Section: Pediatrics

Original Research Article

BREAST FEEDING PRACTICES OF MOTHERS IN I.C.D.S CENTERS OF URBAN SLUMS AND TRIBAL VILLAGES OF ELURU DISTRICT – A COMPARATIVE STUDY

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Abstract

Background: Breastfeeding is the most effective way to ensure a child's physical growth and survival. Initiation of breastfeeding within the 1st hour of birth and continuing exclusive breastfeeding upto a minimum of 6 months of age is vital for the development of child. This study was done with an aim to assess the factors influencing breastfeeding practices in tribal villages versus urban slums. **Materials and Methods:** A total of 900 mothers, 500 from urban slum areas and 400 from tribal villages were included in the study over a period of 1 year. Study was conducted in Buttayam project tribal village and Eluru town of Andhra Pradesh by the Department of paediatrics. **Result:** Prelacteal feed is very common in urban area compared tribal area. Colostrum was not given tribal mothers. Initiation of breast feeding within one hours more in tribal area compared to urban area. Traditional practices in tribal area had better influence on overall breast feeding practices. **Conclusion:** This study concludes that breastfeeding practices are amenable to local cultures and traditions. Introduction of mother and child support groups in local areas will help in educating mothers regarding correct and wrong practices of breastfeeding in both tribal and urban areas.

INTRODUCTION

Earlier humans suckled their young till long age as there was no choice for alternative feeds.[1] Wet nursing was the first alternative in the history of mankind which was started at around 2000 B.C; later animal milk was used as a substitute. Artificial milk appeared on the scene in the 20th century.[2]

In the second century in India, breastfeeding was initiated after 5th day. As a result of this, the initial milk "colostrum" was discarded until true breast milk flowed.[1]

Beginning with 1970's, the scientific community realized the importance of breastfeeding and its unique properties, thereby initiating measures for promoting breastfeeding.[2]

In 1992, the Baby-friendly Hospital Initiative (BFHI) was launched byWHO and UNICEF with the aim of promoting early and healthy breastfeeding practices by transforming maternity facilities to provide this standard of care. Hospitals become baby-friendly by implementing the Ten Steps to Successful Breastfeeding.[3]

Implementation of breastfeeding interventions effectively could prevent 13% of under 5 years of age mortality, while addition of appropriate complementary feeding practices would further reduce extra 6% of under-5 mortality.[4]

Early, exclusive breastfeeding for six months followed by addition of appropriate complementary feeding, along with continued breastfeeding for up to two years or beyond, provides the key building blocks for the survival, growth and overall healthy development of a child. It is also the most cost-effective health strategywith respect to infant survival and health.[5]

Numerous factors influence successful breastfeeding practices. These include psychological factors of mother such as lack of confidence, stress, dislike ofbreastfeeding, physical maternal factors like poor general condition, maternal malnutrition, alcohol usage, poor breast development; breastfeeding factors such as delayed start, infrequent feeds, short feeds, bottles and pacifiers; and neonatal condition such as any deformities or illness.[6]

The breastfeeding and weaning practices of a community are governed by its traditions, customs, knowledge, beliefs and socio cultural practices; since these aspects vary from one to another, quantification and understanding of their relative contribution to the

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emergence of malnutrition becomes important. In this perspective the present study has been an attempted to study the breast feeding practices in tribal area of Godavari district and urban slums of Eluru, Godavari district.

MATERIALS AND METHODS

This comparative study was undertaken in ICD centers of tribal villages and urban slums of Eluru, Godavari district, Andhra Pradesh, by the Department of Pediatrics, Alluri Sitaramaraju academy of Medical sciences, Eluru.

The tribal area namely in Buttyagudem project was selected which consists of 138 main and 42 mini Anganwadi centers among which 42 main & 18 mini Anganwadi centers i.e. total of 60 centers were randomly selected for the study.

54 ICD's of urban slum areas were selected randomly out of the 120 ICD's in Eluru town.

Mothers having children aged between 0-24 months were selected for the study. Those who were not willing to give the consent for study were excluded from the study.

The study period was over 1 year, i.e. from January 2023 to December 2023. A total of 900 subjects were selected for the study, i.e. 500 urban mothers and 400 tribal mothers

The demographic data was collected from all the study participants through personal visits by the post-graduate along with the help of Anganwadi workers. The collected data which was according to a pre-structured and pre-tested questionnaire was compiled and was analyzed using Microsoft Excel 2007. Comparison was made using proportions and percentages and test of significance was measured using chi square test, where p value < 0.05 was considered to be significant.

RESULTS

This cross-sectional observational study was conducted to compare the breastfeeding practices prevailing in tribal villages versus urban slums. A total of 500 urban mothers and 400 tribal mothers were compared.

Socio-demographicprofile: 67.6%of tribal mothers and 64.3% of the urban mothers were living as nuclear families. Majority (83.5%)of the fathers belonging to tribalvillages and urban slums (85%) were daily wage laborers.66.5% of tribal mothers and 77.7%of urban mothers were house wives. All the mothers in both groups belonged to lower socio-economic status.

54.8% of the tribal mothers and42.9%of the urban mothers were in their teenage groups. This indicates that teenage marriages are very much prevalent in tribal villages till this date. Most of the mothers who were illiterate were being married away before age of 18 years. In both areas, most of the women (tribal villages 95% and urban slums 100%) had received a minimum of 3 antenatal checkups. However, 5% of women in tribal villages didn't receive any antenatal checkups.

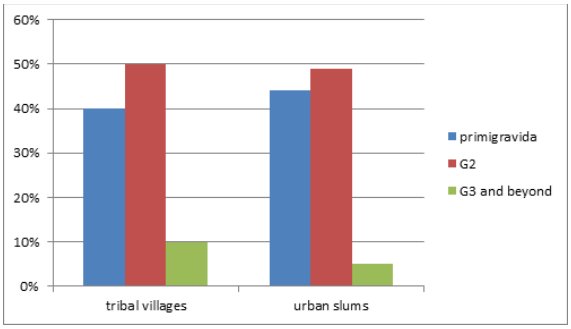

Figure 1: Parity distribution

Majority of the women had undergone deliveries in hospital. However, 18.8% of tribal mothers and8.7% of urban mothers had undergone deliveries at home. Majority of the women had normal vaginal deliveries in both groups, whereas, 23.1 % women of tribal villages and 25 % of women in urban slums had to undergo caesarean section.

Colostrum feeding: Most of the mothers (tribal – 95.1% and urban – 97.2%) gave colostrum.

There is no significant difference among illiterate and literate subjects of both the areas in aspect of feeding colostrum. (P>0.05).

Prelactealfeeds: 14.2% of the tribal women and 48.2% of the urban women gave prelacteal feed. The prelacteal feeds they gave to their babies were honey (17% in urban area and 29% in tribal area) sugar water (58.8% in urban area and 35.7% tribal area) and top milk (19.7% urban area and 33.4% tribal area).

Early initiation of breast- feeding:

A highly significant difference was observed between the subjects of two areas regarding initiation breast feeding within one hour (P<0.001)

Higher proportion of tribal women and urban slum women initiated breastfeeding within 1st hour of birth. The relationship between literacy rates and paritywith initiation of breastfeeding is statistically significant.

Exclusive Breast feeding practice among tribal and urban women: Exclusive breast feed practices highly prevent among the subjects of both the areas irrespective of literacy status of the mother.

Exclusive breastfeeding was followed more by illiterates 96.6% in tribal area than literates 93.2% in tribal area. In urban area exclusive breast feeding was followed more in literates 93.1% than 87.5% illiterates in urban area.

Statistically highly significant proportion of tribal area subjects practiced predominant breast feeding for all the age groups than theirurban counter parts(P<0.001).

2.5% of tribal children and 8% of urban slum children aged between 0-5 months were bottle fed. 28% of tribal children and 18% of urban children aged between 6-11 months were bottle fed. 30% of tribal children and 20% of urban children aged between 12-

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23 months were bottle fed. However, there was no statistical difference observed between the two groups.

Inthepresent study 70% (tribal) and 80% (urban) children were having normal nutritional status. Grade I malnutrition was more common among tribal children (15%) than urban children (12%). Grade II malnutrition also was higher among tribal children (12.5%) compared to urban (5%). However severe malnutrition seems to be higher among urban children (1%).

Table 1: Relationship between literacy rate and colostrum feeding.

Literacy status	Tribal villages (n = 400)		Urban slums (n = 500)	
	Colostrum given	Colostrum not given	Colostrum given	Colostrum not given
Illiterate	125 (31.25%)	15 (3.75%)	110 (22%)	10 (2%)
Literate	250 (62.5%)	10 (2.5%)	375 (75%)	5 (1%)
Total	375 (93.75%)	25 (6.25%)	485 (97%)	15 (3%)
$\chi 2$=2.00d.f.=1	P>0.05(NOTSIGNIFICANT)			

Table 2: Early initiation of breastfeeding

Initiation of breast feeding after delivery	TRIBAL No. (%)	URBAN No. (%)
<1 hour	275 (68.75%)	200 (40%)
1–5 hours	90 (22.5%)	125 (25%)
6–24 hours	10 (2.5%)	50 (10%)
>24 hours	25 (6.25%)	125 (25%)
total	400	500
$\chi 2$=86.75821d.f.=4.1 P<0.001(HIGHLYSIGNIFICANT)		

Table 3: initiation of breast feeding in relation to maternal literacy status and parity

	<1 hour		1–5 hours		6–24 hours		>24 hours		total	
	Tribal	Urban	Tribal	Urban	Tribal	Urban	Tribal	Urban	Tribal	Urban
Illiterate	100	80	30	20	2	10	8	10	140	120
literates	180	120	60	105	8	40	12	115	260	380
$\chi 2$=4.0710d.f.=1	P<0.05(significant)									
Primi	100	100	31	60	12	10	17	50	160	220
Multi	172	115	46	80	20	25	2	60	240	280
$\chi 2$=20.3567d.f.=1	P<0.01(highly significant)									

Table 4: Comparison of Practice of predominant Breast Feeding between Tribal and Urban subjects

Age (in months)	Predominantly breastfeeding by tribal women (n=400)		Predominantly breast feeding by urban women (n=500)	
	Yes	No	Yes	No
6-8 months	30	150	20	120
9-11 months	25	195	10	350

Table 5: Continued Breast feeding at one year in relation to Tribal & Urban Areas

Study Area	Breast Feeding Continued at 1 year	
	Yes	No
Tribal	50	350
Urban	85	415
Total	135	755

Table 6: Introduction of solid, semisolid or soft foods at 6-8 Months

Study Area	Introduction of solid &semi-soliddiet at 6-8 months	
	Yes	No
Tribal	315	85
Urban	425	75

Table 7: Continued Breast feeding at two years in relation to Tribal & Urban Areas

	Breast Feeding Continued at	
Study area	2Years	
	Yes	No
Tribal	98	302
Urban	102	398

Table 8: distribution of child by nutritional grade (IAP)

Nutrition status	Tribal (n) percent		Urban (n) percent	
Normal	280	70%	400	80%
Grade I	60	15%	60	12%
Grade II	50	12.5%	25	5%
Grade III	10	2.5%	10	2%

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Grade IV	-	-	5	1%

Table 9: Assessment of knowledge of breastfeeding practices in tribal versus urban women.

	Tribal women	Urban women
Burping	10%	22%
Hind-milk	44%	23%
colostrum	6%	7%
EBF for 6 months	2%	5%
Breast feeding versus breast cancer	33.2%	39%
Breast feeding versus spacing of pregnancy	46%	43%
Expression and storage of breast milk	92%	89%
Extra nutritional requirement during pregnancy and lactation	55%	36%

DISCUSSION

Breastfeeding practices vary from one geographical region to another. This study assesses the variations in breastfeeding practices of urban slum women from tribal village women.

Majority of the women in both areas belong to lower socioeconomic status with most of the parents in both areas being daily wage labourers. Most of the women had been married of in their teenage (< 18years of age). The mindset of seeking medical care during pregnancy and attending regular antenatal checkups, at least for a minimum of 3 is relatively lower in tribal area mothers than that of urban areas.

In present study, most of the women had delivered at hospital. The women who delivered at home mostly were from tribal background, where deliveries were conducted by untrained dai.

In present study, most of the mothers in both tribal villages and urban slums have fed colostrum. The present findings are in concurrence with the study of Durge P.M. et al,[7] in which they found that 83.59% mothers have fed colostrum. On the contrary, Gupta et al,[8] in their study found that 92% of mothers discarded colostrum with the idea that it would harm the baby.

Feeding of colostrum: In present study, the literacy rates among tribal and urban women had no significant relationship with feeding of colostrum to the child. This is similar to findings observed in a study done by S KChowdaryetal,[9] who reported literacy status of motherhood significant relationship with the pattern of breastfeeding adapted by mothers. However, Mallikarjuna Rao et al,[10] and Helga Piechulek et al,[11] reported that illiterate women mostly discarded the colostrum thinking that it is bad milk for the baby.

Prelacteal feed: Giving prelacteal feeds is a popular and deep rooted socialcustom in India, both in urban, tribal and rural areas. In present study, higher numbers of urban mothers gave prelacteal feeds than tribal women. It is similar to the finding of study done on 270 respondentsin urban slums of Chandigarh where 40% mothers gave prelacteal feeds (Dinesh Kumar et al).[12]

Initiation of breastfeeding: in present study breastfeeding was initiated within 1st hour by majority of women in urban and tribal areas. The relationship between literacy of women and parity of women, with initiation of breastfeeding is significant. These findings are in concordance with studies done by Sethiet al,[13] Kumar et al,[14] and Chandrasekhar et al.[15] Kameswar rao,[16] reported multiparous mothers initiated breastfeeding earlier than primiparous women.Unlike the findings of the present study, Pragti et al,[17] reported a meager 9.7% of infants being breastfed within 1 hour after birth in urban resettlement colony of east Delhi.

Exclusive breastfeeding: Exclusive breastfeeding was followed more by illiterates in tribal area than literates and more in literates 93.1% than 87.5% illiterates in urban areas. Kameswararao, 16 reported 56% illiterates followed exclusive breast feedingcompared to 31% literates, which is in concordance with present study.

Complementary feeding: majority had started complementary feeding at age of 6-8 months in both areas. Similar to present study Khan et al,[18] reported that the mean age of introduction of solid food in a child's diet varies considerably across the country. The earliest introduction of solid food was reported in West Bengal (6.9 months urban, 8.5 months rural), while in Pune (Maharashtra) and Hyderabad (Telangana) it was introduced as late as 24 months.

Bottle feeding: in present study, most of the tribal women had bottle fed their infants when compared to urban mothers. However, this difference was not statistically significant. As per theWHO 2011 IYAF19 bottle feeding In India is 14%. In present study bottle feeding rate is between5.32%-7.9% in early age groups. Unlike to the present study Zodpey et al,[20] in their study found that bottle feeding rate was 3%. Howie et al,[21] reports that the babies who were breastfed for thirteen weeks or more had significantly less gastrointestinal illness than those who were bottle fed from birth. By contrast, babies who were breastfed for less than 13 weeks had rates of gastrointestinal illness similar to those observed in bottle fed babies.

Nutritional state of children: In the present study 70% (tribal) and 80% (urban) children were having normal nutritional status. Malnutrition was higher in tribal areas than in urban. However severe malnutrition was highest in urban areas. Similar to the present study, in a study of urban slums of Delhi,74% of children were found to be in the normal nutrition grade. Aneja et al.[22]

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CONCLUSION

The study showed that the breastfeeding practices in the community were being influenced by customs traditions, beliefs and old cultural practices especially in tribal areas. The following recommendations were made to encourage appropriate finding practices:-

- Ensuring adequate nutrition of pregnant women and lactating mothers.
- Support from family and breast feeding groups.
- Improvement of maternal literacy rates

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