



## Original Research Article

# BREASTFEEDING PRACTICES OF MOTHERS IN I.C.D.S CENTERS OF TRIBAL VILLAGES OF ELURU DISTRICT

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**ABSTRACT**

**Background:** Breast milk is the ideal complete food for infants. It is uncontaminated and contains all the vital nutrients and antibodies required for the survival of the child for the first few months of their lives. This study was done with an aim to assess the knowledge, attitude, and breastfeeding practices of mothers in tribal villages and also to assess the perinatal outcomes of these practices.

**Materials and Methods:** A cross-sectional observation study was conducted in the tribal village Buttyagudem project of Eluru by the Department of pediatrics, Alluri Sitaramaraju Academy of Medical sciences, Eluru, over a period of 1 year. A total of 357 tribal mothers were included in the study.

**Results:** Prolactal feed is practiced by 13.7% of tribal mothers. 5.3% didn't give colostrum. 68.6% of mother initiated breastfeeding within first hour of delivery. 95% of tribal women exclusively breast feed their infants. Continued breast feeding at 1 year is 93.8% and 96.2% up to 2 years of age.

**Conclusion:** This cross-sectional study concludes that the breastfeeding practices prevalent in the tribal villages of Eluru district need improvement which can be done by implementation of breast feeding groups and support system for educating the women about good practices.

**Keywords:** Breastfeeding, tribal women, nutrition, infant, cultural practices.

## INTRODUCTION

Breastfeeding is the most important aspect in the overall development and growth of a child, especially during the initial 2 years.<sup>[1,2]</sup> It is now well established that over millennia breast feeding has been major determinant of infant growth, health and survival and contraceptive effect of lactation has been the principle regulator of human fertility.<sup>[3,4]</sup>

Only about one third of all infants in developing countries are exclusively breast fed for the first six months of life. Malnutrition has been responsible, directly or indirectly, for 60% of the 10.9 million deaths annually among children under five years of age. Two-thirds of these deaths, which are usually associated with inappropriate feeding practices, occur during the first year of life.<sup>[5]</sup>

In 2002, the World Health Organization and UNICEF adopted the Global Strategy for infant and young child feeding.<sup>[6]</sup> WHO and United Nations Children Fund, together initiated a global strategy for infant and young child-feeding. The Government of India,

in collaboration with WHO, has adopted the culturally acceptable infant and young child feeding (IYCF) guidelines based on these guiding principles.<sup>[7]</sup>

Breast-feeding must be continued up to the age of 2 years or beyond. Continued breast feeding while giving adequate complementary feeds to the baby provides all the benefits to the baby.

This study was done to assess the knowledge of mothers of tribal villages regarding the time of initiation of breastfeeding and complimentary feeding, types and frequency of complementary feeding to be fed, etc.

## MATERIAL AND METHODS

The present prospective study was undertaken in ICDS centers of tribal villages present in the Eluru district, Andhra Pradesh.

Buttyagudem project tribal area was selected for the study of which 40 main and 18 mini Anganwadi centers were randomly picked up as places of study.

The study period was over 1 year, i.e. from February 2023 to January 2024.

All mothers in this area with children aged between 0-24 months were selected. Those who did not give consent for the study were excluded. A total of 357 tribal mothers were included in this study.

All data pertaining to the demographic details, obstetric history, socio-economic status and birth history of the child was recorded using a pre-structured questionnaire and the responses were compiled into spread sheets using Microsoft Excel software 2007. Data was represented using tables wherever deemed necessary.

## RESULTS

This cross-sectional observational study was done including 357 tribal mothers hailing from the tribal village Buttyagudem project in Eluru, Andhra Pradesh.

### Demographic profile

Majority of the families 245(68.6%) were nuclear families, and 112(31.3%) were joint families in tribal area. 62% of the tribal women were literate while the

rest 38% were illiterate. Majority of the fathers (86.4%) and mothers (69%) worked as daily wage workers. Based upon the Kuppaswamy classification for socio-economic status, most of the families in tribal villages belonged to low socio-economic status. 57.6% of the mothers were married at <18 years of age.

**Maternal profile:** 43.6% of the tribal mothers were parous -1, while 42.5% were parous -2 and 14% were parous -3 and above. Only 93% of the tribal women had received 3 antenatal visits, as recommended by WHO. Majority of the antenatal advice was given by the nurses and ANM'S working in the primary health centers. 80.4% of the tribal women had hospital delivery, while the rest 19.6% had delivered at home. 42% of the deliveries were conducted by doctors, whilst the majority of the deliveries were conducted by ANM's (43%). rest of the 15% were conducted by untrained dais.

**Breastfeeding factors:** 94.67% of tribal mothers gave colostrum and the rest of 5.3% mothers did not give colostrum. Among studied mothers 13.7% of tribal area gave prelacteal feeds. The common prelacteal feeds given were top milk, honey and sugar water.

**Table 1: Correlation between literacy and place of delivery with feeding of colostrum in tribal mothers**

| Literacy status   | Colostrum given by tribal mothers |                  | P value                 |
|-------------------|-----------------------------------|------------------|-------------------------|
|                   | Yes                               | No               |                         |
| Illiterate        | 127 (35.5%)                       | 09 (2.5%)        | P>0.05(NOT SIGNIFICANT) |
| Literate          | 211 (59.1%)                       | 10 (2.8%)        |                         |
| <b>Total</b>      | <b>338 (94.7%)</b>                | <b>19 (5.3%)</b> |                         |
| Place of delivery |                                   |                  |                         |
| Home              | 67 (18.7%)                        | 03 (0.8%)        | P>0.05(NOT SIGNIFICANT) |
| Hospital          | 271 (75.9%)                       | 16 (4.5%)        |                         |
| <b>Total</b>      | <b>338 (94.7%)</b>                | <b>19 (5.3%)</b> |                         |

**Table 2: Correlation between pre-lacteal feeding with literacy and type of delivery in urban mothers**

| Literacy status  | Pre-lacteal feeds given by tribal mothers |                  | P value                      |
|------------------|---|------------------|------------------------------|
|                  | Yes                                       | No               |                              |
| Illiterate       | 33 (9.2%)                                 | 188(52.6%)       | P<0.001(HIGHLY SIGNIFICANT)  |
| Literate         | 16 (4.4%)                                 | 120(33.6%)       |                              |
| <b>Total</b>     | <b>49 (13.7%)</b>                         | <b>308(86.3)</b> |                              |
| Type of delivery |   |                  |                              |
| Normal           | 28 (7.8%)                                 | 250(70%)         | P<0.001 (HIGHLY SIGNIFICANT) |
| L.S.C.S          | 21 ( 5.8%)                                | 58(16.2%)        |                              |
| <b>Total</b>     | <b>49 (13.7)</b>                          | <b>308(86.3)</b> |                              |

**Table 3: Initiation of breastfeeding by tribal mothers**

| In Hours     | No. of tribal mothers (%) |                |
|--------------|---------------------------|----------------|
| <1           | 245                       | (68.6)         |
| 1-5          | 92                        | (25.7)         |
| 6-24         | 03                        | (0.8)          |
| >24          | 17                        | (4.8)          |
| <b>Total</b> | <b>357</b>                | <b>(100.0)</b> |

Most of the tribal mother (68.6%) initiated breastfeeding within an hour of delivery.

**Table 4: Correlation between initiation of breastfeeding with literacy status**

|                   | <1 hour | 1-2 hours | 3-5 hours | 6-24 hours | >24 hours | P value              |
|-------------------|---------|-----------|-----------|------------|-----------|----------------------|
| Illiterate        | 134     | 38        | 17        | 2          | 10        | P<0.05 (significant) |
| literate          | 111     | 24        | 13        | 1          | 7         |                      |
| Parity of mothers |         |           |           |            |           |                      |
| primi             | 148     | 42        | 19        | 1          | 1         | P<0.05 (SIGNIFICANT) |
| multi             | 97      | 20        | 11        | 2          | 6         |                      |

**Literacy status and parity of mother is significantly correlated with initiation of breastfeeding.**

**Table 5: Correlation between EBF and literacy status**

| Literacy status | Exclusively breast fed | Not exclusively breast fed |
|-----------------|------------------------|----------------------------|
| Illiterate      | 105 (29.4%)            | 25 (7%)                    |
| Literate        | 123 (34.4%)            | 104 (29.1%)                |
| <b>Total</b>    | <b>228 (63.8%)</b>     | <b>129 (36.1%)</b>         |

**P > 0.05 (NOT SIGNIFICANT)**

No significant difference regarding practice of exclusive breast feeding was observed among literate and illiterate subjects of tribal area (P>0.05).

**Table 6: Predominant Breast Feeding**

| Age in months | Predominantly breastfed | Not predominantly breastfed |
|---------------|-------------------------|-----------------------------|
| 6-8 months    | 85 (23.8%)              | 120 (33.6%)                 |
| 9-11 months   | 23 (6.4%)               | 100 (28%)                   |
| total         | 117 (32.7%)             | 220 (61.6%)                 |

93.2% of the tribal mothers continued breastfeeding at 1 year of age. 96.2% of females continued breastfeeding till 2 years of age. 9% of mothers in tribal villages resorted to bottle feeding. Bottle feeding was initiated after 1 year of age predominantly in present study.

**Table 7: Distribution of Child by Nutritional Grade**

| Nutrition Status | Tribal (N) Percent |       |
|------------------|--------------------|-------|
| NORMAL           | 256                | 71.7% |
| GRADEI           | 57                 | 15.9% |
| GRADEII          | 37                 | 10.3% |
| GRADEIII         | 7                  | 1.9%  |
| GRADEIV          | -                  | -     |

**Table 8: Assessment of lack of knowledge about breastfeeding practices in urban women**

|   |             |
|---|-------------|
| <b>Not aware about giving colostrum initially</b>                             | <b>5.3%</b> |
| Not aware of expression and storage of breast milk                            | 91%         |
| Lack of knowledge on consuming extra nutrition during pregnancy and lactation | 54%         |
| Lack of knowledge about spacing of pregnancy                                  | 46%         |
| Lack of knowledge regarding hind- milk  | 43.4%       |
| Lack of knowledge about exclusive breast-feeding                              | 3.6%        |
| Lack of knowledge about prelacteal feeding                                    | 13.7%       |

## DISCUSSION

Breastfeeding practices in tribal villages often vary based on cultural traditions, beliefs, and available resources. Understanding and respecting these cultural nuances is essential for promoting optimal breastfeeding practices and improving maternal and child health outcomes in tribal communities. This study was conducted with an intent to understand the nuance of breastfeeding practices prevailing in tribal villages.

In present study, majority of the women were married in their teenage years. Most of them are literate, but belong to lower socio-economic status. Both parents of children in tribal areas work as daily wage laborers, but few women are homemakers only.

In present study, only 93% of the women have received antenatal checkups. W.H.O study in 19818 states 56% of rural Indian women did not receive antenatal checkups. 80.6% of the mother delivered at hospital, while 19% of the tribal women delivered at home. This is in concordance with a study done in Chile which was done in collaboration with WHO.<sup>[8]</sup> 94.6% of the tribal women fed colostrum. This is higher than a study done in Bihar where only 80% of the neonates were fed colostrum (Kazmi S et al).<sup>[9]</sup>

There was no statistical significance in between literacy status and feeding of colostrum. However, Unlike the findings of present study Mallikarjuna Rao et al,<sup>[10]</sup> reports 85% of illiterate mothers discarded colostrum. Study done by Helga Piechulek et al,<sup>[11]</sup> emphasizes the effect of education on the use of colostrum and on advocating feeding practices.

In present study, place of delivery has no influence regarding practice of giving the colostrum. Contrary to the findings of present study Darry J. Holman et al,<sup>[12]</sup> reports significant association between colostrum feeding behaviour in 143 rural Bangladeshi mothers.

Giving prelacteal feeds is a popular and deep rooted social custom in India, both in urban, tribal and rural areas. In present study, 13.7% of women gave pre-lacteal feeds. The relation between literacy status of mother and type of delivery with initiation of pre-lacteal feeds is significant (P<0.001).

Most of the tribal women initiated breastfeeding within first hour after delivery. According to NFHS – 3 survey, only 24.5% mothers began breastfeeding within 1 hour after birth and 59.5% began it in one day.<sup>[13]</sup>

The correlation between literacy status and early initiation of breastfeeding is significant ( $P < 0.05$ ). Surekha Kishore et al,<sup>[14]</sup> in their study in rural Wardha had found similar results.

Early initiation of breastfeeding by predominantly seen in multiparous women of present study. Similar to the present study Kameswar rao,<sup>[15]</sup> reported multiparous mothers initiated breastfeeding earlier than primis.

Exclusive breastfeeding was followed more by literates in tribal area. On the contrary to present findings, Kameswararao et al,<sup>[15]</sup> reported 56% illiterates followed exclusive breast feeding compared to 31% literates.

9% of mothers were giving bottle feeding predominantly after 1 year of age. Unlike to the present study Zodpey et al,<sup>[16]</sup> in their study found that bottle feeding rate was 3%.

## CONCLUSION

Cultural beliefs and rituals surrounding childbirth and breastfeeding play a significant role in tribal communities. Despite the cultural importance placed on breastfeeding in many tribal societies, there may be challenges such as limited access to healthcare, lack of support for breastfeeding mothers, and environmental factors that impact maternal and infant health. Tribal cultures prioritize early initiation of breastfeeding, with mothers often beginning to breastfeed their infants within the first hour after birth. Exclusive breastfeeding, where infants receive only breast milk (no other liquids or solids) for the first six months of life, is often practiced in tribal communities. Any lacunae in the knowledge of safe breastfeeding practices can be bridged by proper education of the women.

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