

Review Article

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Breast feeding Practices in Tribal Areas of India

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ABSTRACT

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. A review of published articles in Google Scholar and Pub-med data bases for the period 2018 to 2022 was carried out to retrieve information on newborn feeding practices in tribal areas in various parts of India. Time of initiation of breastfeeding, feeding of colostrums and prelacteal feeding were considered for analysis. Thirteen full text studies were reviewed. Delay in initiation of breast feeding up to 3-4 days was observed and 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. 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. These harmful practices were observed to be prevalent among most of the tribes in different geographic locations of India. The study clearly implies that there is a need to explore further and conduct area specific tribal cultural feeding beliefs and practices. This helps in taking up early intervention programmes enhance successful breastfeeding practices and weaning practices and strengthen the knowledge of healthcare providers to promote proper newborn care to reduce infant mortality and morbidity in tribal areas to achieve SDG goals.

Keywords

Feeding, Tribe, Healthcare, Mortality, breastfeeding, WHO

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Introduction

Breastfeeding is a vital area of public health because it has a direct influence on the wider population's overall quality of health and mortality levels. Breastfeeding being the key source of sufficient nutrition for breastfed infants, it offers well-known short-term benefits in lowering the risk of mortality

and infectious diseases. Furthermore, breastfed infants have a lower chance of contracting allergic diseases and a lower risk of suffering sudden infant death syndrome. Prior studies have also confirmed the long-term protection breastfeeding offers against non-communicable diseases. For these reasons and on the basis of strong, long-established evidence, the World Health Organization (WHO) and the United

Nations Children's Fund (UNICEF) have both recommended that new mothers initiate breastfeeding within 1 hour of giving birth, then exclusively breastfeed their infants for the first 6 months of life, and continued breastfeeding up to the age of 2 years and beyond along with appropriate weaning practices (WHO, 2019 and Muktamath *et al.*, 2018).

According to Census 2011, the tribal population of India is 10.43 crores, constituting 8.6% of the total population (Population research survey., 2011).

Their socio-cultural, economic and educational backgrounds differ from the urban, rural and tribal 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.

A major brunt of these factors is observed among the mothers and children in terms of morbidity and mortality. To date, compared to national statistics, neonatal and infant mortality rates are high in tribal areas. Each tribe has its own exclusive practices in child rearing. These practices are deeply rooted in the day-to-day life of tribes and more difficult to change (Pradeep and Kalicharan, 2016).

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. 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. In this context, a review of studies was carried out with the following objectives:

To identify the existing 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.

Methodology

Pertaining to the objectives, a detailed literature review was done focusing on infants and young children feeding practices in tribal areas of India. Information from studies published during the five years period from 2018 to 2022 was considered. The website included for literature search was Google Scholar and PubMed. In the first phase, the studies were identified using the keyword such as, breast feeding, colostrums feeding, infant feeding, prelacteal feed and tribes. On the whole 48 studies were selected and 12 were finalized based on criteria of the studies conducted in tribal area.

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

Prelacteal feeding

Prelacteal feeding involves administration of artificial feeding 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. A similar phenomenon was observed in this review. All the studies had reported giving prelacteal feeds. Mandal *et al.*, (2018) and Vijayakumari and Ramana (2018) have documented prelacteal feeding was practiced by about 20 and 100 per cent of the mothers respectively. The newborns had received either plain water or honey mixed with water. The beliefs were that feeds help to resist hunger, helps to suck the breastfeeding and clean the tongue. Sugar or salt solution, infant formula, milk mixed with jiggery had given by the Jenu Kuruba and other tribal communities. Habitually the elders in the family feed the prelacteals with their fingers or cotton

swabs. Spoons mussel shells had been used to feed by the tribes in Odisha and West Bengal. The newborns were fed with prelacteals 4-6 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. Most of the mothers were unaware of the harmful effects of prelacteals. 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. The infants and young child feeding guidelines 2010 recommended that no prelacteal feeds to be given to newborns. In a few communities, this practice was less (4%-17%) than the national prevalence of 57%. The possible reasons could be due to literacy and better utilization of antenatal health services.

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. The infant and young children feeding guidelines recommended breastfeeding within an hour of birth. Nearly one fifth of neonatal deaths could be prevented if breastfeeding is initiated within one hour of birth. More than half of the studies reviewed had documented withholding of breastfeeding in the first hour after birth. 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. The belief was that it is unfit for feeding until two to three days postpartum.

Initiation of breastfeeding is influenced by female education and prelacteal feeding. The review substantiates the fact that mothers who were not educated had initiated breastfeeding very late. Contrary to the belief associated with prelacteal feeding, a delay in breastfeeding cause delay in

stimulation normally provided by suckling which could lead to decreased lactation. Further a delay could expose the low-birth-weight (LBW) newborns to the risk of developing hypoglycaemia or hypothermia leading to mortality. Frequency of feeding has been documented in two studies. A health practice of breastfeeding more than 8 times per day after birth is documented among the Orisa community. Details of mode of delivery that could influence the initiation of breastfeeding were available in two studies.

Colostrum is rich in nutrients and anti-infective agents. It protects against respiratory and gastrointestinal diseases of the newborn (Srinivasan *et al.*, 2019). A healthy practice ($\geq 85\%$) of feeding colostrums was observed only in a few communities. Awareness of the benefits is lacking or there is purposeful denial of feeding due to tradition such as elder's advice. Misconceptions like "it is impure, cheesy, not good for health, not easily digestible, creates a lump in the abdomen or cause diarrhea have been reported. 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.

Harmful feeding practices due to misconceptions are still prevailing among the tribes despite advancement in health services. There is a need to assess the specific newborn rearing practices among indigenous and tribal communities to understand the gap in successful infant feeding practices for promotion of beneficial practices and prevention of harmful practices. There is a need to strengthen the health care in tribal area and enhance the knowledge of grass root level healthcare providers like nurses, asha workers, anganawadi teachers, etc to address cultural practices with sensitivity respecting their values and provide family based intervention to provide better mother and newborn health services.

Table.1 Traditional practices related to newborn feeding

Author, Aim, Place of the study, sample size	Prelacteal feed given	Colostrums fed	Colostrums discarded	Breastfed 30 immediately after birth/ within 30 minutes	Breastfed 1-2 hrs	Breastfed 2-6 hrs	Breastfed 6-24 hrs	Breastfed after 24 hrs
<p>Bobhate <i>et al.</i>, in 2018 Aim: To assess the knowledge and practices about breastfeeding among Kokari tribal women. Sample Size: 132 children from birth to one year. Research design: Cross-sectional Area: Khardi, Thane- Maharashtra.</p>	4%	84.8%	15.2%	53.1%	-	53.9%	9.8%	1.1%
<p>Chakrabarty <i>et al.</i>, in 2019 Aim: To determine the breastfeeding practices in Dururva Tribal women. (N= 101) Research design: Cross-sectional Area: Orissa, India.</p>	56%	9%	87%	12%	22%	6%	9%	50%
<p>Mahure <i>et al.</i>, in 2017 Aim: To understand prevalent feeding practices among Warli tribal mothers. Sample size: 312 Research design: Cross-sectional Area: Maharashtra, India.</p>	35%	39%	61%	26%	47%	-	-	59%
<p>Srikanth <i>et al.</i>, in 2017 Aim: To know the newborn feeding practices in Kaniyan tribal area. (N= 10)</p>	<p>Qualitative study: Harmful practices being followed included late initiation of breastfeeding, denying colostrum, feeding prelacteals, improper thermal care and application of indigenous substances on umbilical cord stump.</p>							

Research design: Sequential Area: Tamil Nadu, India.								
Vijayakumari and Ramana (2018) Aim: To assess the various aspects of feeding practices among Sugali tribe community. (N=125) Research design: Cross-sectional Area: Ananthapuramu Distric, Andhra Pradesh.	100%	-	-	76%	-	-	-	20%
Sarkar <i>et al.</i>, in the year 2020 Aim: To illustrate infant feeding practices, and socio-demographically correlated time like when weaning starts, the challenges met by mothers, and the types of complementary feeding adopted in Piraba tribal community. (N=100) Research design: Cross-sectional Area: Kalyani, India.	48%	50%	37%	78%	21%	8%	-	-
Catherin <i>et al.</i>, in 2019 Aim: To assess the infant and child feeding practices in a Iruliga tribal community in Bangalore district, Karnataka (N= 73). Research design: Cross-sectional Area: Bangalore district, Karnataka.	26%	19%	71%	13%	-	30%	-	2.9%
Mandal <i>et al.</i>, (2018) Aim: To assess infant and young child feeding practice among Koruva tribal women. (N=120) Area: Burdwan district, West Bengal.	20.6%	-	-	48.33%	10%	-	-	-
Renuka <i>et al.</i>, (2022) Aim: To assess the feeding practices in Jenu Kuruba tribe. Research design: Case study Area: Southern India.(N=1)	Case study: Bottle feeding, in vogue, was evidenced by a Jenu kuruba tribal daily-wage working mother of 2-year-old male child who was bottle fed the baby from 2 nd day onward with poor bottle hygiene and using a rat bitten nipple. On examination, the child was found to be stunted.							
Sahu <i>et al.</i>, in 2020 Aim: To measure the indicators of IYCF								

<p>practices in children in the 0-23 months age group among Pariya tribal area. (N=384) Research design: Cross-sectional Area: Odisha, India.</p>	47.2%	19.02%	7.30%	84.68%	24.2%	12.8%	8.2%	7.13%
<p>Srinivasan <i>et al.</i>, in 2019 Aim: To study the infant feeding practices, morbidity pattern and care given to infants in Irulars tribal area of Puducherry. (N=136) Area: Pandicherry, India.</p>	10%	19.5%	28.73%	72%	42%	39%	11%	18%
<p>Garje <i>et al.</i>, (2016) Aim: To study the beliefs and practices about breastfeeding among Oraon. Research design: Cross-sectional Area: Maharashtra. (N=400)</p>	17.5%	12.9%	15.04%	70.1%	10.5%	4%	-	-

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