

Original Research Article

A cross sectional study to assess the pattern of food consumption among tribal women of age group of 15-49 years

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Abstract

Background: Tribal populations have some specific characteristics which are different from other tribes. They have their own tradition. In view of their habitat and food habits, they form a distinct group compared to other populations. Their food intake is influenced by vagaries of nature, with large seasonal variations, depending upon availability of agricultural and forest produce. So the current study was conducted to assess the pattern of dietary consumption in tribal women. **Methodology:** A community based cross sectional study, was conducted in 80 women of 15-49 years of age at the tribal areas of Chandrapur district by stratified random sampling. A set of structured questionnaire was given to the participants who consist of questions on pattern of dietary consumption. **Results:** Maximum (59%) participants were occupied in agriculture suggesting that main occupation of the area. 63(45.65%) were consuming cow milk Whereas 17 (12.31%) does not consume milk at all. 67(83.75%) were consumed hen eggs and all 80 (100%) individuals consumes Soyabean oil on daily basis. rice and wheat are the staple food consumed among the tribal population. 100% population consume green vegetables whereas 59 (73.79%) consumes wild vegetables (Ranbhajya). **Conclusion:** Tribal population follows their own tradition and dietary pattern.

Key words: tribal, tribes, food habits, ranbhajya

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Introduction

India is home to around more than half of the world's tribal population; constitutes 8.6% of total India's population which is four times larger than that of the population of Australia[1,2]. Maharashtra has vast socio-economic, demographic and geographical disparities. Despite distinguish race, cultural and background features the state has 10.5 million tribal population of the total population, holding with second populous tribal state of India after Madhya Pradesh[2]. Census 2001 reveals Bhils are numerically higher inhabitants than other tribal communities with an accumulating about 21.2% of the state's Scheduled tribe population. Tribal women have high rates of anaemia, and the whole tribal community lacks adequate food intake[3,4]. The scheduled tribes namely Katkaria (kathodi), Maria Gond and Kolam are among the primitive tribal group of India. Katkaria (kathodi) and Maria are sub-groups of Kathodi and Gond respectively. The population of Kolam, as per the census 2001 is 173,646. They are mainly located in the Yavtmal, Nanded, Osmanabad, Chandrapur and Gadchiroli districts of Maharashtra[5]. Tribal women play multiple roles in a family, primarily as mothers and housekeepers and also equally important roles as wage earners, agricultural producers, nutrition providers etc. They live in unique physical, socio-economic and cultural environment, isolated from general population. In view of their habitat and food habits, they form a distinct group compared to other populations. Their food intake is influenced by vagaries of nature, with large seasonal variations, depending upon availability of agricultural and forest produce.

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So the current study was conducted to assess the pattern of dietary consumption in tribal women.

Materials & Method

A community based cross sectional study, was conducted in Girls and women belonging to age group 15-49 years at the tribal areas of Marotiguda, Nanakpata, Nagrala and Kakaban villages present in Jiwati taluka of tehsil Rajura. By using the formula,

$$n = \frac{z^2 \times P \times (1-P)}{e^2}$$

sample size was about 80 by using Stratified Random Sampling.

Women's and girls' from age group of 15-49 years and those who are willing to participate in the study were included whereas Girls below 15 years, Women's above 49 year, Those who are not willing to participate in the study and Pregnant and lactating women's were excluded from the study. A set of structured questionnaire was given to the participants who consist of questions on pattern of dietary consumption. Before giving the questionnaire the participants were explained about the questionnaire thoroughly and consent was taken. Ethical clearance was obtained from the Institutional Ethics Committee of the Institution before starting the project.

Results

Fig 1 depicts that study subjects were occupied in more than one occupation. Maximum (59%) participants were occupied in agriculture suggesting that main occupation of the area followed by 20 (25%) laborers in farm, 6 (7.5%) shop-keeping, 2 (2.5%) poultry farm and 2 (2.5%) Anganwadi Sevika.

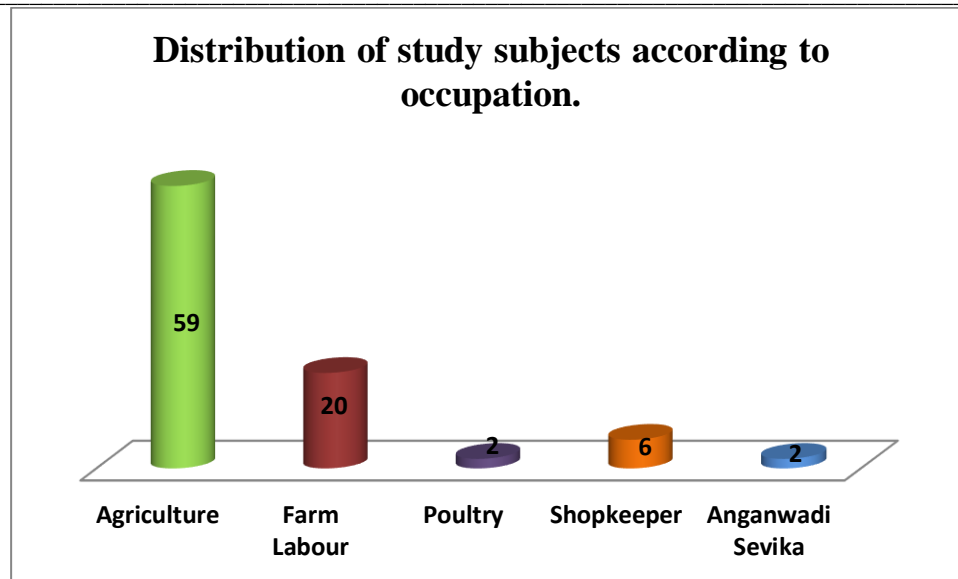


Fig 1. Distribution of study subjects according to Occupation.

Fig 2 depicts the number of income group of which maximum number of people belong to income group 41-60k i.e.56(70%) followed by 21-40k i.e.21(26.25%), 61-80k i.e.2(2.5%) , and least number of people belong to income group 0-20k i.e. 1(1.25%).

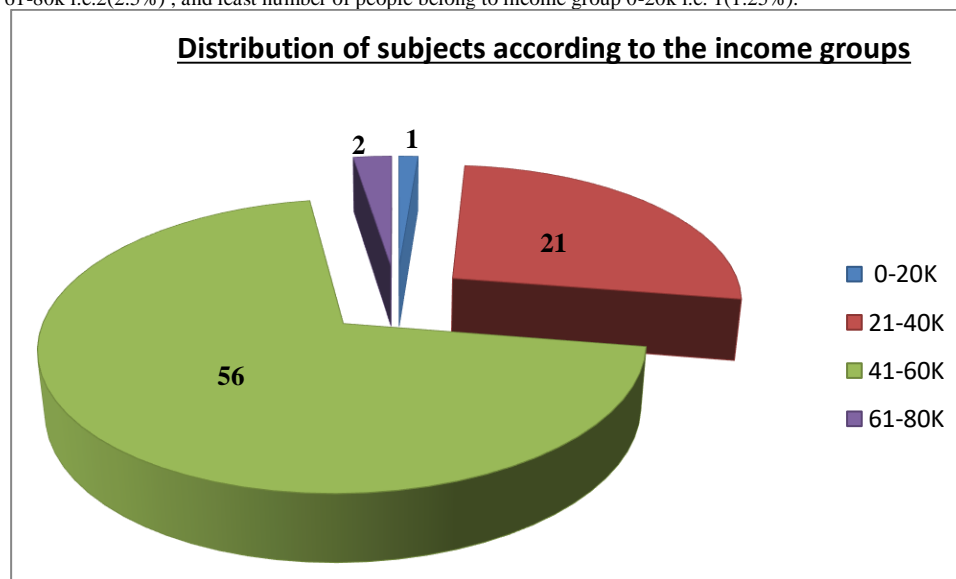


Figure 2:- Distribution of Study Subjects According To the Income Groups

Table 1 demonstrates that out of 80 participants maximum i.e. 63(45.65%) were consuming cow milk followed by buffalo i.e. 51(36.95%) and goat 7(5.07%). Whereas 17 (12.31%) does not consume milk at all at village Marotiguda, taluka Jiwati where adults consume black tea and even they don't allow small children to

consume milk. This could be because of tradition which is following since many years. Similarly, maximum amount of ghee consumption is of cow 57(71.25%), followed by buffalo ghee 52(65%). There is no consumption of ghee seen in 19(23.75%). Out of 19 individuals 17 subjects were from the category of no milk consumption.

Table 1:-Distribution Of Subject According To Milk Product Consumption.

Type	Milk	Ghee
No	17 (12.31)	19(23.75%)
Cow	63(45.65)	57(71.25%)
Buffalo	51(36.95)	52(65%)
Goat	7(5.07)	0

(Multiple responses present) (No. in parenthesis represents percentage)

Table 2 shows that there is a maximum subjects i.e. 67(83.75%) were consumed hen eggs followed by duck egg i.e. 32(40%) whereas 9 (11.25%) individuals were not consuming any kind of eggs similarly there is a high consumption of chicken and mutton i.e. 68(28.57%), followed by fishes, crabs and prawns i.e. 60(25.21%), 55(23.1%), 39(16.38%) respectively.

Table 2:- Distribution of Subject According To the Egg and Meat Consumption

Variable	Number	Percentage
Egg Consumption	No	9
	Hen	67
	Duck	32
Meat Consumer	No	8
	Chicken	68
	Mutton	68
	Fish	60
	Crab	55
	Prawn	39

(Multiple responses present)

Table 3 depicts that all 80 (100%) individuals consumes Soyabean oil on daily basis and 2 (2.5%) individuals consumes jawas oil.

Table 3. Distribution of Subject According To the Consumption Of Oil

Oil	Number	Percentage
Soya bean oil	80	100
Jawas oil	2	2.5

(Multiple responses present)

Table 4 depicts that the rice and wheat are the staple food consumed among the tribal population i.e. 80(100%), followed by jowar i.e 70 (87.5 %), followed by bajari i.e 57 (71.25 %).

Table 4 Distribution of Subject According to the Grain Consumption

Grain	Grain Consumer	Percentage
Jawas	6	7.5
Sessame	9	11.25
Nachani	2	2.5
Rice	80	100
Wheat	80	100
Jowar	70	87.5
Bajri	57	71.25

(Multiple responses present)

Table 5 depicts that green leafy vegetables are consumed by 80(100%) study subjects. They eat variety of green leafy vegetable like spinach, methi, shepu, chawlai cabbage, cauliflower, drumstick and jack fruit etc. About 59(73.79%) consumes wild vegetables (Ranbhajya) and 21(26.25%) does not consumes wild vegetables.

Study subjects eats variety of wild vegetables like ambadi, kantoli, kurdu, mirgale, katha-matha, fali, moharichi bhaji, tarota, teri, shewgache pan, harbharchipan bhaji, waghata, dindi, taklyachi bhaji, peri, rajgiri, karande, kulu. More studies need to be done on nutritional value of wild vegetables.

Table 5- Distribution of Study Subjects According To the Type of Vegetable Consumed

Vegetables	Consumed	Number	Percentage
Green leafy vegetables	Consumed	80	100
	Not consumed	0	0
Wild vegetables (Ranbhajya)	Consumed	59	73.79
	Not consumed	21	26.25

Discussion

In the present study, subjects were occupied in more than one occupation but maximum (59%) participants were occupied in agriculture suggesting that main occupation of the area and 56(70%) subjects were belong to income group 41-60k. 12.31% does not consume milk at all at village Marotiguda, taluka Jiwati where adults consume black tea and even they don't allow small children to consume milk. This could be because of tradition which is following since many years. In the given area 83.75% were consumed hen eggs whereas 11.25% individuals were not consuming any kind of eggs. Rice and wheat were the staple food consumed among the tribal population. 100% population consumes green leafy vegetables and 73.79% consumes wild vegetables (Ranbhajya). More studies need to be done on nutritional value of wild vegetables.

In the study conducted by Bandita Borofound outmost of the respondents were cultivators or agricultural laborers. The majority were Bodo tribes, and the rest were Rabha tribes in the region which is similar to our study[6].

Asok Kumar Sarkar[7] in his study on Factors Influencing Health of the Santals: A Study of Selected Villages of Birbhum found that the nature of occupation moves around, in particular, 4-5 types of activities. Almost 39 per cent are engaged in the daily labourer profession; almost 29 per cent, the second-largest group, rely on farming activities; and almost 19 per cent work as technicians, and monthly income was below 5,000 wherein on average five members live in a family which was quite similar as that of our study.

In the study of factors Influencing Health of the Santals: A Study of Selected Villages of Birbhum has seen that animal protein intake is considerably low and milk protein is totally missing in daily food item which was same as that of our study[7]. He also found that carbohydrate (rice) is the major content in almost every meal. Drinking rice beer also comes under the Santal culture. Most of the families used to consume it on a daily basis, some of them consume it frequently and very few take it occasionally[7].

Sanjoy Deka et al[8] in his study of Health and Nutritional Status of the Indian Tribes of Tripura and Effects on Education has found that Among tribal households, there were serious deficiencies in the intake of pulses and legumes, milk and milk products, fats and oils, and sugar and jaggery which was similar to our study in state of milk intake.

Poonam C Mittal et al[9] has found out that Cereal intake was least deficient, while the intake of milk and fruit was almost negligible. Their diet was supplemented by a locally grown green leafy vegetable dhaki saag, and fermented leftover rice which was similar to our study related to milk intake.

In a study on Munda Tribal community of Jharkhand, India has seen that Milk and milk products are rarely consumed by the munda community which was also similar to our study[10]. Also they found that usual meals consist of rice along with sautéed or curried green leafy vegetables (GLVs) or roots and tubers or sometimes pulses and flesh foods (meat, poultry, egg, or fish)[10].

In the study of Diet and nutritional status of adolescent tribal population in nine States of India by Kodavanti Mallikharjuna Rao et al[11] had seen that The intake of qualitative foods such as pulses, milk & milk products, oils & fats and sugar & jaggery was lower among tribal adolescents of all age groups. However, the average intake of green-leafy vegetables was relatively higher among the tribal adolescents compared to their rural counterparts, while that of other vegetables were similar. The consumption of milk & milk products among tribes was grossly inadequate which was also similar to our study.

Kapil, U., P. Singhetal found that the most frequently used cereals are maize, millet or rice and these form part of a major meal at least once daily[12].

Mathew Sunil George et al[13] in his study “Everything is provided free, but they are still hesitant to access healthcare services”: why does the indigenous community in Attapadi, Kerala continue to experience poor access to healthcare? Found that older community members spoke of the special diets provided in the past to pregnant women. Specific wild root vegetables were eaten to improve the health of the mother and their unborn child.

Conclusion

Tribal population follows their own tradition and dietary pattern. Dietary pattern of pregnant and lactating mothers need to be assessed to understand the maternal and child health. Similarly, nutritive values of wild vegetables (Ranbhajya) need to be assessed.

Conflict of interest

Nil

Source of funding

None

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