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Research Paper

Nutritional status and traditional health culture of Tribal Women: A study in Mayurbhanj district, Odisha

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■ **ABSTRACT :** Every twelveth women in India belong to a tribal community, therefore improving their health status become an important development goal. Odisha has a sizable proportion of tribal population out of which 21 per cent are women in Odisha. A women health affects the household economic, well being and a women with poor health will be less productive in the labour force. Keeping these facts in mind the present research is designed to study the "Nutritional Status and Traditional Health culture of Tribal women in Odisha". One hundred literate tribal women of Jashipur block of Mayurbhanj districts of Odisha were selected by random purposive sampling method for the present study. The data was collected by questionnaire cum interview method. The results of the study revealed that majority of the respondents belonged to 25-40 years of age group having agriculture as primary occupation. All of them belong to low income group. Most of the respondents had normal BMI. Malaria and joint pain was their common health problem. 98 per cent of the respondents were non-vegetarian and were taking three meals per day. Parboiled price was their staple food. "Handia" prepared out of Rice and Bakhara was their common beverage. Milk and meat products, sugar and Jaggery, pulses were found to be less in their diet in comparison to RDA. Their diet was found to be excess in energy, iron and calcium. They were taking various types of foods to get relief from different diseases such as Bug with banana for piles, Handia rasi and Pedipedica leave for Jaundice, Burnt Skin and ear of goat for dyscentry etc. Different types of foods used by them related to reproduction were Palta medicine for son, babul leaves for fair baby, Runja seeds for abortion etc. Health practice for recovery from some type of health problems were burning with fire the effective area and putting bhalia on it for eczema, scald with hot iron on head for migrain etc. 100 per cent of the respondents were found to believe in magic treatment and herbal treatment for getting relief from their illness. Thus it can be concluded that there is an immense need to educate the women to improve their health status by wise use of available food stuffs and availing medical services during their diseased condition.

■ **KEY WORDS:** Nutritional status, BMI, Health Culture, Handia, RDA

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Tribal population is the most marginalized and vulnerable communities in India experiencing extreme levels of health deprivation specially the women folk. The health of women is linked to their status in the society. The demographic consequence of the women has formed expression in various forms, such as female infanticide, higher death rate, lower sex ratio, low literacy level and lower level of employment of women in comparison to men. Generally at household level cultural norms and practices and socio-economic factors determine the extent of food intake and nutritional status among women. Although several studies on maternal health and nutritional status have been carried out in India among general population there is a dearth of information pertaining to the Nutritional Status and Traditional Health Culture of tribal women in Odisha. As every twelveth women in India belong to a tribal community, improving their health status become an important developmental goal. Orissa has a sizable proportion of tribal population *i.e.* about 8.15 million out of which 21 per cent are women and over whelmingly rural with 94.5 per cent residing in villages. Poor health has repercussions not only for women but also their families. A women's health affects household economic, well being and a women with poor health will be less productive in the labour force. Keeping these facts in mind the present research is designed to study the Nutritional status and traditional health culture of tribal women belonged to Mayurbhanj District, Odisha. The objectives of the study were:-

– To study the socio-economic indicator of the respondents.

– To asses the nutritional status of the respondents by anthropometric measurements.

– To know the dietary habits and nutrient intake of the respondents.

– To study the health problem and health culture of the respondents in the studied area.

■ RESEARCH METHODS

The study was carried out in seven villages of Jashipur block of Mayurbhanj districts of Odisha. One hundred literature tribal women were selected for the present research by random purposive sampling method.

The data was collected by questionnaire cum interview method with the help of pretested and modified questions. Information on dietary intake of the respondents was collected by 24 hours recall method. Height and weight of the respondents was recorded by using measuring tape and weighing machine, respectively and BMI was computed by using the standard equation. The collected data was processed and analyzed with the help of statistical tools and techniques and are discussed below.

■ RESEARCH FINDINGS AND DISCUSSION

The findings of the present study as well as relevant discussion have been presented under following heads :

Socio-economic indicator of the respondents:

The socio-economic indicator is very much essential to know the background of the studied sample. It was observed that majority of the respondents (68%) were belonged to the age group of 25-40 years. All of them were Hindu by religion and were schedule tribe. Information on educational qualification of the respondents showed that all of them were literate and 25 per cent of them had high school and above qualification. Joint family system (85%) was found to

Table 1 : Socio-economic indicators of tribal women

Sr. No.	Socio-economic indicators	Characteristics	Percentage
1.	Age	25 – 40 years	68
2.	Religion	Hindu	100
3.	Caste	Schedule tribe	100
4.	Education	Literate	100
5.	Types of family	Joint	85
6.	Size of family	4 – 6 members	88
7.	Marital status	Married	90
8.	Occupation	Agriculture	78
9.	Income	Rs.80,000 – Rs.1,00,000	80
10.	Exposure	To media	56

be prevalent in that area with 4-6 family members. 90 per cent of the respondents were married. Primary occupation of the respondents was found to be agriculture (78%). It was interesting to note that income of the respondents was Rs. 80,000 - Rs. 1,00,000 per annum as they are working SHGS which helped them to enhance their social status and self confidence (Table 1). Similar findings was also observed by Mishra *et al.* (2014).

Nutritional status:

The body mass index (BMI) is a measure for human body shape and health status based on individuals weight and height which is shown in the following Table 2 -5.

It was interesting to note that most of the respondents had normal BMI whereas 6 per cent of them were under weight and 8 per cent of them were Obese grade-I or over weight.

Food habits and dietary pattern :

Majority of the respondents (98%) were non-vegetarian. Three meals per day was taken by most of the members. Only 10 per cent respondents were taking four meals per day. Parboiled rice was the staple food of the respondents taken in the form of Pakhal (Water rice) twice in a day along with dried fish or pulses or leafy vegetables. "Handia" prepared out of "Rice + Bakhara" was their common beverage. 80 per cent of women who goes for work take "Handia" along with chana or only "Handia" in the morning as well as in the afternoon. The take cooked rice only in the night along with vegetables or dry fish or pulses. 100 per cent of them took mutton/chicken on the market day *i.e.* either on Saturday or Tuesday. Different types of pulses such as horse gram, Kandul (Red gram), Bengal gram, black gram, green gram was consumed by them regularly. Seasonal fruits and vegetables are also consumed by them according to availability. They used mustard oil, groundnut oil and Kachada *i.e.* Tula oil for their food preparation. Majority of the respondents preferred roasted foods. Handling of food was found to be unhygienic. Most of them washed the vegetables after cutting and cooked the food without lid.

Daily mean food intake of the respondents:

The data on actual mean food intake of the respondents revealed interesting results. Cereals, green leafy vegetables, roots and tubers was found to be excess in their diet. Milk and milk product, sugar and jaggery, fats and oils consumption was found to be less in their diet in comparison to RDA. Similar finding were also observed by Lenka *et al.* (2013).

Mean nutrient intake on respondents:

Energy, Iron and calcium consumption of the respondents was found to be excess where as protein, fat and vitamin-A consumption was found to be less in comparison to be ICMR standard. As they were

Table 2 : Distribution of Tribal women according to BMI

Sr. No.	BMI/Age in year		Below 25 yrs	25 to 40 yrs	Above 40 yrs	Total
1.	< 18.5	Under weight/possible malnourished	-	-	-	
2.	18-5 – 20	Low weight	03	02	01	6
3.	20.0 – 25.0	Normal	09	62	15	86
4.	25.0 – 30.0	Obese-I	-	04	04	08
5.	> 30	Obese-II	-	-	-	-
	Total		12	68	20	100

Table 3 : Distribution of respondents according food habits and dietary pattern

Food habits	Frequency	%
Vegetarian	2	2
Non-vegetarian	98	98
Dietary pattern		
Breakfast + snacks	-	-
Lunch + Dinner	18	18
Breakfast + Lunch + Dinner	72	72
Breakfast + Lunch + Snacks + Dinner	10	10

consuming rice three times a day along with dal, dryfish and leafy vegetables therefore their diet was found to have excess energy, iron and calcium.

Foods taken during Illness and reproductive stage:

It was interesting to note that they consumed different types of foods to get recovery from illness which is shown in the following Table 6-9.

Generally they used the above food materials and leaves for getting relief from diseases at their household level and in case of emergency they consult doctor. Telesara (2000) found out Gond Ladoo was given to pregnant and lactating mothers to increase milk output and prevent excusive bleeding. Coconut ladoo was given to relieve back pain and to provide strength. Verma (2002) reported in her studies that buttermilk is beneficial for diarrhea.

Health culture and health practice of the respondents:

Health culture and health practices of the tribals vary according to their communities and geographical location. However education, media and Govt. involvement has some impact on their health practices. Information regarding different types of treatment adopted, health problem and health practices was collected and discussed below :

Table 4 : Mean food intake of the respondents

Sr. No.	Food stuff	Actual mean food intake	RDA according to ICMR-1984	Excess or deficiency
1.	Cereals (g)	608.7	575	(+)
2.	Pulses (g)	28.22	50	(-)
3.	Green leafy vegetables (g)	127.15	100	(+)
4.	Other vegetables (g)	72.8	100	(-)
5.	Roots and tubers (g)	110.73	100	(+)
6.	Milk and milk product (g)	32.34	100	(-)
7.	Meat, fish/egg (g)	38.2	50	(-)
8.	Sugar and jaggery (g)	12.5	40	(-)
9.	Fats and oils (g)	15.3	40	(-)
10.	Fruits (g)	28.35	60	(-)

Table 5 : Mean nutrient intake of the respondents in comparison to RDA (ICMR)

Sr. No.	Nutrients	Actual intake	RDA (ICMR) 2010	Excess(+)/Deficiency (-)
1.	Energy (kcal)	3021.23	2850	(+)
2.	Protein (g)	46.8	55	(-)
3.	Fat (g)	28.1	30	(-)
4.	Vitamin-A(µg)	2800.5	4800	(-)
5.	Iron (mg)	29.3	21	(+)
6.	Calcium (mg)	800.7	600	(+)

Table 6 : Foods taken during Illness to get recovery

Sr. No.	Disease	Food given	Frequency	%
1.	Cold	Drumstick leaves with lentil	78	78
2.	Cough	Torani (soaking water of cooked rice)	78	78
3.	Indigestion	Black pepper	58	58
4.	Diarrhoea	Amarpoi leaves	100	100
5.	Dyscentry	Burnt skin and ear of goat	83	83
6.	Piles	Bug with Banana	67	67
7.	Jaundice	Handia rasi, Mehendi root, Pedipdica leave (local name)	100	100
8.	Malaria	Gangasiuli leaves	100	100
9.	Cough	Basanga leaf, wild ant (kurkuti) Chutney	93	93

Types of treatment adopted :

It was observed that 100 per cent of the respondents believe in magic treatment and herbal treatment but only 33 per cent of them practice magic treatment, specially for fever, diarrhea, cholera, colic pain etc. They also believe in medical treatment and went nearby to hospital through ANM, Asha Karmi or Anganwadi worker for their health problem. But in case of severity of the disease, they went to both local gunia as well as consult doctor and follow their treatment.

It was observed that majority of the respondents were suffering from malaria followed by joint pain for which they were taking local /Indigenous medicine as well as doctors advice. However they were unaware about occurrence of diabetes/heart problem.

Scald with not iron in stomach for colic pain was commonly practised by the tribals for their children. Sometimes that scald may be deeper and the child may die. Burning the effective areas and putting Bhalia on that part was practiced for eczema. Similar findings was also observed by Dash (2013); Sodha (2015) and Pedi *et al.* (2013).

Conclusion:

Nutritional status and traditional health practices has been exhibited in this study. Majority of the respondents were found to have normal body weight (B.M.I) *i.e.* 86 per cent. Information on their health problem showed that most them were suffering from malaria and joint pain. None of the respondents were suffering from diabetes or heart problem. Majority of the respondents were non-vegetarian and were taking three meals per day. Parboiled price was their staple food. "Handia" prepared out of Rice and Bakhara was their common beverage. Milk and meat products, sugar and Jaggery, pulses were found to be less in their diet in comparison to RDA. Their diet was found to be excess in energy, iron and calcium. They were eating various types of foods to get relief from different diseases such as bug with banana for piles, Handia rasi and pedipedica

Table 7 : Foods related to reproduction

Sr. No.	Causes	Foods taken	Frequency	%
1.	For son child	Palta medicine made by local gunia	50	50
2.	For fair child	Babul leaves (local name) leaves	11	11
3.	Quick recovery after child birth	Sutika goli prepared with Kalibahu and gai chira (roots)	90	90
4.	For abortion	Runja seeds (local name)	85	85
5.	For delaying Menstruation	Throwing mustard seeds under bed.	95	45

Table 8 : Health problem

Sr. No	Health problem	Frequency and %	Treatment adopted
1.	Malaria/Cold fever	38	Medical and Herbal/Magic treatment
2.	Joint pain/ Arthritis/ Rhematism	28	Herbal medicine
3.	Eczema/ Skin problem	08	Local treatment/Indigenous medicine
4.	Problems related to reproduction		
	– Cramps in stomach	09	Local treatment/Indigenous medicine
	– Excess bleeding	07	Local treatment/Indigenous medicine
	– Scanty flow/Irregular	13	Local treatment/Indigenous medicine
	– No. children	03	Local treatment/Indigenous medicine
5.	Diabetes/Heart problem	Not Known	-
6.	Blood pressure	02	Doctor
7.	Any other	-	-

Table 9: Remedies adopted for some common health problems

Sr. No	Disease	Remedies	Frequency and %
1.	Eczema	Burnt with fire the affective area and use Bhalia	30
2.	Migrain	Scald with hot iron rod on head	10
3.	Colic pain in children	Scald with hot iron in stomach on Makar Sankranti	82

leave for jaundice, burnt skin and ear of goat for dyscentry etc. Different types of foods used by them related to reproduction were Palta medicine for son, babul leaves for fair baby, Runja seeds for abortion etc. Health practice for recovery from some type of health problems were burning with fire the effective area and putting bhalia on it for eczema, scald with hot iron on head for migrain etc. 100 per cent of the respondents were found to believe magic treatment and herbal treatment for getting relief from their illness but they also went to hospital in case of emergency. Thus it can be concluded that there is an immense need to educate the women to improve their health status by the wise use of available food stuffs and availing medical services during their diseased condition.

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