
Introduction

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The Kaleidoscopic picture of India's tribal life reflects a rich variety of culture, languages, arts and crafts, music and dance forms, rituals and habits. The taboos and customs prevalent in the tribal society should also be respected. Tribal community forms a small but important ancient group of our population.

Tribal population in India is larger than that of any other country in the world. Tribes constitute nine per cent of the country's population. There are nearly 450 tribal communities in India, including sub tribes, of which Gonds, Bhils and Santhals are the larger ones (Vasudevachary, 2006). Among the Indian states tribals are highly concentrated in Madhya Pradesh, Orissa and North Eastern States. Generally hills and forests form the habitat of tribes. But some groups do live in plains and islands as well.

Kerala is also known for its tribal population. Tribes in Kerala were estimated as 3.21 lakhs and it is 1.10 per cent of the state's population.

(Economic Review, 2003 and Tribal sub plan, 1999-2000). Adiyar, Paniyar, Irular, Kadar, Kanikar and Mala Vedan are the major tribal groups in Kerala. Although all the districts of Kerala account for some tribal population they are significantly found in the Idukki, Palakkad, Wayanad and Kasaragod districts. Wayanad has the highest tribal concentration in the state. 35.85 per cent of the Scheduled Tribes in the state is in Wayanad, which comes to 17.11 per cent of the total population of the district. Idukki comes next with 15.66 per cent and 4.66 per cent respectively (Government of Kerala, 2001).

In general usage, 'Tribe' is taken to denote a primary aggregate of people living in a primitive or barbarous condition under a headman or chief. As described by Kerala Institute for Research, Training and Developmental Studies (KIRTADS, 2001) "a tribe is a collection of families bearing a common name, speaking a common dialect, occupying or professing to occupy a common territory". They follow tribal tradition, beliefs, customs and are illiberal of naturalization of ideas from alien sources. Tribal communities belong to different ethnological groups, profess diverse faith and are at varied levels of socioeconomic development too.

Tribes, as claimed by Singh (1994) have been the original inhabitants of our country, who were driven from the fertile plains to the more inaccessible, remote, inhospitable slopes, hills and forests by successive waves of invaders.

At present 94 per cent of the forest dwellers are tribals, and their economy is dependent on forest to a great extent. This dependency for their livelihood on the

forests creates in tribals, an equally strong attachment to the forest.

The tribal people are the most conservative, orthodox and superstitious, which impede their growth and development in all walks of life. Most of the tribes are poor, backward, generally uneducated and lead a hard and miserable life (KIRTADS, 2003). There are many tribes who remain backward and cut off from the happenings in the outside world mainly due to their primitive way of living and illiteracy. Due to their inherent backwardness, isolation and sheer resistance to change, they tend to remain underdeveloped, as compared to the main stream of population living in towns and villages.

Several programmes were launched by the Government to uplift the tribal folk and to bring them at par with the nontribes. Some of them are Integrated Tribal Development Programme (ITDP), Tribal Sub Plan Strategy (TSP), Special Central Assistance (SCA), Attapady Hill Area Development Scheme (AHADS) etc. But unfortunately all such efforts have become futile due to a variety of reasons.

As a part of the developmental efforts, tribals are rehabilitated in new settlements with necessary basic amenities. As a result, these forest dwellers have to cope with the new situation and a totally different way of life. Due to lack of education and life of comparative exclusiveness, the scheduled tribes find these adjustments more difficult particularly in an alien location.

Similarly, a sharp decline in the forest area and all forms of wild life due to over grazing, extension of irrigation and power projects, use of insecticides

and pesticides and also the efforts for preservation of the habitat, altogether forced the tribals to shift from their usual natural set up to new environment. This brings in accelerated changes in their habits and practices, and even in their life styles, which are not conducive for their health and wellbeing. Thus tribals who have their problems of varied types in their original habitats, as all human beings have, started facing problems, which are quite new from what they have been encountering so long.

In addition to the topographical factors, industrialisation and urbanisation also compelled the tribals to move out of the forest area. Here again illiteracy, the main reason for backwardness, added fuel to the fire of exploitation by the nontribals. Barter system, which is being carried out even now, is another cause of the backwardness of the tribes. As the demands of tribes were restricted mostly to salt, kerosene, oil, gur, clothes, matches and tea; the simple, innocent, illiterate and truthful tribals are exploited in this process mercilessly by traders, merchants and money lenders (KIRTADS, 2001).

The successive draughts during the past few years and prevailing economic uncertainty also play negative role in tribal lives. So they have become the ultimate victim of high morbidity and extreme under nutrition. Any number of studies can be quoted to picturise the pitiable state of tribes in terms of health and nutritional status.

The nutritional status of women, as among any other community, is an important factor deciding the quality of their lives, and survival and healthy

development of their children (UNICEF, 1997). Similarly preschoolers who are referred as the most vulnerable group of the community to the vulgarities of malnutrition succumb readily when the diet is poor in quality and quantity; and also when the infection and infestations are wide spread.

Dietary inadequacies and childhood morbidities among the preschool children in general and tribal children in particular, have been emphasised repeatedly by many authors. Preschoolers who form a sizable segment of tribal population need special attention in this context, in virtue of their contribution as future citizens of this fast developing nation.

Government of India proclaimed a National Nutritional Policy on Children in August 1974, declaring children as 'Supremely important asset'. Integrated Child Development Services (ICDS) was launched in 1975, seeking to provide an integrated package of services especially to children in a convergent manner.

Inspite of such efforts, malnutrition continues to prevail among the preschoolers in poor sections of nontribal groups as well as their tribal counterparts. As per UNICEF (1996) reports, moderate and severe form of PEM is present among 53 per cent of preschool population in India and 29 per cent in Kerala; whereas moderate and severe wasting percentage is 18 in national level and 12 in state level.

*Country wide surveys also indicated that more than half of the Indian preschoolers suffer from subclinical under nutrition as illustrated by a low weight-for-age. Low height-for-age, as stunting is also comment indicating the undernutrition of long duration (Rao *et al.*, 2004).*

A subnormal growth rate as a product of malnutrition among Indian preschoolers was reported by NNMB (1997). The yearly increase in height in preschoolers is reported to be 12.4 cm in one to two years, 8.9 cm in two to three years, 7.3 cm in three to four years and 5.6 cm in four to five years. And the increase in body weight during two to three years is 2.1 kg, three to four years is 2.0 kg and four to five years is 1.9 kg.

The intake of essential nutrients was also found to be far below the Recommended Daily Allowances. According to NIPCCD (1997) the mean energy intake of preschool children is only 165 Kcal/day as against the RDA of 1690 Kcal, iron intake is 14 mg per day against the RDA of 18 mg and vitamin A 168 micro gram per day as against 400 micro grams. So micro nutrient deficiencies are wide spread among this group including iron deficiency anaemia and vitamin A deficiency. More than 50 per cent of preschool children in India are reported having anaemia (Rao *et al.*, 2004).

Similarly a wide prevalence of deficiency diseases was found among the preschool children of Kerala also. In fact the actual prevalence rate would be much higher than that of the clinically diagnosed cases. According to NFHS (1995) a large proportion of children in Kerala that is 80 per cent are mildly or moderately malnourished. Iron deficiency anaemia and iodine deficiency disorders are the two major problems observed. The average community prevalence of anaemia is 50 per cent whereas in rural areas the prevalence rate is 70 to 80 per cent (WHO, 2000).

As a consequence of such prolonged nutritional deprivation, many clinical manifestations and disabilities are encountered. These problems if untreated or not prevented may affect the growth and potential of our children.

The situation of comparatively better-placed children of Kerala being this, the health and nutritional status of their counterparts in tribal communities is still worse. Studies conducted by several investigators among the tribal preschool children in different parts of India revealed that more than 90 per cent of them had one or other visible signs of deficiency diseases related to poor intake of nutrients (NNMB, 1997).

There are nutritional problems, which the tribal population share with the entire rural populations of the country and there are also problems which are unique to the tribal folk. Of which the major one is the prevalence of sickle-celled anaemia, which adversely affects the haemoglobin contents of blood causing severe malnourishment (Sharma, 1995).

Different grades of malnutrition without gender variations were observed by Indira (1993) among tribal preschoolers in Palakkad districts of Kerala. The intake of almost all food items was also found to be far below the Recommended Daily Allowances (RDA) suggested by ICMR. Apart from various ailments already present in the tribal communities, tuberculosis, vitamin A deficiencies, anaemia, worm infestations and scabies are seen plaguing in each and every corner of tribal spots in Kerala. Prevalence of diarrhoea, malnutrition

and death could be attributed to the improper weaning practices under insanitary living condition and ignorance of mothers.

The most prominent association of nutritional deficiency is with infection. As Devadas (2001) pointed out the major factor known to contribute to the poor state of child health are under nutrition due to inadequate food intake and infections arising from insanitary living conditions. Under nutrition increases the frequency and severity of infectious illnesses, thereby increasing the morbidity. A marginal intake of nutrients, which by itself may not lead to clinical deficiency, may do so when infectious diseases are superimposed.

Although morbidity refers to the relative frequency of occurrence of a particular disease in a particular area, in the present study the coexistence of nutritional problems and illnesses was considered together due to their proven interdependency.

In fact a comprehensive study on nutritional status of children may not be completed without examining the role of related morbidity, as it can influence the extent and severity of malnutrition. This is of special relevance in a state like Kerala, which is known for the paradox of high morbidity–low mortality syndrome among children.

As it comes to tribal children who formed poorest of the poor sections of the population, it gets added significance because the dominant disease entities comprising of respiratory infections, diarrhoeal disorders, worm infestations, skin infections etc. are generally categorised as diseases of poverty.

Several studies were reported on the nutritional status of women and children, both at national and state level, but not much on tribals, particularly tribal preschoolers. So comprehensive data on morbidity and nutritional profile of tribal preschool children is not available at present, for a proper perception of health profile of these children. Information on these lines provides a better understanding of the problem which in turn would help to modify suitably the existing tribal child care services or even to design more appropriate strategies for their overall development.

Hence the present study has been undertaken with the main objective of assessing the morbidity and nutritional profile of tribal preschool children and a comparable set of nontribal counterparts in the northern districts of Kerala. The specific objectives of the study are:

- 1.1 To find out the socioeconomic background of tribal and nontribal families**
- 1.2 To study the morbidity profile of preschool children belonging to tribal and nontribal families**
- 1.3 To assess the nutritional status of the preschool children of tribal and nontribal families**
- 1.4 To examine the relationship, if any, of selected variable with the morbidity pattern and nutritional status of tribal and nontribal preschoolers**

Review of Literature