

Review Article

Beliefs and practices of newborn feeding in tribal areas of India: a decennary review

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ABSTRACT

Background: Newborn feeding among tribes in India is influenced by traditional beliefs and practices. Each tribal community has its own unique feeding practices which have considerable impact on the health and survival of infants. Information about these practices is vital in planning effective child health services.

Methods: A review of published articles in Google Scholar and Pubmed databases during the period 2006 to 2016 was carried out to retrieve information on newborn feeding practices in tribal areas in various parts of India. Prelacteal feeding, feeding of colostrums and time of initiation of breastfeeding were considered for analysis.

Results: Thirteen full text studies were reviewed. It was observed that the newborns had been fed with prelacteal feeds such as plain water, sugar or salt solution, honey, diluted cow's milk and milk mixed with jaggery. The beliefs were that these feeds help to resist hunger, clean the tongue and stimulate suckling. The common beliefs for delayed initiation of breastfeeding were that it was harmful or not ready to be fed for 3 days. The reasons for discarding colostrums were that it was impure, causes indigestion or diarrhea. These harmful practices were observed to be prevalent among most of the tribes in different geographic locations of India.

Conclusions: There is a need to explore the area specific tribal cultural feeding beliefs and practices. This could enhance the knowledge of healthcare providers to promote proper newborn rearing.

Keywords: Breast feeding, Colostrums, Infant feeding, Prelacteal feed, Tribes

INTRODUCTION

According to Census 2011, the tribal population of India is 10.43 crores, constituting 8.6% of the total population.¹ Their socio-cultural, economic and educational backgrounds differ from the urban and rural communities and between the States. Factors such as ignorance, illiteracy, lack of accessibility and inadequate utilization of health services contribute to poor health status of the tribes.^{1,2} A major brunt of these factors is observed among the mothers and children in terms of morbidity and mortality.² To date, compared to national statistics,

neonatal and infant mortality rates are high in tribal areas.¹

Each tribe has its own exclusive practices in child rearing.³ These practices are deeply rooted in the day to day life of tribes and more difficult to change. The beliefs and practices related to breastfeeding during the newborn period (birth to 28 days of life) have a critical impact on the survival of infants. Baseline information about traditional newborn feeding practices of tribal communities is of paramount importance in planning culturally sensitive child health programs.³ Such

programs could facilitate improvement in newborn care practices and thereby improve the health status of infants. At present, relatively less knowledge about newborn feeding practices of the tribes exists in the literature.⁴ In this context, a review of studies was carried out with the following objectives:

- To identify the existing beliefs and practices on newborn feeding among the various tribal communities in India.
- To discuss the potential effect of beneficial and harmful traditional feeding practices on newborn health.

METHODS

Pertaining to the objectives, a literature review was done focusing on newborn feeding practices in tribal areas of India. Information was retrieved from studies published during the ten years period from 2006 to 2016. The website included for literature search was Google Scholar

and PubMed. In the first phase, the studies were identified using the keywords, “breast feeding, colostrums, infant feeding, prelacteal feed and tribes.”

Relevant studies available as full texts were selected. In the second phase, feeding practices related to prelacteals, colostrums and initiation of breast feeding were analyzed. In the third phase, the information obtained from these studies was applied in discussion.

RESULTS AND DISCUSSION

Based on the inclusion criteria, 13 community based studies were reviewed. While 11 studies were quantitative, two were qualitative reports. Three studies had been conducted in Assam. Two studies had been carried out in Andhra Pradesh, Madhya Pradesh, Maharashtra and Karnataka respectively. One study had been conducted in Gujarat and Orissa respectively. Data on prelacteal feeding, colostrums given or discarded and the timing of breastfeeding are shown in Table 1.

Table 1: Traditional practices related to newborn feeding.

Author, Aim, Place of Study, Sample Size	Pre lacteal feed given	Colostrums fed	Colostrums discarded	Breastfed 30- 60 minutes	Breastfed 1- 2 hrs	Breastfed 2- 6hrs	Breastfed 6-24 hrs	Breastfed after 24 hrs
Nisha C et al ² Aim: To assess the infant and child feeding practices in a tribal community Area: Bangalore District, Karnataka (n=73)	26.0%	98.6%	1.4%	98.6%	-	-	-	-
Patro S et al ³ Aim: To study the infant feeding practices among Paroja community Area: Korakpur, Orissa (n=150)	60.7%	39.3%	60.7%	-	8.0%	8.0%	16.6%	75.4%
Gogoi P et al ⁵ Aim: To assess the breastfeeding practices in a tribal area. Area: Kamrup District, Assam (n=371)	15.2%	-	36.3%	87.1%	-	-	-	-
Karunamoorthy KS et al ⁶ Aim: To study the health care practices of mothers in tribal areas (n= 305) Area: Godavari District, Andhra Pradesh	68.0%	-	-	-	-	66.0%	-	-
Neog N et al ⁷ Aim: To study the infant feeding practices among the tribes Area: Jorhat, Assam (n=120)	66.6%	60.0%	40.0%	16.7%	-	31.7%	11.6%	39.9%
Dakshayani B et al ⁸ Aim: To study the breastfeeding practices among Hakkipikkis. (n= 125) Area: Mysore District, Karnataka	40.0%	76.0%	-	76.0%	-	-	-	24.0%
Giridhar L et al ⁹ Aim: To study the practices regarding colostrums and prelacteals among Gadaba and Konda Dora tribes. Area: Vizianagaram, Andhra Pradesh (n=600)	25.0%	77.2%	22.8%	-	87.3% & 85.3%	-	-	-
Bobhate PS et al ¹²	23.5%	84.8%	15.2%	35.1%	-	53.9%	9.8%	1.1%

Aim: To assess the knowledge and practices about breastfeeding among tribal women. Area: Khardi, Thane- Maharashtra (n=132)								
Singh Sk et al ¹³ Aim: To study the infant feeding practices of Gond community Area: Mandla, Madhya Pradesh (n= 522)								
	1.9%	99.0%	1.0%	-	4.4%	92.7%	-	2.9%
Kakati R et al ¹⁴ Aim: To study the timely initiation of breastfeeding and its determinants among mothers (Tribal & Rural) Area: Kamrup District, Assam (n=600)								
	-	21%	-	56%	-	27.5%	13.3%	3.2%
Sharma A et al ¹⁵ Aim: To study the factors associated with early initiation of breastfeeding Area: Nainpur, Madhya Pradesh (n=210)								
	38.6%	-	-	-	38.6%	-	34.8%	26.6%
Shah BD et al ⁴ Aim: To analyze the newborn care practices. Area: Bhauch District, Gujarat (n=33)								
Case studies: Two third mothers had discarded colostrums. Breastfeeding was started on the 3 rd day after birth. Sugar water was given as a prelacteal feed.								
Bahurupi YA et al ¹⁹ Aim: To explore the practices and perceptions of traditional birth attendants in tribal area on child health Area: Thane, Maharashtra								
Qualitative study: Prelacteal feeds were rarely given. Early initiation of breastfeeding was practiced. Misconceptions on diet related to colostrums were present.								

Prelacteal feeding

Prelacteal feeding involves administration of artificial feed to a newborn before breastfeeding is established. It is an age old customary practice which is prevalent in all communities irrespective of caste and geographical distribution.⁵ A similar phenomenon was observed in this review. All the studies had reported giving prelacteal feeds. Karunamurthy et al and Neog et al have documented that prelacteal feeding had been given by about two third (66%) of mothers in Vizianagaram and Jorhat respectively.^{6,7} The newborns had received either plain water or honey or honey mixed with water. The beliefs were that these feeds help to resist hunger, clean the tongue and stimulate suckling. Sugar or salt solution, infant formula, milk mixed with jaggery had been given by the Hakkipkks and Paroja communities.^{3,8} Habitually the elders in the family feed the prelacteals with their fingers or cotton swabs.^{7,9} Mussel shells and spoons had been used to feed by the tribes in Korakpur.³ The newborns were fed with prelacteals 3-8 times in a day.

Prelacteal feeding forms a vicious cycle with 'coming in' of milk. It first delays initiation of breastfeeding, which later encourages prelacteal feeding.¹⁰ Most of the mothers were unaware of the harmful effects of prelacteals.^{7,8} Prelacteal feeds sensitize the gut to unwanted foreign proteins. Lack of awareness and unhygienic methods of feeding could expose the newborns to risk of diarrheal infections.^{8,9} The Infant and Young Child Feeding Guidelines 2010 (IYCF) recommends that no prelacteal feeds to be given to newborns.^{5,11} In a few communities, this practice was less (2%-26%) than the national prevalence of 57%.^{2,12,13} The possible reasons could be

due to literacy and better utilization of antenatal health services.^{2,13,14}

Breastfeeding and colostrums

Breastfeeding is an integral part of nurturing and nourishing process in newborn health. It is invaluable for infant survival in developing countries especially among the disadvantaged groups.¹² The IYCF guidelines recommend breastfeeding within an hour of birth.^{5,15} Nearly one fifth of neonatal deaths could be prevented if breastfeeding is initiated within one hour of birth.^{2,3,15} More than half of the studies reviewed had documented withholding of breastfeeding in the first hour after birth.^{3,4,7,9,12,13,15} The belief for this delay was that the 'mother's milk is not good'. Breastfeeding was found to be delayed for more than 24 hours in a few tribal areas.^{3,4,7,8} The belief was that it is unfit for feeding until two to three days postpartum.

Initiation of breast feeding is influenced by female education and prelacteal feeding.^{9,12,15} The review substantiates the fact that mothers who were not educated had initiated breastfeeding very late.^{15,16} Contrary to the belief associated with prelacteal feeding, a delay in breastfeeding causes delay in stimulation normally provided by suckling which could lead to decreased lactation.⁸ Further, a delay could expose the low birth weight newborns to the risk of developing hypoglycaemia or hypothermia leading to mortality.¹⁷ Frequency of feeding has been documented in two studies.^{3,7} A healthy practice of breastfeeding >8 times per day after birth is documented among the Jorhat community.⁷ Details of mode of delivery that could

influence the initiation of breastfeeding were available in two studies^{2,5}

Colostrums is rich in nutrients and antinfective agents. It protects against respiratory and gastrointestinal diseases of the newborn.^{9,18} A healthy practice ($\geq 85\%$) of feeding colostrums was observed only in a few communities.^{2,5,12,13} Awareness of the benefits is lacking or there is purposeful denial of feeding due to tradition such as elder's advice.^{5,14} Misconceptions like 'it is impure, cheesy, not good for health, not easily digestible, creates a lump in the abdomen or causes diarrhea' have been reported.^{3,7,8} In the qualitative study from Maharashtra, a common perception recorded was that a mother who has delivered boy baby should not eat too much.¹⁹ Otherwise she would secrete more colostrums which the baby cannot digest. But this restriction is not for a mother with a girl baby as she can digest it.

The differences in the prevalence of practices in the studies reviewed could be due to different cultural and geographic background, female literacy status and utilization of antenatal services. The limitation of this review is that uniform pattern of information or details of influencing factors on the practices could not be retrieved from all the studies. Hence a comparative analysis could not be carried out.

CONCLUSION

Harmful feeding practices due to misconceptions are still prevailing among the tribes despite advancement in health services. There is a need to assess the local tribe specific newborn rearing practices for promotion of beneficial practices and prevention of harmful practices. Nurses and other healthcare providers should enhance their knowledge on the area specific cultural practices to provide better newborn health services.

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