

A Study about the Health Status of Tribal Women in Bastar Region, Chhattisgarh, India

Teeku Sinha¹ Gajendra Singh² Ananya Diwan³

¹Associate Professor, Department of Community Medicine, Late. B.R.K.M. Govt. Medical College, Dimrapal, Jagdalpur, Chhattisgarh, India.

²PhD scholar, IIMHR.

³MBBS Scholar.

DOI: <https://doi.org/10.24321/2454.325X.201828>

Abstract

Background: The health and nutritional problem are most common in tribal women of India. According to NFHS-4, 26.7% (CG-29.6% Bastar-40.6%) women in rural areas had BMI below 18.5, indicating chronic energy deficiency, and the prevalence of anemia was found to be 54.2% (CG-48.2% Bastar-68.1%). Based on this background present study was carried out in the rural practice area of Department Community Medicine to assess the health status of the tribal women.

Objectives: To assess the health status of tribal women and determine the factors.

Material & Method: A cross sectional study conducted in field practice area of RHTC of Department of Community Medicine late Baliram Kashayp Memorial Govt. Medical College Jagdalpur covering Village Dimrapal, Marenga, Pamela, and Biringpal. Total 107 women were interviewed. Study period is July to December 2017. Pre designed structured questionnaire was administered to collect the information. Anthropometric measurements were done and conjunctival pallor was observed to assess anaemia. Statistical analysis was done by MS excel 2010 and SPSS versan 21.

Results: Mean height of women is 155.86 ± 5.88 cm. and mean weight is 50.48 ± 7.83 kg. Pallor was observed among 19.6% women, 17.75% women had BMI less than 18.5.

Conclusion: Continue awareness is required to elevate the health status among women in tribal area.

Keywords: Body Mass Index, Health status, Tribal women

Introduction

The health and nutritional problems are most common in tribal women of India. Nutritional anaemia is one of the major problem of Indian rural and tribal women. According to UN 1984 at least half of the non pregnant and two thirds of the pregnant women were anaemic in developing countries.¹ Average 56 percent with a range of 35-75 percent is the prevalence of anaemia globally as estimated by World Health Organization.² Primary cause of

anaemia is iron deficiency, which coexists with a number of other causes, such as malaria, parasitic infection, nutritional deficiencies and haemoglobinopathies.³ Anaemia is a major cause of high incidence of premature births, low birth weight, perinatal mortality and maternal mortality.

In India tribals are neglected a lot, discriminated in terms of income distribution and social status. Most Of them are desperately poor, backward, generally uneducated and lead a hard and miserable life.⁴ There are more than 400

Corresponding Author: Dr. Teeku Sinha, Department of Community Medicine, late. B.R.K.M. Govt. Medical College, Dimrapal, Jagdalpur, Chhattisgarh, India.

E-mail Id: teekusinha@gmail.com

Orcid Id: <https://orcid.org/0000-0001-8099-6108>

How to cite this article: Sinha T, Singh G, Diwan A. A Study about the Health Status of Tribal Women in Bastar Region, Chhattisgarh, India. *Int J Preven Curat Comm Med* 2018; 4(4): 5-8.

tribal communities In India, out of which 75 Primitive Tribal Groups (PTG) have been Identified by the government by 1989.⁵ on other side country is now bearing dual burden of both over nutrition and under nutrition. This can be called as Nutrition transition phase, which means that overweight and obesity predominate as diet related health problems in industrialized countries and under nutrition among large segments of world’s population especially vulnerable sections such as tribal communities. Body Mass Index (BMI) has been proposed as a good index to assess the current forms of Malnutrition in a community⁶. National Family Health Survey-4 brought out data on health & nutritional indicators and provides a clear picture of the status of tribal women. According to NFHS-4, 26.7% (CG-29.6% Bastar-40.6%) of tribal women had Body Mass Index (BMI) below 18.5,⁷ indicating chronic energy deficiency. Various studies on tribal population of India revealed that their diets are nutritionally deficient and chronic energy deficiency was high among tribal population⁸. Women being vulnerable section, the impact on their health are much higher. Health and Nutritional status of tribal population clearly Indicates that, the goal of Health for all cannot be fully achieved unless due attention is paid to the vulnerable sections of the society i.e., tribals and especially tribal women. Based on this background this study was conducted.

Material & Methods

A cross-sectional community based study conducted among the reproductive age group tribal women. The study was conducted during the period from July-December 2017. Sample size was 107. Simple random sampling technique was applied to select villages. A house to house survey was conducted to interview 25 women in each village. In case of less populated villages/small hamlets where 25 women could not be covered, the subsequent hamlet/village was included for the study. Tribal women available at home at the time of study and those who were willing to participate were included in the study. Pregnant and lactating women, and those women with chronic infectious diseases were excluded from study. A prior consent was taken from selected women and a pre-tested semi structured schedule was used to collect the information. Economic classification was done based on guidelines of Planning Commission of India. Planning commission defined poverty line as expenditure class-wise distribution of persons less than Rs.560/-per person per month in urban area and below Rs.368/- in rural area as at 2005-2005 prices⁹. As there is no separate definition for tribal area, definition of rural area had been applied to tribal area. Continuous earning capacity of the family throughout the year was enquired. If the Anthropometric measurements such as height and weight were measured and body mass index was calculated. According to the WHO classification of BMI², study subjects were categorized as Underweight (<18.50), Normal (18.50-

24.99) and Overweight (≥25.00). Pallor was observed by examining the conjunctiva of study women in daylight. MS Excel 2010 SPSS version 21 were used for data analysis.

Results

Table 1.Socioeconomic Status of Tribal Women

Education	
Literate	67.2%
Illiterate	32.7%
Occupation	
Unemployed/housewife	62.7%
Working women	37.3%
Type of family	
Joint	42.1%
Nuclear	57.9%
Marital status	
Married	89.7%
Unmarried	10.3%
No. of children	
≤2	62.6%
>2	37.4%
Economic status	
Above poverty line	1%
Below poverty line	99%
Continuous earning throughout the year	
Present	66.4%
Absent	33.6%
Debts	
Yes	15%
No	85%

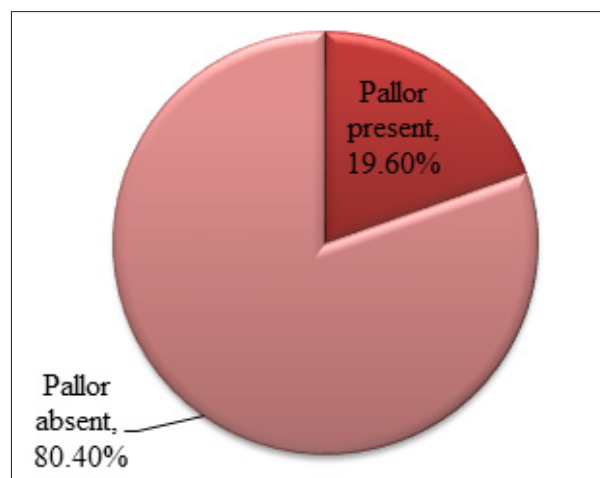


Figure 1.Distribution of study population according to pallor

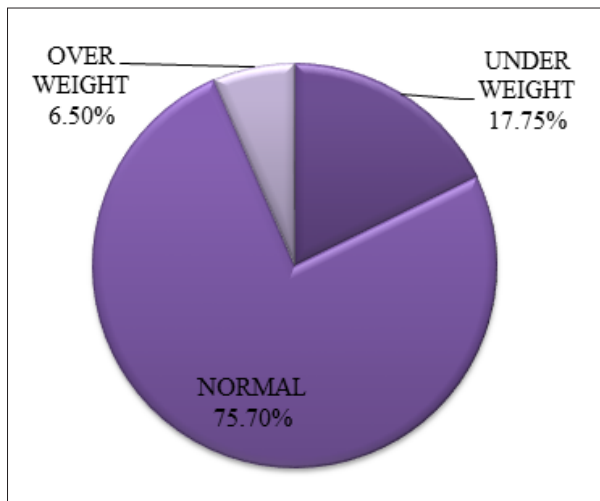


Figure 2. Distribution of population according to BMI

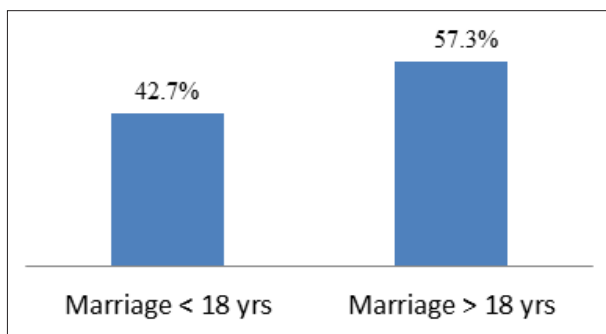


Figure 3. Distribution of population on the basis of age of marriage

Discussion

The anthropometric measurements of the tribal women in this study reveals that the height is 155.86 ± 5.88 cm. is greater than the Indian Council of Medical Research (ICMR) has set a standard of 151cm as average height for Indian women. Height is 50.48 ± 7.83 kg which is deficit as compared to the standards. 55 kg as average body weight for Indian reference women. which shows the tribal women were taller by 3.21% and have a deficit of 8.21% in their weight as compared to the average Indian women. In contrast to various studies conducted in near state Andhra Pradesh in various setting have reported the mean height to be higher ranging from 152 cm to 160 cm.^{10,11,12} This difference may be due to the ethnic variation as there was a representation of tribals from region in same studies.

As per the anthropometric measurements, it was found that majority were in normal category, very less percentage was found to be in pre-obese category, showing low risk towards lifestyle disorders. Around 17.75% of tribal women were having BMI < 18.5 reflecting underweight status of these women. Various studies also have reported underweight among women ranging from 10-27%.^{10,11,13}

Very few women were in moderate to mild categories which suggests that any further nutritional deficiency may

lead to severe deficiency. Contrasting findings have been reported by various studies conducted in different parts of the world. Very high prevalence of thinness was reported in some Indian studies.^{10,14,15,16}

Where as in countries like Brazil and Australia it was as low as 2% to 7%.^{17,18} Even though tribals worldwide have similarities in several aspects, there may be difference in the dietary intake, (the quantity and quality of diet) and genetic variation of the indigenous groups may influence their BMI status. It is also observed that studies in the past have shown a higher the prevalence of underweight compared to the recent findings including the present study, suggesting an improvement in the nutritional status in the past decade.^{19,20,21}

The prevalence of anaemia on the basis of pallor in the current study' population was 19.6%. This finding was lower than the national average prevalence of anaemia in reproductive age group women according to NFHS-4 i.e 68%.⁷ Sree Lakshmi PR et al., and Srinivas BM et al., reported a high prevalence of anaemia in tribal women in their studies than the current study result, whereas Ramachandra Kamath et al., reported a low prevalence of anaemia in tribal women when compared to the present study result.^{22,23}

In this study also reported that 41.1% women were addicted to tobacco in *gudakhu* form. John et al reported in his study that 20.6% of women were current smokeless tobacco users, while 23.7% were current smokers.²⁴

Conclusion

The anthropometric parameters of tribal women were normal according to the ICMR standards. Majority of the women were showing low risk for lifestyle diseases. Continuous earnings of families throughout year and debt free condition influence the nutritional status of women.

Acknowledgement

Authers are thankful to Amarnath Tarak, Ankit Singh, Ankita Singh MBBS scholar for their kind support and All participating women and their family for support and bearing her valuable time with us.

Funding: None

Ethical Approval: Not Required

Conflict of Interest: None

References

1. Health Status of women. Improving concepts and methods for statistics and indicators on the situation of women. Studies in methods- U.N. (1984). series

- F.No.33.
2. Preventing and controlling anaemia through primary health care. Geneva: World Health. Organization (1989). from http://www.who.int/nutrition/publications/micronutrients/anaemia_iron_deficiency/9241542497.pdf accessed on 20 July 2017.
 3. Ghosh S. Exploring socioeconomic vulnerability of anaemia among women in eastern Indian states. *J Biosoc Sci* 2009; 41: 763-787.
 4. Thakur DS, Thakur DC, Saini AS. Socio-economic impact of tribal development programmes in Himachal Pradesh. *J Rural Development* 1991; 10: 823-830.
 5. Neetimakanti. Care and development of children in tribal areas. *ICCW News Bulletin* 1991; 39: 39-44.
 6. Raman L, Vasanthi G, Rao V. 'Use of body mass index for assessing the growth status of infants'. *Indian Paediatrics* 1991; 26: 630-635.
 7. National family Health Survey (NFHS)-4 (2015-16) fact sheet Bastar Chhattisgarh, International Institute for Population Science.
 8. All, A, 'Health and genetic problems of Kutia-Khonds of Burlubaru Village' Phulbani district Orissa'. *Adibasi* 1979; 18: 56-62.
 9. Sunder L, Pankaj A. Textbook of community medicine: preventive and social medicine. 4th Edition. CBS publishers; 2011:1-18.
 10. Varadarajan A, Prasad S. Regional variations in Nutritional Status among tribals of Andhrapradesh. *Stud Tribes Tribals* 2009; 7(2): 137-41.
 11. Haque MM, Akter J, Ahmed KR. Nutritional status of settler and indigenous women of reproductive age group in Khagrachari District, Bangladesh. *J Enam Med Col* 2014; 4(2): 98-101.
 12. Banik SD. Nutritional status adiposity and a body composition of oraon and sarak females in Ranchi District, India-a comparison. *Ecol Food Nutr* 2011; 50(1): 43-62.
 13. Chakma T, Meshram P, Kavishwar A. Nutritional status of baiga tribe of Baihar, District Balaghat, Madhya Pradesh. *J Nutr Food Sci* 2014; 4: 3.
 14. Ghosh S, Malik SL. Sex differences in body size and shape among santhals of west bengal. *Anthropologist* 2007; 9(2): 143-9.
 15. Goswami M, Dash B, Dash NC. Traditional method of reproductive health care practices and fertility control among the bhumija tribe of Baleswar, Orissa. *Ethno Med* 2011; 5(1): 51-5.
 16. Jaiswal A. Health and nutritional status of a primitive tribe of Madhya Pradesh. *GJHSS* 2013; 13(1).
 17. Carlos EA Coimbra Jr, Ricardo V, James RW. The first national survey of indigenous people's health and nutrition in brazil: rationale, methodology, and overview of results. *BMC Public Health* 2013; 13: 52.
 18. Burns J, Thomson N. Review of nutrition and growth among Indigenous peoples. *Australian Indigenous Health InfoNet* 2008.
 19. Kupputhurai U, Mallika N. Nutritional status of adult women belonging to Khond, Gadaba and Porja Tribes of Andhra Pradesh. *Indian J Nutr Diet* 1993; 30(7): 173-9.
 20. Taneja PV, Saxena M. Nutritional anthropometry of bhil women in jhabua district of Madhya Pradesh. *Indian J Nutr Diet* 1998; 35(4): 98-102.
 21. Tanuja D. Nutritional status of tribal women in bihar an introduction to tribal cultures and tribals in Maharashtra. *Tribal Research Bulletin* 1998; 20(1): 2-6.
 22. Sreelakshmi PR, Vijaykuma K, Anish TS. Anaemia and Body Mass index of Non-pregnant tribal women of reproductive age group women in Palakkad district of kerala, India. *Indian J Prev Soc Med* 2102; 43(1): 35-41.
 23. Ramachandra K, Jazeel AM, Varalakshmi C. *J Family Med Prim Care* 2013; 2(4): 345-8.
 24. John Given Spangler, Ronny Antonio Bell, Mark Boberg Dignan, Robert Michielutte. Prevalence and Predictors of Tobacco Use Among Lumbee Indian Women in Robeson County, North Carolina. *Journal of community health* 1997; 22(2): 115-125.

Date of Submission: 2018-07-18

Date of Acceptance: 2018-07-23