

Changing food pattern of tribal women of Jharkhand state with special reference to Gumla district

SHEETH TOPPO

Like other society, tribal societies are also changing. Changes in tribal societies have taken place with the passage of time. The processes responsible for changes in tribal societies are hinduisation, Sanskritisation, christianisation, De sanskritisation, retribalisation, urbanisation, industrialisation westernization and modernisation. The processes of change have affected the tribal way of life positively as well as negatively. Christianity has brought education and development in tribal societies. The changes in tribal societies were brought in every sphere of life during the British rule. The process of westernization also brought some induced change. These processes influenced the life of tribal societies. These modernization process has also influenced the style of life of tribals, in our country. The main objectives of the study is to access the magnitude and Characteristics of Changing food pattern of tribal women of Jharkhand state with special reference to Gumla District which is influenced by a wide range of factors like agro climatic differences foods grown and availability. Beliefs, Customs and traditions influence the general Pattern of living in any community. Beliefs, in inherent and integral as they are in the cultural matrix acts as in visible force in translating Present ideas in to overt acts and customs. Objectives : (1) To know about the traditional food of tribal community and to compare them with modern aspect of food habit. (2) To know the perception of the tribal women about changing food pattern of tribal women. Study design : Stratified random sampling technique. Scale : Nominal and interval scale. Setting : Study was performed on Bharno Block. Village name : (i) Jura (ii) Dumbo Khakshi toil (iii) Peepar toil (iv) Boro. Gumla Block. Village name :- (i) Pugu nawa toil (ii) Raj Nagar (iii) Behra toil. The Sample 400 adult women (between 20 to 45 years of age) was randomly selected for the study. Method of data collection: Data will be collected from the respondents with the help of the interview schedule by personally interviewing the respondents and through observation technique. Result : The overall result of this study is that the "Changing food pattern of tribal women of Jharkhand state with special reference to Gumla District" is not so good or bad. It is moderate and some nutritional correction is required even having good income they used to practice their old eating habits and also old cooking methods. Thus they must be provided with proper nutrition education programme and educate them about proper health, hygiene and improved cooking practices so that they can develop themselves and maintain their health in good condition.

Key Words : Changing, Food pattern, Tribal women, Stratified random sampling technique, Traditional food, Modern food

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INTRODUCTION

Like other society, tribal societies are also changing.

Changes in tribal societies have taken place with the passage of time. The processes responsible for changes in tribal societies are hinduisation, Sanskrit sation, christianisation, De sanskritisation, retribalisation, urbanisation, industrialisation westernization and modernisation. The processes of change have affected

● AUTHOR FOR CORRESPONDENCE ●

SHEETH TOPPO, P.G. Department of Home Science, Ranchi University,
RANCHI (JHARKHAND) INDIA

the tribal way of life positively as well as negatively. Christianity has brought education and development in tribal societies. The changes in tribal societies were brought in every sphere of life during the British rule. The process of westernization also brought some induced change. These processes influenced the life of tribal societies. These modernization process has also influenced the style of life of tribals, in our country. Different processes of change have also brought different problems before the tribal societies. They are also facing the problems of poverty, unemployment, health and sanitation (Pandey *et al.*, 2003).

In the dictionary of anthropology "Tribal" is defined as a Social group usually within definite area, dialect, cultural homogeneity and unifying social organization Tribals have not only retained their Separate ethnic and cultural identity from the non tribal population, but each of the tribal group have conserved and nurtured its distinct socio cultural and linguistic tradition (Roy, 2004). Total ST population of Jharkhand is 1164624 and from this total ST population of Gumla district is 559772. According to the census of 2011.

The dietary pattern of the tribes of India living under various agro climatic conditions in different isolated regions may vary widely because of the secluded living of the groups, their pattern of living, food and dietary practices and their attitudes to various aspects in general, may sometimes be different from non-tribal population. Although some work has been done on the tribals group of India, more work is to be done to formulate appropriate for improvement of the tribal communities. One of the major factors determining changing food pattern of any community is the food consumption which is influenced by a wide range of factors like agro climatic differences, foods grown and the availability. The dietary pattern of the aboriginal tribes of India living under various agro-climatic conditions in different isolated regions may vary widely. Beliefs, customs and traditions influence the general pattern of living in any community. Beliefs, inherent and integral as they are in the cultural matrix act as invisible force is translating present ideas into overt acts and customs. It is well know that geological make up the soil determines the occurrence of local flora, as well as cropping pattern and agricultural practices in an area. Knowledge of available food resources used by man has enabled him to survive in adverse climate. Tribals living as part of nature exploited nature to meet their

food demands and some of their foods are uncommon to us.

The diet of all oraon and mundagroups was deficient in all food groups. Cereal intake of milk and fruit was almost negligible. Their diet was supplemented by a locally grown leafy vegetables dhecki saag, and fermented left over rice. The energy available from the diet for all age groups was only 52-53 per cent of the recommended dietary allowances of the Indian council of medical research (Mittal and Srivastava, 2006). Tribes constitute 26.30 per cent of the total population of Jharkhand and traditionally are animal lovers. Livestock particularly goat, pigs and sheep play an important role in their socio-economic lives. Development of livestock will not only improve their economic output but also their nutritional intake by providing a ready source of balanced nutrition in rural and urban areas (Singh, 2006).

Pant has observed a heavy addiction towards liquor by the tribes from their respective studies. Consumption of liquor made from mahua flower as well as smoking of tobacco by tribes of peninsular India and consumption of rice beer (Haria) by the tribes of Jharkhand region has been reported by Sharma (2003).

No religious of superstitions ceremonies are now observed in the preparation of this rice beer hanria. As far the religious aspect of drink hanria or rice beer is necessary offering to the gods or spirits at almost every religious festival except at the worship of a few deities borrowed from the tribals (Roy, 2004). A large number of women consumed tobacco and alcohol and there did not appear to be any social stigma against such consumption by women (Mittal and Srivastava, 2006). Ready (2004) Due to lack of education, the tribes lag behind in acquiring new skills required for the use of appropriate technology another opportunities and have theretore failed to avail the benefits from the technological revolution that has greatly changed the economic scenario of the Indian society. Chakravarty and Dand (2006) observed that the diet of all Oraon groups was deficient in all food groups. 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 dhecki sag, and fermented leftover rice. The energy available from the diet for all age groups was only 52 53 per cent of the recommended dietary allowances of the Indian Council of Medical Research. Jayalakshmi and Neelkantha (1995) observed

that the intake of pulses, milk, oil and fat was influenced significantly by percapita income, education or social status. Maikhuri *et al.* (2000) They developed a indigenous patterns of health care suiting their economy culture and socioreligious perceptions. They use plant products commonly used them as antidiabetic measures. Chandra (2002) Forest as source of wild edible plants for tribals (Vinita, 1995). It is argued the once deforestation started to take place (in the context of the exploitation of the indigenous people by an outsider landlord class, aided by the colonial state) and the forest department denied people access to traditional famine foods, the Chotanagpur region found itself for the first time subject to the king of vulnerability to famine they had affected lowland populations for a much longer period. All tribals were non-vegetarians. They consumed pork, rat meat, beef and various birds. However, the use of non-vegetarian items was limited to two or three times a month, usually on day when they were paid for their work Mittal and Srivastava (2006). The average oraoan eats even the mouse and the crow with relish, Flesh and fish are either boiled in water, or fried in oil, or roasted. The beast, or bird or fish or plant that forms the token of a particular sept is tabu to members of the sept. Roy (2004). Fats and oils do not form a usual item in most of the tribal dietaries. However butter made from the milk of cow, yak and sheep milk, pork fat, oils extracted from mustard, sesame, groundnut and mahua seeds are reported to be used in small quantities by some tribals (Sen Gupta, 1980). Different kinds of fruits grown in Jharkhand like mango, guava, papaya, jack fruit, litchi. In fruits more consumption of mango (Singh, 2006). Tribals are more interested to eat seasonal fruits like kusum fruits. Unusual foods available in the forest during the monsoon period from the staple food for most of the tribals specially to those living in hilly areas. The yield of agricultural practice being poor, tribals have to depend on the forest producing during the lean period. Various unusual foods like wild mushrooms, bamboo shoots, wild mangoes, red ants, wild millets, wild rice which grows near paddy fields. Rice-beer (hanria) is the favourite drink of oraoans, as of other aboriginal of chota nagpur. This is made by mahua flower, rice marua. Then it is mixed with ranu (Oraon bichni) is mixed with the contents. In summer it about 3 or 4 days and in winter about a week or more for the ranu to work and produce fermentation. Country beer is made up of corolla of mohua (*Bassia latifolia*) flowers and sold at grocer-shops, is now

a days very much is demand. In fact their excessive use of drink have spelled the ruin of many oraoan family (Roy, 2004). Popular using ranoodava with jaggery and was consumed in larger quantities. Jaggery is a peculiarly Indian item of food made from sugar cane by a special process. It has a distinct flavour and colour. Shakuntala *et al.* (1997). If large number of ricegrown, then this paddy is kept apart in bamboo basket for the consumption of the family for a couple of month of so. The balance left is stored away in moras or circular bags made of plaited stra-ropes (Roy, 2004). The corolla of the flowers of the mahua (*bassia latifolia*) is also used for food. The oil used in cooking is extracted either from mustard or from niger oil-seed (sarguja). For condiments, turmeric or haldi and chilli are used (Roy, 2010). Nutrition is the most important single, factor which affects the health and well being of human being. Food beliefs facts and prejudices are important social factor that are known to influence the choice of food of many population group in different regions of the country Swaminathan (2006). Superstitious and beliefs invariably influence the attitudes towards food. Food habits and beliefs differ among the different tribes and ever the communities within the tribes.

Clinical evaluation consists of a medical history and a physical examination for possible evidence of malnutrition (Mitchell, 1997). Clinical assessment procedures are normally used to community nutrition surveys and in clinical medicine. They are most useful during the advanced stage of nutrition depletion, when overt diseases are present (Gibson, 1990). The physical examination, as defined by Jelliffe (1966). "Examines those changes, believed to be related to inadequate nutrition, that can be seen or felt in superficial epithelial tissue, especially the skin, eyes, hair and buccal mucosa, or in organs near the surface of the body (eg. Parotid and Thyroid Gland)".

The first stage of a nutritional deficiency is identified by dietary assessment methods. During this stage the dietary intake of one or more nutrients is inadequate, either because of primary deficiency (Low levels in the diet), or because of a secondary deficiency. Methods used for measuring food consumption of individuals can be classified into two major groups. The first group, known as quantitative daily consumption methods, consist or recall or records, and the, second group of methods includes the dietary history and the food frequency questionnaire (Gibson, 1990). Thimma

Yaimma and Rao (1996) has listed food balance sheet method, inventory method, weightment method, expenditure pattern method, diet history, oral questionnaire, duplicate sample method, dietary scale method and recordings method for diet survey. Dietary survey assists in getting information on nutrient intake levels, sources of nutrients, food habits and attributes of an individual or groups, hence, it forms an essential and important part of any complete study of nutrient status assessment (Swaminathan, 1990). Diet surveys constitute an essential part of any complete study of nutritional status of individual or groups, providing essential information on nutrient intake levels, sources of nutrients, food habits and attitudes. Under such conditions, where frank signs of malnutrition do not exist, a survey of intake of nutrients may give an indication of the adequacy of the diet for promoting optimal nutrition of individuals or groups (Swaminathan, 1985).

Aims and objectives :

- To know about the traditional food of tribal community and to compare them with modern aspect of food habit.
- To know the perception of the tribal women about changing food pattern of tribal women.

METHODOLOGY

Gumla district was selected purposively keeping in view that large concentration of rural tribal people. The reason for selecting this particular district was that no any systematic study on the food pattern of rural tribal women. A number of 400 women were selected for the study of age group 20-45 years. The study was conducted on Gumla district. The diet survey techniques based on the questionnaire schedule. A 24 hours recall questionnaire method was used. The assessment of nutritional status in the present work was accompanied by carrying out the following investigations (1) Clinical examination (2) Dietary examination.

Clinical examination was done by observing the sign and symptoms of deficiency disease among them. Data will be collected from the respondents with the help of the interview schedule by personally interviewing the respondents.

OBSERVATIONS AND ASSESSMENT

The results obtained from the present investigation

as well as relevant discussion have been summarized under following heads :

To know about the traditional food of tribal community and to compare them with modern aspect of food habit :

Nutrient content of traditional foods :

Chandra Sekhar *et al.* (1995) evaluated the uncommon foods consumed by oraoon tribes of Bihar. Fermented products like rice beer, mahua wine and ranu are rich in energy content, several vitamins and minerals. The green leafy vegetables and flowers are rich in several vitamins and minerals. The green leafy vegetables and flowers are also rich in several nutrients.

Nutrient content of modern foods :

Modern foods can be grouped into two categories :

Convenience foods :

Convenience foods are the result of modern technological advances in the field of food processing, preservation techningues and the invention of various newer food additives. The list comprises : (i) Instant dry mixes such as idli, dosa, noodles, soups and soon, (ii) Canned products, (iii) Frozen foods, (iv) Fabricated foods such as laddos, chaklis.

Fast foods :

Nutritionally, fast foods contributed to a number of nutritients, mainly calories, fats (especially saturated fats), refined carbohydrates, proteins and sodium. Fast foods contains salt in high concentrations, particularly the spiced, fried and animal based products. cheese food is rich in sodium as well as monosodium glutamate. This latter substance which is said to be flower enhancer is also responsible for the “Chinese restaurant syndrome” characterized by headache, dizziness, nausea and other allergic symptoms. sodium is directly held responsible for hypertension (Joshi, 2007). Besides, they may contain a number of additives like artificial colors, flowers, artificial sweeteners, flavor enhancers flavour modifiers, release agents, gelling agents, and scores of other artificial substances. Not only do these additives affect our systems in the long run but they are also responsible for unexplained reactions in several people so these should be consumed in very minute quantities only.

Comment :

Now the tribal areas have undergone the influence of urbanization. Urbanization are process of change. Due to which many small shops and hotels are set up, in this block. Due to which local rural people are having the knowledge of modern food. Here in this both the block people are having per cent of knowledge of samosa *i.e.* 12.5 per cent. But very less people are having knowledge of making samosa. As children are buying all this food from shops due to which they have the more knowledge about chocolate *i.e.* 8.75 per cent then 5 per cent people are having knowledge of eating paneer, cold drink, But very less per cent *i.e.* 2.5 per cent are having knowledge of cooking rice mutton pulaw. As sometimes peoples are eating in party 2.5 per cent people are knowledge of eating ice-cream softy. As in Gumla in some shops. They are selling softy. At last *i.e.* 1.25 per cent of women are having knowledge of baby corn, button muhsroom coffee and butter (Table 1). Because these things are selling in very less per cent and also due to higher cost only the place of Gumla people are having more knowledge of modern food because after survey I come to the

knowledge that Changes in tribal society have taken place due to Christiaity. Because christianity has brought educations, and development in tribal societies. As in Gumla district more number of christian family are in Gumla block. Here more number of good school, colleges are there due to which in this block here people are more educated. If women is not also educated then also if their family member is educated then also they are having some knowledge about the modern food, Because here more number of shops are available (of modern food).

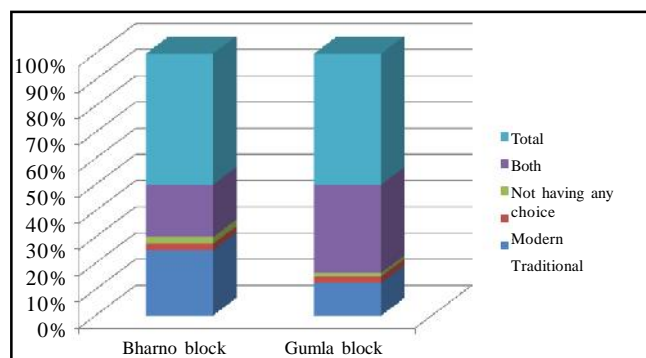


Fig. 1 : Distribution of respondents on Gumla district on the basis of preference of food

Table 1 : Distribution of respondent on the basis of knowledge of modern food

Sr. No.	Knowledge about the modern food	No. of respondent	Percentage
1.	Baby corn	5	1.25.%
2.	Button mushroom	5	1.25%
3.	Rice mutton pulov	10	2.5%
4.	Paneer (chenna)	20	5%
5.	Ice crean softy	10	2.5%
6.	Chocolate	35	8.75%
7.	Cold drink	20	5%
8.	Biscuit	50	12.5%
9.	Bread	50	12.5%
10.	Chowmein	25	6.25%
11.	Dosa	10	2.5%
12.	Cake	10	2.5%
13.	Vermicelli	50	12.5%
14.	Chips	40	10%
15.	Coffee	5	1.25%
16.	Butter	5	1.25%
17.	Samosa	50	12.5%
	Total	400	100%

Table 2 : Distribution of respondents on Gumla district on the basis of preference of food

Sr. No.	Groups	Traditional	Modern	Not having any choice	Both	Total
1.	Bharno block	100	10	10	80	200
2.	Gumla block	50	10	5	135	200

Comment :

Indicates that the highest per cent of respondent of Gumla block are given first preference to both types of food *i.e.* (traditional + modern food). As it is a semi rural area, so people are having knowledge of modern food. But as Bharno block is totally rural area, women are having very less knowledge about modern food. So here women are given first preference to traditional food *i.e.* 50 per cent (Fig. 1 and Table 2).

Comment :

Here in this Bharno block. As it is totally rural area. So here people are having less knowledge about modern food. So people *i.e.* women are giving more preference to traditional food *i.e.* 50 per cent (Table 3).

Table 3 : Distribution of respondents on Bharno block on the basis of preference of food

Sr. No.	Preference	No. of women	Percentage
1.	Traditional	100	50%
2.	Modern	10	5%
3.	Both	80	40%
4.	Not having any choice	10	5%
Total		200	100%

Comment :

Here in Gumla block the people are having knowledge about modern food. As it is a semi rural area. There people are more educated. So here people are giving preference to both type of food *i.e.* 67.5 per cent (Table 4).

Table 4 : Distribution of respondents on Gumla block on the basis of preference of food

Sr. No.	Preference	No. of women	Percentage
1.	Traditional	50	25%
2.	Modern	10	5%
3.	Both	135	67.5%
4.	Not having any choice	5	2.5%
Total		200	100%

Comment :

Urbanization has affected the life style of tribals. Due to urbanization modernization has taken place. Due to modernization changing food pattern of rural tribal women has also taken place. Due to which they have the knowledge of modern food. Like pickles, chips, jam etc. So now they are interested in taking training of above

food item. After taking training this will help in increasing the income of the families for meeting their essential requirements (Table 5).

Table 5 : Distribution of respondents on the basis for interested in taking training for given food

Sr. No.	Preference	No. of women	Percentage
1.	Pickles	200	50%
2.	Jams	30	7.5%
3.	Jellies	30	7.5%
4.	Chips	40	10%
5.	Papad	50	12.5%
6.	Mixture	50	12.5%
Total		400	100%

Comment :

Now days in this tribal belt area women are having knowledge about the nutritional awareness. Because now in this area in every panchayat area there is one health centre. And in this rural area lady health centre worker, visitor are free distributing pamphlet to understand the disease, cooking method giving health education, nutrition education, sanitation and hygiene education (Fig. 2 and Table 6).

Table 6 : Distribution of respondents according to their nutritional awareness

Sr. No.	Nutritional awareness	No. of women	Percentage
1.	Knowledge about balanced diet	40	10%
2.	knowledge about malnutrition	30	7.5%
3.	Knowledge about importance of food in preventing diseases	30	7.5%
4.	Awareness about medicinal plant and its importance	20	5%
5.	Awareness about health	50	12.5%
6.	Awareness about nearest health centre	200	50%
7.	Knowledge about nutritious food	30	7.5%
Total		400	100%

To know the perception of the tribal women about changing food pattern of tribal women :**Changes in tribal society :**

Like other society, tribal societies are also changing. Changes in tribal societies have taken place with the passage of time. The processes responsible for changes in tribal societies are hinduisation, Sanskrit sation, christianisation, De sanskritisation, retribalisation,

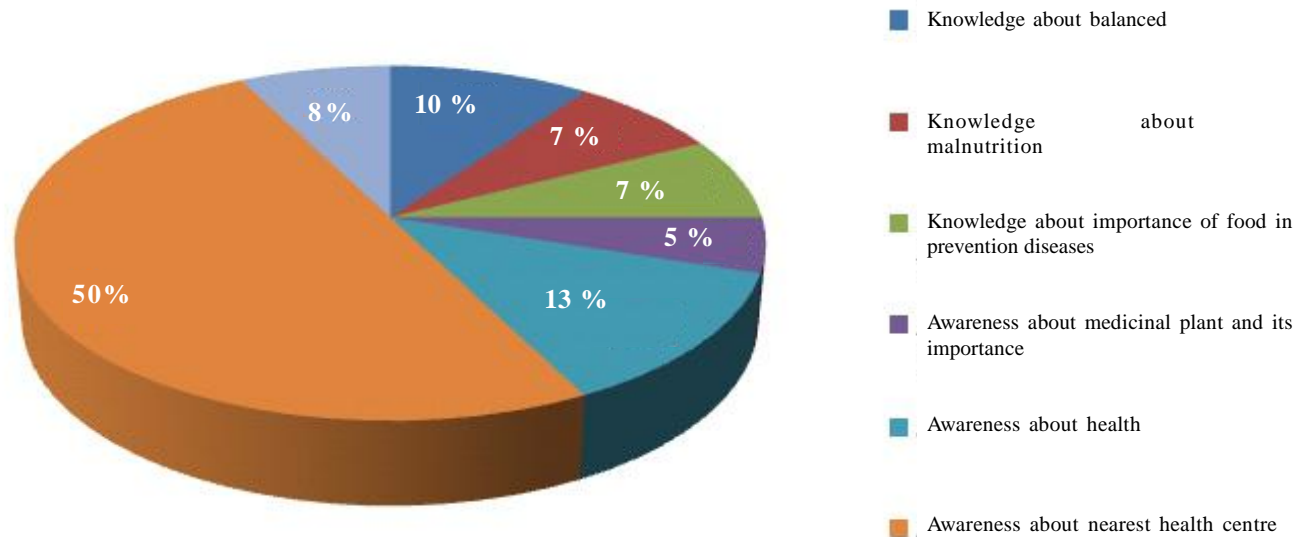


Fig. 2 : Nutritional awareness

urbanisation, industrialisation westernization and modernisation. The processes of change have affected the tribal way of life positively as well as negatively.

Impact on drink :

Positive impact :

Tribals used to take Haria previously. Intake of Haria removed the deficiencies caused due to hunger. Haria consists of rice, wheat morua etc. This also works as food for the tribals besides in intoxicating effect.

Negative impact :

Due to urbanization have affected the drinks of the tribals But now tribals have been addicted to mahua liquor. Mahua liquor prepared in bhatti is for the purpose of selling in the market the quality of mohua liquor prepared in the batthi is not good. They add urea fertilizer and some tablets to make the liquor more intoxicating. Although it brings intoxicating effect very soon but is highly harmful to health. Excess intake of mahua liquor results in loss of appetite. The loss of appetite results in malnutrition.

Impact of changing food pattern of tribal women :

Positive impact:

Household utensil have also been influenced by urbanization Now they have in their houses utensils of steel, plastic etc. in place of iron, brass, bronze aluminum and leaves.

Availability of essential commodities:

This chapter has so far examined land and employment as means of livelihood for tribals in gumla district. It is found that they are no longer sufficient means for their livelihood. Due to urbanization the main changes that helps the livelihood of tribals is that, due to welfare measure the government has been giving subsidized food materials especially to the marginalised groups through ration shops and other forms of public distribution system like aganwari kendra which has been a great support and source of food security for them. The tribals, the most marginalised community in jharkhand were very much dependent on the public distribution system for their essential commodities to supplement their meager income from employment and land. Now mid- day meal is providing in the school. Due to which health status of children and women are also becoming better But this per cent is very less. The tribals not using pulses in daily life diet. They cooked pulses rarely because pulses is costly. But now day through rason they are getting free of cost. So slowly now they are taking pulses in their diet. oil in their diet. The women who are less anaemic than they are given iron tablet for 100 days. If more anaemic then they are given 200 iron tablet for 200 days. Now a days women are aware of protienous diet, due to which their health status is also becoming good because in rasan they are getting soya bari which is full of protein. But this per cent is less. Now Iron tablets is also given to the pregnant lady and lactating mother, if lady is anaemic.

Negative impact:

Due to urbanization small hotels are set up in the villages also there they are selling fast food like chowmein, soft drinks, kachori somosa, fries, chips etc. Some times some women are taking regularly. which is giving negative impact on the body. Now days fast foods are selling large in number as it is cooked fastly *i.e.* ready to cook and less costly. Because fast food contain salt in high concentration, particularly the spiced, fried products. Chinese food is rich in sodium as well as monosodium glutamate. This latter substance, which is said to be a flavor enhancer, is also responsible for headache, dizziness nausea and other allergic symptoms. Sodium is directly responsible for hypertension. Generally, fast foods are a rich source of sodium. They are also low in fibre, unless a large proportion of raw or cooked vegetables, whole legumes, unrefined flour and fruits are include. Besides, they many contain a number of additives like artificial colours, flavours, artificial sweeteners, flavour enhancers, flavour modifiers large in number as it is cooked fastly *i.e.* ready to cook and less costly, release agents, Not only these additives effect our systems in the long run but they are also responsible for unexplained reactions in several people. So they should be consumed in very minute quantities only (Joshi, 2002).

Summary and conclusion :

The overall result of this study is that the “Changing food pattern of tribal women of Jharkhand state with special reference to Gumla District” is not so good or bad. It is moderate and some nutritional correction is required even having good income they used to practice their old eating habits and also old cooking methods. The nutritional status of an individual is often the result of many interrelated factors. It is influenced of food intake in terms of quantity and quality and also by the physical health of an individual. The nutritional status of a community is the sum of the nutritional status of the individuals who form that community. In nutrition surveys, it is not necessary to examine all the persons in a given community. Examination of a random and representative sample of the population covering (20 to 45) years of age in different socio-economic groups is sufficient to be able to draw a valid conclusions. All surveys should be planned with the aid of statistical advice. For the present study the area selected was ‘Bharno block’ and Gumla block which is situated in the

Gumla district of Jharkhand. To collect the data first of all questionnaire was prepared and the pilot study was conducted to see the availability of respondent for proper information, After that the main data was collected through questionnaire by interview method. From the study it has been found that due to urbanisation and industrilization also in this rural area there is not so changes occur as in urban area tribal women. Now also in rural area maximum women are illiterate. They are doing moderate types of activities more women are owner cultivator. Their monthly income status is between 1000-2000. Agricultural tribes have been attracted towards the cultivation of cash crops particularly vegetables to earn profit by selling in the markets situated in urban and industrial areas. They have started production the things according to the requirements of the urban society. From the survey it has been found that the mostly women of Bharno block and Gumla block are having nuclear family very less per cent of women are having joint family. And their major source of income is farming. Due to urbanisation and industrialization in this rural area, during survey I found that their is changing in food pattern that now women are very much conscious about their food habit, health, nutritional status and in living condition. Before in this tribal area people used to prefer of taking food 2 times only and the food habit is based on rice only. At the time of suffering from disease they are not taking any precaution. As they don't have any knowledge about the diseases But now days due to health centre and for education available at village level. Slowly they are started of taking healthy food. The consumption of legumes seems to be negligible but now days they are taking legumes weekly also or when the guest has come. But this per cent is very less. Now also tribal women they are practicing their old traditional food habits. Their food habit is very simple. Tribals cultivated diverse food for example like cereals, millets, legumes, oil seeds etc. Apart from staple grains the tribals also store wild foods. such as mushroom, bamboo shoots, rugra. Gathering of edible shoots likes-Bathua, Gandhari, Karami Sag, koynar sag. The tribals are fond of sag very much. Sag form the item of daily food during the season when they are available. Gathering of edible seeds like mahua, jamun, tamarind, Mango, Karanj, Kusum, Jamun, etc are gathered to make power and bread for the purpose of eating. They prepare edible oil from karanj, kusm. And from Mahua, rice, wheat, *Ragi* making liquor. Before

people are very conservative, they are so conservative that they don't want to take injection from the doctor also when they are ill. But now days due to health centre, Aganwari Kendra available in every block. They are slowly aware of the hygienic condition and slowly their health condition also becoming good. But this per cent is very less. They must be provided with proper nutrition education programme and educate them about health hygiene and improved cooking practices. So that they can develop them selves and maintain their health in good condition.

Suggestions and recommendations :

The study on changing food pattern of tribal women of Jharkhand state with special reference to Gumla district is in scarce, almost untouched. As these research aims at knowing the changing food pattern of Gumla district and effects of some selected variables. Therefore it would provide an input in any scheme of tribal development and administration. The research into these aspects of tribal life is an essential pre-requisite for effective planning. Since very low level of information is available on food pattern of tribal women, the present study will help in determining the nutritional status in Jharkhand state and making the comparison with other states.

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