

A Study on Nutritional Status among Tribal Women in Maharashtra

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ABSTRACT

Tribals are intrinsically isolated and socially disadvantage groups currently living in India. Health parameters like nutritional deficiency leads them to several health consequences. Main objectives on which study is based, was to know prevalence and determinants of nutritional status among tribal women in Maharashtra. The prevalence of underweight is lower among tribal women but more than half of the total women are anaemic, less than 6% of obesity among them in Maharashtra. In the spatial analysis, predominant results of any anaemia of tribal women were found in the Northwest districts of Maharashtra. The highest (2.5–4.6%) and the moderate percentage (1.5–2.5%) of severe anaemia, and obesity were found in almost all the districts located in western Maharashtra, whereas the prevalence of high (48–62%) and moderate (35–48%) underweight was found dispersedly throughout Maharashtra. Tribal community in India is most susceptible in terms of social, health and education development. The government needs to focus on regional and community-based development approach for overall health improvement among tribal women in Maharashtra. These results may help policymakers to prepare apt strategies for the overall development of health among the people in general and tribal women in particular.

KEYWORDS: tribal women, Maharashtra, nutritional status, health, underweight, anaemia

INTRODUCTION:-

Tribals have their own culture and social life. With traditions they have their general beliefs. There are around 635 schedule tribes in India. They are situated all over India Even though they have rich culture, they are socio economically dis-advantage and marginalized. The schedule tribe population in Maharashtra is 73.18 lacs i.e. 9 % of the total population of the state. There are 47 tribes in Maharashtra, main tribes being Bhils, Gonds, Mahadeo Kolis, Pawaras, Thakurs, Warlis, Halbi and Pradhan etc.

Tribal Women –

Among tribes the population is almost equal of men and women enjoy an equal status in most tribal groups. Instead of dowry, there is bride price indicating high social status of tribal women. A tribal woman can divorce and remarry easily. She earns and upto a great extent is economically independent. Every 12th women in India belongs to a schedule tribe community

Tribal women from early ago go out for work. As their main occupation is farming, they do farm related works such as sowing, ploughing, plucking, etc. Many tribal women work on daily wages schemes of Govt. such as Road Construction. All

these women are mostly uneducated and get exploited by the men working as agents contractors etc.

Thus improving the health status of the tribal women becomes an important developmental goal. Reasons for poor health in Tribal Women are –

- Poor Economics Condition
- Early marriage
- Unhygienic living conditions
- High prevalence of illness
- Religious beliefs
- Poor Nutritional status
- Infections
- Illiteracy

Nutritional Status:

Food is the major component of health, so proper nutrients are required for the good health. Deficiency of proteins, carbohydrates, fat, vitamins, iron, minerals, etc. can lead to many serious health problems in women. Maternal mortality is high in tribal communities. May be children are born to very young women with closely spaced pregnancies but poor nutritional status of women is the major cause. Anaemia poor calcium intake, toxemia are some of the serious problems faced by women.

A diet that provides sufficient calories proteins and micro-nutrients is essential for a pregnancy to be successfully carried to term. Proper nutrition and avoidance of unnecessary pregnancy related taboos can reduce serious complications during pregnancy and child birth. Under-nourishment of women and girl child in particular, that is emerging as critical factor responsible for infant mortality. Poor maternal health results in low birth weight and premature babies.

Health includes physical and mental development also the psychological and social development. Health problems that most of the tribal women facing are in fact mortality, nutritional status, fertility, neo-natal mortality, post-natal mortality, prenatal mortality, poor life expectancy, anaemia etc. physical health includes malnutrition and poor physical conditions, mental health includes general beliefs and attitude towards new medical practices. Family planning includes, reproductive health behavior.

Tribal women's own beliefs, illiteracy, poverty, non-access to scientific information contribute to low health modernity status.

The success of dynamic tribal women's development is depend on various factors like improved literacy rate, socio-economic status, women's empowerment, better-health care and other human resource indicators.

Health of tribal women is a very important issue from the point of view of Research. Health related problem arise from many situations such as poor hygiene, illiteracy, malnutrition, beliefs, alcoholism, early marriage etc. whatever is the cause, remedies are very essential to decrease the problems. Awareness programmes are needed very prominently in tribal areas.

Deori Taluka is the part of Gondia Distt. Of Maharashtra where very few researches were done. Halbi, Pradhan, Kawar are some of the tribal found in this area.

Research Design:

Deori Taluka consisted of 121 tribal zones. Among those some are developed and some are non- developed zones. For this research purpose all one developed tribal zones were selected. These areas are also Naxalite affected areas. Due to this reason the pace of development is very slow. Many health related problems are increasing due to poor knowledge, unawareness, beliefs etc. Because of these problems this research work has been undertaken.

Statistical Analysis of Data:

The gathered information from selected sample was treated by the percentage method.

Selection of sample:

For this research, sample of age group 15 -45 years of women were selected. 50% sample was selected from the

Data Analysis and Interpretation of Primary Data:

Distribution of Sample Respondents (Tribal Women) Age-Group wise in Percentage

Sr. No	Age Group 15 - 30 years	Number	Percentage	Age Group 31 - 45 years	Number	Percentage
1	15 - 20 years	32	25%	31-35 years	42	33.33%
2	21-25 years	48	37.05%	35- 40 years	49	38.89%
3	26- 30 years	48	37.05%	41-45 years	35	47.78%
	Total	128			126	

Under research study seven non- developed village are selected for Research. After selecting 154 samples it is divided into two groups i.e. 15 -30 years & 31 -45 years. The percentage of marriage women is 79.13 % There are some tribes like Gond, Halbi, Pradhan in Deori Taluka. Percentage of nuclear family were more than joint family.

Education and occupation:

Educational status is very poor. 45% women are illiterate in the age group of 31 - 45 years, 25% women have taken primary education in the age group of 15 -30 years, 36.18% are in the age group of 31 -45% years secondary and higher secondary and higher secondary education become less due to increased percentage of drop out. It is concluded that tribal women are passive in the matter of education because of their financial poor condition. Tribal women always work in farm for fulfilling their basic needs. So they could not take education properly. Their family occupation is agriculture. If they have no farm they work as labour in other's farm for fulfilling their basic needs. The percentage of nuclear family is 83.46% Tribal women are working with their parents before marriage. After husband and wife work together for their livelihood. They never depend upon their parents after marriage. Women work in field and play an important role for nourishment of their child and work in the field. Monthly income of tribal family is not more than Rs. 2500/- this make bad effect on their day to day life. They are not able to fulfill their basic needs. Government provide job to them under "Rojgar Hami Yojna" scheme in dry seasons.

Health and Hygiene:

There are some reasons for uncleanliness, such as cattle shed which is unclean and place of unwanted things which are near to their houses, it is not good for health. It result in the spreading of contagious and infectious diseases like Diarrhea, Dysentery, Jaundice, Malaria, Typhoid etc. there are not latrines in their houses.

- 52% tribal; women use the water which is taken from well & 48% women are using the water of hand pump. The distance between the water sources and the house is more. They spend nerly 4-5 hours for bringing water and for storing them.
- 100% tribal women are filtering the water but none of them has adopted new techniques for purifying the water. They store the water in the earthen pots and steel pots, etc.
- 77% of women are clening the pots of water but 23% of them are not cleaning the pots because of scarcity and more distance between the water source and house. So it is concluded that the system of tribal women education, their monthly income, nature of work their addiction of drinks and chewing tobacco, taking treatment from vaidya instead of doctors, the big part of food to head of family etc. all these things affect the health of tribal women.

Health and clinical Assessment:

- In the study of health of tribal women it is concluded height and weight of tribal is as less as height (according to ICMR)

total available sample. For the same Kakodi, Chilhati, Murmadi, Rajamdongri, Uchepur, Wadekasa, Instari areas were selected. From these seven zones women of age group 15 -45 years were selected.

According to Nisreen Maimoon (Souvenir Problems of Malnutrition):

On clinical examination mean height of Tribal female was 148 cm. weight 440.66 Kg. arm circumference 21.54 cms, mean systolic BP 155.29 mm Hg and diastolic BP 77.55 mm Hg. When non tribal group there was no significant difference in basic anthological and Medical of 57 tribals types for anemia 32% had B-12 defeciency Anemia 47.3 % mixed anemia and only 21.05% had Iron deficiency Anemia Overall blood picture shows combined Ironed -B-12 Folic acid deficiency.

According to Chaya Datar and Santosh Kumar (Report Status of tribal women in Mahgarashtra):

The report made several observations it stated that health status of tribal women and children is found as most critical and need to used attention to transform the statistics of this indicator along with other recommendation. Its stated that the problem of early marriages and early pregnancies should be tackled at war footing level. Malnutrition as very closed link to poverty and eliminating poverty has to be the most crucial agenda by providing opportunities.

- After clinical check up made by doctor and after checking the hemoglobin it is concluded that the average hemoglobin was 8 -10 gm(15-30 years) and 8.03gm(31-45years)
- So the tribal women were anemic, because the Iron deficiency in their diet.. they suffer all these thing during pregnancy period indirectly its affect the health of baby.
- 97% tribal women are suffering from lethargy, giddiness, dyspepsia and low back ache. They are also suffering from white discharge. They suffer all these due to illiteracy and poverty.
- Only 35% women reap benefits by going to the primary health centre whereas reaming women are not taking benefits because they believe more in the superstition. They believe on Vaidya, Mantrik or household treatment. Because of this they face many problem and sometime they may even lead to death. 30% tribal women do not suffer from serious diseases but they suffer from cough, cold, diarrhea, dysentery, jaundice, malaria, typhoid.etc. Because of unfiltered water, poor and bad habits about diet, lack of nutrients may affect their immunity and hence they face all these diseases frequently. It is also noticed that 75 of tribal women are suffering from T.B. 3% of tribal women are HIV positive.
- The STD is increasing day by day. The main reson for this is poverty. Deori taluka is situated on the highway,so many of the tribal women are working as sex worker to fulfill their needs and for earning money. This problem is very serous.
- The tribal women are aware about the menstruation cycle. They are guided by the Anganwadi Sevika. Tribal women take bath at night as they spend most of their daytime in work aand on the other hand the bathroom are not available
- Higher percentage of tribal women has given birth to their child at home through the trained “DAI”. Very less of them have given brith to their child in the hospital. They are using blade for cutting the umbilical cord. 98% of tribal women has done the family planning. They are feeding milk to their child upto one year after delivery.
- Age group (15-30years) 12% women (31045years) 21% women have to go to the farm within one week after delivery because of their poor financial condition.they are not taking rest and prefer togo for work 45% of the tribal women are joining their routine work after a month. ASfter studying it is noticed that they keep their new born 15 day baby at home and go to farm for seeding of rice in rainy season.
- 91% of tribal women are taking the mixed diet. They eat meat once in a week. 71.88% of tribal women age group (15-30yeras) is taking diet for three or four time in a day 89% of tribal women age group (31-45 years) is taking diet three times in a day. Rice is the main food in their diet. They use dal only twice in a month in their diet. They of vegetable in their diet. They use brinjal, tomato, ladies finger, louki etc. very rarely when they are available in low cost and more smoothly.
- They know about the fruits like banana, grapes, orange, apple etc. but they never buy it because of its high cost. So instead of these foods they are using those fruits which are available in the forests or field and which is free of cost. But availability of such fruits are very low as they are seasonal fruits. Ex. Black berry, guava, jackfruit, tembhre.
- 98% of tribal women do not drink milk. They are taking black tea. Some of the m do not even known about the taste of milk. Only 2% of the women are taking milk in their diet. Curd is used only for kadhi. The reason behind this is the high cost of milk and milk products. They are thinking that cow and bull are their property and the milk from cow must get only to her calf. So they are not taking milk from cow. They are using very less oil and ghee in the diet. The quantity of sugar and jiggery is also less.

The food stuff ratio was less than balance diet according to ICMR & NIN

Foodstuff	Cereals	Other vegetable	Pulses/ Legumes	Leafy Vegetable	Roots and Tuber	Milk	Oil/ Fats	Sugar/ Jaggery
ICMR/NIN Recommendation	570 cal	100gm	50gm	50gm	60gm	200gm	40gm	40gm
Tribal women intake food stuff	450cal	50gm	20gm	50gm	30gm	--	30gm	30gm

It is concluded that tribal women do not take sufficient food in their diet and hence they become a victim of malnutrition.

Tribal women lack the quantity of the nutrients because of poverty, ignorance, superstition, wrong method of cooking etc. because of this tribal women had faced its bad effects on health. There is no variety in their food. So they are not able to maintain their health properly and at last it results in malnutrition. So they face many health problems like dental disorders, anaemia etc.

It is almost obvious that the tribal communities in India is extremely backward and poverty stricken. Particularly status of tribal women and children is very poor. Health of a tribal women is the most concern issue, Reproductive health, nutritional status, Religious beliefs, unhygienic living conditions, unawareness about available health, educational

facilities provided by government, voluntary organization etc. are some of the most of the crucial aspects of the life of the tribal women. Maternal mortality rate is very high among tribal women. Hence it is very important to highlight above problems through various research programmers activity and to improve social, physical health, hygienically status of tribal women.

Through this study the researcher has given some recommendation regarding Health, Education of tribal women. They are as follows-

Recommendations for Nutrition Health:

- It is extremely important to provide correct information regarding dietary norms, for all the wrong notions and practices, among the tribal women, through the research

projects, social activities, health awareness programmers.

- The various programmes initiated by the Government agencies such as ICDS, Mahila and Bal Kalyan etc. should made it compulsory to enroll the tribal women and children get benefits of the scheme.
- A clear understanding of the nutritive contents, in the agricultural productions locally grown, would help the women to get the proper intake of required nutrients. Ex. The green, leafy vegetable and other products with rich nutritive value are grown in these areas, so the proper knowledge through various demonstration, methods of preparation should be given to the tribal women, through training programmes.

DISCUSSION

Tribal population of India constitutes 8.6% of the total population. They are more susceptible to undernutrition which is recognized as a prevalent health problem mainly because of their uncertainty of food supply, which has serious long term consequences for the child and adversely influences the development of the nation. The assessment of nutritional status is paramount importance because it impels to identify malnutrition which is an aggravation of morbidity and mortality. This review was aimed to find out the overall nutritional status of tribal preschool children. It also seek the major socio-cultural causes which influence the nutritional status from bio-cultural perspectives among the tribal children in India in order to make foundation of new research. In the present review, 41 papers on nutritional status of tribal preschool children published from January 1st 2000 till date, have been identified and included for analysis. To analyze the data, meta-analysis was done using MedCalc software. The meta-analysis revealed the average rate of prevalence of underweight, stunting and wasting among the preschool tribal children of India was 42.96%; 44.82% and 23.69%. Among the 41 different studies these rates vary among the different tribal groups of different states associated with their socio-economic status (10%), their cultures of food consumption (10%), maternal education (15%), child feeding practices (20%), dietary deficit during pregnancy (25%) and poor nutrition of the child (52%). Prevalence rate of under-nutrition and stunting is relatively high in comparison to WHO in India whereas, rate of wasting was lower in comparison to national level which reflect that immediate nutritional status was poor but chronic deficiency of nutrition was less. Nutritional education and short term appropriately planned nutritional intervention programs may also be useful for enhancing their nutritional status.

Women's health is an important determinant for the well being of the entire family. However, women's health is much neglected in the family due to the social structure of society. Despite the government's effort to improve the health status of women, women's health issues remain a major concern in India especially when it comes to the health of tribal women. Tribal women are still subjected to traditional practices i.e. exiling the women during menstruation, home deliveries of the baby and. The study was conducted on health problems of tribal women of Gadchiroli district of Maharashtra. The study assessed the role of Health Center: Arogyam Dhanampada to improve the health status of tribal women. It also looks upon the impact of various health awareness programme organised at various level in the district.

RESULTS

Nutritional problems have serious health implications impacting physical development, psychological, behavioral and work performance of an individual. Anaemia is the most common problem among pregnant and lactating women in most of the developing countries. Anemia during pregnancy is the most common preventable causes of maternal morbidity and poor prenatal outcome. Healthy growth and development of a girl through adolescence helps to prepare her for healthy pregnancies during child bearing years. Prevalence of anemia in India is very high across all groups. The present study was conducted to assess the levels of anaemia and nutritional status among the Baiga women and adolescent girls residing in three districts of Chhattisgarh. Only 42% of the Baiga women, of reproductive age, were found to have normal levels of anemia while 58% of them were found to be anaemic. Prevalence of anaemia was found to be very high among adolescent Baiga girls. Only 5.3% adolescent Baiga girls were found to have normal levels of Hb while 94.7% had various degrees of anaemia, putting them into high risk zones for the future pregnancies. Majority of the Baiga women respondents i.e. 47.33% had low BMI between 16-18.5 which falls as under nutritional category, 6.67% were very severely underweight and only 40.66 % of the respondents could be categorized under the normal category of Body Mass Index (BMI). BMI among adolescent girls when compared to WHO 2004 standard of malnutrition revealed that 27.2% girls could be classified under the normal category, 24.2 % girls suffered from mild thinness, 17.8 % girls suffered from moderate thinness and 30.8% girls suffered from severe thinness category of malnutrition. The strategy of increasing iron intake in every households through dietary diversifications and use of iron fortified iodized salts, providing IFA supplementations to vulnerable groups, testing and timely treatment of pregnant women and adolescent girls with anaemia, is required to accelerate the pace of reduction in the prevalence of iron deficient anemia to enable the country to achieve SDG target for the reduction of anaemia.

In this study, to know the prevalence of nutritional status among tribal women (BMI & Anaemia), we extracted Maharashtra data from NFHS-4. 3923 women of reproductive aged group (15-49) were the sample for this study. We found that more than half of tribal women (54%) in Maharashtra were anaemia in the reproductive aged group. The result is consistent with the study conducted in Wayan and district Kerala by Shrinivasa et al. with 96.5% anaemia, 30.5% mild anaemia and 10.1% severe anaemia. A significant results were found from the other studies, where the tribal women have anaemia (55.9% and 75%) which have associated factor of socioeconomic and maternal parameters.^{3,18} For example, studies revealed the associate factors for prevalent of anaemia among tribal women, those are low consumption of micronutrient rich foods like green vegetables which can help to boost iron shortage of women and help to changes in dietary food pattern and lack of awareness.^{7,17,19} However, several other studies found a very high prevalence of anaemia among tribal women in their studies than the current study result.¹⁷ The rural women have higher mild anaemia than urban tribal women, which concurs well with an earlier study.²⁰ Likewise, the illiterate women were found more in mild anaemic category than higher educated women, which substantiates previous findings in the literature.²¹ In the same way the study also found that obesity has increase significantly with the

increase of age group. Which indicates age is the significant parameter for obesity among the tribal women in Maharashtra. This prevalence is comparable to other studies done in India.²² The percentage of underweight was found more among unmarried women than married women, but when it comes to obesity results found the reverse. This finding of the present study is supported by the existing literature.²³ Women from rural areas were found to be more underweight than the women from urban areas which verifies with previous results.²³ However, the urban women were found to be more obese than rural tribal women which are in line with a previous study.²³ Higher educated women were found more obese than women who had no education. This finding is in complete agreement with an existing study.²⁵ Women with poorest wealth status and economically backward are more vulnerable to underweight than any other of wealth quintile categories. Similar result was obtained in a study conducted in Nepal among in reproductive age groups of women but this finding is disagreement with other study where in case of overweight and obesity is depend on wealth status of a women.^{26,27,32} Overall, on one side, the whole tribal women have low nutritional health status than the national average (i.e. Maharashtra tribal women have more than national average anemia), on the other side, the nutritional status within the tribal women are highly diverse. The most important determinants which negatively determine the nutritional status among tribal women are rural residence, illiteracy, poor economic situation. The reason why all these factors are negatively influencing tribal women may be because about 75% of the health infrastructure is concentrated in urban areas, and 90% of tribal people live in rural areas.²⁸ Tribal populations are highly at risk for almost every health parameters. Tribal people are mainly dependent on primitive agriculture. So the uncertainty of food supply is there which can be the reason for overall low nutritional status among tribal people in general, tribal women in particular. Tribal communities in India are being neglected, discriminated in terms of income distribution and social status, which tend to have higher rates of undernutrition.^{2,28} Tribal community is one of the most susceptible groups living in India. These communities are being neglected, discriminated than rest social groups, in terms of economic development, social status, income distribution and yet to have basic health facilities. Therefore, these communities are highly risk at almost every health parameters. For income and survival they are still dependent on primitive agriculture activities for livelihoods. However, longstanding history defines the tribal communities are being neglected, discriminated in terms of income distribution and social status, which tend to have different health problems and nutritional issues among tribal is not exceptional.²

CONCLUSION

Accessibility and affordability of nutrients which are essential food to life and health, are emerged as common reasons for poor nutritional food pattern in tribal inhabitants in Maharashtra.^{28,30} Moreover, the knowledge and perception about nutritious diet is limited among them. Furthermore, tribal lives in isolated dwelling places in difficult terrain, rigid customs and beliefs system, illiteracy which leads to many health consequences and social issues but still struggle to perceived for necessary health facilities.^{7,31} We draw the conclusions with major findings from the study. First, with the spatial analysis of nutritional status among tribal women in Maharashtra is clearly

prevalent of underweight and overweight throughout the districts. Further, a geographical variations of anaemia (Severe, Mild, Moderate) have depict across districts which is manifest the overall prevalence and comparable among districts. In terms of underweight Nasik prevalent highest but obesity shows highest in Pune district against other districts in the state. Findings of district from spatial maps show the Satara district has highest prevalence of severe anaemia and lowest in Aurangabad. Nagpur and Gondiya districts are in highest of moderate anaemia against other districts. But Nashik shows highest prevalence of mild anaemia among tribal women against other districts in Maharashtra. From religious perspective Christian and Muslims are more prone to susceptible of anaemia. Second, determinant age of women, education, place of residence and wealth or income of a women which are leading causes to underweight and anaemia as well. Third, like other studies it has its own limitations regarding on sample size which indicates for generalization with large population (10.6 millions) the findings somewhat is limited. Specifically, data could contained biasness as the information about health parameters were collected by the different investigators and time duration across the state, India. Last but not least, for development of poor health and rural tribal health the state government has been introducing various programs and interventions but outcomes are not satisfactory at the National level. Therefore, to improve tribal women's overall health development state government interventions need to introduce on nutritional health in among tribal and in general population specifically needy sections. Furthermore, it is imperative to create awareness, and health care infrastructure with the delivery system should be designed effectively. To address the tribal women's nutritional health, health services must focus on tribal culture. The present study results might be helpful to the policymakers to prepare apt strategies for the overall development of health among the people in general and tribal women

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