

Research Article

# Socio-Demographic Profile of Schedule Tribes of Five Integrated Tribal Development Agency Spots at Kurnool, Andhra Pradesh in India

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## A B S T R A C T

**Background:** Tribal population is the second largest in India next to Africa, constituting 8.6% of total India population. Tribal population have unique physical, socio-economic and cultural environment but most deprived from health care facilities and vulnerable to malnutrition and diseases.

**Objective:** To study the living condition of tribal people which includes socio-economic, demographic and health status profile along with providing health care facilities to tribes.

**Methods:** Five Integrated Tribal Development Agency (ITDA) spots which belongs to Chenchu tribe of Kurnool district Andhra Pradesh were adopted. Data was collected through house-to-house survey and in Mobile medical camps in a pre-tested questionnaire provided by CCRUM.

**Results:** A total of 3174 patients were screened among them 584 person of 130 families were selected for data collection. Majority (93.07%) were Hindu in the age group 21-30 years (31.6%), with male preponderance. Education status was fair (42.63%) population were illiterate. The basic amenities were good, (93.84%) use piped drinking water, all had open drainage system, (91.53%) use LPG, (89.23%) household surveys have pucca house, and (77.69%) use pit toilet. More than half of them (54.79%) were married, (70.16%) adopted permanent sterilization for family planning, 107 females registered when pregnant, majority delivered at hospital (53.44%), mostly (93.91%) visited family welfare center, 117(90%) household don't have government health facility other than PHC or MCH.

**Conclusion:** Low-income status, less literacy rate, and unhygienic sanitary conditions were common among Chenchu tribe of Andhra Pradesh. Majority of them (25.87%) suffered from Musculoskeletal diseases reported to OPD of mobile medical camps.

**Keywords:** Tribal, Household Survey, Mobile Medical Camps, Scheduled Tribes, Unani

## Introduction

Over 104 million tribal people spread across 705 tribes live in India. The constitution of India has given special status to the Scheduled Tribes (ST) that contribute 8.6% of total population.<sup>1,2</sup> From 5th five-year plan onwards, tribal development gathered momentum with the introduction of a Tribal sub plan approach. Under this approach Andhra Pradesh has identified 10 areas having concentration of tribal in a continuous area, special development agencies like Integrated Tribal Development Agencies (ITDAs) have been created for overall tribal development in these areas.<sup>3</sup>

Andhra Pradesh has 9 ITDA's covering Srikakulam, Vijayanagaram, Vishakhapatnam, West Godavari, East Godavari, Kurnool, Kadapa, Chittoor, Ananthapur, Nellore, Prakasam, Krishna, Guntur districts.<sup>3</sup> As per 2011 the population of Andhra Pradesh was 49.6 million out of which 2.74 million were Tribal constituting around 5.53% of total population.<sup>3,5</sup> Kurnool has a total of 18,105 (2.7%) of households, total population 82,831 (3.1%), with total tribal male population of 42,052 (50.8%) and female 40,799 (49.2%). Around 13% of the total tribal population in the state resides in urban areas. Government of Andhra Pradesh has 5-PTG primitive tribal groups in which Chenchus is one of them.<sup>3</sup>

The present study is to present the analysis and observation of the household surveys and conducted mobile medical camps in the ITDA spots under TSP in Kurnool district of Andhra Pradesh are mainly chenchu tribe in Nandikotkur Chenchu Colony, Velugodu Chenchu Colony, Bairlutu Gudem, Siddhapuram, where the tribals reside near the Nallamalla hills and forest area and sugalis in Sugalithanda of Kurnool, Andhra Pradesh.

## Methodology

The data was collected from household survey and mobile medical camps in the five ITDA spots under TSP in Kurnool district of Andhra Pradesh conducted during August 2019 to December 2019 by Clinical Research Unit, Kurnool, Andhra Pradesh. Initially a good company was established with the social workers, government teachers, and head of the tribes who works for the benefits and upliftment of the tribes in the allocated spots, the detail are given in Table 3.

Importance of the study was explained to them & sought their support in smooth conduction of the house hold survey as well as medical camps. A few houses were randomly selected in all the allotted spots for survey. A semi structured questionnaire allotted by CCRUM was used to collect information from all the houses which includes socio economic, demographic & health profile particulars like age, sex, area, caste, religion, income status, literacy, occupation, martial, health problems, sanitation & hygiene conditions and health facilities. Interview method of data

collection was used to collect information. Mobile medical camps were also conducted in all the spots 3 days a week and there by collected the data obtained from OPD record.

## Results

**Table 1. Distribution of Patients in various Adopted spots**

Name of the pocket	Patient registered	Percentage (%)
Sugalithanda	666	20.98
Nandikotkur Chenchu Colony	666	20.98
Velugodu Chenchu Colony	665	20.95
Bairlutu gudem	597	18.80
Siddhapuram	580	18.27

**Table 2. Demographic Details of the 584 People of 130 Families**

Variables	Number	Percentage (%)
<b>Age group n (%)</b>		
<20	82	14
20-30	185	31.6
31-40	120	20.54
41-50	97	16.6
51-60	86	14.72
>60	14	2.39
<b>Gender (n=584)</b>		
Female	291	49.82
Male	293	50.17
<b>Religion (n=130 families)</b>		
Hinduism	121	93.07
Muslim	8	6.15
Christian	01	0.76
<b>Marital Status (n=584)</b>		
Married	320	54.79
Unmarried	49	42.63
Widow	14	2.39
Divorced	01	0.17
<b>Category (n=130 families)</b>		
SC	01	0.76
ST	111	85.38
OBC	17	13.07
<b>Educational Status (n=584)</b>		
Illiterate	249	42.63
Pre-primary	66	11.3
Primary School	113	19.34

High School	60	10.2
Intermediate	62	10.6
Graduate or above	34	5.8

SC=scheduled class, ST=scheduled tribe, OBC=Other backward class

A total of 130 houses/ families were surveyed and details of all household members (584 individuals) were collected. Maximum number of people 185 (31.6%) were in the age group of 20-30 years followed by 120 (20.54%) which were from group of 31-40 years. Older age group of more than 60 years was minimum as only 14 (2.39%) peoples were above 60 while 82 (14.0%) falls under <20 years. While 97 (16.6%) and 86 (14.72%) of people were from age group 41-50 years and 51-60 years respectively. Of the 584 people 293 (50.17%) were males and 291(49.82%) were females (Table 2).

Among surveyed family, majority of family 121 (93.07%) were the followers of Hinduism religion while only 1 (0.76%) was of Christian. A very few families 8 (6.15%) among them were Muslims, followers of Islam. As far as, marital status is concerned, 320 (54.79%) were married and 249 (42.63%) were never married or single, while widowed were 14 (2.39%) and only 1 (0.17%) was separated or divorced. Among them, majority of the families belongs to Scheduled Tribes 111 (85.38%) followed by other backward caste 17 (13.07%) and only 1 (0.76%) family belongs to Scheduled Caste.

Education level is classified as primary, pre-primary, middle, secondary, graduate and above graduate. Majority 249 (42.63%) of the population were illiterate, while among literate, maximum 113 (19.34%) were only educated to primary school followed by 66 (11.3%) persons having only pre-primary education. Least of them were graduate or above graduate 34 (5.8%) while 60 (10.2%) and 62 (10.6%) were high school and intermediate respectively (Table 2).

**Table 3. Available Facilities among the Surveyed Families**

Facilities	No. of families (n=130)	Percentage (%)
<b>Drinking water source</b>		
Piped water	122	93.84
Ground water	08	6.15
<b>Location of source of water</b>		
Outside the house	109	83.84
Inside the house	21	16.15
<b>Storage of water</b>		
Present	130	100
<b>Type of storage</b>		

For drinking and domestic use	122	93.84
For drinking only	08	6.15
<b>Types of House</b>		
Pucca House	116	89.23
Kaccha House	14	10.76
<b>Source of Energy</b>		
Electricity	128	98.46
Kerosene	02	1.53
<b>Fuel for cooking</b>		
LPG	119	91.53
Wood/Kerosene	11	8.46
<b>Toilets</b>		
No facility	29	22.30
Pit toilet	101	77.69
<b>Toilet location</b>		
Inside the house	53	40.76
Outside the house	77	59.2
<b>Drainage system</b>		
Open type	130	100
Closed type	0	0

Majority of the families had access of drinking water from piped water 122 (93.84%); only eight families (6.15%) get ground water, where location of source of water is outside of house for 109 (83.84%) families, while only few had source of water inside their house [21 (16.15%)]. Out of 130 families, every family stores water, among them, 122 (93.84%) families stored for both drinking and domestic purpose and while only 8 (6.15%) families stored for only domestic purpose. Among those who used to store water inside house, frequency of changing water is practiced daily among 126 (96.92%) families, while only 4 (3.07%) changes stored water weekly and fortnightly. Every house has open drainage system and water get stagnated in it and majority 127 (97.69%) have arrangement for cleaning stagnated water and a few had no cleaning facility (Table 3).

Majority 116 (89.23%) families have pucca houses and 14 (10.76%) are having Kaccha house. 128 (98.46%) families are using electricity and only 2 (1.53%) among all used kerosene as source of lighting in their house. 91 (70%) families among surveyed population have sufficient air and light in rooms and 39 (30%) houses do not have proper ventilation available in their houses. Analysis revealed that 52 (40%) families have pets and domestic animals which are located outside of the house (Table 3).

A total of 119 (91.53%) households were using liquid

petroleum gas and 11 (8.46%) were using wood/ kerosene for cooking purpose. About 101 (77.69%) use the pit toilet and 29 (22.30%) of them had no toilet facility where people go to open field/colony sharing toilets are 77 (59.23%). Toilet was situated inside the house in 53 (40.76%) houses. Sixty eight (52.30%) had no habit of washing hands after using the toilet. 39 (30%) wash with soap, 7 (5.38%) wash with ash, 16 (12.30%) wash with sand.

As far as health status of surveyed tribal population is concerned, among 130 selected families, 125 (96.15%) families have given information of health education activity in their locality during last one year. 84 (64.61%) are aware of health education in the health center and the remaining 46 (35.38%) had no information about this. Analysis showed that it was useful to only 82 (63.07%) families and only few 3 (2.30%) said that it was not useful to them. 117 (90%) houses gave information that they don't have any government health facility other than PHC or MCH Center. Only 13 (10%) houses availed the facilities at this health institutions. 130 (100%) household surveys revealed that population has not to pay for any of the laboratory services.

Information regarding family planning and methods of contraception were also collected during the survey. It was observed that most of the couples practiced family planning. Among various methods for family planning, in 92 (70.76%) permanent sterilization remains the most popular modern contraceptive method has undergone sterilization and in the majority of cases (n=86, 66.15%), the surgery was planned at government hospital and only a few (n=6, 4.61%) opted private clinic. While few of the couples practiced spacing methods of contraception. However, there were many (n=32, 24.61%) couples who had not been sterilized.

Of the 130 families, 128 (98.46%) families had not suffered from any emergency during last one year and only 2 (1.53%) families have reported that one of the family members suffered from an emergency and medical services are available at the distance of less than one km from their house.

Number of women who gave information regarding ANC during the survey was 107. All of them registered themselves and 89 of which had visited family welfare center monthly, 10 quarterly, 5 fortnightly and had taken TT injection, IFA tablets, BP recording and blood examination while 15 never got registered in any health or family welfare center. 97 (82.90%) houses have awareness of health center in their locality and 20 (17.09%) informed that they don't have any idea /information. Majority of them had delivered at hospital 62 (53.44%), at center 44 (37.93%) and at home 10(8.62%). Delivery was conducted by doctor in 92 (79.31%) cases, by local dai in 10 (8.62%) cases, ANM in 10 (8.62%) cases while by trained dai in 4 (3.44%) cases, from center health worker. Regarding immunization, 110 households (100%) taken BCG, DPT, polio and booster.

Out of total surveyed houses (n=130) birth has taken place and registered during last one year were 9 (6.92%) and only 1 (0.76%) death were reported. Birth registration office is located less than 500 meters far from 4 (44.4%), less than 1 km from 3 (33.33%), and more than 1 km from 2 (22.22%) houses.

In mobile, medical camps a total of 3174 patients were screened in all the spots. In which both Sugalthanda and Nandikotkur Chenchu Colony were 666 (20.98%), 665 (20.95%) in Velugodu Chenchu Colony, 597 (18.8%) in Bairlutu gudem and 580 (18.27%) Siddhapuram. (Table 1) Majority belongs to Hindu religion 2193 (91.97%), Muslims 240 (7.56%) and least Christians 21 (0.66%). ST caste were 2677 (84.34%) and followed by others 429 (13.51%), SC 68 (21.4%). Majority of patients belong to middle age group including 31-40 years (25.23%) and 21-30 years (20.73%). Majority of them counting females 1792 (56.45%) and followed by males 1382 (43.54%).

**Table 4. Age Group Distribution of Registered Patient in the Mobile Health Camps**

(n=3174)		
Age group (in years)	Number of patients	Percentage %
Less than 10	11	0.34
11-20	395	12.44
21-30	658	20.73
31-40	801	25.23
41-50	571	17.98
51-60	431	13.57
61-70	253	7.97
71-80	49	1.54
More than 80	5	0.15

Majority of people suffered from Amraz-e IZam-wa Mafasil (Musculo-skeletal disorders) 502 (25.87%), 438 (22.57%) Amraze Nizam Hazam (Digestive disorders), 236 (12.16%) Amraze Nizam Tanaffus (Respiratory disorders), 158 (8.14%) Hummiyat (Fever), 135 (6.95%) Amraze Nizam Bol (Urinary disorders), 128 (6.59%) Amraze-Uzn-Anaf-Halaq (ENT), 102 (5.25%) Amraze Jild (Skin disorders), 60 (3.09%) with Amraze-Nizam-Aasab-wa-Dimagh (Nervous diseases) and Amraze-Niswan-wa-Qabalath (Gynecological and Obstetrical disorders), 56 (2.88%) Amraze-Qalb-wa-Dawrane-Khoon (Cardiac disorders), 38 (1.85%) Surgery, 16 (0.82%) Amraze Tanasil (Sexual Disorders) and least 11 (0.56%) were of Amraze-Ain (Ophthalmological diseases).

## Discussion

In this study majority (93.07%) follow the religion Hinduism, it is similar to other studies also done on tribal people, presiding over Nallamalla hills and forest area.<sup>4,9,11,12</sup> Majority



(42.63%) of the population were illiterate. According to census figures, the literacy rate for ST in India is 59% while in Andhra Pradesh it is 49.2% & in Kurnool district, it is 55%. It is clear from the above that a slight decrease levels of literacy seen when compared with total tribal literacy.<sup>3,11-14</sup>

Majority of them belongs to low income group 118 (90.76%), followed by 11 (8.46%) from the class of 11000-20,000 income group and only 1 (0.76%) family came from the income group of 21000-30,000. As per planning commission estimates, ST people living below poverty line in 2011-12 were 45.3% in the rural areas.<sup>3,10,12</sup> Out of 584 people 50.17% were males & 49.82% were females. There are not much more differences in male and female ratio as previous studies say that male population is slightly higher than female population.<sup>3,11</sup>

Twenty nine (22.30%) households had no access to toilet, however, majority (77.69%) of the household were using pit type of toilet. The use of pit toilet had increased from previous years as evident from previous study was done on ST population with pit latrine facility in 2011 rural (1.5%) & urban areas (4.1%) and no toilet facility for 80.9% in rural areas & 88.8% urban areas.<sup>1,9</sup>

Majority of people use LPG (91.53%) in all the spots which has drastically increased from previous years due to continuous efforts of the government in state & central in development of tribal people as it is evident that LPG used by ST people were 11.6% in Andhra Pradesh as per 2011 census.<sup>1,8</sup>

Majority had access to drinking water from piped water (93.84%) which had increased from previous decade as per census 2011 total ST population of Andhra Pradesh using tap water 44%.<sup>1,8</sup> Every house had open drainage system (100%), which is far better from 2011 census where the ST population has 29.8% and no drainage 70%.<sup>1</sup>

Mostly use electricity as (98.46%) source of lighting for their house and kerosene 1.53% in 2011 census of Andhra Pradesh total ST population using electricity as main source were 73.1% & kerosene 25.3%. Thus, this is much improvement in the usage of electricity from last decade.<sup>1</sup>

Delivery at hospital (53.44%) and center (37.93%) was drastically increased from previous decade as shown in the previous studies where it was conducted mostly at home.<sup>6,7</sup>

Family planning methods of terminal method (tubectomy) (70.76%) is also increased but spacing method usage is less which is better than previous years.<sup>6,7</sup> There are other parameters also which require in depth research knowledge but there is lack of research available exclusively on tribal population.

In mobile medical camps 801 (25.23%) of people belongs to age group of 31-40 years which shows middle aged persons

are more prone to suffer from diseases which may be due to faulty dietary and lifestyle habits (Table 4).

Majority of people suffered from musculoskeletal disorders (25.87%) and digestive disorders. In the previous studies it was reported that malnutrition/ under nutrition was seen mostly which belongs to digestive disorders.<sup>5,14</sup> But this study showed that it may be due to change in their lifestyle habits, these may be slightly shift to diseases of musculoskeletal disorders.

## Conclusion

It can be concluded that majority of Scheduled Tribe population living in rural areas were literate but meager were up to higher level of education. The basic amenities available such as source of water, cooking gas, toilets within or outside the house, electricity etc. to households was quite satisfactory except the open drainage system which in turn is not good for the healthy environment among the ST population. It may be suggested that the modification can be made in the policies and programs to make Tribal sub plan schemes more applicable and fruitful in terms education and sanitation.

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