

CHILD HEALTH CARE PRACTICES AMONG TRIBALS: A COMPREHENSIVE REVIEW

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Abstract

The tribal children are known as one of the most vulnerable segments of our society. Because they are living in the rural or integrated area and mainly stick to their own traditional practices. Therefore, they are facing many challenges, particularly in terms of education and healthcare. Different studies on tribal children shows that they are malnourished at a much higher rate than non-tribal children. The evaluations of relevant literature highlight the seriousness of the problem, demonstrating that 4.7 million tribal children in India suffer from chronic malnutrition, which has a negative influence on their survival, development, educational performance, and future production. This highlights a widespread problem with far-reaching effects, since malnutrition among tribal children not only impairs their physical well-being but also affect the cognitive development, learning capacity, and long-term educational accomplishment. The objective of the paper is to analyse the findings of scholars who have performed research on health care practices of tribal children. The data was collected by compiling the findings of many related studies done by researchers around India between 2013 and 2023. The review focuses on important child health care practices with nutritional status and common morbidity pattern among tribal children. The review contributes to the existing literature by combining data from numerous research, and it provides significant insights for policymakers and healthcare professionals seeking to improve the health outcomes of tribal children in India.

Keyword: tribal children, health care practices, nutritional status, morbidity pattern.

INTRODUCTION

Children are very important human resource of a society as they are the future transformer of the nation. The childhood is the foundation stage of the human life. Therefore, the childhood must be taken care of with utmost importance. The child and maternal mortality are one of the indicators of national development. These can be managed with proper maternal and child health care and nutrition care practices.

Children under the age of 14 account for around 30.76% of the Indian population. It has been observed that a significant number of children are not benefiting equally from India's tremendous economic success since independence. According to several researches on the status of children, a significant fraction of them comes from the most deprived segments of society, especially tribes. Tribal children under the age of 18 account for 38 million from the 84 million Scheduled Tribe population, and the majority of tribal children (over 35 million) live in rural areas (Children in India 2018 - A statistical appraisal). When compared to other social groups, tribals have the highest rates of poverty. They are one of the country's poorest and most underprivileged demographic groups, with the majority confined in backward regions. Tribal children continue to suffer fundamental survival and developmental challenges. Their unique environment and nutritional habits set them apart from other populations.

Their food consumption patterns are shaped by nature, ranging from severe starvation during periods of shortage to substantial intakes of various foods during the post-harvest period. Geographical isolation, ancient farming techniques, sociocultural taboos, lack of formal education, inadequate

infrastructure, poor health-seeking behaviour, and poverty all contribute to morbidity and undernutrition (Somawar & Phuljhale 2015). So, the tribal children require specific care in areas like education, nutrition, and mortality.

Previous research discovered that a child birth in a tribal household in India had 19% greater chance of dying during their neonatal phase and six times more chance of dying in the post-neonatal period as compared with children from other socioeconomic groups (Jena *et al.*, 2022). In India, over 40% of under-five tribal children are stunted, with 16% severely stunted. Mild to severe stunting is found in both tribal and non-tribal children. However, severe stunting is greater among tribal children (16% vs. 9%) than in non-tribal children (CNNS 2018-20).

There are around 645 different tribes in India accounting for 8.6% of total population. Every tribe have their own traditional belief and practices. Tribal communities believe in their own indigenous healthcare system. Tribal in India have traditional beliefs and practices for infant and child healthcare. Sometimes these cultural practices can frequently cause people to engage in potentially dangerous practices. In this context critical review were made to find out the various aspects of tribals in India.

OBJECTIVE

1. To depict the socio-economic profile of tribal children
2. To review the nutritional status of tribal children
3. To analyse the morbidity pattern among the respondents
4. To have an understanding of the feeding practices among tribal children

METHODOLOGY

To achieve the objectives, a review of the available literature was done on child health care practices in tribal communities in India. Information was obtained from different books and articles published between 2013 and 2023 with the help of search websites included Google Scholar, Research Gate, Science Direct, and PubMed. In the first step, books and articles were selected based on the keywords of objectives. In

the second step, information was analysed through descriptive statistics like percentage, mean and standard deviation. After analysing the available data, the discussion was made for interpretation of the findings.

RESULT AND DISCUSSION

Table no 1: Educational status of father and mother and socio-economic status of tribal children

Author, area and sample size	Education of father		Education of mother		Status of family		
	Literate	Illiterate	Literate	Illiterate	High	medium	low
Sunny <i>et al.</i> (2020)	191 (31.57%)	414 (68.42%)	167 (27.60%)	438 (72.39%)	–	147 (24.29%)	448 (74.04%)
Nilgiri, South India							
N=605							
Senthilkumar <i>et al.</i> (2015)	144 (69.90%)	62 (30.09%)	119 (57.76%)	87 (42.23%)	–	171 (83%)	35 (16%)
Coimbatore							
N=206							
Patil & Itagi (2021)	269 (71.73%)	106 (28.26%)	315 (84%)	60 (16%)	–	146 (38.93%)	229 (61.06%)
Uttar Kannada district of Karnataka							
N=375							
Chandra <i>et al.</i> (2021)	35 (51.47%)	33 (48.52%)	11 (16.17%)	57 (83.82%)	–	17 (25%)	51 (75%)
West Bengal							
N=68							

Tribal people are known as socially marginalized people with low socioeconomic status. The table no 1 depict the educational status of father, mother and socioeconomic status of tribal children in India. Sunny *et al.* (2020) described that from all the family's fathers (31.57%) are more literate than mothers (27.60%). where it was also found that most of the families have low socioeconomic status. Senthilkumar *et al.* (2015) performed a study in Coimbatore and found the similar result that 69.90% fathers and 57.76% mothers were literate. Their family

socioeconomic status was medium. Patil & Itagi (2021) study depict that most of the families both parents were literate and their socioeconomic status ranging from low to medium. Chandra *et al.* (2021) also conducted a study in west Bengal and described that 51.47% fathers were literate whereas only 16.17% mothers were literate. With that maximum families comes under low socioeconomic status.

Table no 2: Occupational status of tribals

Author	Tribe name	Occupational status
Mahapatra <i>et al.</i> (2021)	Oraon	Work as daily labor, construction labor, and domestic workers with monthly family income of 3000-6000 rupees
Islam <i>et al.</i> (2015)	Munda, Oraon, and Lohara	Having pair of bullock and small farm land with mostly depends on forest products. Annual income ranging from 8000-30000 rupees
Padhan (2022)	Tribals of Kalahandi	No land or small sized land and their main occupation is labour work, with an annual family income of Rs. 30,001-40,000.
Maharana & Nayak (2017)	Hill Kharia	Economy depends on forest products.
Paul <i>et al.</i> (2020)	Garo and Hajong	Agriculture is their primary occupation. Their monthly income ranging from 10000-20000 rupees

Table no 2 reflects the occupational status of different tribals in India. Mahapatra et al. (2021) conducted a study on Oraon tribe and found that Oraons are daily labour, construction labour, and domestic workers with their monthly family income ranging from 3000 to 6000 rupees. Islam et al. (2015) study on Munda, Oraon, and Lohara tribe show that these tribals are depends upon small farm land with forest products and their income ranging from 8000 to 30000 rupees. Padhan (2022) conducted a study on tribals of Kalahandi and described that these tribals have

small sized land and their main occupation is labour work and their family income ranging from 30,001 to 40,000 rupees. Maharana & Nayak (2017) also conducted another study on Hill Kharia and said that they are mostly depends on forest products. Paul et al. (2020) performed a study on Garo and Hajong tribe and indicate that agriculture is their main occupation. Their monthly income ranging from 10000-20000 rupees. Morbidity pattern among the respondents

Table no 3: Morbidities of tribal children

Author, area & sample size	Anaemia	Diarrhoea	Gastrointestinal infections	Dental problems	Worm infestation	Respiratory infections
Ishore et al. (2015)	–	26%	–	–	–	24.5%
Darjeeling						
N=192						
Dishani et al. (2019)	0.6%	–	–	–	2.2%	24.6%
Phulwaris of Chhattisgarh						
N=357						
Carolin et al. (2022)	32.08%	–	–	–	–	20.48%
Andhra Pradesh						
N=381						
Manhas (2021)	30%	4%	27.33%	32%	10 %	20%
Jammu & Kashmir						
N=150						
Ali et al. (2013)	–	–	19.20%	21.20%	–	21.85%
Mysore						
N=151						

The table no 3 shows that there are common morbidities of tribal children under 5 years of age. Many researchers indicate some morbidities like anaemia, diarrhoea, gastrointestinal infection, worm infestation dental problems and respiratory infections are seen in tribal children. Ishore (2015) found that, out of the study population 26% and 24.5% of children are continuously suffering from diarrhoea and respiratory infection respectively. Likewise, Dishani et al. (2019) conducted a study on tribal children of Phulwaris in Chhattisgarh and found that 0.6%, 2.2% and 24.6% children are suffering from anaemia, worm and respiratory infection. Carolin et al. (2022) indicate that tribal children of Andhra Pradesh are having anaemia (32.8%) and respiratory infection (20.48%). Manhas (2021) said that the common morbidities of tribal children of jammu & Kashmir are anaemia (40%), diarrhoea (4%), gastrointestinal infection (27.33%), Dental problems (32%), Worm infestation (10%) and Respiratory infections (20%). Like that Ali et al. (2013) found that tribal children of Mysore are mostly suffers from gastrointestinal infection (19.20%), Dental problems (21.20%) and Respiratory infections (21.85%). Among all the morbidities collected respiratory infection is common among tribal children which may be due to the poor housing and unhygienic environment in tribal areas followed by anaemia,

gastrointestinal infections, dental problems and worm infestation.

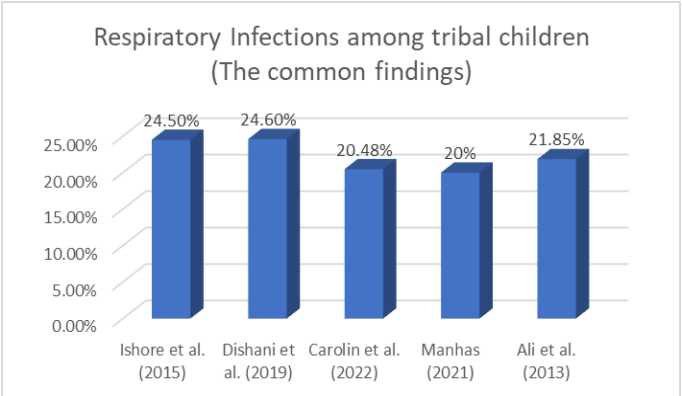


Figure no 1: Respiratory infections among tribal children
Respiratory infections found to be the common morbidity among the findings of all the researchers compiled in this article. All the studies indicate that maximum of tribal children were infecting with various respiratory infections. Nutritional status of tribal children by anthropometry measurement

Table no: 4 Height, weight and MUAC among tribal children under 5 years of age

Author, area & sample size	Height (cm)		Weight (kg)		MUAC (cm)	
	Boys	Girls	Boys	Girls	Boys	Girls
Behera & Lenka (2016)	101.14± 8.15	100.41± 7.37	18.46± 4.96	14.02± 2.07	14.94± 0.87	14.56± 0.60
Rayagada, Odisha						
N=54						
Singh <i>et al.</i> (2016)	90.3 ± 9.4	88.7 ± 8.6	12.8 ± 2.7	12.7± 2.6	16.1 ± 1.1	16.1 ± 1.2
North India						
N=350						
Ashgar <i>et al.</i> (2021)	117.2± 13.5	146.3± 11.9	22.6 ± 6.4	20.9 ± 5.7	—	—
Arunachal Pradesh						
N=452						
Mounajothi (2018)	101.1±8.7	93.1±6.3	15±4.9	13.5± 2.3	16±0.9	16±0.9
Pudhupatti Tamil Nadu						
N=100						
Jaiswal (2013)	100.5±7.1	101.4±7.0	14.3±2.6	13.1±2.61	—	—
Madhya Pradesh						
N=616						

WHO and UNICEF define severe acute malnutrition (SAM) by a mid-upper arm circumference (MUAC) less than 115 mm that is 11.5 cm. Table no 4 indicates the nutritional status of tribal children through height, weight and MUAC measurements in different areas of India. Behera & Lenka (2016) carried out a study in Rayagada district of Odisha to know the nutritional status of children and found that average height of the tribal boys and girls are 101.14±8.15 and 100.41±7.37, average weight of the tribal boys and girls are 18.46±4.96 and 14.02±2.07 and average MUAC of the tribal boys and girls are 14.94±0.87 and 14.56±0.60. Another study conducted by Singh *et al.* (2016) on tribal children in north India. Their results show that tribal children the average height of the tribal boys and girls are 90.3 ± 9.4 and 88.7 ± 8.6, average weight of the tribal boys and girls are 12.8 ± 2.7 and 12.7 ± 2.6 and average MUAC of the tribal

boys and girls are 16.1 ± 1.1 and 16.1 ± 1.2. Likewise, Ashgar *et al.* (2021) also conducted a study among 452 tribal children and result show that the average height of boys is 117.2 ± 13.5 and girls is 146.3 ± 11.9, with that the average weight of boys is 22.6 ± 6.4 and girls is 20.9 ± 5.7. Another study was conducted in Pudhupatti of Tamil Nadu by Mounajothi (2018) and found the average height of tribal boys and girls are 101.1±8.7 and 93.1±6.3, average weight of boys and girls are 15±4.9 and 13.5±2.3 and Average MUAC of both boys and girls are similar as 16±0.9. another similar study done by Jaiswal (2013) in Madhya Pradesh indicate similar result as 100.5±7.1 and 101.4±7.0, average height of boys and girls and 14.3±2.6 and 13.1±2.61 as average weight of boys and girls.

Table no: 5 Underweight, stunting and wasting among tribal children under 5 years of age

Author area and sample size	Underweight	Stunting	Wasting
Philip, R. <i>et al.</i> (2015)	171 (39%)	167 (38%)	90 (20.5%)
Wayanad District of Kerala			
N=438			
Stiller, C.K. <i>et al.</i> (2020)	151 (49.2%)	159 (51.9%)	58 (19.0%)
Birbhum district, West Bengal, India			
N=307			
Ghosh & Varerkar (2019)	318 (53%)	354 (59%)	120 (20%)
Palghar district, Maharashtra, India			

N=600			
Sunny <i>et al.</i> (2021)	381 (63%)	375 (62%)	188 (31%)
Nilgiri, Tamil Nadu			
N=605			
S. R. & Srijayanth (2022)	175 (54.8%)	165 (51.7%)	99 (31%)
Wayanad district, Kerala			
N=319			
Jaiswal (2023)	61 (61.8%)	37 (38.0 %)	53 (54.2%)
Tamil Nadu			
N=98			
Mollah <i>et al.</i> (2020)	772 (45.9%)	744 (44.2%)	333 (19.8%)
Paschimanchal, west Bengal			
N=1683			
Senthilkumar <i>et al.</i> (2018)	83 (41.3%)	65 (32.5%)	44 (21.8%)
Coimbatore			
N=200			
Dishani <i>et al.</i> (2019)	128 (35.9%)	58 (16.2%)	35 (9.8%)
Phulwaris of Chhattisgarh			
N=357			

Table no 5 show the nutritional status through underweight, stunting, and wasting among tribal children who are under 5 years of age in different area of India. Philip, R. *et al.* (2015) conducted a study in Wayanad District of Kerala among 438 tribal children and found that out of all children 171 (39%) are underweight, 167 (38%) are stunted and 90 (20.5%) are wasted. Likewise Stiller, C.K. *et al.* (2020) conducted another study in Birbhum district of West Bengal and show that 151 (49.2%) children are comes under underweight 159 (51.9%) are under stunting and 58 (19.0%) are under wasting. Ghosh & Varekar (2019) also perform a study in Palghar district, Maharashtra where they found the underweight, stunting and wasting in 318 (53%), 354 (59%) and 120 (20%) tribal children respectively. Sunny et al. (2021) also did a study in Nilgiri, Tamil Nadu among 605 tribal children and found that 381 (63%) children are

underweight, 375 (62%) children are stunted and 188 (31%) children are wasted. S. R. & Srijayanth (2022) of Wayanad district, Kerala found underweight stunting and wasting among 175 (54.8%), 165 (51.7%), 99 (31%) tribal children and Jaiswal (2023) in Tamil Nadu found underweight stunting and wasting among 61 (61.8%), 37 (38.0 %) and 53 (54.2%) tribal children. Senthilkumar *et al.* (2018) study in Coimbatore found underweight stunting and wasting among 83 (41.3%), 65 (32.5%), 44 (21.8%) from all 200 tribal children and Dishani *et al.* (2019) study in Phulwaris of Chhattisgarh among 357 tribal children show underweight stunting and wasting in 128 (35.9%), 58 (16.2%), 35 (9.8%) respectively. These studies indicate that most of the tribal children are comes under underweight, stunting and wasting. To understand the feeding practices among tribal children.

Table no:6 Infant feeding practices among tribal communities

Author Area of study	Pre lacteal feed given	Colostrum feeding	Colostrum discarding	Breast feeding on first day of delivery	Exclusive breast feeding	Complementar y feeding at the age of 6 months
Sarkar <i>et al.</i> (2020)	48%	62%	38%	–	–	–
Eastern India						
Chandra <i>et al.</i> (2021) West Bengal	5.9%	–	–	94.1%	–	–
Rithu & Vyas (2023)	–	–	–	–	77.9%	25%
Gudalur Block, Nilgiri						
Jose <i>et al.</i> (2021)	–	–	–	–	76.2%	62.7%
Kerala						
Senthilkumar <i>et al.</i> (2018)	–	7.8%	–	–	64.6%	–
Coimbatore						

Table no 6 indicate the infant feeding practices among tribals. It includes prelacteal feeding like honey, jaggery, ghee, herbal paste etc., colostrum feeding, colostrum discarding, breast feeding on first day of delivery, exclusive breast feeding up to 6 months and complementary feeding at the age of 6 months of children. Many researchers found different types of feeding practices among tribals of India. Sarkar et al. (2020) performed a study in eastern India and found that 48% of tribals practice prelacteal feed, 62% of mothers feeding colostrum to their newborn babies where as 38% of mothers discarding colostrum thinking it as dirty milk. Chandra et al. (2021) did study in west Bengal and found that 5.9% tribal respondents practiced prelacteal feed and 94.1% of mothers breast feeding their newborn infants on first day of delivery. Another research study was also conducted in Gudalur Block of Nilgiris district and result shows that 77.9% mothers are practicing exclusive breast feeding to their children and 25% mothers are practicing Complementary feeding at the age of 6 months. Similar study was also conducted in Kerala by Jose et al. (2021) and found 7.8% mothers are discarding colostrum and 64.6% mothers are practicing exclusive breast feeding up to 6 months of age. Senthilkumar et al. (2018) study also show that 7.8% tribal mothers of Coimbatore feeding colostrum to their babies and 64.6% mothers are practicing exclusive breast feeding to their children.

CONCLUSION

This comprehensive review paper sheds light on socio economic status, morbidity pattern, nutritional status and child health care practices among tribal communities in India. The key findings show that tribals of India exhibit varying levels of illiteracy, economic challenges, and reliance on traditional occupations like agriculture and forest-based activities. The family status often falls into the low to medium range, indicating economic challenges within tribal households. The tribal children face a range of health challenges, including high rates of anaemia, diarrhoea, gastrointestinal infections, dental problems, worm infestations, and respiratory infections. The prevalence of these morbidities varies across different regions of India, highlighting the need for targeted healthcare interventions tailored to the specific health concerns of each tribal community.

The nutritional status of tribal children, as measured by underweight, stunting, and wasting, reveals alarming rates of malnutrition. Various studies conducted in different regions consistently report high percentages of underweight, stunted, and wasted tribal children, emphasizing the urgency of addressing nutritional deficiencies. Beside this infant feeding practices among tribal communities vary, with a significant proportion giving pre-lacteal feeds and discarding colostrum. The rates of exclusive breastfeeding and timely initiation of complementary feeding are suboptimal, indicating a need for awareness and education on appropriate infant feeding practices. Therefore, policymakers and healthcare professionals should design and implement targeted interventions addressing the unique challenges faced by tribal communities, considering their socio-economic context, traditional beliefs, and healthcare practices.

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