Infant Feeding Practices among the Oraon Tribal Mothers in Sundargarh District of Odisha

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Abstract

Appropriate Infant and Young Child Feeding (IYCF) practices, such as breastfeeding and introducing complementary feeding at the right time, are essential for the healthy growth, development, and survival of children. Tribal communities in India often have feeding practices influenced by cultural beliefs, traditional knowledge, and available local resources. These factors may affect child nutrition outcomes. At this juncture, the present study was designed to explore breastfeeding and complementary feeding practices among the Oraon tribal mothers in Sundargarh district, Odisha. A community-based study was undertaken involving 170 lactating mothers with children within one year of age. Among these, 100 mothers had infants under six months, while 70 had children aged 6 to 12 months. Five blocks namely Balisankara, Subdega, Kutra, Bargaon, and Rajgangpur were selected as per the larger concentration of the Oraon population. Data was gathered through a semi-structured interview schedule. The findings revealed that about 80.6% of mothers started breastfeeding within one hour, and 94.7% fed colostrum to the new borns. Delay in starting breastfeeding mainly happened because of late milk production, poor sucking skills, and prematurity. Most mothers fed frequently or on demand. By six months, 84.3% of mothers began complementary feeding, with rice-based foods being the most common first complementary food option. Most of the respondents reported no issues during complementary feeding. Overall, the infant and young child feeding practices among Oraon mothers were mostly suitable, but targeted nutrition education is needed to fill the remaining gaps.

Keywords: Infant and Young Child Feeding, Tribal community, Oraon tribe, Breast feeding, Complementary feeding

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Introduction

Appropriate feeding practices for infants and young children, especially breastfeeding and timely introduction of complementary feeding are essential for child survival, growth and development. Breastfeeding is the main source of good nutrition for infants. It offers clear short-term benefits, such as lower risks of infant death and infections. Additionally, breastfed infants are less likely to develop allergies and have a reduced risk of sudden infant death syndrome (SIDS) (Kannur *et al.,* 2023). Research from earlier studies also shows that breastfeeding has long-term protective effects against certain diseases later in life. The World Health Organization (WHO) and UNICEF highlight that optimal infant and young child feeding (IYCF) practices from birth to two years of age often called the "critical window" are essential for child survival and development. These practices have been shown to reduce illness and death in infants, improve cognitive development and prevent undernutrition during the crucial first 1000 days of life (Gardia & Udgata, 2024). However, the importance of proper IYCF and its positive impacts on health and the economy are often neglected compared to disease-specific treatments and advancements in medical technology and drugs. Although there is strong evidence that proper IYCF practices are beneficial, many low- and middle-income countries still report inappropriate feeding behaviours. Studies from various regions have shown that mothers often lack knowledge of the recommended IYCF practices, even though nutrition during this time is crucial for building a healthy, intelligent, and productive population (Yadav *et al.,* 2023).

The Indian tribals suffer from worse maternal and child health status compared to the general public due to their isolated location, poverty, lack of health care and strong cultural tradition. The feeding practices of infants born within the Indian tribals are greatly influenced by their beliefs about breastfeeding, colostrum, pre-lacteal feeding, and complementary feeding (Sarkar et al., 2020). Various studies done on the indigenous population of Telangana, Kerala, Assam, Maharashtra, and eastern India revealed variations in infant feeding practices like breastfeeding initiation, exclusive breastfeeding, colostrum feeding, and complementary feeding, highlighting the influence of cultural and regional factors on infant nutrition (Mahanta *et al.,* 2022 & Mahure *et al.,* 2017).

Furthermore, recent research has emphasized the promotion of low-cost complementary foods prepared from locally available indigenous food resources as a sustainable strategy to improve the nutritional status of infants and young children in tribal communities, particularly in resource-constrained settings (B. R. et al., 2024).

The Oraon tribal community is one of the major tribal groups in Odisha, with a large number of members living in Sundargarh district. While this tribe is seen as somewhat progressive in social structure and adaptation to changes, they still hold strong traditional culture and beliefs that affect maternal and child health behaviours. There is limited information on infant feeding patterns in this group, such as when breastfeeding starts, how colostrum is given, and maternal views that may lead to less-than-ideal practices. Understanding these feeding behaviours is important for identifying barriers to good nutrition and for creating culturally suitable programs that aim to improve infant health outcomes. This study looks at key infant feeding practices among Oraon tribal mothers, focusing on both breastfeeding and supplementary feeding for children under one year of age. It pays special attention to the early initiation of breastfeeding, colostrum feeding, and the beliefs surrounding these practices.

Objectives

The following objectives were formulated for the present study.

1. To explore breast-feeding and complementary feeding practices among the Oraon mothers
2. To understand the problems faced by the Oraon mothers in breast-feeding and complementary feeding

Methodology

A community based cross-sectional study was conducted among selected 170 lactating mothers in Oraon tribe having children within one year of age. Among them 100 mothers were having infants below 6 months of age and 70 were having infants within 6 months to 1 year of age. Five blocks namely Balisankara, Subdega, Kutra, Bargaon, Rajgangpur were purposively chosen based on the secondary data having a larger concentration of Oraon tribal population in Sundargarh district of Odisha. The information was collected with the help of a semi-structured interview schedule. A detailed study was undertaken to elicit information regarding initiation and duration of breastfeeding, introduction of complementary feeding and type of food given during complementary feeding. Suggestions were given by the researchers during child feeding session.

Results and Discussions

This section highlights the key findings of the research study based on the information obtained from lactating mothers of Oraon community in Sundargarh District of Odisha.

Breast feeding practices

Breastfeeding practices involve the timing of initiation, exclusivity, and duration. Starting breastfeeding within one hour of birth allows the newborn to receive colostrum, which has important nutrients and offers immune protection. Exclusive breastfeeding for the first six months promotes healthy growth of the infants and lowers the risk of infections and malnutrition. Continuing to breastfeed along with suitable complementary feeding for up to two years or longer provides ongoing health benefits. These breastfeeding practices are influenced by maternal knowledge, cultural beliefs, family support, and access to healthcare services (Alwala *et al.,* 2018).

Table no. 1: Infant Feeding Practices among the respondents N=170

Feeding Practices	Particular	Frequency (f)	Percentage (%)
Food given after birth	Breast Milk	170	100.0
Colostrum feeding	Yes	161	94.7
	No	09	5.3
Breastfeeding initiation	Within 1 hour of birth	137	80.6
	Same day after 1 hour of birth	33	19.4

The Table no. 1 shows breastfeeding practices among the Oraon tribal community in Sundargarh district. It includes important details like the first feed given after birth, the start of breastfeeding, and colostrum feeding practices. The findings reveal that all infants were breastfed after birth. Most of the mothers (80.6%) started breastfeeding within one hour of delivery. The remaining mothers began breastfeeding after one hour but on the same day. Similar result was found in research study of Mahanta *et al.* (2022), where 81.1% of mothers practiced early initiation of breast feeding. Colostrum feeding was common, with 94.7% of infants receiving colostrum immediately after birth. However, 5.3% of mothers chose to discard colostrum. They often believed colostrum was dirty

and too thick, which would block milk flow and affect milk secretion.

Table no. 2: Different reasons for delay in starting breast feeding to the newborns N=31

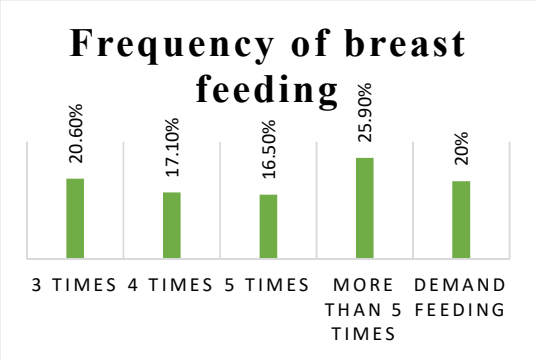
Reasons for delay in breast feeding	Frequency (f)	Percentage (%)
Delay in milk secretion	16	51.6
Poor sucking capacity of child	10	32.3
Premature child	05	16.1
Total	**31**	**100.0**

The Table no. 2 indicates different reasons for delay in starting breast feeding among newborns in the Oraon community of Sundargarh district. Out of the 170 mothers, 31 reported a delay in initiating breastfeeding. Among these 31 cases, the most common reason was delayed in milk secretion which was mentioned by 16 mothers (51.6%). The second most common reason was the baby's poor sucking ability, reported by 10 mothers (32.3%). This indicates that some newborns had trouble latching on or sucking effectively, which held up the start of breastfeeding. Another reason was premature birth, noted by 5 mothers (16.1%). Babies born early often need special care and may not be able to breastfeed right after birth, leading to a delay.

Table no. 3: Frequency of breast feeding among the respondents N=170

	Particulars	Frequency (f)	Percentage (%)
Frequency of breast feeding	3 times in a day	35	20.6
	4 times in a day	29	17.1
	5 times in a day	28	16.5
	More than 5 times a day	44	25.9
	Demand feeding	34	20.0
	Total	170	100.0

Figure no. 1: Frequency of breast feeding among the respondents



The table no 3 and figure no 1 describes the frequency of breast feeding among the Oraon tribal mothers. The results shows that the majority of mothers (25.9%) reported breastfeeding their infants more than five times a day. This was followed by 20.6% of mothers who breastfed three times a day. Additionally, 17.1% of mothers breastfed four times a day, while 16.5% breastfed five times a day. About one-fifth of the respondents (20.0%) practiced demand feeding, feeding the child whenever required. This indicates relatively positive breastfeeding practices within the community.

Complementary feeding practices

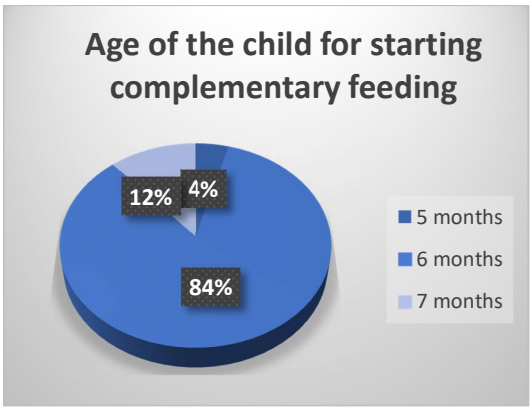
Complementary feeding means introducing semi-solid and solid foods into an infant's diet while continuing breastfeeding. This usually begins at six months of age because the breast milk alone can no longer meet the increasing nutritional requirements of infants. Proper complementary feeding ensures that the child's growing needs for energy, protein, and vitamins are met. Timely, sufficient, and safe supplementary feeding helps promote healthy growth and prevents undernutrition (Jose *et al.,* 2021) However, cultural beliefs, food availability, maternal knowledge, and hygiene practices often influence how infants are fed. These factors can impact the quality and quantity of foods provided to them.

Table no. 4: Introduction of complementary feeding N=70

	Age of the Child	Frequency (f)	Percentage (%)
Introduction of complementary feeding	5 months	03	4.3
	6 months	59	84.3
	7 months	08	11.4

	Total	**70**	**100.0**

Figure no. 2: Age of the child for starting complementary feeding



The Table no. 4 and figure no. 2 shows the age for starting complementary feeding among the 70 Oraon tribal children. Most of the mothers (84.3%) started complementary feeding at 6 months, which is the recommended age for introducing complementary foods. A smaller group of mothers, 11.4%, began complementary feeding at 7 months. Only 4.3% of respondents started early, at 5 months. Overall, the results indicate that most of the mothers started complementary feeding at the right age. Similar result found in a research study conducted by Josh *et al.* (2021), where 62.7 % of mothers out of 1150 tribal mothers introduced complementary feeding to their children at the age of 6 months.

Table no. 5: Food given in complementary feeding N=70

	Food Preference	**Frequency (f)**	**Percentage (%)**
First food in complementary feeding	Plain rice	32	45.7
	Rice kheer	09	12.9
	Rice dal mix	12	17.1
	Semolina	03	4.3
	Biscuit	07	10.0
	Commercial weaning mix	07	10.0
	Total	**70**	**100.0**

The Table no. 5 shows the first food preferred during the starting of complementary feeding among 70 Oraon tribal children. Most mothers (45.7%) chose plain rice as the first complementary food for their children. This was followed by a rice-dal mix, given by 17.1% of respondents. About 12.9% of mothers started complementary feeding with rice kheer, while 10.0% introduced biscuits as the first food. Likewise, 10.0% of respondents reported giving commercial weaning mix available in market at the start. Only a small percentage, 4.3%, started complementary feeding with suji (semolina). Overall, the findings suggest that rice-based foods were the most commonly preferred first complementary foods, while some mothers offered commercially available or less nutritious items like biscuits. Similar result found in the research study of Yadav et al., (2023), where biscuit, rice, dal, cow milk are common food used in complementary feeding in tribe women in the Manikpur block of Chitrakoot district Uttar Pradesh. Another study was conducted by Mahur *et al*., 2017 among 312 mothers of Amaravati district of Maharashtra which indicated that the mothers fed their children with take home ration provided by Anganwadi centre as complementary food.

Table no. 6: Problems faced by respondents during complementary feeding N=70

Problems faced during complementary feeding	**Frequency (f)**	**Percentage (%)**
Digestive problems	4	5.71
Refusal to eat	2	2.85
No problem faced	64	91.43
Total	**70**	**100.0**

The Table no. 6 shows the problems encountered during complementary feeding among 70 respondents in the Oraon community of the study area. Most of the mothers (91.43%) expressed that, they did not face any issues while providing complementary foods to their children. While a small number of respondents reported some kind of difficulties. Specifically, 5.71% mentioned digestive problems in their children after complementary feeding, and 2.85% noted refusal to eat by children.

Conclusion

The current study shows that breastfeeding and complementary feeding practices among Oraon tribal mothers in Sundargarh district are mostly satisfactory. Many of these practices meet WHO and UNICEF recommendations. Most of the mothers started breastfeeding early, and nearly all infants received breast milk right after birth. Colostrum feeding was widely accepted, which

indicates a positive change in traditional beliefs. However, a small number of mothers still discarded colostrum due to misunderstandings. Delays in starting breastfeeding usually happened because of slow milk production, the newborn's poor sucking ability, and prematurity. This suggests the need for timely counselling and postnatal support.

Regarding breastfeeding frequency, most of the mothers fed their babies often, with a significant number practicing demand feeding. This shows a positive approach to infant feeding. Complementary feeding practices were also promising. Most mothers introduced complementary foods at the recommended age of six months. Rice-based foods were the most common first complementary options, reflecting a dependence on locally available and culturally accepted foods. However, some mothers using biscuits and other commercial weaning mix which indicates a shift towards less healthy practices. Most respondents did not experience major issues during complementary feeding, showing that complementary foods are generally accepted by the children.

Overall, the findings suggest that Oraon mothers adopt appropriate infant feeding practices. Still, some gaps remain due to cultural beliefs and limited awareness. Improving behavioural communication with culturally relevant nutrition education, counselling during prenatal and postnatal periods, and community-based interventions can enhance breastfeeding and complementary feeding practices. This, in turn, will help improve nutritional and health outcomes among Oraon children.

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