



Original Research Article

Demographic & health profile of tribal population of telangana - A cross sectional study

K.P. Joshi¹, M. Hima Bindu^{1,*}, Deepak Jamadar¹

¹Dept. of Community Medicine, SVS Medical College, Telangana, India



ARTICLE INFO

Article history:

Received 14-05-2022

Accepted 24-05-2022

Available online 28-09-2022

Keywords:

Tribal health

Tribal population

Health Status

ABSTRACT

Background: Adivasi is the collective term commonly used for the Tribes of the Indian subcontinent who constitute 8.6% of the total Indian population. Apart from high rates of malnutrition and communicable diseases, rapid urbanisation, and changing lifestyles and environment, has led to a rise in non-communicable diseases also.

Objectives: The objective of the study is to determine the socio demographic profile of the study population and to identify the health problems of the study population.

Material and Methods: A survey based cross-sectional study was conducted between Dec-2021 to Jan-2022 in Appapur & Bowrapur villages of Nagarkurnool district, Telangana. Convenience sampling procedure was followed. A pre-tested questionnaire regarding demographic & health profile was used. Data was entered systematically / scored accordingly in MS-Excel software. The statistical software SPSS version 23 was used for data analysis.

Results: Among the total study population, the Mean age was 28.12. Majority participants (66.1%) were females and most of them (72.7%) were illiterates with 50% population being alcoholics. Generalized weakness was the major health problem seen, and 19.6% population were found to be hypertensive. About 73.2% population were aware regarding the transmission and precautions of COVID and 64.3% aware regarding the vaccination for COVID.

Conclusion: About one fourth of the study subjects were aged above 45 years and about two thirds were females and illiterates and were in unskilled occupations. Alcoholism was the major addiction seen in half of the people. Majority population were suffering from generalized weakness. Majority population were aware regarding the transmission, precautions and vaccination for COVID.

This is an Open Access (OA) journal, and articles are distributed under the terms of the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License](https://creativecommons.org/licenses/by-nc-sa/4.0/), which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprint@ipinnovative.com

1. Introduction

“Tribals” refers to a group of people who live in isolation in natural, unpolluted surroundings far away from civilization with their traditional values, customs, beliefs, and myths intact and are considered to be the autochthonous people of the land.¹ Tribal /Indigenous people practice unique cultures. Their social, cultural, economic and political characteristics are distinct from the dominant societies in

which they live. Despite their cultural differences, tribal people all over the world share common problems related to the protection of their rights.

There are over 476 million indigenous people living in 90 countries across the planet, accounting for 6.2 per cent of the worldwide population.² The tribal or Adivasi population in India constitutes a total population of around 104 million, i.e., around 8.6 percent of the Indian population, which makes the world’s largest population of indigenous people.³ Health is a crucial determinant of the well-being of any community. Health is considered as one of the prerequisites

* Corresponding author.

E-mail address: drkjoshi76@gmail.com (M. Hima Bindu).

for human development and progress. The health status of tribal populations is very poor and worst of primitive tribes because of the isolation, remoteness and being largely unaffected by the developmental process going on in India.⁴ Despite India's recent economic growth, health and human development indicators of Scheduled Tribes (ST) or Adivasi (India's indigenous populations) lag behind national averages.⁵

The problems and needs of tribal people are different from rural population. The healthcare needs of tribal communities are different and are based on difference in terrain, environment, social systems and culture. Poverty, illiteracy, harsh living environments, high rates of smoking and alcohol use, and poor access to health care are the risk factors for ill-health among tribals. Tribal communities face the 'triple burden' of disease. Apart from high rates of malnutrition and communicable diseases (TB, leprosy, HIV etc), the advent of rapid urbanisation & changing lifestyles and environment has led to a rise in non-communicable diseases as well (Cancer, Diabetes, and Hypertension). These are both in addition to the burden of mental illness and subsequent addiction.⁶ With increasing needs, an Expert committee on Tribal health has given recommendations with the goal to bridge the current gap in the health status of tribal people latest by the year 2027.⁷

Health status of tribal population vary from area to area, depending on the local environmental, social and cultural practices. Limited data is available on the health status and disease profile of the tribal people in Nagarkurnool district, Telangana, India. Hence the current study was conducted to explore the health status & problems of the tribal population of Nagarkurnool district, Telangana State.

2. Aim & Objectives

1. To determine the Socio - Demographic profile of the study population.
2. To estimate the health problems of the tribal population of Study area.

3. Materials and Methods

A community based observational cross-sectional study was conducted between Dec-2021 to Jan-2022 by the Department of Community Medicine, SVS Medical College, Mahabubnagar, TS, India. Institutional Ethics Committee clearance was obtained prior to start the study. Study area was tribal area, Appapur & Bowrapur villages of Nagarkurnool district, TS. Prior Permission from DM & HO & Local administration of study area were taken.

A pre-tested questionnaire consisting information regarding demographic profile & health profile was used. Health check up & health awareness camp was conducted at Appapur village where people of both places attended. The detailed health checkup followed by interview was

conducted after consent. As per the data given by DMHO the Population of Appapur village is 149 & Bowrapur village is 74, so total population of study area is 223.

The study populations were selected randomly by non-probability convenient sampling procedure. Accordingly, a sample size of 56 (which is around 25% of the total population 223) was taken. The study population composed of conveniently accessible persons who contributed to the study. Samples of volunteer subjects only were included.

Collected data was entered systematically / scored accordingly in MS-Excel software. The data analysis and statistical significant was tested by using SPSS software version 23.

4. Results

Among the total study population, the Mean age was 28.12 and majority (26.8%) were above 46 years of age. Majority participants (66.1%) were females and most of them (72.7%) were Illiterates. Unskilled type of occupation like daily wage workers working for forest department was seen in most of them (91.1%). Almost all participant were from lower socio economic status. Majority participants (55.3%) of the families were having family size of 5 members, followed by 41.1% families with 6-9 members per family. Mixed type of diet was seen in 96.4% of the study population. Alcoholism (locally made) was the major (50%) addiction followed by smoking (7.1%). The source of drinking water is lake water & borewell among all the study participants. Poor hygienic conditions of the surroundings and open field defecation is practiced by all the participants. Majority (n=22) participants were suffering from generalized weakness. About 12.5% of the study population were having history of Diabetes, Hypertension and other medical illnesses and about 8.9% were having history of Surgeries like cataract, hysterectomy etc. Among the study participants, about 19.6% population were found to be hypertensive on screening. Awareness regarding the transmission of COVID and precautions to be taken were aware in 73.2% and 64.3% participants respectively. None of the study participants were affected by COVID in the past 2 years.

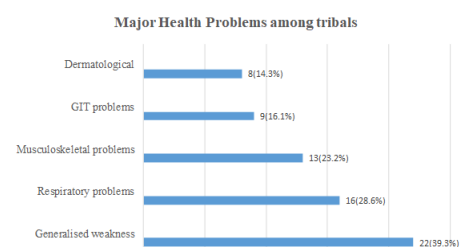


Fig. 1: Distribution of health problems among study population.

Table 1: Distribution of study population according to socio demographic profile.

Socio demographic Variables		Frequency	Percent
1. Age in years	≤5	9	16.1%
	6- 15	11	19.6%
	16-25	7	12.5%
	26-35	9	16.1%
	36-45	5	8.9%
	≥ 46	15	26.8%
2. Gender	Female	37	66.1%
	Male	19	33.9%
3. Literacy	Literates	15	27.3%
	Illiterates	41	72.7%
4. Occupation	Skilled	5	8.9%
	Unskilled	51	91.1%
5. No. Of family members	1-5	31	55.3%
	6-9	23	41.1%
	>10	2	3.6%
6. Type of diet	Mixed	54	96.4%
	Vegetarian	2	3.6%
	Smoking	4	7.1%
7. Addictions	Alcohol	28	50.0%
	Other addictions	3	5.4%
	Lake water /Borewell	56	100%
8. Source of drinking water			
9. Hygiene in Surroundings	Poor hygiene/ Open field defecation	56	100%

*Skilled worker include anganwadi worker, cook. Unskilled work included manual daily wage labourers/ forest hunting.

Study population presented with multiple health problems. Figure 1

1. Generalized illness include anaemia & muscular weakness.
2. Respiratory illness include cold, cough, shortness of breath.
3. GIT problems include pain abdomen, diarrhea, vomiting.
4. Dermatological problems include scabies, Atopic dermatitis.
5. Musculoskeletal problems include Osteoarthritis, osteoporosis etc.
6. Multiple health problems were reported by many people.

Table 2: Distribution of study population according to past medical and surgical history.

Past Medical history	Frequency	Percent
H/o DM, HTN etc.	7	12.5%
Absent	49	87.5%
Surgical history		
Present	5	8.9%
Absent	51	91.1%

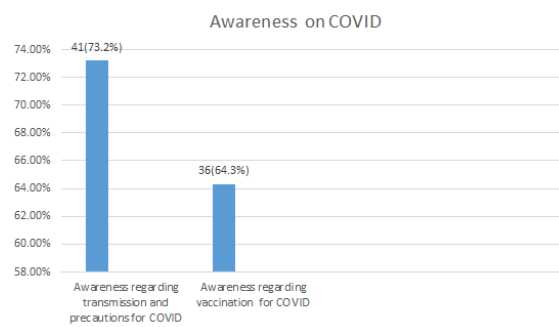


Fig. 2: Distribution of study population according to awareness on COVID.

5. Discussion

In general, health of an average non-tribal Indian is inferior to the Western and even many Asian counterparts, the health of an average Indian tribal is found to be much poorer compared to the non-tribal counterpart. The health status of tribal populations is very poor and worst of primitive tribes because of the isolation, remoteness and being largely unaffected by the developmental process going on in India. In the present study, majority (26.8%) of the population were above 46 years of age, and only few people (8.9%) were seen in 36-45 yrs age category. Different findings were observed in a study conducted by Ruma Chandana,⁸ where majority of the population were in 15- 19yrs age group. Availability of the elderly population at home at the time

of survey may be the reason for this. Among the study population, majority (66.1%) were females. Similar findings were observed in a study conducted by Bandita bora,⁶ where 60% of the population were females. Availability of the female population at the time of survey may be the reason for this. Majority (72.7%) population were Illiterates. Similar findings were observed in a study conducted by Satiyanarayana,¹ where majority (82.2%) were illiterate.

Ignorance about the benefits of education may be the reason for low level of literacy. Unskilled occupations like forest hunting, honey gathering, manual labourer etc. was the major (91.1%) occupation seen in the study population. Similar findings were observed in a study conducted by Mallikharjuna Rao et al,⁹ where the major occupation (89%) was of unskilled type (manual labour). Majority (55.3%) of the families were having family size of 5 members, followed by 41.1% families with 6-9 members per family. Similar findings were observed in a study conducted by Bandita Bora,³ where majority of the families were having family size of 5-8 members. Lack of knowledge of family planning methods could be the reason for increased no. of family members or size of the family.

Mixed type of diet was seen in majority (96.4%) of the study population. Similar findings were seen in a study conducted by Srinivasa Rao et al,¹⁰ where mixed type of dietary habits were seen. People in tribal areas consume whatever is available and accessible to them, which could be the reason for mixed type of diet. Among the study population, alcoholism was the major (50%) addiction followed by smoking (7.1%). Different findings were seen in a study conducted by Asok kumar Sarkar,¹¹ where Smoking is widely prevalent than chewing tobacco and drinking alcohol.

Tribals prepare alcohol themselves from some flower extracts which are easily available for them, which promotes the habit of high alcohol consumption among them. The source of drinking water was lake water and borewells supplied by tankers, in all the study participants. Different findings were observed in a study conducted by Mallikharjuna Rao et al,⁹ where the major source of drinking water was tube well (72.6%). No piped water supply is available in the tribal area, this may be the reason for consuming water from lakes and borewells supplied by tankers. Poor hygiene of the surroundings was seen in all the study participants. Similar findings were seen in a study conducted by Asok kumar Sarkar,¹¹ where none of the villages have proper drainage and sewage management systems in place. Illiteracy and Ignorance could be the main reasons for poor hygiene in the surroundings. Among the health problems, major health problems were Generalised weakness seen in 39.3% and Respiratory problems seen in 28.6% population, followed by musculoskeletal problems. Nutritional deficiency disorders were the major health problems in observed in various other studies. Poor dietary

habits with insufficient nutrients could be the reasons for Anemia and generalised weakness.

About 12.5% of the study population were having history of Diabetes, Hypertension and other medical illnesses. Similar findings were seen in a study conducted by Ruma Chandana,⁸ where 4.1% of the population had medical illnesses. Changing lifestyle, dietary patterns, poor health seeking behaviour may be the reasons for rise in non communicable diseases. About 8.9% of the study subjects were having history of Surgeries like cataract, hysterectomy etc.

Similar findings were seen in a study conducted by Ruma Chandana,⁸ where 14.1% of the population had surgical history. Among the study participants, about 19.6% population were found to be hypertensive on screening. Similar findings were seen in a study conducted by Satiyanarayana,¹ where 16% of the population were found to be hypertensive. Similar report was given by MOHFW & Ministry of Tribal affairs, by Government of India on Executive summary of state of health among tribals,¹² where the prevalence of Hypertension among tribals was found to be 23%. Lack of knowledge regarding the causes and treatment and complications of Hypertension may be the reason for rise in the prevalence. Among the study participants, about 73.2% population were aware regarding the transmission and precautions of COVID and 64.3% aware regarding the vaccination for COVID, But none of them were affected by COVID in the past 2 years. No studies were done regarding awareness on COVID during the pandemic among tribal population, hence no literature was available for comparison. Many awareness camps were conducted in the study area regarding COVID, which could be the reason for better awareness regarding COVID among the tribal population.

6. Conclusion

The tribal population are dependent on their land for their livelihood, who are self reliant and isolated from other society. Usually growth & development indicators including health related indicators are very low among tribal population as compared to general population. In recent few years some health care & education facilities has improved in many tribal areas but still there is more need for improvement in all aspects of tribal health. This study was an attempt to explore current demographic & health profile of population. Majority participants were illiterates and were in unskilled occupations like forest hunting, honey gathering, manual labour etc. Alcoholism was the major addiction seen in about half of the population. Majority population were suffering from generalized weakness, followed by respiratory illness and musculoskeletal problems. There was good awareness regarding COVID among the majority of participants. About one fifth of the population were found to be

hypertensive on screening.

7. Recommendations

Similar study can be done in similar or different tribal areas with larger population. Tribal population should be educated about the proper utilization of various developmental programmes/strategies of the Government. Various health awareness programmes should be conducted to raise awareness.

8. Limitations

Time duration of the study was limited. Less sample size, distance of tribal area from our center, house to house survey was also very difficult to do in such tribal area, detailed health checkup & investigation were not possible in single visit, these were few limitations of this study, that is why these findings may not be generalized to all settings.

9. Acknowledgement

We Authors thank DM&HO, Local Administration, other health staff members, Red Cross volunteers of study area for good cooperation during the study. We express our gratitude to all the study participants who participated in our study. We thank our college management who has provided all logistic support in study. We also thank KNRUHS University for giving us opportunity to conduct this camp with help of NSS Volunteers.

We also thank PGs, Interns & Nursing staff for their support. Special thanks to 7th semester MBBS students M. Nikhila Reddy, S. Chaithanya Vardhan Reddy, B. Raju for their active participation in this study.

10. Inclusion Criteria

All the people of the tribal area who were willing to participate

11. Exclusion Criteria

People not willing to participate and people who were not available.

12. Information About Study Area

Study area is around 145 km from our center, which takes around 5 to 6 hours to reach the study area. It is a complete forest area which is near to Amrabad Tiger Reserve (ATR) area of Telangana state and it comes under Integrated Tribal Development Agencies (ITDA) Mannanur (Lingala Mandal), Nagarkurnool district. Tribal population of this study area has one Anganwadi center, and a school with hostel facility. Nearest Primary Health Center is around 25 km. from this area. Radio is the major source of entertainment for this tribal population as network connectivity is not available. Electricity is supplied by Solar

energy. Roads are kuchha (mud) & Transportation facility is by private vehicle only.

13. Source of Funding

None.

14. Conflict of Interest

None.

References

1. Sathiyarayanan S, Muthunarayanan L, Devaparthasarathy TA. Changing perspectives in tribal health: Rising prevalence of lifestyle diseases among tribal population in India. *Indian J Community Med.* 2019;44(4):342–8.
2. Leaving no one behind, Indigenous peoples and call for the new social contract. 2021; Available from: <https://knowledge.unccd.int/publications/leaving-no-one-behind-indigenous-peoples-and-call-new-social-contract#:~:text=The%20new%20social%20contract%20must,between%20indigenous%20peoples%20and%20States..>
3. Boro B, Saikia N. A qualitative study of the barriers to utilizing healthcare services among the tribal population in Assam. *PLoS ONE.* 2020;15(10):240096.
4. Balgir RS. Tribal health : proceedings of national symposium; 2006. p. 312.
5. Mohindra L. A systematic review of population health. *BMC Public Health.* 2010;1186:438.
6. Marfatia A. India's first comprehensive tribal health report | IDR; 2018. Available from: <https://idronline.org/indias-first-comprehensive-tribal-health-report/>.
7. Kumar VM, Pathak MK. Tribal population in India: A public health challenge and road to future. *J Fam Med Primary Care.* 2020;9(2):508–12.
8. Chandana KR, Kumar R. Health status of tribal women of Bhadradi Kothagudem district in Telangana state. *Int J Health Sci Res.* 2020;10(1):53–62.
9. Rao K, Kumar RH, Krishna K, Bhaskar V, Laxmaiah A. Diet & nutrition profile of chenchu population - a vulnerable tribe in Telangana & Andhra Pradesh. *Indian J Med Res.* 2015;141(5):688–96.
10. Rao S, Shivudu J, Hrusikesh G, Kalyan P. Livelihood Strategies Resource and Nutritional Status of Forest dependent Primitive Tribes Chenchu in Andhra Pradesh and Telangana States. *Nutri Food Sci Int J.* 2019;8(2):555735.
11. Kumar A. Factors Influencing Health of the Santals: A Study of Selected Villages of Birbhum. *Int J Commun Soc Develop.* 2019;1(1):58–74.
12. Report of the tribal health in India- Bridging the gap and a road map for the future - Executive summary. Available from: http://nhm.gov.in/nhm_components/tribal_report/Executive_Summary.pdf.

Author biography

K.P. Joshi, Professor & HOD

M. Hima Bindu, Assistant Professor

Deepak Jamadar, Assistant Professor Cum Statistician

Cite this article: Joshi KP, Hima Bindu M, Jamadar D. Demographic & health profile of tribal population of telangana - A cross sectional study. *J Community Health Manag* 2022;9(3):120-125.