

## Original Research Article

# Association of antenatal counselling with breastfeeding outcomes: a comparative analysis

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## ABSTRACT

**Background:** Breastfeeding is an art and a skill which needs to be learnt and mastered. Breastfeeding practice gets affected by many factors like Social, cultural, biophysical, demographic and psychological. One of the important factors for ineffective breastfeeding is the lack of adequate knowledge of women regarding breastfeeding, such as the time of initiation of feeding, feeding of colostrum and mother's position while feeding the baby. Objective of the study was to find out association of antenatal counselling with the preference for breastfeeding positions, early initiation of breastfeeding and feeding of colostrum.

**Methods:** This was a prospective cohort study where 120 primigravida who had taken structured counseling on breastfeeding during their antenatal period and ended up with vaginal delivery at labour room of SSG Hospital, Baroda were recruited. With every such mother, the next woman who delivers vaginally and has not taken structured counselling during ANC was taken as the control. After delivery, all the mothers were observed for early initiation of breastfeeding, feeding of colostrum and adoption of cross-cradle breastfeeding position in comparison with other positions.

**Results:** The rate of early initiation of breastfeeding (EIBF) and number of mothers who fed colostrum to their babies was significantly higher in case group compared to the control group. The number of mothers preferring the cross cradle position was also higher in case group.

**Conclusions:** Antenatal counseling on breastfeeding helps mothers to raise the rate of early initiation of breastfeeding and feeding of colostrum to babies. It also helped mothers to choose cross cradle position as their preferred method of breast feeding.

**Keywords:** Antenatal counselling, Early initiation of breastfeeding, Vaginal delivery

## INTRODUCTION

Breastfeeding is described as the mother and child's act of milk transference.<sup>1</sup> Breastfeeding is believed to be the first step that ensures that the child gets a healthy and consistent source of nutrition. It creates warmth, affection and a unique bond between mother and child.

Breastfeeding practice gets affected by many factors like social, cultural, biophysical, demographic and

psychological. One of the important factors for ineffective breastfeeding is the lack of adequate knowledge and awareness of women regarding breastfeeding. The time of initiation of feeding, importance of feeding the colostrum and the right position while feeding the baby are something that all mothers should know about.

Effective positioning and latching are essential for successful breastfeeding and can help the infant to suck effectively. It also stimulates, build, and maintain a mother's breast milk production, that helps to prevent many

breastfeeding problems such as sore nipples, mastitis, low breast milk supply, and poor infant weight gain.<sup>2</sup>

Primiparous mothers may have some anxiety because they aren't quite sure how to breastfeed. In such circumstance, the success of breastfeeding depends upon the preparation of mother through effective antenatal education that helps them to know and learn breastfeeding positioning and techniques.<sup>3,4</sup>

The ideal time to educate them would be the antenatal period itself. There is a need to increase the knowledge, bring awareness, change the attitude of mothers in relation to the technique of breast-feeding, and make them to adopt the correct practices of breastfeeding, which will enhance maternal confidence and neonatal health.

Thus, this study was conducted to find out association of antenatal counselling with the mother's preference for breastfeeding position, early initiation of breastfeeding and feeding of colostrum.

## METHODS

The study protocols were approved by Institutional Ethics Committee for Human Research (IECHR), Medical College and SSG Hospital, Baroda, Gujarat, India.

This was a prospective cohort study where 120 primigravida who had taken structured counseling on breastfeeding (including 45 points\*) during their antenatal period and ended up with vaginal delivery at labour room of SSG hospital Baroda from April 2022 to November 2022 were recruited after full filling criteria of inclusion (full term, primipara, vaginally delivered mothers) and exclusion (who have undergone caesarean section, preterm delivery, who are critically ill and not in a condition to feed her baby, in whom breast feeding is not recommended, whose babies are having congenital malformation or serious illness and not in a condition to tolerate breast feeds).<sup>5</sup> With every such mother, the next woman who delivers vaginally and has not taken structured counselling during ANC was taken as the control. Written informed

consent was taken from all. After delivery, all the mothers were observed for early initiation of breastfeeding, feeding of colostrum and adoption of cross-cradle breastfeeding position in comparison with other positions.

The all collected data was entered into Microsoft excel sheet and the files were kept password protected and based on this data comparative analysis was done between the case and control group.

## Statistical analysis

The distributions of the data were analysed by using descriptive statistics, such as frequency and percentage. Comparison between two were analyzed using Chi square test. A result with a p value of less than 0.05 was considered as statistically significant.

## RESULTS

In present study, 62% mothers from the case group had preferred cross cradle hold versus 38% mothers from the control group. This was statistically significant and suggests that with antenatal counselling, these mothers felt more confident to use cross cradle hold as the preferred feeding position (Table 1).

Proportion of primipara mothers who established early initiation of breastfeeding within one hour of delivery was significantly higher in case group as compared to control group (55.83% versus 22.5%). This difference is statistically significant suggesting positive impact of antenatal counselling (Table 2).

Proportion of primipara mothers who fed colostrum to their babies was significantly higher in case group as compared to control group (84.17% versus 66.77%). This difference was statically significant (Table 3).

There is significant association of total numbers of antenatal visits with the rate of early initiation breastfeeding (p value <0.0001) (Table 4).

**Table 1: Maternal preferences for breastfeeding position.**

Adapted breastfeeding position	Case (n=120) (%)	Control (n=120) (%)	Total (n=240) (%)	P value	Test performed
<b>Cross-cradle hold</b>	75 (62.5)	46 (38.33)	121 (50.42)	P<0.0003	Chi-square test, 13.068
<b>Other breastfeeding positions</b>	45 (37.5)	74 (61.67)	119 (49.58)		

**Table 2: Distribution of mothers in reference to duration of initiating breastfeeding.**

Establishment of breastfeeding by duration (hours)	Case (%)	Control (%)	P value	Test performed
<b>Within one hour</b>	67 (55.83)	27 (22.5)	P<0.0001	Chi square test, 31.508
<b>&gt;1 to 6</b>	51 (42.5)	80 (66.67)		
<b>7 to 12</b>	2 (1.67)	13 (10.83)		
<b>&gt;12</b>	0 (0)	0 (0)		
<b>Total</b>	120 (100)	120 (100)		

**Table 3: Distribution of mothers in reference to feeding of colostrum.**

Colostrum was fed	Case (%)	Control (%)	P value	Test performed
No	19 (15.83)	40 (33.33)	P=0.0027	Chi square test, 8.990
Yes	101 (84.17)	80 (66.67)		
Total	120 (100)	120 (100)		

**Table 4: Association of number of antenatal visits with early initiation of breastfeeding among participants.**

Number of ANC visits	Case (%)		Control (%)		P value	Test performed
	EIBF (no)	EIBF (yes)	EIBF (no)	EIBF (yes)		
1-3	1 (0.83)	1 (0.83)	20 (16.66)	1 (0.83)	P<0.0001	Chi square test, 48.9
4-7	33 (27.54)	20 (16.66)	59 (49.16)	9 (7.5)		
>7	19 (15.83)	46 (38.33)	14 (11.64)	17 (14.16)		
Total	53 (44.16)	67 (55.83)	93 (77.5)	27 (22.5)		

## DISCUSSION

Mother's breast feeding position is very important as with the comfortable feeding position, efficient latching of the baby can be established that gives satisfaction to both baby and mother. Preparation of mothers for delivery, child care and breastfeeding are important aspect of antenatal counselling.

D'Souza et al from India concluded that antenatal video teaching has played significant role in attaining the good positions and to experience increased comfort during breastfeeding.<sup>6</sup>

In present study, out of the 120 cases, 62.5% mothers preferred the cross-cradle hold position. While from the control group, 38% preferred the cross-cradle hold position. A study from Nigeria also reported cross cradle hold as the preferred (80.4%) position of breast feeding among mothers due to comfort of mother/baby and convenience.<sup>7</sup>

Rani et al reported that in a group of Pakistani women, 70.8%, 21.3%, 5.8%, and 1.0% of the women used the cross-cradle, side-lying, cradle hold, and football hold positions, respectively.<sup>8</sup> While Aoki et al from Japan and Bency et al from India reported cradle hold as the most utilized position among breast feeding mothers.<sup>9,10</sup>

In present study, the mothers who had taken structured counselling on breast feeding during their antenatal periods reported statistically significant higher rates of Early initiation of breastfeeding within one hour and were also more likely to give colostrum to the baby compared to control group (55.83% versus 22.5%) and (84.17% versus 66.77%) respectively. Similar results were noted by many other researchers.<sup>11-13</sup>

All these findings suggest that antenatal counselling has a significant impact on mothers breastfeeding practices, other studies also support our findings.<sup>14,15</sup>

The present study showed that there is significant association of total numbers of antenatal visits with the rate of early initiation of breastfeeding (p value <0.0001). Apanga et al had analyzed that antenatal care attendance of at least one visit was associated with timely initiation of breast feeding.<sup>16</sup> Phuljhele et al also demonstrated that antenatal visits of >3 was associated with higher rate of early initiation of breastfeeding.<sup>17</sup> However, Koli, Nair and Shah in 2021 concluded that there was no association of total numbers of antenatal visits with the rate of early initiation of breastfeeding.<sup>18</sup>

This study has a few limitations. As the present study is a hospital-based study with small sample size, a similar community based study with larger sample size can be conducted to draw some conclusions and to incorporate them into policy making.

## CONCLUSION

Antenatal counselling on breastfeeding helps mothers to raise the rate of early initiation of breastfeeding and feeding of colostrum to babies. It also helped mothers to choose cross cradle position as their preferred method of breast feeding.

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