analytical cross-sectional study was conducted on breastfeeding knowledge and practices among rural women of Punjab, India. A sample of 1000 women participated in the study. Data was collected by using structured questionnaire. Result revealed that 225 (23.8%) started breastfeeding their babies on the first day of birth, but in terms of early breastfeeding only 128 (13.5%) respondents put their babies on the breast within 4 hours of birth., Of the 100 respondents, 356 (35.6%) of the respondents were unaware of the importance of colostrum. 733 (77.6%) were not given advice on benefits of breastfeeding /weaning and 306 (33.5%) of respondents had not increased their diet during lactation. The study concluded that, knowledge and practices were suboptimal among mothers, efforts like one - to - one "breastfeeding counselling and health education on nutrition" to the mothers by health workers should be promoted.²⁰

A randomized control study was conducted on Knowledge Sharing Practice with Empowerment Strategies (KSPES) in pregnant women to improve exclusive breastfeeding during the first six months postpartum was conducted in Thailand. A sample of pregnant

women of more than 32 weeks' gestation were randomly assigned to receive a routine standard knowledge of breastfeeding techniques alone (control group) or with KSPES on antenatal education and postnatal support strategies (study group). Result revealed that the rates of exclusive breastfeeding in the study group were significantly higher when compared with those in the control group at 14 days (82.5% vs. 52.6%, $p = 0.005$), 1 month (77.5% vs. 52.6%, $p = 0.021$), 2 months (62.5% vs. 36.8%, $p = 0.023$), 4 months (35.0% vs. 7.9%, $p = 0.008$), 5 month (25.0% vs. 2.6%, $p = 0.012$), and 6 months postpartum (20.0% vs. 0%, $p = 0.005$). The study concluded that, the KSPES on antenatal education and postnatal support strategies significantly improve rates of exclusive breastfeeding at 6 month postpartum.²

A study was done at determining the breastfeeding indicators, examining the effect of some demographics and socio-economic factors on breastfeeding duration and at identifying the most important reasons that led mothers to stop breastfeeding and wean their children before two years in Wad-Medani town, Gezira state. A sample of 166 mothers were included for the study. Primary data was collected through structured questionnaire. Descriptive as well as inferential statistics techniques were utilized. The results revealed that the majority of the mothers 64.4% breastfed exclusively for full four months. 54.2% of them initiated breastfeeding after one hour from delivery. It was clear that the main reason that led the mothers to wean their infants was pregnancy 54.1%. Further the results suggested a significant association between breastfeeding duration and some variables such as age of the mother, mother's occupation, pregnancy and family income.¹

A study was done at Kumsi to assess the prevalence of breastfeeding among the women and average duration of breastfeeding. A sample of 200 mothers of infants 0-2 years were interviewed. The samples were selected randomly. A questionnaire was prepared to obtain

the necessary information by face-to-face interview. The result showed that 38.0% of mothers admitted to giving water to their babies soon after birth implying most mothers do not know what weaning actually meant. The most common weaning food used was koko and wean mix. Besides, most common reason for early weaning were fear of adequate milk supply (56.0%) followed by breast and nipple soreness. Most mothers were found to know the importance of breast milk as being nutritious (100%), healthier for children (97%), protecting their children from diseases (80.0%), promoting bonding between mother and child (99%) and being cheaper than buying supplements (81.0). 38.0% of mothers disagreed to the contraceptives benefits of breastfeeding. The study suggests that, mothers should be taught regarding duration of breastfeeding.²²

A descriptive study was done to assess knowledge, attitude and practice of breastfeeding among postnatal mothers and factors that determine them at Neonatal Division, Department of Paediatrics at a tertiary care hospital in South India .The data was collected from 100 postnatal mothers by trained interviewers using a structured proforma. In addition to demographic data, mothers were also asked about their knowledge on and attitude towards breastfeeding and the practices they follow. Scoring of the responses to questions was done and the data was analyzed using statistical package for social sciences.

Results revealed that the knowledge of the mothers was inadequate in areas of time of initiation of breastfeeding (92%), colostrum feeding (56%), duration of exclusive breastfeeding (38%), knowledge on expressed breast milk (51%) and continuation of breastfeeding while baby is sick. Better scores co-related significantly with higher maternal age, better maternal education, higher socio- economic status and having received antenatal care from tertiary care centres and private practitioners. The study suggested that, there is still a need for programmes, which support and encourage breast-feeding

particularly at a primary care level, focusing more on younger, less well-educated women and those from lower socio-economic class.²³

A cross-sectional study was conducted in Missouri among postpartum women to examine the factors i.e. demographic, clinical, and attitudinal that affects anticipated infant feeding practices from a low-income, urban family practice setting. A sample of 66 respondents were included for the study. Only 3 subjects (4.5%) indicated that they planned to breastfeed exclusively. While an additional 11 subjects (16.7%) reported to use bottle feeding and breastfeeding. Result revealed that as per univariate analysis women with less than 12 years of education were less likely to report anticipated breastfeeding and plan to bottle feed as breastfeeding is too complicated. The study concluded that there is a unique data about anticipated infant feeding practices among rural, low-income community and planned to develop family centred educational intervention involving mothers, grandmothers and partners of pregnant patients to promote the benefits of breastfeeding in the community.²⁴

A descriptive survey approach was conducted at Bangalore among mothers of under fives in urban slums to assess the knowledge, attitude and practice of breastfeeding. A sample of 50 mothers of children below the age of 6 months by use of purposive sampling technique were selected for the study. Self prepared structured interview schedule was prepared and administered. Result showed that the majority (76.7%) of the mothers had adequate knowledge in the area of breastfeeding. 60% of the mothers had the adequate knowledge in the area of colostrum. 52% of the mothers had positive knowledge in the area of essentials of breastfeeding. 37.7% of the mothers had positive knowledge in the area of initiation of breastfeeding. 80.6% of the mothers had positive attitude in the area of initiation of breastfeeding and 64.46% in the areas of essentials of breastfeeding. 74% in the areas of colostrum, 75.6% regarding importance of breastfeeding. 44% had adequate practice about initiation of breastfeeding. 58% of the mothers had adequate practice about essentials

of breastfeeding and 56% of the mothers gave colostrums. The study recommended mothers education on initiation of pre-lacteal feed and initiation of breastfeeding, colostrums, essentials of breastfeeding, burping, position, hygiene and importance of breastfeeding during illness, exclusive and benefits of breastfeeding.⁸

A non-experimental design and descriptive survey approach was conducted to assess the infant feeding attitude among the antenatal women at Belgaum, Karnataka. A sample of 218 pregnant mothers were selected by use of convenient non-probability sampling .The result showed that, almost all respondents (96.8%) intended to breastfeed their newborns. 74.8% were knowledgeable about breast feeding,i.e colostrum and breast milk was the best food, good for resistance against disease, allergy, filling up stomach easily, helpful in teeth development, and maternal recovery after birth, increased bonding, was easy and economical,

The two main conceptions were mothers would stop breastfeeding when infant or mothers were sick, giving clear fluid to the exclusively breastfeed infants to prevent dehydration. The study concluded that, counselling should be conducted for the antenatal mothers for making them aware about the care during the postnatal period, including self care and neonatal care, especially new technology and awareness about health care.²⁵

A descriptive study was conducted on knowledge and practice of colostrum feeding among postnatal mothers regarding colostrums feeding at Mangalore with 50 postnatal mothers in the age group of 19-36 years. Purposive sampling technique was used. Data was collected by administration of knowledge questionnaire and observation checklist .The analysis found that overall knowledge score were 68.38% and 76.5%. Colostrum as the first feed was discarded by 20% of mothers .The study revealed that, more than half of the mothers had good knowledge regarding colostrums feeding whereas 20% discard colostrums before feeding the baby. Hence, it is concluded that although colostrums feeding knowledge has probably

increased, further improvement of knowledge on colostrums feeding and promotion of colostrums feeding initiation still is needed.²⁶

A community based study was done to assess the prevailing breastfeeding and infant feeding practices in the rural areas of central Karnataka .The sample consisted of 1050 infants from 0-24 months of age. Stratified sampling method was used. Results revealed that the timely first suckling rate was 0.3%. All the infants received pre-lacteal feeds. Colostrum was rejected by 29% of mothers.

Delayed initiation of breastfeeding was common; 35% of babies were not breast-fed even at 48 h of birth. Exclusive breastfeeding was noted in 94% at 1 month, 83.5% at 2 months, 72.5% at 3 months, 61.2% at 4 months, 43.4% at 5 months and 26.8% at 6 months of age. Timely complementary feeding rate was 57.3% among infants from 6 to 10 months of age. Continued breastfeeding rate was 99.7% at 1 year and 87.2% at 2 years. The bottle feeding rate was 49.4% among infants below 1 year of age. The breast-fed rate was 97.0% and the median duration of breastfeeding was beyond 24 months. The study concluded that, bottle feeding is quite prevalent even in rural areas and the infant feeding practices are far from satisfactory.²⁷

B. STUDIES RELATED TO BENEFITS AND TECHNIQUES OF BREASTFEEDING

A comparative study was done in UK to assess the optimal positions for the release of Primitive Neonatal Reflexes (PNR) stimulating breastfeeding .A sample of 40 breastfed healthy term mother /baby pairs were recruited by using quota sampling. Feeding sessions were videotaped in the first postnatal month, either in hospital or home. Study revealed that, 20 PNRs were validated and classified into 4 types (endogenous, motor, rhythmic and anti-gravity) and 2 functional clusters (finding /latching,milk transfer) either stimulating or hindering feeding. Significantly more PNRs were observed a stimulants in semi-reclined postures than when mothers were upright / side-lying .Finding suggests that, breastfeeding initial is

innate for both mother and baby ,not learned, thus challenging the routine skills –teaching currently central to breastfeeding support.²⁸

An experimental study was done in Denmark to assess the effective breastfeeding technique and pacifier use related to breastfeeding problems and breastfeeding duration. A sample of 570 mothers with their babies was included in the study. Data was obtained by using self reported questionnaire. Results revealed that one-half of the mothers showed the ineffective breastfeeding technique at the first observation. Study revealed that, most frequently ineffective position (61%) and latch (52%) in the unadjusted analysis, only sucking and milk transfer were associated with breastfeeding duration .The study concluded that, observation of breastfeeding technique may help mothers in the stage when they are establishing breastfeeding to avoid early and later problems. Use of pacifier should be avoided in the first weeks after birth.²⁹

A cross –sectional study was conducted in Brazil to assess breastfeeding during the first month of life: determinants and effects on breastfeeding technique. A sample of 211 pairs of healthy mothers and infants were followed up for a month. The effect of bottle feeding on breastfeeding technique was assessed by comparing five items unfavorable to mother –infant positioning and three items unfavorable to infant latch- on, and the average number of unfavorable items between the pairs who started bottle feeding in the first month of life and those who did not. A logistic regression analysis was carried out. Results revealed that by day 7, 21.3% of infants were bottle-fed and 46.9% were bottle-fed by day 30. Maternal age < 20 years, and nipple trauma at the maternity hospital were also associated with bottle feeding at Day 7. Other factors associated with bottle feeding at Day 3 were pacifier use, technique taught at the maternity hospital and subsequent bottle feeding .The study results concluded that, bottle feeding was quite widespread in the first month of life, mainly in infants born to teenage mothers, with nipple trauma.³⁰

A case –control study was done in Sao Paulo to assess whether breastfeeding position influences the onset of nipple trauma .Subjects were puerperal with unilateral or bilateral nipple trauma. A sample of 146 participants of puerperal women and their babies, being 73 cases and 73 controls were included in the study. Data analysis was performed using chi-square. Study results found that statistically significant position and holding variables for causing lesions were the following: newborns with their necks bent / contorted, chin away from the breast and lip-related defects (turned inward). Therefore, trauma prevention at the beginning of breastfeeding is crucial for continuing this practice. The study recommended that, adequate positioning is decisive for establishing effective and prolonged breastfeeding. ³¹

An observational and comparative study was done to assess and compare the breastfeeding process in mothers who had Caesarean Deliveries (CD) with those who underwent Vaginal delivery (VD) at private hospital in Istanbul. The samples in the research were volunteer participant mothers who delivered a healthy neonate. A sample of 118 incidents of CD under general anaesthesia and 82 of VD were chosen for the study. Data was obtained using an ‘Introductory Information Form’ which was prepared as suggested by related literature, and by using the’(LATCH) Breastfeeding Charting System.’ The result showed that according to the LATCH Scoring System, the average score for the first breastfeeding was 6.27 and 8.81 for the third in CD mothers and 7.46 for the first breastfeeding and 9.70 for the third in VD mothers. Statistically meaningful differences were defined between the 1st (t ¼ 10:48; po: 001) 2nd (t ¼ 7:82; po: 001), and 3rd (t ¼ 7:12; po: 001) breastfeeding sessions in both CD and VD mothers. The Study found that the pattern of delivery affects breastfeeding and that CD mothers need more support and help as compared to VD mothers. CD mothers were seen to need more support, particularly positioning their babies for breastfeeding.⁵

A study was done to examine the relationship between positioning, the latching process and pain in breastfeeding mothers with sore nipples at a hospital in Latvia. Guided assessment

and documentation tool and pain on a five-point verbal descriptor scale was used. 95 healthy postpartum breastfeeding mothers, who sequentially reported sore nipples within ten days of giving birth, were included for the study. Four attribute categories were scored and examined as related to the pain levels of the mother: the baby's face position (chin and nose and head position, cheek line, lip flange and angle of mouth opening); the baby's body position (height at the breast, body rotation and body in relation to mother's body); the breastfeeding dynamic (change in breastfeeding pattern (suck vs swallow) and movement of mother's breast) and the latching process of the baby (root, gape, seal and suck). No significant difference was found between the mother's level of reported pain and the assessed head position, body position or breastfeeding dynamic attributes of the baby. However, more optimal latching process behaviour of the baby (rooting, gaping, sealing, and sucking behaviour) are slightly related to lower level of reported pain ($r(88) = -0.09, p > 0.05$). This should serve to remind clinicians that no one aspect of positioning may be more critical than another.³²

A contemporary, observational cohort study was done to investigate the influence of breastfeeding technique on the frequencies of exclusive breastfeeding and nipple trauma in the first month of lactation at the postnatal ward of Porto Alegre. A sample of 211 mother/baby pairs were selected for the study from the postnatal ward. With an average of approximately 4,000 deliveries per year, searched for unfavourable parameters of breastfeeding (five related to mother/baby positioning and 3 related to baby's latch on) in 211 mother-baby pairs in the maternity ward and at day 30, at home.

The frequencies of these parameters were compared between mothers practicing or not exclusive breastfeeding at days 7 and 30, and between mothers with or without nipple trauma at the hospital. Study results revealed that the number of unfavourable parameters in the maternity ward was similar for mother-baby pairs practicing or not exclusive breastfeeding at day 7 and 30. However, at day 30, it was, on average, lower among those under

exclusive breastfeeding, regarding positioning (1.7 ± 1.2 vs 2.2 ± 1.1 ; $p = 0.009$) as well as latch on (1.0 ± 0.6 vs 1.4 ± 0.6 ; $p < 0.001$). The study concluded that there was an association between a better technique at day 30 and the practice of exclusive breastfeeding.⁷

A non-randomised prospective cohort phased intervention study was conducted at Bristol to determine whether a specific ‘hands-off’ breastfeeding technique (teaching good positioning, and support from fathers and families) based on the physiology of suckling and clinical experience, if taught to mothers in the immediate postnatal period, improves their chances of breastfeeding successfully and reduces the incidences of problems. To investigate the factors associated with breastfeeding at two and six weeks postpartum. The sample consisted of 1400 South Bristol mothers who were breastfeeding on discharge from hospital. A ‘hands-off’ breastfeeding technique was taught to midwives in hospital who subsequently taught mothers in their care. Questionnaires sent to mothers at home. By using logistic regression analysis, the result revealed that the significant increase was observed in the proportion of mothers exclusively breastfeeding at two weeks ($P < 0.001$) and six weeks ($P=0.02$) and in ‘any breastfeeding’ rates ($P=0.005$) at two weeks after the technique intervention. The incidence of mothers feeling that they did ‘not have enough milk’ (perceived milk insufficiency) decreased significantly after the breastfeeding technique had been taught ($P=0.02$). The study concluded that, in the immediate postnatal period, if mothers are taught good breastfeeding technique by midwives in a ‘hands-off’ style, it enables mothers to position and attach their babies for themselves, and which is based on a physiological approach.³³

STUDIES RELATED TO EFFECTIVENESS OF VISUAL PACKAGE

A study was done to compare the effectiveness of a Computer-Assisted Instruction (CAI) based intervention to a more traditional lecture-based intervention for influencing psychosocial correlates of Human Immunodeficiency Virus (HIV) preventive behaviours at Atlanta. Students enrolled in a human sexuality course (N = 152) were randomly assigned to one of three groups: CAI, Lecture, or no intervention group. The analyses disclosed that compared to participants in the Lecture group, participants in the CAI group scored significantly higher ($P < 0.001$) on the scales measuring 24 Acquired Immune Deficiency Syndrome (AIDS) knowledge, self-evaluative outcome motivation, and intention to practice HIV preventive behaviours with current partner. In addition, compared to the no intervention group, the CAI group scored significantly higher ($P < 0.01$) on the scales measuring physical outcome motivation and social outcome motivation.³⁴

A quasi experimental study was conducted to evaluate the effects of a prenatal web-based breastfeeding education programme at Taiwan. The primigravida mothers were assigned to either the control group (n=60) or the experimental group (n=60) according to time sequence. Findings revealed that women who received web-based breastfeeding education had a higher mean breastfeeding knowledge score and more positive attitude about breastfeeding. There was a significant effect in exclusive breastfeeding for the experimental group, on the other hand the web-based breastfeeding education programme also had a significant effect on mixed feeding rate for the experimental group.³⁵

A study was conducted to find the effectiveness of the video-based Lamaze method on prenatal mothers' knowledge, attitudes, and practice regarding birth process at Military Hospital at China. Using a quasi experimental design, women in labour with gestations of 32 weeks or more were divided into four study groups, including two experimental group (E(1): issued with traditional nursing guidelines and instructed in video-based Lamaze method; and 25 E(2): instructed in video-based Lamaze method, and two control groups (C(1): issued with traditional nursing guidelines and C(2): issued with no guidelines). Before the intervention, E(1) had the highest score for knowledge. The experimental group had higher scores than the control group in the post-test. This study showed that, the video-based Lamaze method is likely to promote more effectively than traditional guidelines the knowledge, attitudes, and practice of prenatal mothers in relation to giving birth.³⁶

A study was conducted to determine the effectiveness of a management programme using visual aids for the caregivers of preschoolers with temper tantrums at Bangalore. A pre-experimental one group pre-test post-test design was used for the study. The sample consisted of 40 caregivers of pre-schoolers with temper tantrums. The results showed that the knowledge gained through management programme using visual aids was effective. The computed 't' value (16.64) showed significant difference between the pre-test and post-test knowledge score ($t_{39}=3.55$; $p<0.01$).³⁷

A study compared the patients' understanding for an informed consent for coronary angiography/plasty by routine method and using a visual package at Mangalore. The sample included 20 patients in the experimental group and 20 patients in the control group. The analysis showed a significant difference between mean post-test score of understanding of the experimental group and mean post-test score of understanding of the control group ($t'_{38} = 9.78$; $p<0.05$) indicating that there was significant 26 difference in the understanding for an informed consent using a visual package and routine method.³⁸

An experimental study was conducted at Korea to compare the level of understanding and recall of information for central venous catheter insertion between patients receiving visual aid-assisted informed consent and those administered written consent only. The intervention group was presented with visual aids explaining the procedure. The control group received information with written consent in the traditional manner. The results were, mean knowledge scores were higher in the visual aids group (76.4+/-11.1) than in the written consent group (50.9+/-15.1, $p < 0.01$), and the visual aid group expressed greater satisfaction with their education than did the written consent group (74.5+/-14.7 versus 49.0+/-20.8, $p < 0.01$).³⁹

A retrospective cohort study was done to examine the impact of various breastfeeding outcomes of different methods of prenatal breastfeeding education. The sample consisted of one hundred ninety-four mothers who expressed intent to breastfeed received breastfeeding education as follows: (a) a class that used video demonstration and group teaching by a lactation consultant. A control group educated at prenatal visits only.

Data was analysed by descriptive statistics, chi-square, ANOVA, unpaired test, and logistic regression. The results showed that the women who attended prenatal breastfeeding classes had significantly increased breastfeeding at 6 months when compared to controls ($p = .01$). There was no significant difference in rates between types of classes offered ($p = .45$). Study suggested that, prenatal breastfeeding education can influence the amount of time women breastfeed. All providers of prenatal care should consider offering such classes in order to improve breastfeeding rates.⁴⁰

CHAPTER-III

RESEARCH METHODOLOGY

Research methodology refers to a systematic way of solving a research problem. It indicates the general pattern for organising the procedure for empirical study together with the method for obtaining valid & reliable data for problem under investigation.¹²

In this chapter the methodology adopted for the study such as research approach, research design, variables, setting of the study, population, sample & sampling technique, data collection instrument, development of instrument, content validity, pre-testing of the tool, reliability, development of visual package, content validation of visual package, pilot study, data collection process and plan for analysis are discussed.

RESEARCH APPROACH

Descriptive research approach can be described as a formal process to observe, describe and document aspects of a situation as it naturally occurs and sometimes to serve as a starting point for hypothesis generation or theory development. An evaluative research is an applied form of research that involves finding out how well a programme, practice, procedure, or a policy is working. The main goal is to assess or evaluate the success of the programme.⁴²

RESEARCH DESIGN

The research design is the plan, structure and strategy of an investigator in answering the research question; it is the overall plan or blueprint the researchers select to carry out the study.⁴³ One group pre-test post test design (O₁ X O₂) was adopted for this study, i.e., a pre experimental design with a treatment group and no control group.

One group pre-test, post-test design

SUBJECT	PRETEST	Administration of visual visual package	POST TEST
30 antenatal mothers	O ₁	X	O ₂

Figure 2: Pre-test post-test design

The study design depicted in the figure shows that on Day1, pre-test was given using a structured interview schedule on breastfeeding technique(O₁) .After pre-test, visual package on breastfeeding technique was administered (X) and on Day 3 Post- test was done, using the same structured interview schedule (O₂)’

Population	Sample & sampling technique	Variable	Phase I		Phase II			Phase III
			Tool	Tool construction	O1	X	O2	
Antenatal mothers from a selected hospital in Vellore	30 antenatal mothers by purposive sampling	<p>Dependent variable Knowledge of antenatal mothers on breastfeeding technique</p> <p>Independent variables Visual package on breastfeeding technique</p> <p>Extraneous variable</p> <ul style="list-style-type: none"> • Age • Religion • Education • Occupation • Income of family per month • Source of knowledge • Gravida 	<p>Demographic proforma</p> <ul style="list-style-type: none"> • Structured interview schedule on breastfeeding technique 	<p>Review of existing literature</p> <ul style="list-style-type: none"> • Discussion with experts • Blue print • Preparation of structured interview schedule • Development of visual package • Content validity • Pre-testing • Reliability of tool • Pilot study 	Assessing the knowledge of antenatal mothers on Day 1 using structured interview schedule	Administration of prepared visual package after pre-test	Post-test knowledge Assessment on 3' day after administration of visual package by using the tool	<p>Descriptive statistics & inferential statistics using Paired 't' test & chi-square test.</p>

FIGURE 3: SCHEMATIC REPRESENTATION OF THE RESEARCH DESIGN

VARIABLES

A variable as the name implies is something that varies like weight, blood pressure readings, pre-operative activity levels & body temperature.¹⁵

Independent variable: The variable that is believed to cause or influence the dependent variable. In this study, the independent variable was the visual package on breastfeeding technique.

Dependent variable: The outcome variable of interest, the variable that is hypothesized to depend on or caused by another variable. In this study, it refers to the level of knowledge of antenatal mothers on breastfeeding technique.

Extraneous variable: A variable that confounds the relationship between the independent and dependent variables and that needs to be controlled either in the research design or through statistical procedures. In this study, extraneous variables are the age, educational status, religion, occupation, income of family per month, source of knowledge and gravida.

SETTING

Setting is the physical location and conditions in which data collection takes place in a study.¹² The investigator selected Government pentland Hospital, Vellore, to conduct the study. It has a well organized labour room, antenatal wards, postnatal wards, gynaecological ward and NICU. There is one Obstetrics and Gynaecology OPD which runs on all the week days.

POPULATION:

The term population refers to the aggregate or totality of all objects, subjects or members that confirm to a set of specifications.⁴⁴

In this study, population comprised of all antenatal mothers admitted in Government Pentland Hospital, Vellore, during the time of data collection.

SAMPLE

Sample consists of a subset of the population selected to participate in a research study.¹²The sample of this study comprised of 30 antenatal mothers who were admitted in Government Pentland Hospital, Vellore, during the time of data collection.

SAMPLING TECHNIQUE

The set of sampling units chosen for the study is called the sample. Sampling is the process of selecting a portion of the population to represent the entire population.¹²

Purposive sampling technique was used in the study. Purpose sampling is a procedure in which the researcher selects certain special groups, because there is good evidence that is representative of the total population he/she wishes to study.⁴⁵

SAMPLING CRITERIA

INCLUSION CRITERIA

Antenatal mothers who are:

1. admitted to a selected hospital for safe confinement.
2. available during the time of data collection.
3. able to understand Tamil and English.

EXCLUSION CRITERIA

Antenatal mothers who are:

1. not willing to participate in the study.
2. at high risk.

DATA COLLECTION TOOL

The data collection tools are the procedures or instruments used by the researcher to observe the key variables in the research problem.⁴⁵

A structured interview schedule was used for the data collection. A structured interview schedule is used to elicit the information which involves the use of a set of pre-determined questions.⁴⁶

Part I: Demographic proforma

It contained 7 items for obtaining information regarding antenatal mother's age, religion, educational status, occupation, income per month, any source of knowledge, and gravida.

Part II: Structured interview schedule on assessment of knowledge of antenatal mothers on breastfeeding technique

It consisted of 30 items in four areas of breastfeeding technique. It consists of:

- Concept of breastfeeding

- Benefits of breastfeeding
- Technique of breastfeeding
- **Problems** related to improper breastfeeding technique.

The items were multiple choice types with one correct answer and two distracters, each carrying equal score. The structured interview schedule was prepared in English was translated into Tamil by a language expert.

DEVELOPMENT OF VISUAL PACKAGE

The visual package on breastfeeding technique was developed by the investigator after reviewing literature, seeking opinion of the expert and from personal experience. This was developed to teach the antenatal mothers on breastfeeding technique. The visual package was of one hour and covered the following areas:

- Concept of breastfeeding
- Benefits' of breastfeeding
- Techniques of breastfeeding and
- Problems related to faulty technique of breastfeeding.

Visual package using PowerPoint to teach the mothers regarding breastfeeding technique.

METHOD OF DATA COLLECTION

Data collection is the gathering of information to address a research problem.¹²

Government Pentland Hospital, Vellore, was selected for the study. Prior to data collection permission was obtained from the concerned authorities of the hospital.

Samples were selected according to the selection criteria for the study. In order to obtain free and true responses the sample was explained the purpose and usefulness of the study and confidentiality of their responses was assured. Consent was obtained from the sample. Mothers were made to feel comfortable and relaxed. A good rapport was maintained. On the first day, the pre-test was conducted using the structured knowledge interview schedule, on the same day the visual package was administered with the help of lecture-cum- discussion with use of LCD projector. On the third day, post-test was conducted using the same tool assess the knowledge of mothers on breastfeeding technique.

PLAN FOR DATA ANALYSIS

Data analysis is the process of organising and synthesising data so as to answer research question and test hypothesis is known as analysis.¹²To analyse the data both descriptive and inferential statistics on the basis of the objectives and hypotheses was adopted. To compute the data, a master sheet would be prepared by the investigator. Baseline proforma containing sample characteristics would be analysed using frequency and percentage. The knowledge of antenatal mothers regarding breastfeeding technique before and after administering of visual package was analysed in terms of, mean, median, range and standard deviation. The significant difference between the mean of pre-test and post-test knowledge score regarding visual package would be determined by paired 't' test. The association between demographic variables and pre-test knowledge score regarding visual package would be determined by chi-square test. Data would be presented in the form of tables and graph

CHAPTER-IV

ANALYSIS AND INTERPRETATION

Analysis is the process of organising and synthesising the data in such a way that research questions can be answered and hypotheses tested. Collected data was analysed based on the objectives of the study using descriptive and inferential statistics.⁴⁴

This chapter deals with the analysis and interpretation of data collected from 30 of antenatal mothers through structured interview schedule to assess the knowledge on breastfeeding technique and to determine the effectiveness of a visual package breastfeeding technique.

OBJECTIVES

- 1.To assess the level of knowledge of antenatal mothers on breastfeeding technique as measured by structured knowledge questionnaire.
- 2.To evaluate the effectiveness of Visual Package on breastfeeding technique for antenatal women in terms of gain in post- test knowledge scores.
- 3.To find the association between pre-test knowledge scores on breastfeeding technique with the selected demographic variables.

HYPOTHESES

H₁: The mean post- test knowledge score of antenatal mothers will be significantly higher than their mean pre-test knowledge scores on breastfeeding technique.

H₂: There will be a significant association between the levels of knowledge score with selected demographic variables.

ORGANISATION OF FINDINGS

The data was analysed and presented under the following headings:

Part I: Description of sample characteristics.

Part II: Analysis of pre-test knowledge of antenatal mothers on breastfeeding technique.

Section A: Assessment of the level of existing knowledge.

Section B: Area-wise analysis of pre-test knowledge scores of the antenatal mothers.

Part III: Effectiveness of a visual package on breastfeeding technique

Section A: Effectiveness of visual package on breastfeeding technique among antenatal mothers.

Section B: Area-wise effectiveness of visual package on breastfeeding technique among antenatal mothers.

Part IV: Association between pre-test knowledge score and selected demographic variables.

SECTION I: DESCRIPTION OF DEMOGRAPHIC

CHARACTERISTICS OF ANTENATAL MOTHERS

This section deals with the description of the demographic characteristics of antenatal mothers that have been presented in the form of frequency and percentages. Sample consisted of 30 antenatal mothers. The characteristics are depicted in Table 1.

Table 1: Frequency and distribution of antenatal mothers according to their demographic variables

n=30

Sl. No.	Variable	Frequency (f)	Percentage (%)
1.	Age of mothers (in years)		
	a. 18-23	6	20.00
	b. 24-29	18	60.00
	c. 30-35	05	17.00
	d. 36-41	01	3.0
2.	Religion		
	a. Hindu	27	90.00
	b. Muslim	3	10.00
	c. Christian	–	–
	d. Any Other	–	–
3	Educational status of mother		
	a. Primary	15	50.00
	b. High School	7	23.00
	c. Pre-university	3	10.00
	d. Graduate & above	5	17.00

Sl. No.	Variable	Frequency (f)	Percentage (%)
4	Occupation		
	a. Home-maker	17	57.00
	b. Daily wages	2	7.00
	c. Self –employed	11	36.00
5	Income per month (in rupees)		
	a. ≤ 2000	2	7
	b. 2001-4000		
	c. 4001-6001	11	36.66
	d. ≥ 6001	14	46.66
		3	10.00

6 a. Any source of knowledge about breastfeeding technique

Yes	4	13.00
No	26	87.00

b. If yes,

Health personnel	3	
Mass media	0	–
Family members/ friends	1	–

7. **Gravida**

a. Gravida 1	18	60.00
b. Gravida 2	10	33.00
c. Gravida 3 & above	2	7.00

A. PERCENTAGE DISTRIBUTION OF ANTENATAL MOTHERS ACCORDING TO THEIR AGE IN YEARS

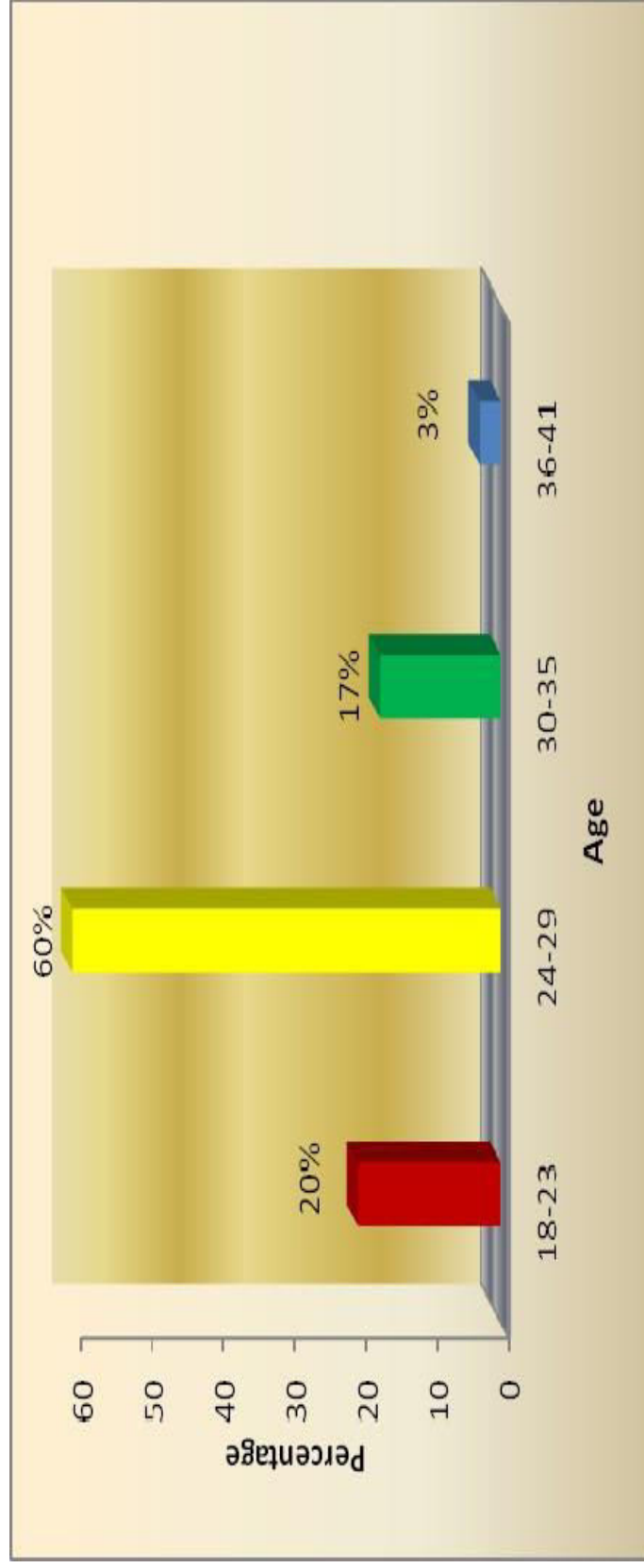


FIGURE 4: COLUMN DIAGRAM SHOWING THE DISTRIBUTION OF SUBJECTS ACCORDING TO THEIR AGE IN YEARS

B. PERCENTAGE OF DISTRIBUTION OF ANTENATAL MOTHERS ACCORDING TO RELIGION

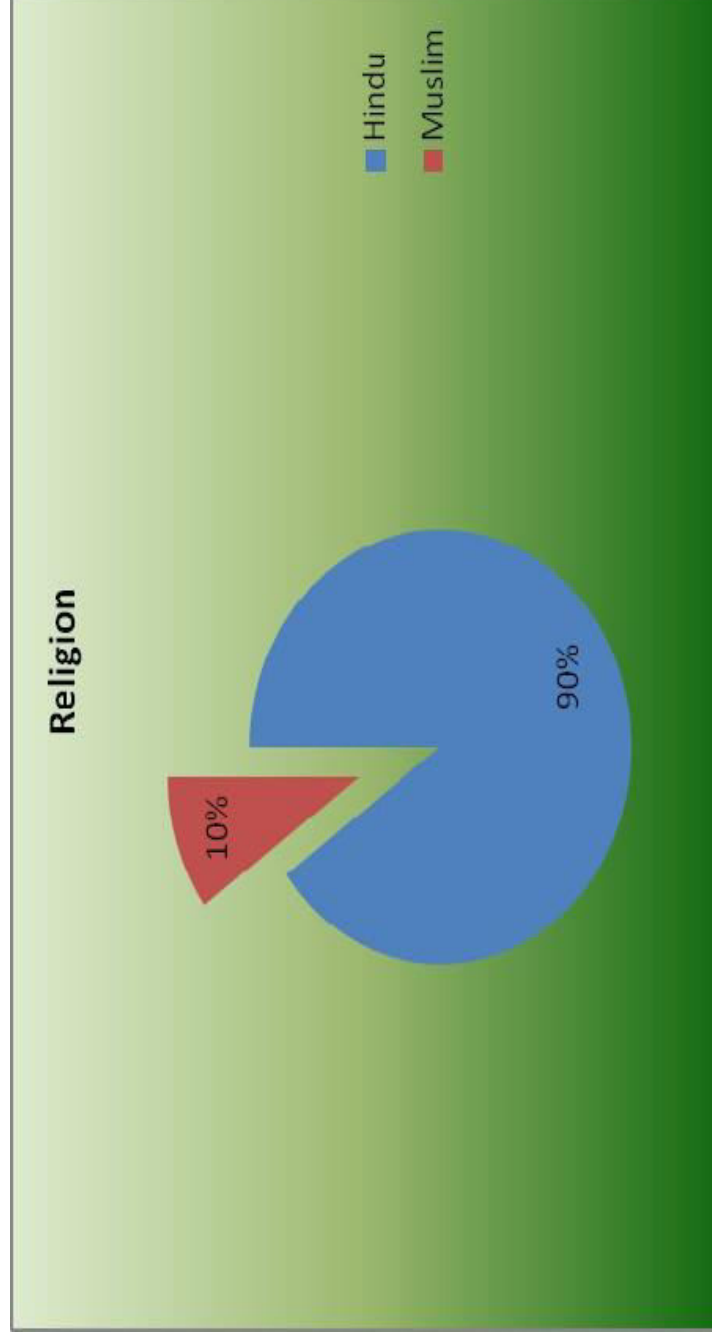


FIGURE 5: PIE DIAGRAM SHOWING THE DISTRIBUTION OF SUBJECTS ACCORDING TO THEIR RELIGION

C. PERCENTAGE DISTRIBUTION ACCORDING TO THEIR EDUCATIONAL STATUS

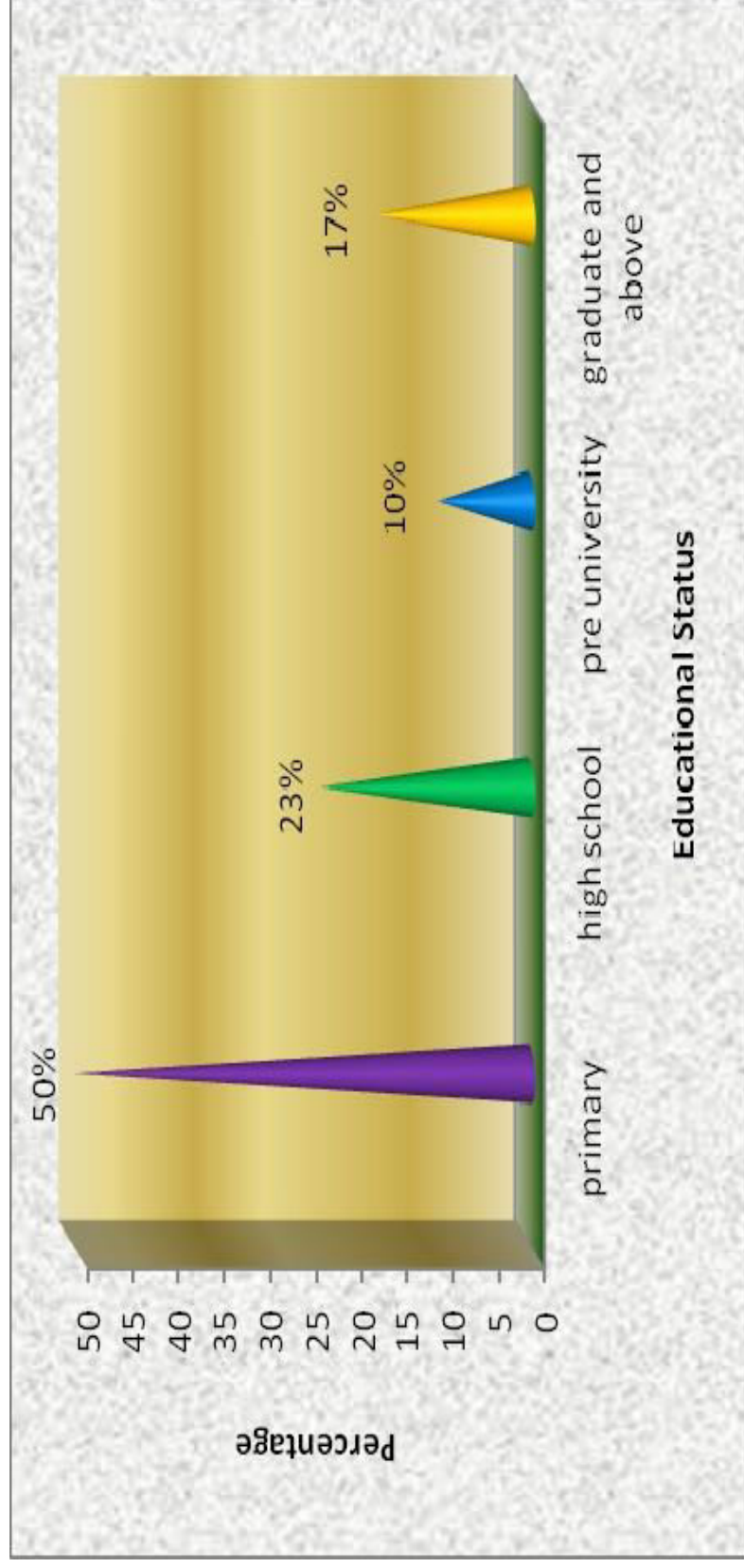


FIGURE 6: CONE DIAGRAM SHOWING DISTRIBUTION OF SUBJECTS ACCORDING TO EDUCATIONAL STATUS

D. PERCENTAGE DISTRIBUTION ACCORDING TO THEIR OCCUPATION

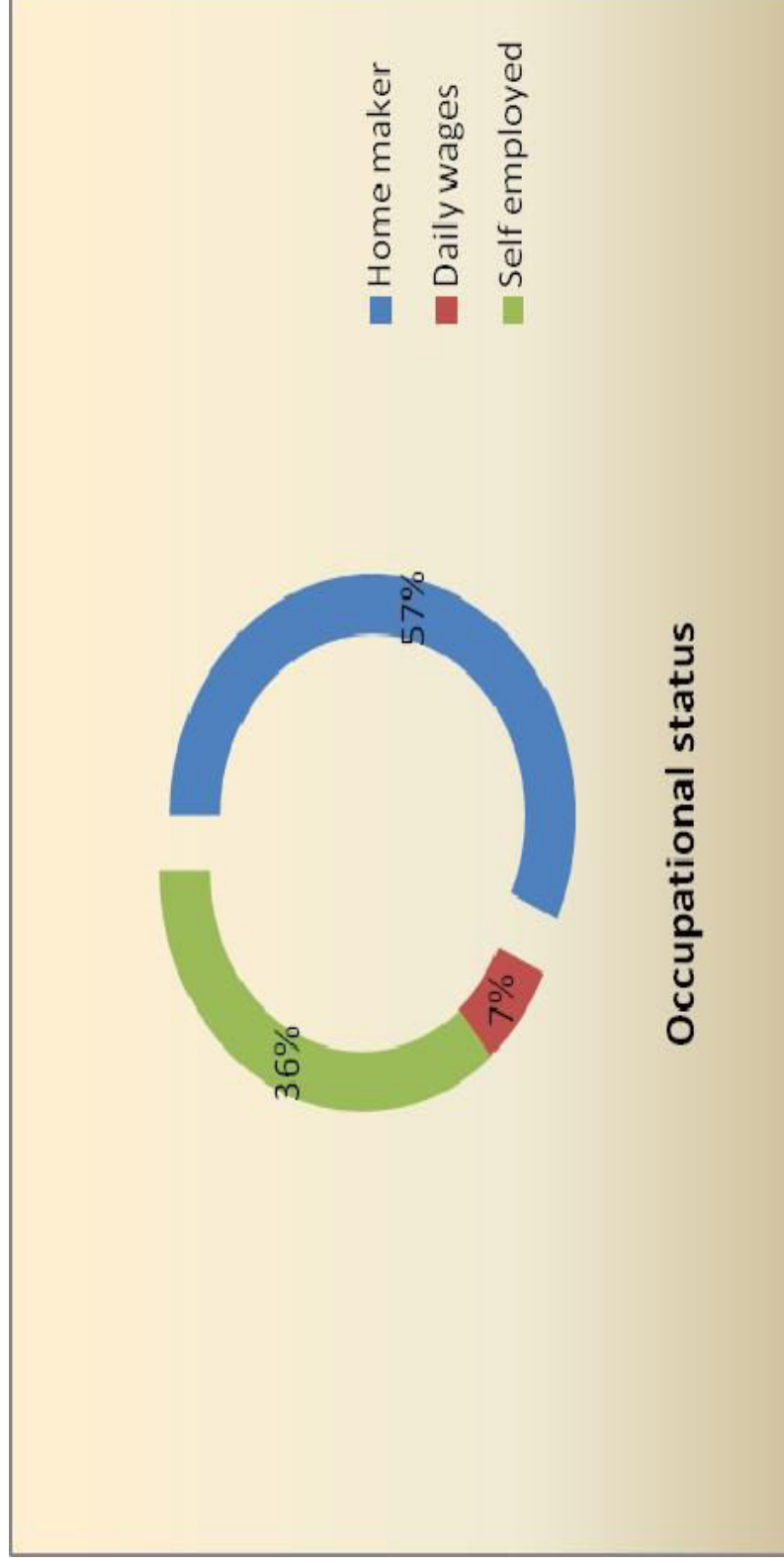


FIGURE 7: DOUGH NUT DIAGRAM SHOWING THE DISTRIBUTION OF SUBJECTS ACCORDING TO THEIR OCCUPATION

E. PERCENTAGE DISTRIBUTION ACCORDING TO THEIR INCOME OF THE FAMILY

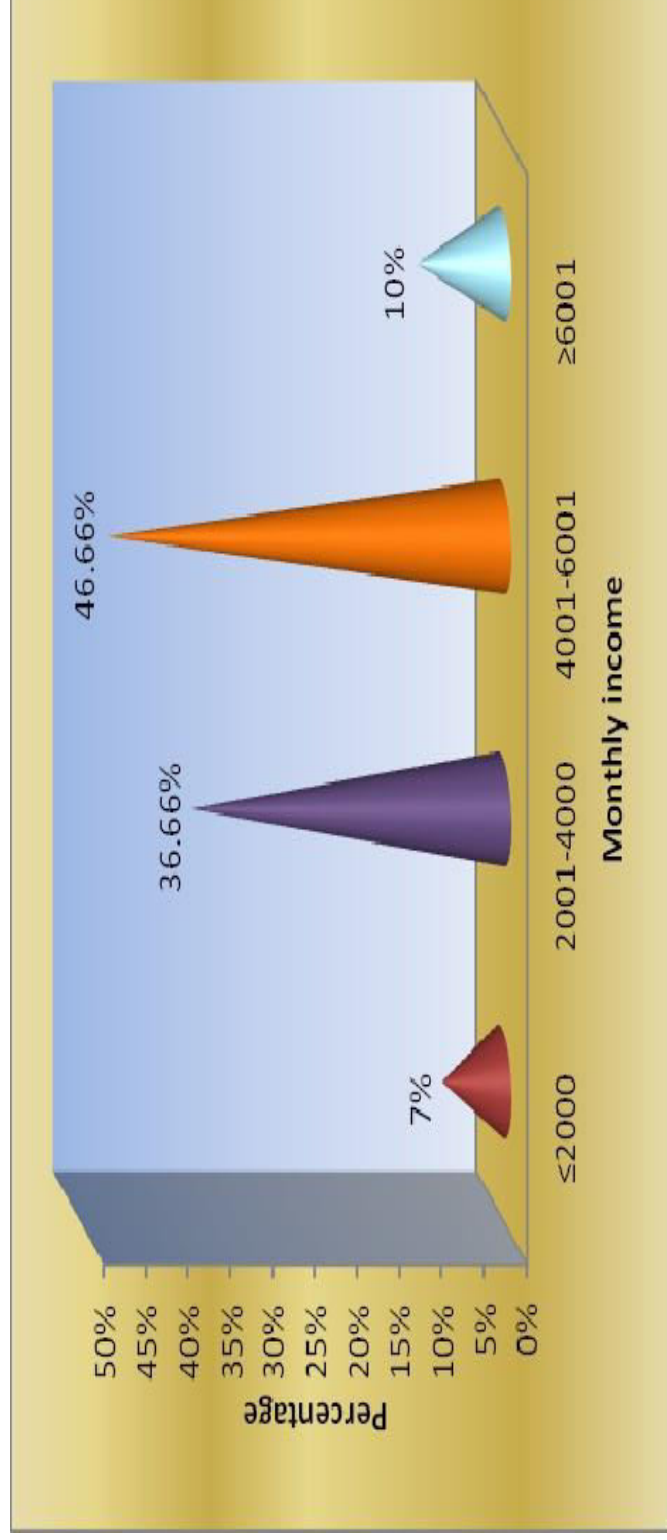


FIGURE 8: PYRAMID DIAGRAM SHOWING THE DISTRIBUTION OF SUBJECTS ACCORDING TO INCOME OF THE FAMILY

F. PERCENTAGE DISTRIBUTION ACCORDING TO THEIR SOURCE OF KNOWLEDGE



FIGURE 9: PIE DIAGRAMS SHOWING THE DISTRIBUTION OF SUBJECTS AS PER SOURCES OF KNOWLEDGE

G. PERCENTAGE DISTRIBUTION ACCORDING TO THEIR GRAVIDA

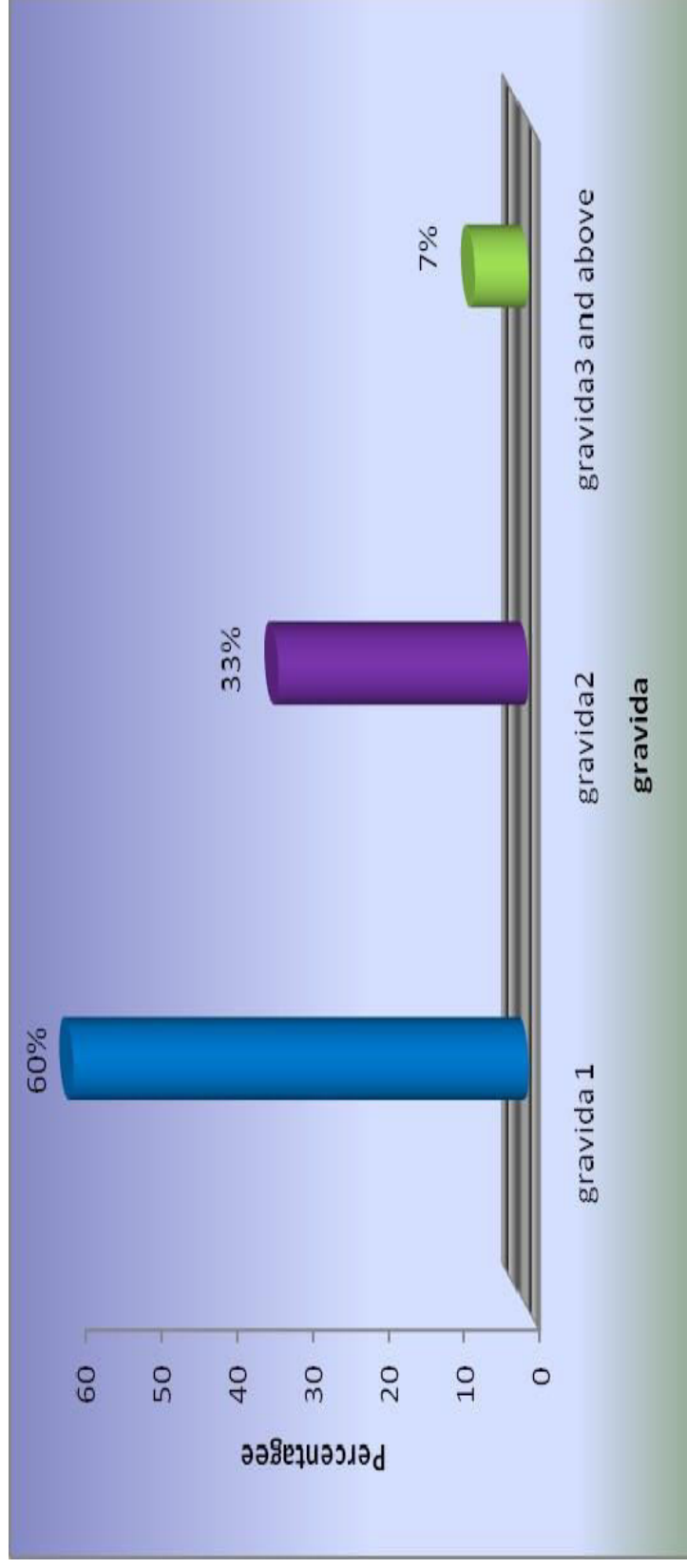


FIGURE 10: CYLINDRICAL DIAGRAM SHOWING THE DISTRIBUTION OF SUBJECTS ACCORDING TO THEIR GRAVID

Table 1 and Figure 4 depicts that majority of the antenatal mothers 18 (60%) were in the age group of 24-29 years, whereas 6(20%) were in the age group of 18-23 years. However, about 5 (17%) were in the age group of 30-35 years and only 1(3%) was aged 36-41 years and above.

Table 1 and Figure 5 shows that the majority of the subjects, 27 (90%) were Hindus, 3(10%) were Muslim.

Table 1 and Figure 6 show that maximum number of antenatal mothers, 15 (50%) studied up-to primary education, whereas 23% of them had education up to high school. However, about 5 (17%) had education as graduate & above, 3 (10%) of the antenatal mothers had pre-university education.

The data presented in Table 1 and Figure 7 shows that majority of antenatal mothers 17 (57%) were home-makers, 11 (36%) were self employed, 2 (7%) were working for daily wages.

Table 1 and Figure 8: present the data with regard to income of antenatal mother's .The data shows that majority of antenatal mothers (46.66%) had an income of Rs. 4001-6000, whereas (36.66%) had income of Rs. 2001-4000(10%) had an income above Rs. 6001 and 7% had an income equal to and below Rs. 2000.

Table 1: Figure 9 showing the majority of 26 (87%) had not known about the knowledge of breastfeeding technique, only 4 (13%) had knowledge on breastfeeding technique.

Table 1 and Figure 10 show that majority of the subjects 18(60%) belonged to gravida 1, 10(33%) were gravida 2 and only 2(7%) were gravida 3 and above.

PART II: ANALYSIS OF PRE-TEST KNOWLEDGE OF ANTENATAL MOTHERS ON BREASTFEEDING TECHNIQUE

SECTION A: ASSESSMENT OF THE LEVEL OF EXISTING KNOWLEDGE

TABLE: 2 PRE-TEST KNOWLEDGE LEVEL ON BREASTFEEDING TECHNIQUE AMONG ANTENATAL MOTHERS

n=30

Level of Knowledge	Scores range	Frequency	Percentage
Poor	0-12	3	10
Moderate	13-18	18	60
Good	19-24	9	30
Very good	25-30	0	0
Total	xx	30	100

The data presented in table 2 display the frequency distribution of antenatal mothers according to their pre-test knowledge scores. The score ranged from 0-12, 13-18, 19-24 and 25-30. Further the data shows (10%) of antenatal mothers scored between 0-12, (60%) of antenatal mothers scored between 13-18; (30%) of antenatal mothers scored between 19-24 and none of the antenatal mothers had scored between 25-30.

SECTION B: AREA-WISE ANALYSIS OF PRE-TEST KNOWLEDGE SCORES OF THE ANTENATAL MOTHERS

TABLE 3: AREA-WISE ANALYSIS OF PRE-TEST KNOWLEDGE SCORES OF THE ANTENATAL MOTHERS

n=30

Sl. No.	Knowledge Area	Max.		Mean	
		Score	Mean	SD	Percentage
1.	Concepts of breastfeeding	6	4.3	0.95	71.66
2.	Benefits of breastfeeding	6	3.2	1.24	53.33
3.	Technique of breastfeeding	14	6.7	1.67	47.85
4.	Problems related to improper feeding technique	4	2.2	1.02	55.00
Total		30	16.4	4.88	55.1

Analysis revealed that out of 30 maximum obtainable score the mean score was 16.4; which is 55.1% of the maximum score. The highest mean percentage (71.66%) was found in the area of “concepts of breastfeeding” with a mean \pm SD of 4.3 ± 0.95 . Area-wise mean percentage of knowledge score in the area of “benefits of breastfeeding” was (53.33%) with mean \pm SD of 3.2 ± 1.24 . Area-wise mean percentage of knowledge score in the area of “problems related to improper feeding technique” was (55%) with mean \pm SD of 2.2 ± 1.02 . The lowest percentage (47.85%) was obtained in the area “technique of breastfeeding” with mean \pm SD of 6.7 ± 1.67 .

The findings revealed that the mothers had average knowledge on breastfeeding technique.

PART III: EFFECTIVENESS OF PLANNED TEACHING PROGRAMME ON BREASTFEEDING TECHNIQUE

SECTION A: EFFECTIVENESS OF VISUAL PACKAGE ON BREASTFEEDING TECHNIQUE

Table 4: Post-test knowledge level on breastfeeding technique among antenatal mothers

n=30

Knowledge level	Level of score	Frequency (f)	Percentage (%)
Poor	0-12	0	0
Moderate	13-18	0	0
Good	19-24	0	0
Very good	25-30	30	100
Total	xx	30	100

Assessment of the level of knowledge of the antenatal mothers after the administration of visual package on breastfeeding technique revealed that all the respondents had very good knowledge score ranging between 25-30 and none of the respondents had scored less than 25.

SECTION B: AREA-WISE EFFECTIVENESS OF VISUAL PACKAGE AMONG ANTENATAL MOTHERS BREASTFEEDING TECHNIQUE

Table 5: Area-wise effectiveness of visual package with mean, SD, mean percentage and ‘t’ value of pre-test post-test knowledge scores of antenatal mothers

n=30

Sl. No.	Knowledge Area	Max.			Mean Percentage
		Score	Mean	SD	
1.	Concepts of breastfeeding	6	4.3	0.95	71.66
2.	Benefits of breastfeeding	6	3.2	1.24	53.33
3.	Technique of breastfeeding	14	6.7	1.67	47.85
4.	Problems related to improper feeding technique	4	2.2	1.02	55.00
	Total	30	16.4	4.88	55.1

Comparison of area-wise mean and SD of the knowledge scores showed that in the area of “concepts of breastfeeding” the pre-test mean percentage of knowledge score was 71.66 with mean \pm SD of 4.3 ± 0.95 . The post-test mean percentage of Knowledge score was 93.33% with mean \pm SD of 5.6 ± 0.55 showing a maximum increase of 21. 67% in mean percentage knowledge score of mothers with mean \pm SD of 1.3 ± 40 . In the area of “benefits of breastfeeding,” 36.67% increase in the mean percentage knowledge score was observed with 53.33% in the pre-test and 90% in post-test mean percentage of knowledge score. In the area of “techniques of breastfeeding,” 38.07% increase in the mean percentage knowledge was observed with pre-test mean percentage knowledge score 47.85% and post-test mean percentage knowledge score was 85.92%. In the “problems related to improper feeding” “37.5% increase in the mean percentage knowledge was observed with pre- test percentage knowledge score 55% and post-test mean percentage knowledge score was 92.50%.

Paired ‘t’ test was used to test the significance difference between the pre-test and post-test knowledge score of antenatal mothers in the selected areas of breastfeeding technique. The

data presented in Table 5 shows that 't' value in all these areas is significant. However the result revealed that the overall percentage of post- test knowledge was more compared to the percentage of the pre-test knowledge. Hence it is observed that the visual package was effective in improving the knowledge of antenatal mothers regarding breastfeeding technique.

TABLE 6: OVERALL EFFECTIVENESS OF PTP WITH MEAN, SD, MEAN PERCENTAGE AND 'T' VALUE OF PRE-TEST POST-TEST KNOWLEDGE SCORES OF ANTENATAL MOTHERS

n=30

Area	Max. Score	Mean	SD	Mean %	Mean diff	SD Diff	't'	Inference
Pre-test	23	16	3.01	55.1				
Post-test	30	27	1.3	89.1	11	4.88	16.59	Highly significant

Table value $t_{29}=16.59 < 0.05$.

The data presented in Table 6 shows that the computed 't' value is greater than the table value ($t_{29}=1.70$; $p < 0.05$). This indicates that the visual package was effective in increasing the knowledge of antenatal mothers on breastfeeding technique.

**TABLE 7: COMPARISON OF PRE-TEST AND POST-TEST
KNOWLEDGE SCORES**

n=30

Knowledge score	Pre –test		Post-test		
11-12	3	10.00	3		
13-14	5	16.66	8		
15-16	6	20.00	14		
17-18	7	23.33	21		
19-20	7	23.33	28		
21-22	1	3.33	29		
23-24	1	3.33	30		
25-26				13	43.33
27-28				14	46.66
29-30				3	10.00

The cumulative frequency distribution of pre-test and post-test knowledge scores are shown in the Ogive. The data presented in the Ogives shows significant difference between the pre-test and post-test knowledge scores. The pre-test median score was 16 where as post-test median score was 27 showing a difference of 11. This indicates that there was significant increase in the knowledge of antenatal mothers regarding breastfeeding problems and its management.

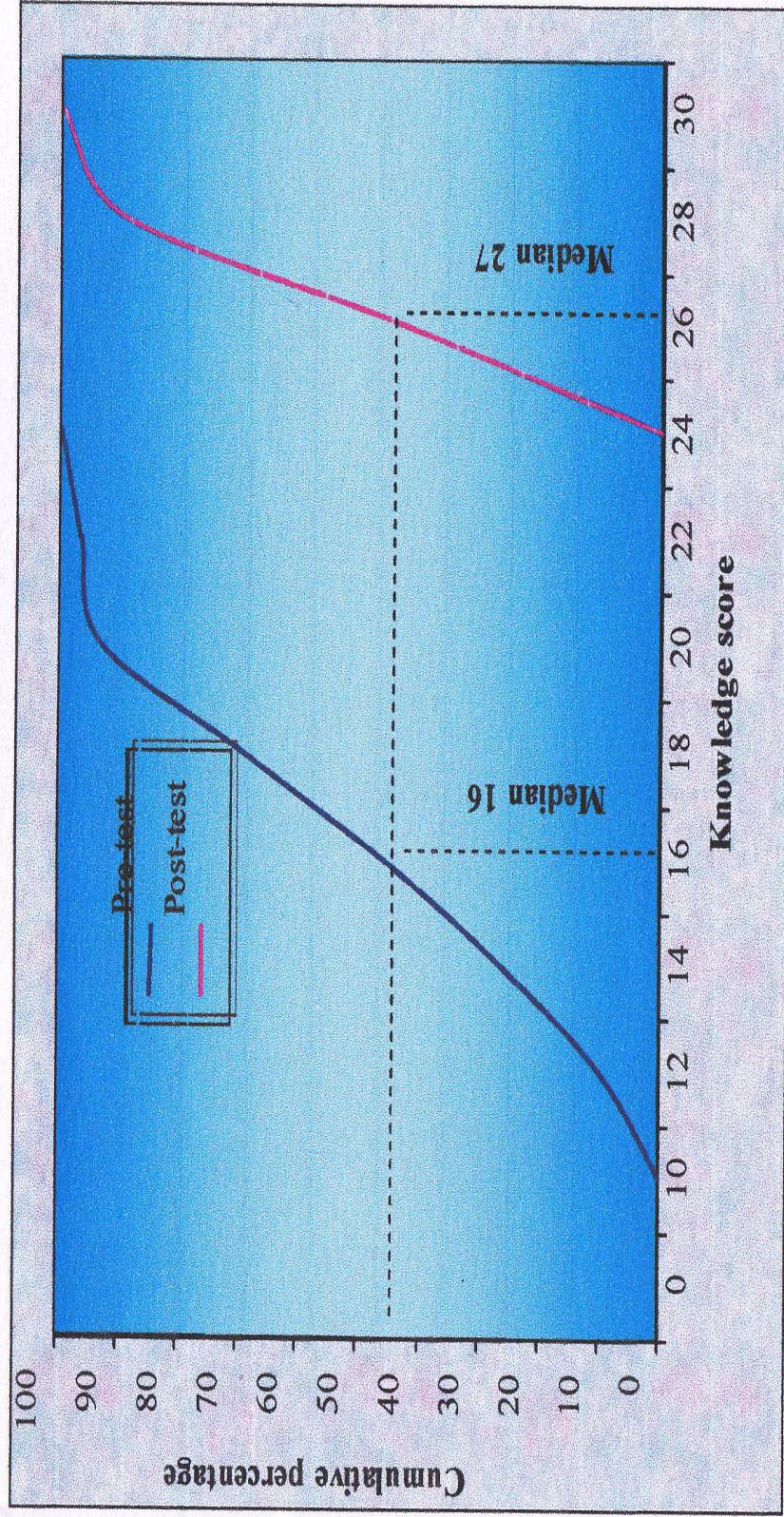


Fig:11 Ogive representing cumulative frequency percentage of pre-test and Post-test knowledge score of antenatal mothers regarding breastfeeding technique

TABLE 8: AREA-WISE PRE-TEST AND POST-TEST KNOWLEDGE SCORE OF ANTENATAL MOTHERS REGARDING BREASTFEEDING TECHNIQUE

n=30

Area	Max. Score	Mean %		Actual gain (A)	Possible gain (B)	Modified gain (A/B)
		Pre-test	Post-test			
Concept of breastfeeding	6	71.66	93.33	21.67	28.40	76.30
Benefits of breastfeeding	6	53.33	90.00	36.67	63.83	57.44
Technique of breastfeeding	14	47.85	85.92	38.07	52.15	73.00
Problem related to improper breastfeeding technique	4	55.00	92.50	37.50	62.50	60.00

Maximum possible score: 30

Data in the Table 7 and Figure 13 depicts higher mean percentage score (71.66%) in the area of “concepts of breastfeeding” and least score (47.85%) in the area of “technique of breastfeeding” in the pre-test. The mean percentage of post-test knowledge score was apparently higher than the mean percentage of pre-test score.

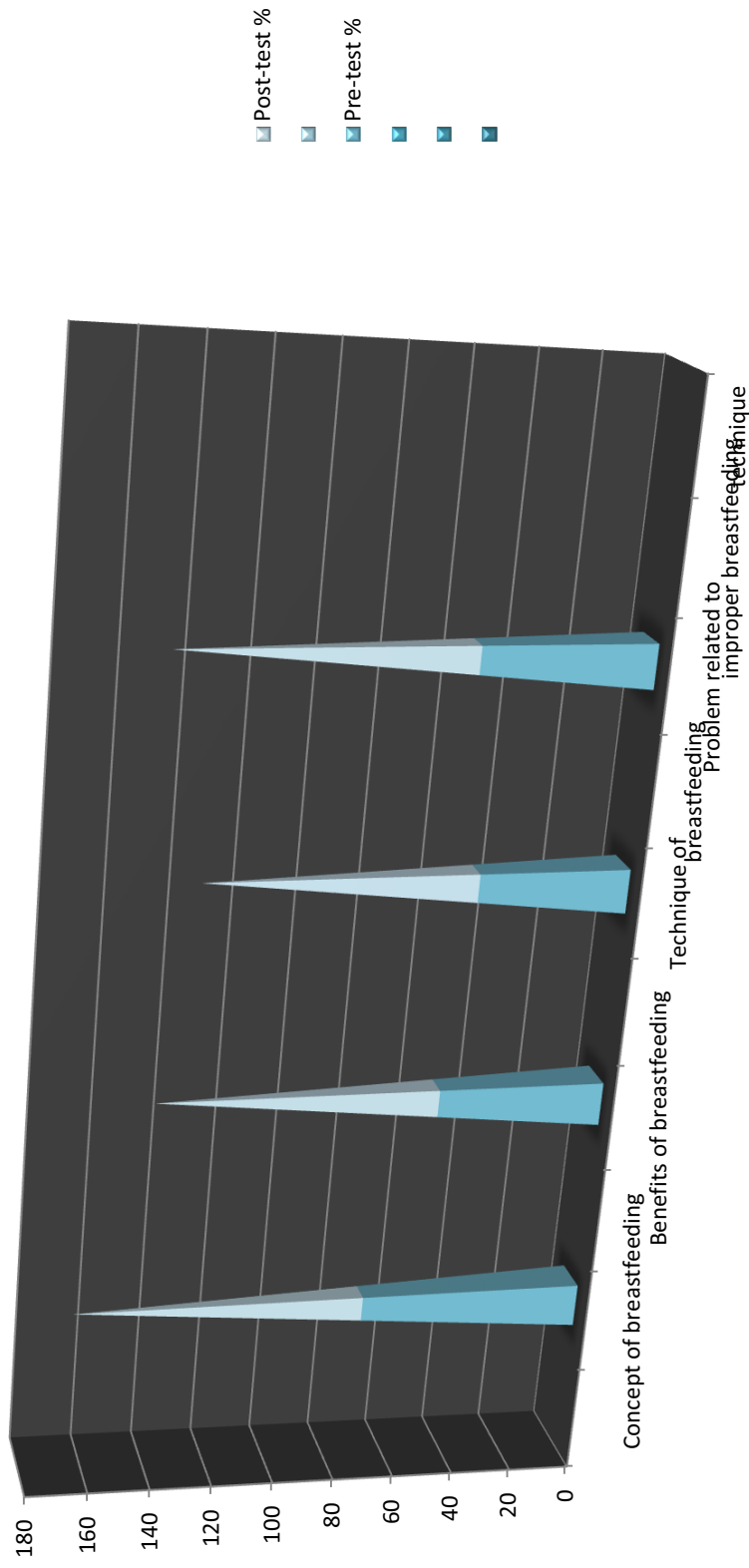


FIGURE 12: PYRAMID DIAGRAM SHOWING THE DISTRIBUTION OF MEAN PERCENTAGE OF PRE- TEST AND POST-TEST SCORE ON BFHI AMONG ANTENATAL MOTHERS

Table9:Chi-squarevalueshowingtheassociationbetweenpre-testknowledge scoresofantenatalmothersandselecteddemographicvariable


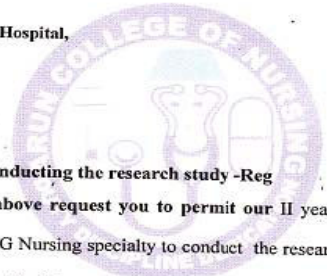

Variable	< median	≥ median	χ^2 value	df	P Value	Inference
1. Ageofmothersinyears						
18-23	2	4				Not significant
24-29	8	10	0.01	1	0.92	
30-35	2	3				
36-41	1	0				
2. Religion						
Hindu	10	17				Not significant
Muslim	3	0	2.17	1	0.1407	
Christian						
Other						
3. Educationalstatusofmother						
Primary	5	11				Not significant
HighSchool	4	2	2.04	1	0.1533	
Pre-university		3				
Graduate&above	4	1				
4. Occupation						
Home-maker	9	8				Not significant
Dailywages	0	2	0.71	1	0.399	
Self-employed	4	7				
5. Incomepermonthinrupees						
≤2000	1	1				Not significant
2001-4000	4	7	0.22	1	0.6377	
4001-6001	5	9				
≥6001	3	0				

6. Any source of knowledge about breastfeeding technique						
Yes						
No	13	13				
Yes,	0	4	1.79	1	0.1809	Not significant
Health personnel						
Mass media						
Family members/friends						
7. Gravida						
Gravida 1	5	13	2.99	1	.0838	
Gravida 2	6	4				Not significant
Gravida 3 & above	2	0				

The computed chi-square value shows no association between the pre-test knowledge score with selected demographic variables such as age, religion, education, occupation, monthly income in rupees and source of knowledge regarding breastfeeding at 0.05 level of significance.

Annexure –I

Letter requesting and granting permission to conduct main study

	ARUN COLLEGE OF NURSING (A unit of Arun Educational Trust) Affiliated with The Tamilnadu Dr. M.G.R. Medical University, Tamilnadu Nursing Council & Indian Nursing Council, G.O.M.S. 369/16.11.2008. No.15, Thiyagarajapuram, Vellore - 1.
Mr. L.Adhimoolam Managing Director	Principal
Ref. No.	
To The Medical Officer, Government Pentland Hospital, Vellore- 01 Respected madam,	
Sub : Permission for conducting the research study -Reg With reference to the above request you to permit our II year M.Sc. Nursing student Mrs.R..NITHIYA, of OBG Nursing specialty to conduct the research on "Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted in a selected hospital , Vellore."	
Hoping for a favourable response at the earliest.	
Thanking you	 Principal PRINCIPAL ARUN COLLEGE OF NURSING No 15, THIYAGARAJAPURAM, VELLORE - 632 001
Ph : 0416 - 2222081 E-mail : principalaruncollege@gmail.com	

Annexure –II

LETTER REQUESTING EXPERT OPINION TO ESTABLISH CONTENT VALIDITY OF THE RESEARCH TOOL AND VISUAL PACKAGE

From,

Mrs.R.Nithiya,
II Year M.Sc.,(N).,
Arun College of Nursing,
Vellore -01

To

Respected Sir/Madam,

Subject: Request for expert opinion and suggestions to establish content validity of the research tool.

I Mrs. R..NITHIYA, II year M.Sc. Nursing student of Arun College of Nursing, have selected the following topic for my dissertation to be submitted to The Tamil Nadu Dr.M.G.R.Medical University, Chennai, in partial fulfilment for the requirement for award of Master of Sciences in Nursing.

Topic: “Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted in a selected hospital, Vellore.”

I humbly request you to go through the items and give your valuable suggestions and opinions to develop the content validity of the tool. Kindly suggest modifications, additions and deletions, if any, in the remark column.

Thanking you in anticipation

Your’s faithfully,

Mrs.R.Nithiya

Annexure –III

CONTENT VALIDATION CERTIFICATE

I hereby certify that I have validated the tool of Mrs. R.NITHIYA II year M. Sc. Nursing student, Arun College of Nursing, who is undertaking the following study.

Topic: “Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted in a selected hospital, Vellore.”

Place:

Signature of the Expert

Date:

Designation and Address

Annexure –IV

LETTER REQUESTING CONSENT OF THE SUBJECTS FOR PARTICIPATION IN THE STUDY (ENGLISH)

Dear Participant,

I am a final year M.Sc(N)., Student of Arun College of Nursing, as a partial fulfillment of the course, I have undertaken the research study on “Effectiveness of visual package on breastfeeding technique among antenatal mothers admitted in a selected hospital, Vellore.”

I invite you to kindly participate in this study and I assure you would get adequate knowledge regarding breast feeding technique. The successful completion of the study largely depends on your active co-operation. I also assure you, that your identity and response will be kept confidential throughout this research process and thereafter.

Thanking You,

Yours sincerely,

Sign of participant

Annexure –V

STRUCTURED INTERVIEW SCHEDULE ON BREASTFEEDING TECHNIQUE

(ENGLISH)

Tool 1: Baseline Proforma

Instructions: The investigator asks the questions listed below and place a tick () mark at the appropriate answer of each item.

Identification number:

1. Age of mother in years
 - a. 18-23
 - b. 24-29
 - c. 30-35
 - d. 36-41

2. Religion
 - a. Hindu
 - b. Muslim
 - c. Christian
 - d. Any other specify

3. Educational Status of Mother
 - a. Primary
 - b. High School
 - c. Higher Secondary
 - d. Graduated & above

4. Occupation
 - a. Homemaker
 - b. Daily wage earner
 - c. Employed

5. Family income per month in rupees
 - a. ≤ 2000
 - b. 2001-4000
 - c. 4001-6000
 - d. ≥ 6001

6. a. Any sources of knowledge about breastfeeding technique
- Yes
 - No
- b. If Yes,
- Health personal
 - Mass Media
 - Family members/friends
7. Gravida
- a. Gravida 1
 - b. Gravida 2
 - c. Gravida 3 & above

Tool 2 : Structured Interview Schedule

Instructions to the Participants

Dear Participant,

The investigator asks the questions listed in the schedule. Responses will be noted down placing tick () mark against the correct answer. There may be more than one correct answer. Each correct answer carries one mark.

Section A: Interview schedule on concept of breastfeeding.

1. What is the nature's intended food for a newborn?
 - a. Formula milk
 - b. Cow's milk
 - c. Breast milk

2. What is colostrums?
 - a. Breast milk secreted within first 3 days of delivery
 - b. Breast milk secreted a week after delivery
 - c. Breast milk secreted at the end of a food

3. When it s appropriate time to start breastfeeding after a normal delivery?
 - a. Within half hour
 - b. After 2-4 hours
 - c. After 8 hours

4. What should be the duration of each breastfeed?
 - a. 1-5 minutes
 - b. 5-10 minutes
 - c. 25-30 minutes

5. What is the duration for exclusive breastfeeding?
 - a. Up to 12 months
 - b. Up to 6 months
 - c. Up to 24 months

6. What stimulates milk production?
 - a. Putting baby on the breast
 - b. Placing the baby on cradle
 - c. Offering caffeine drink to mother

Section B: Benefits of breastfeeding.

7. Which of the following is rich in breast milk?
 - a. Fluoride
 - b. Vitamins
 - c. Minerals

8. What is the benefit of exclusive feed for newborn's life?
 - a. It increase appetite
 - b. It prevents constipation
 - c. It reduces the chance of infection

9. What is the indicator of adequate breast feeding?
 - a. Baby cries continuously
 - b. Baby passes urine 6-8 times in 24 hours
 - c. Baby wakes up between sleep

10. What is the benefit of early initiation of breastfeeding to mother?
 - a. It reduces tiredness of mother
 - b. It protects from infection
 - c. It helps the uterus to return pre-pregnant state

11. What is the advantage of continuous breastfeeding in women?
 - a. Helps to reduce risk of ovarian & breast cancer
 - b. Helps to gain weight
 - c. Helps to prevent pelvic infection

12. Which is the ideal time to store expressed breast milk in refrigerator?
 - a. 48 hours
 - b. 24 hours
 - c. 12 hours

Section C: Technique of breastfeeding

13. Which is the ideal position that has to be adopted by the mother for breastfeeding after normal delivery?
 - a. Sitting position
 - b. Lying Position
 - c. Standing Position

14. What is the ideal position while feeding a twin baby?
 - a. Lying down method

- b. Foot ball method
 - c. Cradle method
15. Which of the following sign shows effective latching while breastfeeding?
- a. Lower lip is turned inside
 - b. Upper lip is turned outward
 - c. Lower lip is turned outward
16. What is the benefit of latching?
- a. Promotes milk production
 - b. Prevent milk from entering to lungs
 - c. Promotes easy digestion
17. What should be done after breastfeeding?
- a. Wrap the baby
 - b. Put the baby to sleep
 - c. Burp the baby
18. What is the method of burping?
- a. Patting or rubbing on baby's back
 - b. Applying pressure on abdomen
 - c. Keeping the baby in prone position
19. What position is to adopted after breastfeeding the baby?
- a. Keep the baby on the abdomen
 - b. Keep the baby on supine position & head turning to one side
 - c. Keep the baby with the head slightly elevated.
20. Which is the best method to feed the expressed feed milk?
- a. Before pregnancy
 - b. Postnatal period
 - c. Antenatal period
21. Which is the best method to feed the expressed feed milk?
- a. A bottle
 - b. Cup & spoon
 - c. A dropper
22. Which method can be adopted by working mother to feed the baby?
- a. Formula feed
 - b. Cow's milk
 - c. Expressed feed
23. Which of the following may interfere with the sucking effect of baby?

- a. Pacifier
- b. Palade
- c. Bottle

24. What is the preventive measure for breast engorgement?

- a. Breast massage
- b. Exclusive breastfeeding
- c. Proper posture while feeding

25. What is the complication of improper attachment?

- a. Breast abscess
- b. Pain & frustration
- c. Sore nipple

26. What is the treatment for crack nipple?

- a. Applying hind milk
- b. Provide nipples
- c. Provide breast

Section D: Problems related to improper breastfeeding technique.

27. Which of the following condition will be difficult for the baby to breastfeed?

- a. Protruded nipples
- b. Inverted nipples
- c. Small breast

28. What is the management for inverted nipples?

- a. Bring the nipple out with syringe.
- b. Pushing the nipple inside
- c. Pressing the nipple & then pulling it out with syringe

29. What are the problems associated with faulty feeding technique?

- a. Swelling of the nipple
- b. Cracked nipple
- c. Retracted nipple

30. What is the complication of bottle feeding to baby?

- a. Infection
- b. Breast abscess
- c. Weight gain

ANNEXURE – VI

முதன்மை தகவல்கள்

பங்கேற்பாலரின் வரிசை எண்

1. ஆண்டுகளில் தாய்மார்கள் வயது
 - (அ). 18 - 23 ()
 - (ஆ). 24 - 29 ()
 - (இ). 30 - 35 ()
 - (ஈ). 36 - 41 ()
2. மதம்
 - (அ). இந்து ()
 - (ஆ) முஸ்லிம் ()
 - (இ) கிறிஸ்துவர் ()
 - (ஈ) வேறு மதம் ()
3. தாயின் கல்வி நிலை
 - (அ). முதன்மை கல்வி ()
 - (ஆ). உயர்நிலைப் பள்ளி கல்வி ()
 - (இ). மேல்நிலைப் பள்ளி கல்வி ()
 - (ஈ). பட்டபடிப்பு மற்றும் அதற்குமேல் ()
4. தொழில்
 - (அ). வீட்டில் பணிபுரியும் ()
 - (ஆ). தினசரி ஊதியம் பெறுவோர் ()
 - (இ). மாதவருமானம் பெறுபவர் ()
5. மாத குடும்ப வருமானம் ரூபாயில்
 - (அ). ≤ 2000 ()
 - (ஆ). 2001 - 4000 ()
 - (இ). 4001 - 6000 ()
 - (ஈ). ≥ 6001 ()

6. தாய்பால் ஊட்டும் முறை பற்றி முன் அறிவு உள்ளதா

(i). (அ). ஆம் ()

(ஆ). இல்லை ()

(ii). ஆம் எனில் யாரிடம் இருந்து கற்று கொண்டது

❖ சுகாதார பணியாளர் மூலம் ()

❖ தகவல் தொழில்நுட்பம் ()

❖ குடும்ப உறுப்பினர்கள் மற்றும் நண்பர்கள் ()

7. தாய்மை நிலை

(அ). முதன் தாய்மை நிலை ()

(ஆ). இரண்டாம் தாய்மை நிலை ()

(இ). மூன்றாம் மற்றும் அதற்கு மேல் தாய்மை நிலை ()

அறிவுதிறனை சோதிக்கும் கேள்விகள்

பகுதி அ: தாய்பால் ஊட்டும் முறைபற்றிய கரு.

1. இயற்கையான ஆரோகியமான பால் எது?
(அ). பவுடர் பால் ()
(ஆ). பசும் பால் ()
(இ). தாய் பால் ()
2. சீம்பால் என்றால் என்ன?
(அ). முதல் மூன்று நாட்களில் கொடுக்கப்படும் தாய்ப்பால் ()
(ஆ). பிறந்த ஒரு வாரத்திற்குள் கொடுக்கப்படும் தாய்ப்பால் ()
(இ). தாய்பால் சுரந்து முடியும் காலம் வரை ()
3. பிரசவத்திற்கு பிறகு தாய்பால் கொடுக்க சரியான நேரம்.
(அ). அரைமணி நேரத்திற்குள் ()
(ஆ). 2-4 மணிநேரத்திற்கு பிறகு ()
(இ). 8 மணி நேரத்திற்கு பிறகு ()
4. ஒவ்வொரு முறையும் தாய்பால் கொடுப்பதற்கான கால அளவு
(அ). 1-5 நிமிடங்கள் ()
(ஆ). 5-10 நிமிடங்கள் ()
(இ). 25-30 நிமிடங்கள் ()
5. எத்தனை மாதம் வரை தாய்பால் கொடுக்கும் வேலை.
(அ). 12 மாதங்கள் வரை ()
(ஆ). 6 மாதம் வரை ()
(இ). 24 மாதம் வரை ()
6. பால் உற்பத்தியை தூண்டுவது எது?
(அ). குழந்தையை மார்பகத்தில் வைக்கும் போது ()
(ஆ). குழந்தியை தொட்டிலில் போடும் போது ()
(இ). தாய்பால் உற்சாக பாணம் அறுந்தும் போது ()

பகுதி : ஆ. தாய்பாலின் நற்பயங்கள்.

7. கீழ் கொடுக்கப்பட்டதில் தாய்பாலின் அதிகம் காணப்படுவது?
(அ). புளுரைடு ()
(ஆ). வைட்டமின்கள் ()
(இ). கனிமங்கள் ()
8. பச்சிளம் குழந்தைக்கு அதீத பாலூட்டலினால் ஏற்படும் நற்பயன்கள் எவை?
(அ). பசியை தூண்டுதல் ()
(ஆ). மலச்சிக்கலை தடுத்தல் ()
(இ). நோய்தொற்றுக்கள் ஏற்படும் வாய்ப்பை குறைக்கிறது ()
9. போதுமான தாய்பாலூட்டும் அறிகுறி என்ன?
(அ). குழந்தை தொடர் அழுகையின் போது ()
(ஆ). 24 மணி நேரத்தில் 6-8 முறை சிறுநீர் கழித்தல் ()
(இ). குழந்தை தூக்கத்தில் இடையே ஏழுந்திருக்கும் போது ()
10. தாய்ப்பால் ஆரம்ப துவக்கத்தின் மூலம் தாயின் ஆரோகியம் நன்மைகள் எவை?
(அ). சோர்வை குறைக்கிறது ()
(ஆ). தொற்றுநோய் கிருமிகளிடமிருந்து காக்கப் படுகிறது ()
(இ). கர்ப்பை சுறுக்கு ஏற்படும், கற்பத்திற்கு முந்தைய நிலைக்கு திரும்புதல். ()
11. தாய்ப்பால் தொடர்ந்து கொடுப்பதன் மூலம் தாய்மைக்கு ஏற்படும் நன்மைகள்.
(அ). மார்க்பு புற்று நோய் மற்றும் கருமுட்டை புற்றுநோயை தடுக்கும் ()
(ஆ). உடல் எடையை அதிகரித்தல் ()
(இ). பிறப்புறுப்பில் ஏற்படும் தொற்றுக்கலை குறைக்கும் ()
12. பீச்சிய தாய்ப்பாலை குளிர்சாதனப் பெட்டியில் வைத்து பாதுகாக்கப்படும் நேரம்.
(அ). 48 மணி நேரம் ()
(ஆ). 24 மணி நேரம் ()
(இ). 12 மணி நேரம் ()

பகுதி : இ. தாய்பாலூட்டும் முறைகள்:

13. சுக பிரசவத்திற்கு பிறகு தாய்பால் கொடுக்க சிறந்த நிலை எது?

- (அ). அம்ர்ந்த நிலையில் பாலூட்டுதல் ()
- (ஆ). பக்கவாட்டில் படுத்தநிலையில் பாலூட்டுதல் ()
- (இ). நின்றபடி பாலூட்டுதல் ()
14. இரட்டை குழந்தைக்கு தாய்பால் கொடுக்க சிறந்த நிலை
- (அ). பக்க வாட்டில் படுத்த நிலையில் பாலூட்டுதல் முறை ()
- (ஆ). புட்பால் முறை ()
- (இ). தொடடில் முறை ()
15. எது சிறந்த மார்பக பற்றுதல் முறை.
- (அ). கீழ் உதடு உள்வாங்குதல் ()
- (ஆ). மேல் உதடு வெளி வாங்குதல் ()
- (இ). கீழ் உதடு வெளி வாங்குதல் ()
16. சிறந்த மார்பக பற்றுதலின் பயன்கள்?
- (அ). பால் உற்பத்தி அதிகரித்தல் ()
- (ஆ). பால் நுறையீரலில் சென்றடைவதை தடுத்தல் ()
- (இ). சீரணம் எளிதாக்குதல் ()
17. தாய்பால் கொடுத்தபின் செய்யப்பட வேண்டியவை
- (அ). குழந்தையை போர்வையால் சுற்றிவைத்தல் ()
- (ஆ). குழந்தையை தூங்க வைத்தல் ()
- (இ). குழந்தையின் முதுகை தட்டிக் கொடுத்தல் ()
18. குழந்தையை தட்டிக்கொடுக்கும் முறை எது?
- (அ). முதுகை தட்டி, தடவி கொடுத்தல் ()
- (ஆ). வயிற்றை அழுத்துதல் ()
- (இ). குழந்தையை குப்புற உறங்க வைத்தல் ()
19. தாய்பால் கொடுத்த பிறகு குழந்தையை கையாளும் சரியான முறை.
- (அ).வயிற்றுப் பகுதியில் வைத்து அணைத்தல் ()
- (ஆ). குழந்தையை மல்லார்ந்து படுக்கவைத்து ஒருபுறமாக தலையை திருப்புதல் ()
- (இ). குழந்தையின் தலையை சற்று மேலே ()
20. தாய்க்கு தாய்பால் பற்றிய விழிப்புணர்வை உணர்த்தும் சரியான நேரம்.
- (அ). தாய்மை அடையும் முன்பு ()
- (ஆ). பிரசவத்திற்கு பின்பு ()
- (இ). கர்பகாலத்தின் போது ()
21. பீச்சிய தாய்பால் கொடுக்கும் சரியான முறை

- (அ). பால் புட்டி மூலம் ()
 (ஆ). கரண்டி மற்றும் பாலாடை மூலம் ()
 (இ). துளியான் மூலம் ()

22. கீழ்க்கண்டவற்றில் எந்த முறையை வேலைக்குச் செல்லும் பெண்கள் தாய்பால் கொடுக்கும் முறை

- (அ). பவுடர் பால் ()
 (ஆ). பசும் பால் ()
 (இ). பீச்சிய பால் ()

23. குழந்தை பால் அறுந்தும் செயலை தடுப்பன எவை?

- (அ). செயற்கை சப்பான் ()
 (ஆ). பாலாடை ()
 (இ). பால்புட்டி ()

24. மார்பக இரத்தநாள வீக்கத்திற்கான தடுப்பு நடவடிக்கைகள்

- (அ). மார்பக அழுத்தம் ()
 (ஆ). அதீத பாலூட்டல் ()
 (இ). சரியான முறையில் தாய்பால் கொடுத்தல் ()

25. முறையற்ற இணைப்பினால் ஏற்படும் விளைவுகள்

- (அ). மார்பக கட்டி ()
 (ஆ). வலி மற்றும் விரக்தி ()
 (இ). புண் காம்பு ()

26. பிளவு காம்பிற்கு எது சரியான சிகிச்சை முறை

- (அ). பின்பால் தடவுதல் ()
 (ஆ). மிதமான வெப்பநிலையில் கொடுத்தல் ()
 (இ). செளக்கரியமான நிலை கொடுத்தல் ()

பகுதி : ஈ: தவறான பாலூட்டும் முறையால் ஏற்படும் பிரச்சனைகள்.

27. கீழ்க்கண்டவற்றுள் எந்தமுறை குழந்தைக்கு தாய்பால் அருந்துவது கடினமாக இருக்கும்.

- (அ). வெளிதள்ளிய மார்பக காம்பு ()
 (ஆ). உவாங்கிய மார்பக காம்பு ()
 (இ). சிறிய மார்பக ()

28. உள்வாங்கிய மார்பக காம்பிற்கு செய்ய வேண்டிய சிகிச்சை எது?
- (அ). மார்பக காம்பை, சிரஞ்சு மூலம் வெளிகொணர்தல் ()
- (ஆ). மார்பக காம்பை உள்ளே அழுத்துதல் ()
- (இ). மார்பக காம்பை அழுத்தி பின் சிரஞ்சு மூலம் வெளியே இழுத்தல் ()
29. தாய்பால் கொடுக்கும் போது தவறான முறையை கடைப்பிடிப்பதால் ஏற்படும் விளைவுகள்
- (அ). மார்பக காம்பு வீங்கியிருத்தல் ()
- (ஆ). மார்பக காம்பு பிளவு ()
- (இ). விலகிக் கொண்ட மார்பக காம்பு ()
30. புட்டிபால் கொடுப்பதன் விளைவுகள்
- (அ). தொற்று நோய் ()
- (ஆ). மார்பக கட்டி ()
- (இ). உடல் எடை அதிகரித்தல் ()

Annexure –VII
ANSWER KEY

SECTION A	SECTION B	SECTION C	SECTION D
1. c	7. b	13. a	27. b
2. a	8. c	14. b	28. a
3. a	9. b	15. c	29. b
4. c	10. c	16. b	30. a
5. b	11. a	17. c	
6. a	12. b	18. a	
		19. b	
		20. c	
		21. b	
		22. c	
		23. a	
		24. b	
		25. c	
		26. a	

BREASTFEEDING TECHNIQUE

Breast-Feeding Positions

The diagram illustrates four different breastfeeding positions: Cradle hold, Cross-cradle hold, Football hold, and Lying down. Each position shows a mother holding her baby in a way that facilitates breastfeeding.

BREAST MILK

- Easy to digest fat (esp. hindmilk),
- Vitamins,
- IgA
- Antibodies,
- Enough iron (Fe) for 1st six months,
- Breast Milk iron better absorbed

COLOSTRUM

- Small amount for the immature digestive system
- 'paints' the digestive tract
- Low fat for easy digestion
- Contains mothers antibodies which boost infants' immune system
- Acts as a laxative to ease passage of meconium

ADVANTAGES OF BREAST MILK FOR MOTHER

- Less postpartum bleeding
- More rapid uterine involution
- Weight loss
- Decreased premenopausal breast cancer rates
- Decreased ovarian cancer rates
- Saves money
- Saves time
- Babies love it



ADVANTAGES OF BREAST MILK FOR BABY

- Lower risk of
 - Diarrhea
 - Constipation
 - Infections
 - Ear, respiratory, meningitis, urinary tract
 - Chronic digestive diseases
 - Juvenile onset diabetes
 - Acute leukemia
- Provides immunologic protection while the infant's immune system is maturing
 - Antimicrobial agents
 - Anti-inflammatory agents
 - Immunomodulating agents

LATCHING

- 2-3 cms of areola in infants mouth
- Bottom lip out
- No dimpling in cheeks
- Nutritive Sucking
- Audible swallowing
- Mother will feel "tugging" but not pain
- Breasts are softer after nursing


BREAST FEEDING TECHNIQUES

- Sitting position 
- Cradle hold method 


BREAST FEEDING TECHNIQUES

- Side lying position 


BREAST FEEDING TECHNIQUES

- Foot ball method
- Used in case of twins feeding 

BURPING


- Immediately after feeding put the baby on the shoulder and tap the back of the baby until air expeles
- This can be done in sitting or standing
- Prevents vomitting 

INDICATIONS OF ADEQUATE FEEDING

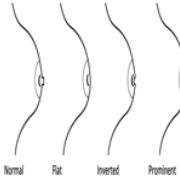
- 8 or more on demand feeding per day
- Baby sleeps well three hours after feed
- Baby voids 6-8 times per day
- Weight gain 30 gms per day 

PROBLEMS IN BREAST FEEDING

- Flat/inverted nipples,
- breast reduction surgery that severed milk ducts,
- previous breast abscess,
- extremely sore nipples (cracked, bleeding, blisters, abrasions)



Nipple Repair



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EXPRESSED BREAST MILK

- **Room temperature** (66-72°F, 19-22°C) for up to 10 hours, in a refrigerator (32-39°F, 0-4°C) for up to 8 days
- **Freezer compartment inside a refrigerator** (variable temperature due to the door opening frequently) for up to 2 weeks
- **Freezer compartment with a separate door** (variable temperature due to the door opening frequently) for up to 3 to 4 months.
- **Separate deep freezer** (0°F, -19°C) for up to 6 months or longer.



PACIFIER

- Should not be used
- Hinders in sucking reflex
- Causes infection



TAKE HOME MESSAGE

Remember to:

- 1. fed the baby
- 2. maintain the milk supply
- 3. continue breastfeeding



THANK YOU



பாலூட்டும் முறைகள்



தாய்ப்பால்

- ❖ இயற்கையாகவே கடவுளால் அளிக்கப்பட்ட வரம்.
- ❖ இது பூலோக அமிர்தம்.
- ❖ குழந்தை பிறந்தவுடன் அரைமணி நேரத்திற்குள் தாய்ப்பால் கொடுக்க வேண்டும்.
- ❖ குழந்தைக்கு தொடர்ந்து 6 மாதம் வரை தாய்ப்பால் மட்டும் கொடுக்க வேண்டும்.



சீம்பால்

- ❖ தாய்ப்பாலில் முதல் வடிவபால் சீம்பால்.
- ❖ இதில் அத்த எதிர்ப்பு சக்தி கொண்டது.
- ❖ குழந்தைக்கு கட்டாயம் தரவேண்டிய ஒன்று.
- ❖ இதனை வீண்ணாக்குதல் கூடாது.
- ❖ இது ஒரு தங்க பால்.



தாய்ப்பால் ஊட்டுவதால் ஏற்படும் நன்மைகள் (தாய்க்கு)

- ❖ உடல் எடை குறையும்.
- ❖ இயற்கையான கருதடுப்பாக உதவும்.
- ❖ கருப்பை சுறுக்கம் ஏற்படும் மற்றும் காப்பத்திற்கு முந்தைய நிலைக்கு திரும்ப உதவும்.
- ❖ தாய்மையின் அழகு மிளிரும்.

தாய்ப்பால் ஊட்டுவதால் ஏற்படும் நன்மைகள் (குழந்தைக்கு)

- ❖ எதிர்ப்பு சக்தி அதிகரித்தல்.
- ❖ குழந்தையின் உடல் எடை கூடும்.
- ❖ மூலை வளர்ச்சி சீராகவும்,
- ❖ சுறுப்பாகவும் வைக்கும்.
- ❖ குழந்தை ஆரோக்கியமாக இருக்கும்.



சரியான மாப்பக பற்றுதல்

- ❖ குழந்தையின் கீழ் உதடு வெளி வாங்குதல், மற்றும் மேல் உதடு வெளிவாங்குதலும் இருக்க வேண்டும்.
- ❖ குழந்தை மாப்பக காம்பை முழுமையாக பற்றியிருத்தல் வேண்டும்.
- ❖ மூக்கு அழுத்த கூடாது.
- ❖ வெளிகாற்று பாலுண்ணும் போது வாயின் உள்ளே போகா வண்ணம் இருக்க வேண்டும்.
- ❖ குழந்தை பாலுண்ணும் போது பால்லுரிச்சுதல் மற்றும் விழுங்குதலை கவனிக்க வேண்டும்.



தாய்ப்பால் ஊட்டும் முறைகள்

- i. அமாந்த நிலையில் பாலூட்டுதல்
- ii. தொட்டில் முறை



தாய்ப்பால் ஊட்டும் முறைகள்

- iii. பக்க வாட்டில் படுத்த நிலையில் பாலூட்டுதல்



தாய்ப்பால் ஊட்டும் முறைகள் புட்பால் முறை

- ❖ இது இரட்டை குழந்தைகள் இருப்பின் பாலூட்ட வசதியான முறை



பாலூட்டிய பின் செய் வேண்டியது

- ❖ குழந்தையை தாயின் தோள் மீது போட்டு முதுகை தட்டியும், தடவியும் கொடுக்க வேண்டும்.
- ❖ குழந்தைக்கு ஏப்பம் வரும் வரை இதனை செய்ய வேண்டும்.
- ❖ உட்காந்த நிலையிலும் தாயின் தொடை மீது குழந்தையை உட்காரவைத்து முதுகை தட்டித் தரவி.
- ❖ இவ்வாறு செய்வதால் குழந்தை பால் உண்டவுடன் வாந்தி எடுக்காது.



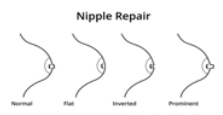
குழந்தைக்கு போதுமான பால் குடித்தலின் அறிகுறிகள்

- ❖ குறைந்தது 8-10 முறை பாலூட்டி இருக்க வேண்டும்.
- ❖ ஒவ்வொரு முறையும் இரண்டு மாம்பக்களையும் பாலூட்டி இருக்க வேண்டும்.
- ❖ குழந்தை ஒரு நாளைக்கு 6-8 முறை சிறுநீரகம் கழித்தல் வேண்டும்.
- ❖ குழந்தையின் எடை மாதம் மாதம் அதிகரித்தல் வேண்டும்.



தாய் பாலூட்டா உள்ள தடைகள்

- ❖ மாம்பக காம்பு பிளவு.
- ❖ உள்வாங்கிய மாம்பக காம்பு.
- ❖ சிறிய மாம்பக காம்பு.
- ❖ விலக்கிக் கொண்ட மாம்பக காம்பு.
- ❖ மாம்பக பால் கட்டுதல்.



பீச்சிய தாய் பால்

❖ குழந்தைக்கு நேரடியாக தாய்பால் கொடுக்க முடியாத சூழ்நிலையில் பீச்சிய தாய்பால் கொடுக்கலாம்.

❖ பீச்சிய தாய்ப்பாலை குளிர்சாதனப் பெட்டியில் 24 மணி நேரம் வரை பாதுகாப்பாகவும், கெடாமலும் இருக்கும்.

❖ பீச்சிய பாலை பால்புட்டியிலோ அல்லது

❖ பாலாடை மூலமாகவோ குழந்தைக்கு

❖ கொடுக்கலாம்.



செயற்கை சப்பான்

❖ இதை பழக்கப்படுத்துதல் மிகவும் தீங்கானது.

❖ குழந்தையின் பாலுருஞ்சும் தண்மையை குறைக்கும்.

❖ சுத்தமற்ற சப்பான்

பயன்படுத்துவதால் குழந்தை அடிக்கடி நோய் வாய்படும்



தாய்பாலூட்டலின் கரு

❖ தாய்பாலே சிறந்த, பாதுகாப்பான, சுத்தான உணவு.

❖ மொதம் அல்லது ஒரு வயது வரை கட்டாயம் தாய்பால் கொடுக்க வேண்டும்.

❖ சரியான தாய்பாலூட்டும் முறையை கையாள வேண்டும்.



❖ "தாய்பால் புகட்டுவீர், ஆரோக்கியமான வாழ்வை குழந்தைக்கு அளிப்பீர்"



நன்றி