

Original Research Article

## Effect of Antenatal Lactation Counselling on Knowledge and Breastfeeding Practices among Mothers

Sindhu Thomas<sup>1</sup>, Dr. Naiman Mohanty<sup>2</sup>, Dr Prabha K Dasila<sup>3</sup>

<sup>1</sup>PhD Scholar, MGM Institute of Health Sciences, <sup>3</sup>Prof & Director, MGM Institute's University  
Department of Nursing, Kamothe, Navi Mumbai

<sup>2</sup>M.D.Peds, M.S, MGM Hospital, Kalamboli, MGMIHS, Navi Mumbai

Corresponding Author: Sindhu Thomas

### ABSTRACT

Antenatal lactation counselling is the process of counselling women during pregnancy regarding the importance of exclusive breastfeeding and its immediate initiation. Information on breastfeeding received during pregnancy period influence the initial breastfeeding preparations, resulting in prolonged breastfeeding outcome along with persistent postnatal counselling. In India, the support and guidance received by mothers to promote breastfeeding is not steady and the duration of breastfeeding counselling should be prolonged.

**Objectives:** To assess knowledge regarding breast feeding among antenatal mothers before and after counselling

To assess reported practices regarding breast feeding among antenatal mothers before and after counselling

To compare the breast feeding practices among mothers in interventional and control group after delivery

**Materials and Methods:** Quasi interventional design is used with convenient sampling where samples are selected from a maternity hospital. A structured interview schedule is used to assess the knowledge and reported practices of 100 mothers. A series of counselling is given in third trimester as well as on the day of delivery till the day of discharge for the interventional group.

**Results:** The mean post test knowledge score of mothers in interventional group were 23.32 as compared to score of mothers in control group i.e. 13.58 at  $p=0.00$  level. The mean post test reported practices score of mothers in interventional and control group were 12.92 and 9.24 respectively. The mean of breast feeding practices of both groups were found to be 19.34 and 10.32 respectively.

**Conclusion:** Therefore consistent counselling plays an important role in enhancing the knowledge and practices of breastfeeding right from antenatal period.

**Key words:** Effect, Antenatal Lactation Counselling, Breastfeeding, Knowledge, Practices, Mothers

### INTRODUCTION

Exclusive breastfeeding is single most intervention to reduce infant mortality rates. It saves life and ensures quality

survival for adulthood. Optimal Infant and Young Child Feeding includes early initiation and exclusive breastfeeding till 6 months of age followed by introduction of

complimentary feeding in form of homemade semi solid foods. Breastfeeding should be continued for at least two years of age along complimentary feeding. [1] The World Health Organization recommends that breast feeding should start within an hour of birth and should be exclusively breast fed on demand for the first six months. [2] Exclusive breastfeeding is a cornerstone of a child's survival and child health because it provides essential and irreplaceable nutrition for a child's growth and development. It serves as a child's first immunization by providing protection from respiratory infections, diarrhoeal disease, and other potentially life-threatening ailments. Exclusive breastfeeding also has a protective effect against obesity and certain non-communicable diseases later in life. [3] One of the WHO Global Targets 2025 is to increase the rate of exclusive breastfeeding in the first 6 months up to at least 50% in order to improve maternal, infant and young child nutrition. Unfortunately only 38% of infants aged 0 to 6 months are exclusively breastfed globally. Recent analyses indicate that sub optimal breastfeeding practices, including non-exclusive breastfeeding, contribute to 11.6% of mortality in children under 5 years of age. This was equivalent to about 8, 04,000 child deaths in 2011. [4]

Even though it is a natural act, breast feeding is also a learned behaviour. Virtually all mothers can breast feed provided they have accurate knowledge and support within the families and communities and also from the health care system. [5] Formal breastfeeding education is that which is provided over and above the breastfeeding information given as part of standard antenatal care, and which may include individual or group education sessions led by peer counsellors or health professionals, home visits, lactation consultation, distribution of printed/written materials, video demonstrations and inclusion of prospective fathers in learning activities. The antenatal period affords an opportunity for providing pregnant women and their partners and families with

information about the benefits of breastfeeding at a time when many decisions about infant feeding are being contemplated. [6]

### **Need of the Study**

South Asia has the highest number of under-five deaths and under-five children who are underweight. According to the estimation done by United Nations Standing Committee on Nutrition (UNSCN), 16 countries contributed to 80% of underweight children in the world, of which 5 of these countries are from South Asia. In this, India leads the countries with 40% of the global burden. Optimal Infant And Young Child Feeding which includes initiation of breastfeeding within an hour of birth, exclusive breastfeeding for the first six months, complementary feeding after six months along with continued breastfeeding for 2 years and beyond has been identified as a public health intervention to prevent child morbidity, child mortality, and malnutrition. The World Health Organization has identified "poor infant feeding" as a risk factor for survival of the child. In 2015 India scored 78/150 in the World Breast feeding Trends Initiative's (WBTi) assessment of 15 factors in policy and programmes and infant and young child feeding. There is only a small improvement from 68/150 in 2005. India ranks poorly alongside other South Asian countries such as Bangladesh, Sri Lanka and even Afghanistan. Around 26 million babies born in India every year and only about 45% are breast fed within the first hour of life and that 65% of children are exclusively breast fed for the first six months. According to WBTi India should monitor and prioritise breast feeding and optimum feeding practices to improve breast feeding rates. [7]

To enable mothers to establish and sustain exclusive breastfeeding for 6 months, WHO and UNICEF recommends Initiation of breastfeeding within the first hour of life, exclusive breastfeeding that is the infant only receives breast milk without any additional food or drink, not even water,

breastfeeding on demand that is as often as the child wants, day and night and no use of bottles, teats or pacifiers. <sup>[3]</sup>

According to Infant Survival and Development Report Card initiation of breast feeding within one hour is 52% where as exclusive breast feeding from 0-6 months is 53% in Maharashtra. <sup>[8]</sup>

There are various challenges including cultural practices which hamper exclusive breastfeeding still prevailing in India. There is lack of correct information and women need skilled counselling on optimal Infant and Young Child Feeding (IYCF) practices on continued basis beginning from conception. Women also need support at the work place in form of crèches and maternity leave to all working women, one that allows for exclusive breastfeeding for 6 months. Exclusive breastfeeding is an important pathway indicator to check upon the impact on malnutrition. Government of India should make all efforts to strengthen all support systems to create enabling environments to maintain and aspire for rise in exclusive breastfeeding both for nutrition and survival of babies. <sup>[7]</sup>

The investigator found that there is no adequate preparation is given to antenatal mothers regarding breast feeding in regular antenatal clinics. Antenatal counselling helps a mother and her family to understand the need of diet for increasing the breast milk, preparation of breast nipples for successful breast feeding, breast changes in pregnancy, mental preparation for the new role of motherhood and the importance of spouse and other family members in supporting her. Mainly counselling should focus on exclusive breast feeding and its importance, immediate initiation of breast feeding, techniques and positioning, importance of colostrum, indicators of adequacy of successful breast feeding, expression and storage of breast milk. A consistent series of counselling and assistance is required even in the delivery room as well as in the immediate post natal period for a successful attainment of breast

feeding skills. In regard of above findings the researcher is focused to assess the effect of antenatal lactation counselling on knowledge and practices among mothers.

### **Review of Literature**

Goyal RC, Banginwar AS, Ziyoo F and Towerir AA conducted an observational study in two hospitals of Libiya among 192 mother-neonate units regarding their breastfeeding practices using WHO B-R-E-A-S-T- Feed observation form. They mainly focused on positioning, attachment (latch-on) and effective suckling of neonates on the breast. It was found out that poor breast feeding positioning and techniques are observed mainly in primi mothers along with poor attachment of neonates to the breast. Poor attachment is also associated with sore nipples and mastitis. This study recommended that primi mothers need more support and counselling for appropriate breast feeding techniques. Also it is recommended that each mother should be observed for mother's and infant's positioning and attachment at the onset of breastfeeding and if needed given counselling can be given for maintaining correct positioning and attachment of newborn. <sup>[9]</sup>

A community based survey was conducted by Joshi H, Magon P and Raina S on 1267 mother-infant pair with an age group of 0-24 months to assess latch on position and its impact on health status of the child. A semi-structured questionnaire along with the WHO criteria for assessment of correct latch on position was used in this study. It is observed that only 29.9% mothers initiated breastfeeding within 1 hour of delivery. Mothers who had high parity had better positioning scores as compared to mothers with low parity. About 83.7% mothers who had parity >2 had excellent scores as compared to those mothers having one child or two children. A significant association was observed between mothers with poor breast feeding positioning and frequency of children suffering from common illness in childhood

like diarrhoea and acute respiratory tract infection with a significant p value <0.001. This study recommended that each mother should be observed for mothers and infant's positioning and attachment at the onset of breastfeeding and necessary counselling should be given on correct breast feeding positioning and attachment of infant on breast. [10]

Kishore SS, Kumar P and Aggarwal AK carried out a community survey in rural population from six villages of North India regarding mother's knowledge and their breast feeding practices. The sample size of the study was 77 and all the mother's of infants less than 6 months of age were interviewed using a semi structured questionnaire and an observation checklist is used to assess the direct observation while feeding. It was found out that exclusive breast feeding was practiced by 30% of mothers till 4 months and 10% of mothers till 6 months of age. A good attachment is found in 42% mother-infant pairs and correct position of holding infants during breast feeding is practiced by 60% mothers. Only thirty-nine percent of the mothers had satisfactory level of knowledge regarding breastfeeding. It is also found out that there is a significant association between lack of breast feeding counselling and decreased rates of exclusive breast feeding. The authors recommended that focused breastfeeding counselling and advice by the health workers with emphasis on correct technique can improve the positive breastfeeding practices. [11]

Ananthakrishnan S, Kasinathan B and Sounderrajan P conducted a cross sectional observational study on 150 antenatal mothers in Puducherry. Antenatal counselling was given to 71.3% of mothers regarding initiation of breast feeding, prelacteal feeds and use of milk substitutes along with breast examination for any abnormalities. But the antenatal counselling couldn't sort out common issues like insufficient breast milk or occurrence of breast engorgement. It was found out that antenatal counselling was focused more on

advantages of breast feeding rather than the feeding techniques, the need of training for mothers and adequate communication. This study also recommended for consistent counselling in post partum period as well as post natal visits for establishment of successful lactation. Also it is emphasised in this study that no health professionals are spending enough time with the mothers in educating and demonstrating lactation techniques. Therefore this study emphasised for modulating suitable strategies like organising workshops with hands on experience for health workers which may in turn help to improve the quality of antenatal counselling. [12]

Choudhary R and et al conducted a randomised control trial on effect of lactation counselling on breast feeding. The samples were 1230 antenatal mothers each in both groups who are admitted in a hospital in North India during their third trimester for delivery. Lactation counsellors counselled mothers mainly in early initiation of breast feeding, use of colostrums, avoiding prelacteal feeds at birth and breast feeding rates at the time of discharge. It is found out that the breast feeding initiation, rates at discharge and follow up were significantly higher in intervention group along with significantly low administration of prelacteal feeds. [13]

## **OBJECTIVES**

To assess knowledge regarding breast feeding among antenatal mothers before and after counselling

To assess reported practices regarding breast feeding among antenatal mothers before and after counselling

To compare the breast feeding practices among mothers in interventional and control group after delivery

## **MATERIALS AND METHODS**

The study adopted a quantitative research approach with quasi interventional research design. Sampling design was convenient sampling and the sample size was 100. A structured questionnaire is

prepared to assess the knowledge and reported practices and validated by various experts in the field and the reliability is checked by test retest method with the help of Karl Pearson's Formula. It was found out that the r value of questionnaire to assess knowledge was  $r=0.88$  and that of reported practices was  $r=0.79$ . The breastfeeding practices were assessed by an observation checklist and it is validated. The reliability of the observation checklist is checked by inter-rater method with the help of Cohen's Kappa (k) and it is found to be 0.7 which in turn shows a good reliability. LATCH: A standardised breast feeding charting system and documentation tool was also used to assess the attachment of infant to the breast. The antenatal mothers who attend the antenatal OPD in their third trimester were taken in groups of 4-5 and were given pretest of knowledge and counselling for 20 minutes were included in interventional group. These mothers were again given counselling in the delivery room and in the immediate post natal days with effective demonstration. The pre test of reported practices was taken on the first day after delivery. The post test of both knowledge and reported practices were taken on the day of discharge. The mothers in control group were given the pre test in the third trimester and post test was given on the day of discharge after the delivery. These mothers were given with routine obstetrician's counselling. Breast feeding practices of mothers of both interventional and control group were observed.

The study proposal has been sanctioned by the Ethical committee of the institute. Permission was obtained from the concerned authority and valid written informed consent was taken from participants.

The tool was developed based on review of literature consist of Section A: Demographic Variables, Section B: Structured questionnaire to assess the knowledge regarding breast feeding, Section C: Structured questionnaire to assess the reported practices regarding breast feeding.

Score of practices: 1 point score for right and 0 point score for wrong answers is given. Unpaired t test is used to find out the significance of counselling between experiment and control group. Section D: Observation Checklist to assess the breast feeding practices of mothers. A score point of 1 is given for correct practice and 0 score point for wrong practices. Section E: LATCH: A standardised breast feeding charting system and documentation tool is also used to assess the attachment of infant to the breast.

## RESULTS

**Objective 1:** To assess knowledge regarding breast feeding among antenatal mothers before and after counselling

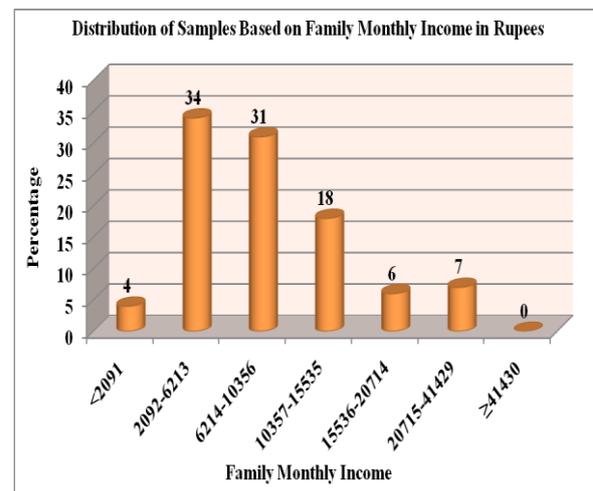


Figure 1: Distribution of Samples Based on Family Month

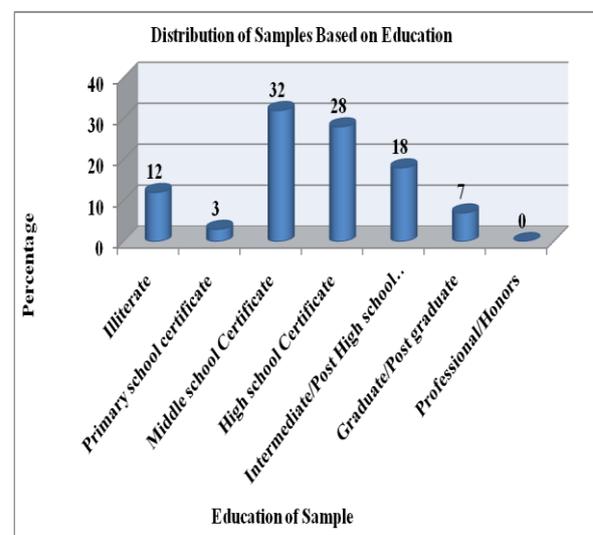
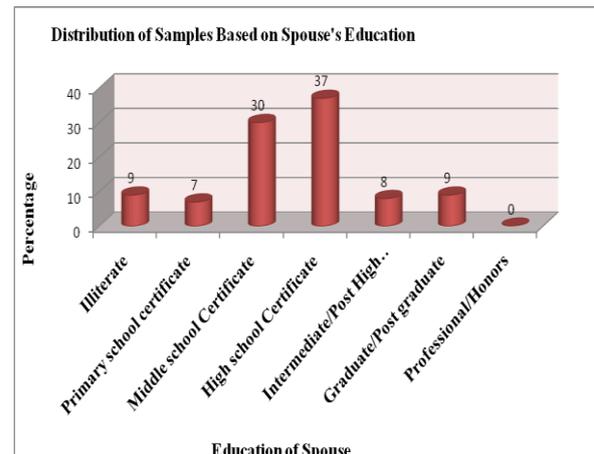


Figure 2: Distribution of Samples Based on Educatio

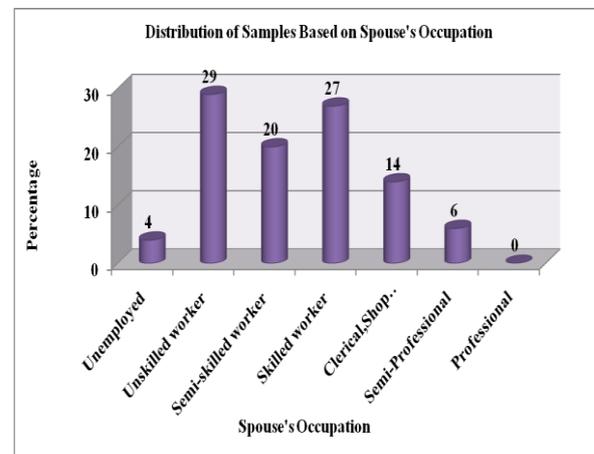
**Table 1: Distribution of Samples Based on Age, Number of children, Type of family, Religion, Education of Sample and Spouse, Occupation of Sample and Spouse N=100**

| Demographic Characteristics  | F   | %   |
|--|-----|-----|
| Age in Years   |     |     |
| <20  | 21  | 21  |
| 21-30  | 70  | 70  |
| 30-40  | 9   | 9   |
| Number of Children   |     |     |
| 0  | 54  | 54  |
| 1  | 29  | 29  |
| 2  | 13  | 13  |
| 3  | 2   | 2   |
| ≥4   | 2   | 2   |
| Type of Family   |     |     |
| Nuclear  | 36  | 36  |
| Joint  | 57  | 57  |
| Extended   | 7   | 7   |
| Religion   |     |     |
| Hindu  | 95  | 95  |
| Muslim   | 5   | 5   |
| Christian  | 0   | 0   |
| Family Income per Month in Rupees                                  |     |     |
| <2091  | 4   | 4   |
| 2092-6213  | 34  | 34  |
| 6214-10356   | 31  | 31  |
| 10357-15535  | 18  | 18  |
| 15536-20714  | 6   | 6   |
| 20715-41429  | 7   | 7   |
| ≥41430   |     |     |
| Education of Sample  |     |     |
| Illiterate   | 12  | 12  |
| Primary school certificate   | 3   | 3   |
| Middle school Certificate  | 32  | 32  |
| High school Certificate  | 28  | 28  |
| Intermediate/Post High school Certificate                          | 18  | 18  |
| Graduate/Post graduate   | 7   | 7   |
| Professional/Honours   | 0   | 0   |
| Occupation of Sample   |     |     |
| Unemployed   | 100 | 100 |
| Unskilled worker   | 0   | 0   |
| Semi-skilled worker  | 0   | 0   |
| Skilled worker   | 0   | 0   |
| Clerical, Shop owner, Farmer                                       | 0   | 0   |
| Semi-Professional  | 0   | 0   |
| Professional   | 0   | 0   |
| Education of Sample's Spouse                                       |     |     |
| Illiterate   | 9   | 9   |
| Primary school certificate   | 7   | 7   |
| Middle school Certificate  | 30  | 30  |
| High school Certificate  | 37  | 37  |
| Intermediate/Post High school Certificate                          | 8   | 8   |
| Graduate/Post graduate   | 9   | 9   |
| Professional/Honours   | 0   | 0   |
| Occupation of Sample's Spouse                                      |     |     |
| Unemployed   | 4   | 4   |
| Unskilled worker   | 29  | 29  |
| Semi-skilled worker  | 20  | 20  |
| Skilled worker   | 27  | 27  |
| Clerical, Shop owner, Farmer                                       | 14  | 14  |
| Semi-Professional  | 6   | 6   |
| Professional   | 0   | 0   |
| Socio economic Class (Acc to Modified Kuppusswamy Scale; Jan 2017) |     |     |
| I Upper  | 0   | 0   |
| II Upper Middle  | 11  | 11  |
| III Lower Middle   | 26  | 26  |
| IV Upper Lower   | 62  | 62  |
| V Lower  | 1   | 1   |

Majority of the samples i.e. 70% were belonging to the age group between 21-30 years where as 21% were below and equal to 20 years. 54% of samples were primi mothers while 29% had one child. The samples who had two children were 13% where as 4% had three and more children. Most of them (57%) belong to joint family yet 36% of samples belong to nuclear family and 7% belonging to extended family. Greater number (95%) of samples was Hindus and 5% were Muslims. Socioeconomic class was calculated according to Modified Kuppusswamy Scale updated on Jan 2017. This is based on the education, occupation and family monthly income of samples and their spouses. More than half samples (62%) were from upper lower class and 26% is classified in lower middle class. Only 11% of samples were from upper middle and 1% from lower class.



**Figure 3: Distribution of Samples Based on Spouse' Education**



**Figure 4: Distribution of Samples Based on Spouse' Occupation**

**Table 2: Significance of Difference in Pre test and Post test Overall Knowledge Score among Interventional Group and Control Group in Relation to Breast feeding N=100**

| Group  | Pre test |      | Post test |      | p value (Unpaired t test) |
|--|----------|------|-----------|------|---------------------------|
|  | Mean     | SD   | Mean      | SD   |                           |
| Interventional Group (Antenatal Counselling) | 10.4     | 3.26 | 23.32     | 3.76 | 0.00                      |
| Control Group (Routine Counselling)          | 10.66    | 3.84 | 13.58     | 6.67 |                           |

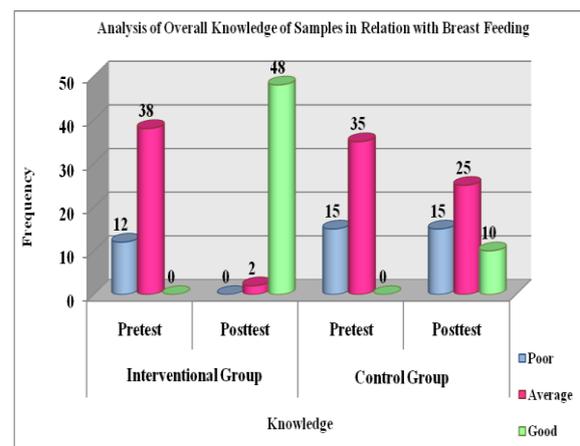
Table 2 depicts the significance of difference in pre test and post test overall knowledge score among interventional and control group is significant at p value 0.00 which is highly significant. The statistical test used was unpaired t test with the help of mean difference between the pre test and post test. The calculated t value is greater than the tabulated t value. Therefore the null hypothesis  $H_0$  is rejected and the alternate hypothesis  $H_1$  is accepted.

**Table 3: Analysis of Overall Knowledge of Samples in Relation to Breast Feeding N=100**

| Knowledge      | Interventional Group (F) |           | Control Group (F) |           |
|----------------|--------------------------|-----------|-------------------|-----------|
|                | Pre test                 | Post test | Pre test          | Post test |
| Poor (0-8)     | 12                       | 0         | 15                | 15        |
| Average (9-18) | 38                       | 2         | 35                | 25        |
| Good (19-25)   | 0                        | 48        | 0                 | 10        |

Table 3 shows 12 samples were having poor knowledge where as 38 samples were having average knowledge in the pre test of interventional group. But lactation counselling improved the frequency of good knowledge score by

48%. Meanwhile in control group there is not much difference in the frequency of samples in each category of pre test and post test. 10 samples knowledge got increased from average to good score. A detailed figure is added below for further explanation.



**Figure 5: Analysis of Overall Knowledge of Samples in Relation to Breast Feeding**

**Table 4: Category Wise Analysis of Knowledge of Samples Regarding Breast feeding N=100**

| Group                | Category  | Pre test |         |      | Post test |         |      |
|----------------------|---|----------|---------|------|-----------|---------|------|
|                      |   | Poor     | Average | Good | Poor      | Average | Good |
| Interventional Group | Importance and initiation of breast feeding     | 7        | 43      | 0    | 0         | 3       | 47   |
|                      | Prelacteal feeds and Diet during breast feeding | 9        | 14      | 27   | 2         | 0       | 48   |
|                      | Preparation & Techniques of breast feeding      | 16       | 33      | 1    | 0         | 2       | 48   |
|                      | Indicators of adequacy of breast feeding        | 47       | 1       | 2    | 0         | 15      | 35   |
|                      | Expression & Storage of breast milk             | 46       | 4       | 0    | 0         | 14      | 36   |
| Control Group        | Importance and initiation of breast feeding     | 0        | 50      | 0    | 0         | 40      | 10   |
|                      | Prelacteal feeds and Diet during breast feeding | 17       | 6       | 27   | 17        | 6       | 27   |
|                      | Preparation & Techniques of breast feeding      | 22       | 26      | 2    | 18        | 20      | 12   |
|                      | Indicators of adequacy of breast feeding        | 43       | 1       | 6    | 22        | 0       | 28   |
|                      | Expression & Storage of breast milk             | 42       | 8       | 0    | 22        | 18      | 10   |

Table 4 explains that majority of the samples had poor knowledge in preparation for breast feeding, techniques and positioning of breast feeding, baby's indicators of adequacy of breast feeding expression and storage of breast milk in pre test of both interventional and control group. But the post test values in the interventional group progresses as compared to control group.

**Objective 2:** To assess reported practices regarding breast feeding among antenatal mothers before and after counselling

**Table 5: Significance of Difference in Pre test and Post test Overall Reported Practices Score among Interventional Group and Control Group in Relation to Breast feeding N=100**

| Group                | Pre test |      | Post test |      | p value (Unpaired t test) |
|----------------------|----------|------|-----------|------|---------------------------|
|                      | Mean     | SD   | Mean      | SD   |                           |
| Interventional Group | 10.9     | 2.25 | 12.92     | 3.09 | 0.00                      |
| Control Group        | 8.8      | 1.6  | 9.24      | 2.43 |                           |

Table 5 shows the significance of difference in pre test and post test overall reported practices score among interventional and control group is significant at p value 0.00 which is highly significant. The statistical test used was unpaired t test with the help of mean difference between the pre test and post test. The calculated t value is greater than tabulated t value. Therefore the null hypothesis  $H_0$  is rejected and the alternate hypothesis  $H_1$  is accepted.

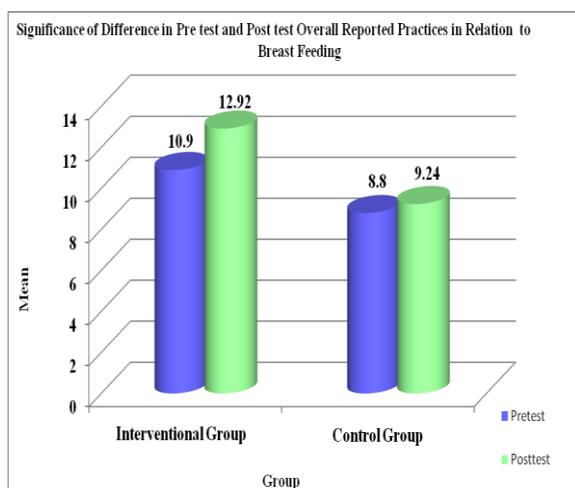


Figure 6: Significance of Difference in Pre test and Post test Overall Reported Practices Score among Interventional and Control Group in Relation to Breast feeding

Figure 6 shows that the post test mean of reported practices of breast feeding is increased when compared to pre test mean in the interventional group where as the changes in control group is minimal.

Table 6: Analysis of Overall Reported Practices of Samples in Relation to Breast Feeding N=100

| Reported Practices | Interventional Group (F) |           | Control Group (F) |           |
|--------------------|--------------------------|-----------|-------------------|-----------|
|                    | Pre test                 | Post test | Pre test          | Post test |
| Poor (0-5)         | 0                        | 0         | 2                 | 2         |
| Average (6-11)     | 29                       | 7         | 46                | 40        |
| Good (12-15)       | 21                       | 43        | 2                 | 8         |

Table 6 shows that a large number of samples (29) in interventional group and that of control group (46) have average amount of practices. But consistent counselling increased the majority of samples (43) into good score in post test in the interventional group.

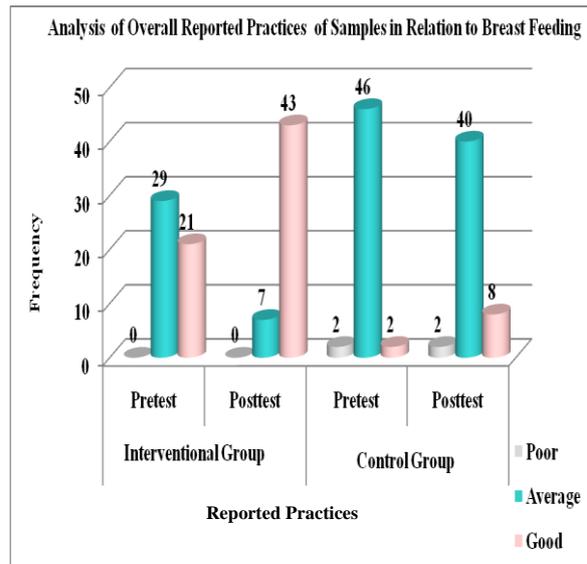


Figure 7: Analysis of Overall Reported Practices of Samples in Relation to Breast Feeding

**Objective 3:** To compare the breast feeding practices among mothers in interventional and control group after delivery

Table 7: Significance of Difference in Breast Feeding Practices among Interventional and Control Group N=100

| Group          | Mean  | SD   | p value (Unpaired t test) |
|----------------|-------|------|---------------------------|
| Interventional | 19.4  | 0.67 | 0.00                      |
| Control        | 10.32 | 3.73 |                           |

Table 7 shows that the mean breast feeding practices of interventional group is very higher (19.4) compared to that of control group (10.32) with a lesser standard deviation of 0.67 as that of control group (3.73).

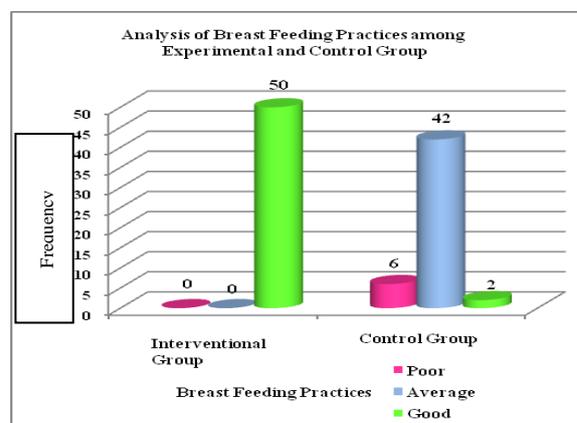


Figure 8: Analysis of Breast Feeding Practices among Interventional and Control Group

Figure 8 shows that all mothers (50) who received antenatal lactation counselling

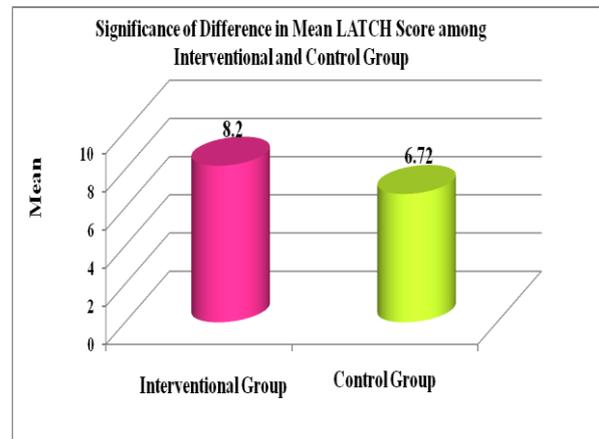
had good breast feeding practices where only 2 mothers had good practices in control group. Meanwhile 42 samples in the control group had average and 6 samples had poor breast feeding practices.

**Table 8: Item Wise Analysis of Mean Breast Feeding Practice Score of Samples in Interventional and Control Group N=100**

| Items   | Interventional Group | Control Group |
|---|----------------------|---------------|
| <i>Mother Parameters</i>                                |                      |               |
| Mean  |                      |               |
| Shows interest in breast feeding                        | 0.94                 | 0.84          |
| Comfortable position during breast feeding              | 0.98                 | 0.14          |
| Practices rooming-in                                    | 0.96                 | 0.96          |
| Encourages baby to suck breast even though milk is less | 1                    | 0.4           |
| Encourages demand feeding                               | 0.92                 | 0.76          |
| Breast feeding lasts for 15-20 minutes                  | 0.96                 | 0.2           |
| Feeds on both breast at the same sitting                | 0.94                 | 0.18          |
| Start the next feed with the last fed breast            | 0.94                 | 0.08          |
| Burp the baby after each feed and the method is correct | 0.94                 | 0.44          |
| Absence of breast engorgement/ sore nipples             | 1                    | 0.78          |
| Emotionally stable                                      | 1                    | 0.7           |
| Maintains her routine hygienic practices                | 1                    | 0.68          |
| <i>Baby Parameters</i>                                  |                      |               |
| Comfortable position is maintained                      | 0.94                 | 0.14          |
| Audible swallowing sound during the feed                | 1                    | 0.08          |
| Full areola is used to make the teat                    | 0.96                 | 0.24          |
| Baby passes urine 6-8 times in a day                    | 1                    | 0.52          |
| Colostrum is given                                      | 1                    | 0.82          |
| Meconium/Stool passed                                   | 1                    | 0.96          |
| Pre-lacteal feed is not given                           | 1                    | 0.78          |
| Baby is calm and active after breast feeding            | 0.92                 | 0.62          |

Table 8 explains the detailed comparison of breast feeding practices among interventional and control group. The maternal parameters included the mental preparation of mother for breast feeding, techniques, positioning, burping, practices of rooming in and hygiene of mother. The baby parameters consists of comfortable positioning, audible sound while feeding, teat formation while breast feeding, frequency of urine, passage of meconium, colostrum, any administration of prelacteal feed or milk substitutes as well as calmness after breast feeding. There is a

significant difference in almost all practices among interventional and control group.



**Figure 9: Significance of Difference in Mean LATCH Score among Interventional and Control Group**

Figure 9 shows the mean values of interventional and control group based on LATCH Tool. This is a standardised breast feeding charting system and documentation tool. The mean value of LATCH tool in the interventional group was 8.2 with a SD of 0.96 where as that of control group is 6.72 with a SD of 1.31.

**Table 9: Comparison of Mean Score in LATCH Tool among Interventional and Control Group N=100**

| Components of LATCH Tool     | Interventional | Control | p value |
|------------------------------|----------------|---------|---------|
| L Latch                      | 1.72           | 1.22    | 0.0000  |
| A Audible Swallowing         | 1.82           | 1.34    | 0.0000  |
| T Type of Nipple             | 1.52           | 1.62    | 0.0000  |
| C Comfort of breast & nipple | 1.9            | 1.66    | 0.0000  |
| H Hold                       | 1.22           | 0.88    | 0.0001  |

Table 9 shows the mean score of each component of LATCH tool. L indicates the grasp of the baby on the breast. A shows the audible sound whether it is consistent and spontaneous. T indicates the type of nipple whether it is inverted or flat or everted after stimulation. C indicates the comfort of nipples and breast to assess the any complications that can be managed. H indicates the positioning which indicates the degree of assistance the mother needed for breast feeding. Each component of the tool had three scores of 0, 1 and 2 and the scoring is based on the observation of the researcher. In all the aspects the interventional group scored higher than the

control group with a level of significance of  $p=0.00$ .

## DISCUSSION

The purpose of this study was to see the long term impact of antenatal counselling in breast feeding practices of mothers in turn helps for better surveillance of the baby. Even though the need of exclusive breast feeding for the baby and mother is well known in the world, the actual breast feeding practice is not up to the recommendation. This study shows that antenatal lactation counselling can really improve the breast feeding rates by preparing mothers in the antenatal period itself. But counselling should be continued in the postnatal period with the help of demonstrations and adequate assistance for successful breast feeding rates and practices.

In this study more than half of the samples are primi mothers. This finding is in concordance with the study conducted in 2 hospitals (Goyal RC, Banginwar AS, Ziyof and Towerir AA) which emphasised the need of counselling of primi mothers regarding the techniques and positioning of breast feeding. In the present study the signs of poor attachment are observed more in control group with a mean of 1.77 as compared to that of control group 1.22. The previous study explained the need of teaching and counselling with adequate demonstration for better attachment of neonate to the breast.

In this study antenatal counselling is given in the third trimester of mothers who visited antenatal OPD. A similar study is conducted by Choudhary et al <sup>[13]</sup> in North India with a large sample size. But counselling session didn't give much importance for the techniques and positions of breast feeding where in the present study a major difference is found in knowledge and practices in techniques and positioning between interventional and control group. A breast examination which is not included in that study is a part of our study. Also, our counselling included how to express breast milk and store in case of emergency is well

explained which is not covered in the previous study.

## Recommendations:

Based on the results of the current study it is recommended that

- Lactation counselling should be included as a hospital protocol in the antenatal visits for the complete preparation of mother to breastfeed. Nipple examination also needs to be mandatory in antenatal period to reduce the complications of breast feeding. This counselling session should be based as per the recommendation of WHO.
- Further studies can be taken place till various aspects of breast feeding attain the WHO Global Targets 2025 in order to improve maternal, infant and young child nutrition.
- Studies can be done on family support for breast feeding practices.
- A web-based survey can be opted for data collection but the combination of it with qualitative research method may help in deeper knowledge in breastfeeding counselling field.
- Further longitudinal studies can be done to see the effect of breast feeding on growth and development and neurological development in children

## CONCLUSION

This study unveiled the fact that there is a gap between recommended guidelines for breastfeeding counselling and its implementation. Although medical professionals know the importance of breastfeeding, few only actually put in daily practice, which results in the poor outcome. Issues related to breast feeding and milk production is rising as mothers are following proper practices, may be due to lack of knowledge. Therefore, more attention should be given to the all the health professionals who come into contact with pregnant mothers on antenatal lactation counselling so that the mother use recommended methods. Also a consistent counselling with adequate demonstration is

essential for reinforcing the correct breast feeding practices. At national level women also need support at the work place in form of crèches and maternity leave to all working women, one that allows for exclusive breastfeeding for 6 months. Exclusive breastfeeding is an important pathway indicator to check upon the impact on malnutrition. Therefore the Government of India should make all efforts to strengthen all support systems to create enabling environments to maintain and aspire for rise in exclusive breastfeeding both for nutrition and survival of babies.

## REFERENCES

1. Tiwari S, Bharadva K, Yadav B, Malik S, Gangal P, Banapurmath CR et al. IYCF chapter of IAP. Infant and Young Child Feeding Guidelines: Recommendation. Indian Pediatr. 2016;53:703-13. 2.
2. World Breastfeeding Trends Initiative. Arrested development: Fourth assessment of India's policy and programmes on infant and young child feeding. 2015. Available at <http://bpni.org/report/WBTi-India-Report2015.pdf>. assessed 25/06/2017
3. WHO. Nutrition: Exclusive Breast Feeding. Available at [http://www.who.int/nutrition/topics/exclusive\\_breastfeeding/en/](http://www.who.int/nutrition/topics/exclusive_breastfeeding/en/)
4. WHO Nutrition Global Targets 2025: To improve maternal, infant and young child nutrition. Available at <http://www.who.int/nutrition/global-target-2025/en/>
5. WHO and UNICEF. Global Strategy for Infant and Young Child Feeding.2003 Available at <http://www.who.int/nutrition/publications/infantfeeding/9241562218/en/>
6. Willumsen J. Breastfeeding education for increased breastfeeding duration: Biological, behavioural and contextual rationale [Internet]. 2013 [2013 July]. Available from [http://www.who.int/elena/bbc/breastfeeding\\_education/en/](http://www.who.int/elena/bbc/breastfeeding_education/en/)
7. Arrested Development. India's Policies and Programmes on Infant and Young Child Feeding 2015. World Breastfeeding Trends Initiative (WBTi). Available from <http://www.worldbreastfeedingtrends.org/GenerateReports/report/WBTi-India-Report-2015.pdf>
8. Infant Survival and Report Card Maharashtra. Available from [http://bpni.org/information\\_sheets/IS-25-Maharashtra.pdf](http://bpni.org/information_sheets/IS-25-Maharashtra.pdf)
9. Goyal RC, Banginwar AS, Ziyoo F, Toweir AA. Breastfeeding practices: Positioning, attachment (latch-on) and effective suckling - A hospital-based study in Libya. J Fam Community Med 2011;18 (2):74-9
10. Joshi H, Magon P, Raina S. Effect of mother-infant pair's latch-on position on child's health: A lesson for nursing care. J Family Med Prim Care 2016;5:309-13
11. Kishore SS, Kumar P, Aggarwal AK. Breastfeeding Knowledge and Practices amongst Mothers in a Rural Population of North India: A Community-based Study. *Journal of Tropical Pediatrics*. 2009; 55 (3):183-188
12. Ananthakrishnan S, Kasinathan B, Sounderrajan P. Antenatal counselling for breast feeding – Are we doing it the right way? *Curr Pediatr Res*. 2012; 16 (2): 142-144
13. Choudhary R, Meena C, Gothwal S, Sitaraman S, Sharma S, Verma DR. Effect of lactation counselling on breast feeding: randomized control trial. *Int J Contemp Pediatr* 2017;4(5):01-04.

How to cite this article: Thomas S, Mohanty N, Dasila PK. Effect of antenatal lactation counselling on knowledge and breastfeeding practices among mothers. *Int J Health Sci Res*. 2018; 8(2):138-148.

\*\*\*\*\*