



FOOD TRANSITION AMONG TRIBAL AND GLOBALIZATION WITH REFERENCE TO ARUNACHAL PRADESH

Pura Rinya¹

ABSTRACT: With the advent of globalization, one of the most visible impacts of it can be seen in food practice of indigenous tribes; tremendously transition of traditional food taking place. The changes have its own merit and demerit aspect. Firstly, it has improved the food security of the tribal people on the other hand, due to food transition and lifestyle new health problem has been experiencing by the tribal people. Further, traditional food such as smoked meat aggravates the chronic diseases. The result shows that 42.8 percent of the respondents consume smoke meat 2 or 3 times in weeks and 54.4 percent of the respondents take traditional dish almost daily, which is exceeding the recommended quantity.

Keywords: Traditional food, Transition food, Health Status, Arunachal Pradesh, Tribes

1. INTRODUCTION

The traditional diet upon which tribal of Arunachal Pradesh survived for millennia was based on a wide range of nutrient-rich foods obtained from the local environment, including cultivation, hunting, and trapping of fish, birds, and seasonal roots, stems, tubers, wild berries and edible weed thus man eats what his forefathers ate or what his environment offers (Hoff, 2010). Traditional food habit is fundamental part of every culture. Indeed, food comprises an intrinsic part of our culture profile in other words food can be seen as a conveyor of culture. It encompasses everything that is important to human; food marks social variations and enhances social relations. It signifies very different things from region to region and culture to culture. The food habit and culture is dynamic process yet static (Marvin, 2000). With the advent of modernity and exposure to globalization, within the span of 30 years, indigenous tribes have undergone tremendous changes in their socio-culture life, compelled to forsake their ordinary way of life and socially absorb to the Western culture (Martin, 2011). This adjustment in way of life has understood as an enthusiastic sustenance depicted as decreasing in traditional food habit to depending more on imported food or ready-to-eat food (Mead, 2010). Transition of food habit from organic to inorganic food, which are considerable packs with artificial confectionary and fat-and sugar-rich food (Sharma, 2010).

Tribal people have been experiencing increasing rate of diabetic, obesity, kidney problem, hypertension, and chronic non-communicable diseases among these tribal people. ICMR (Indian Council of Medical Research), 2016 reports that Arunachal Pradesh has the most elevated

¹ *Delhi School of Social Work, Delhi University, Mall Road-110007, Delhi;
Email: purarinya487@gmail.com; Telephone: +91 7838850143*

number of patients with liver cancer, also known as hepatic cancer, cancer that originate in the liver in the country and the second highest stomach cancer cases in the world after China, under nationwide cancer-tracking program. Traditionally, Northeastern states are reported a highest incidence of cancer as compared to the rest of the country however, the most recent information uncovers that the cancer occurring in the Northeast among the highest in the world (Hindu, 2016). As per National Cancer Registry Programme 2014, reports on age-adjusted incidence rate (AAR), 271/100,000 males in Aizawl district in Mizoram State and 249.0 among females in Papumpare district of Arunachal Pradesh state. As per statistic report from Regional cancer center, among females, 7 of 17 cancer centers had over 20% of cancers associated with the use of tobacco. Most of the patients generally present themselves to the hospital for diagnosis and treatment when the disease has spread regionally or in an advanced stage. It has been found that a large number of people get infected with Hepatitis-B due to ignorance which finally causes liver cancer, 20% of those suffering from hepatitis were likely to develop liver cancer in later stages. Further, consumption of alcohol has also led to increased liver cancer cases (Borooah Cancer Institute, Guwahati), approx. 7% of the population die yearly by tuberculosis. Goiter is another major problem in the State. The 14.9% of the population still deprived of iodine. As the result of high prevalence of chronic disease rates and also due to the remoteness of the communities in the territory, State Healthcare system is under constant pressure due to the high cost of health service delivery and difficulty in investigation.

2. Brief Background

Arunachal Pradesh is the Easternmost state of India, divided into twenty districts. The state shares international border with China on the North, Tibet, and Bhutan on West, through Patkai range separate India from Burma and on the south it shares the border with Nagaland and Assam. As per the census report of 2011, the state has a total population of 13.84 lakhs, spread across nearly 83,743 sq. km area with 65% of inhabitants is Schedule tribe. There are 26 major tribes and more than 100 sub-tribes, some of the important tribes are Nishi, Apatani, Adi, Galo, Monpa etc. For the purpose of a study, Apatani, Nishi, Adi tribes have been selected to explore the traditional food transition as they tribes shared the similar food habit, culture, and lifestyle.

3. Methods

A cross-sectional survey was conducted among three communities of Arunachal Pradesh namely Apatani, Nishi, Adi tribes in Itanagar in during October and December 2014 in Papumpare district (Itanagar). The respondents were randomly selected based on tribes and cultural background, the respondents below 20 years of age and pregnant/ lactating women were excluded from the study, as they have different nutrition requirement. The individual in the family unit who was fundamentally in charge of cooking and shopping was chosen for the interview to capture the sorts of foods eaten within the population on regular basis. Dietary data was collected using a culturally appropriate, validated FFQ (Food Frequency Question) developed specifically for the study population. Data on demographics, socioeconomic status collected. The FFQ contained 52 food items (6 types of meat, fish, and poultry 25 vegetables;

7 snacks; 8 fruits; 3 pieces of bread and 5 cereals; 2 dairies; 4 beverages; 3 alcoholic drinks; 2 sugar and sweetener product), of which 15 were traditional foods. Participants were asked to report the frequency of consumption over a 30-day period by choosing from five categories, which ranged from 'daily' to 'never.' The analysis was done utilizing SAS statistical software, version 9.2 (SAS Version 9.2, SAS Institute Inc., Cary, NC). According to the nutrition value of food item, it was classified under food group for the convenience of analysis.

4. Results

In total, 180 adults from Papumpare district (90 women and 90 men) participated in the study. Respondents ranged in age from 20 to above 50 years of age, with a mean (SD) age of 45 (14.0) years for men and 35 (12.2) years for women. It was found that 75.6 per cent respondents eat leafy vegetables daily, while 35 per cent of the respondents take non-veg on a daily basis, 54.4 percent once or twice in a week. **Cereal:** It is an importance source of nutrition, it contains fiber and other essential micronutrients; only 8 per cent of the respondents eats cereal food on daily basis in a form of snack, break or other byproduct of cereal and 40 per cent respondent rarely eat cereal product. **Fruits:** The consumption of fruit is only 2.2 per cent respondent on daily basis although 28.9 per cent respondents takes fruit weekly, this indicates that 68.9 per cent respondents takes only seasonal fruit when it is available in cheap price, data reflects the variation in purchasing power or either it could be aware of nutrition among those respondents. **Milk:** As per data only 9.4 percent, respondents take milk or milk product daily, 31.7 per cent weekly, 21.7 per cent monthly, 25.6 per cent rarely and 11.7 per cent respondents have never used any milk product. **Pulse:** Only 8.9 per cent respondents eat pulses on daily, 16.7 per cent weekly, 51.7 per cent monthly and 22.7 per cent of respondents eats rarely. The data reflects that majority of the respondents, eats pulse either seasonally or rarely. **Beverage:** As per the data, it shows that 22.2 per cent respondents take beverages on a daily basis in the form of tea, coffee, rice beer or soft drinks, 42.2 per cent takes once or twice in a week, 18.3 per cent in a month and only 16.7 per cent takes rarely. **Rodent:** The data shows 43.3 per cent respondents eat rodent at least once or twice in a year, 7.8 per cent eat once or twice in a month, 46.7 per cent respondents had never eaten rodents. **Traditional dish:** Traditional dish one of the most popular dishes of Apatanis, gaining popularity among other tribes too. 1.1 per cent respondents claimed to eat pike or pila on the regular basis, 42.8 per cent respondents eats pike pila once or twice in a week, 46.1 eats once or twice in a month and 8.9 per cent eats rarely. This data highlights that 88.9 per cent respondents use pila or tapyo (sodium carbonate).

5. Discussion

The present study provides information on the transition of traditional food among the tribal group of Arunachal Pradesh. There are numerous factors may have contributed to the traditional food transition, probably due to change in occupation, for instance, indigenous peoples in recent years; association in the wage economy, a decrease in community food sharing systems, the pollution and increasing contamination by organochlorines and heavy metals, and reduced animal populations or changing migration patterns due to climate change and declining in hunting interest (Kuhnlein, 2001). The outcome of the data analysis shows that more than 50 percent of the respondents consumed meat at least two or three times in week, these trend reflects the direct influenced of globalization towards food behavior,

because in traditional society, the meat available for the family are usually received from social ceremony or from ritual sacrifice at home, as per the tradition, no livestock is allowed to be killed for meal without incantation by priest, moreover people preserved livestock for ritual sacrifice. In social events, Pepsi, coke, and other energy drinks have created a niche in the traditional feast; it is served to a non-alcoholic guest, Pure traditional pure rice-beer which is nutritious and health drink is replaced by beer, cane, other alcoholic drinks. Rice beer is the main beverage used in traditional social and religion event hence, the tendency for consuming rice beer is higher in compared to other beverages, also it is commercialized for economic purpose makes the easy availability of rice beer even on the usual ordinary day. The subsequently increasing in alcohol consumption leads to increase alcohol-related health problem among all the tribes. With the liberalization of trade and industrialization (establishment of World Trade Organization in the 1980s) has spread the universal brand names of popular beverages and fast food contributed to the global epidemic of obesity by replacing traditional diet with fats and calorie-rich foods (Guindon, 2004). New food habits are developed based on food marketing strategies rather than traditional practices that persuade people to change their choices as result of some particular marketing concept created by advertisers. Commercial promotion of food contributes to psychological satisfaction and physiological well-being utilizing symbolic meaning of food rather than the nutritional values (Abrahamson, 1979), the changing food trends led to many health problems and diseases (Marwa 2012); due to the effect of fast food which contains huge processed fats and salt. Even the vegetables and vegetables are found to contain genetically modified organism (GMO) which is not natural; is harmful to health. The globalization has not only influenced the attitude and behavior towards to traditional food habits but also changed the value of traditional food. In developing countries such as India, there is emergence of global epidemic of non-communicable disease such as lung cancer, cardiovascular disease, diabetics and tobacco-related ailment, injuries and violent, liver cirrhosis etc. are the attribution of globalization. Although the traditional food is still preserved and eaten at least once in a day; for breakfast, for lunch or for dinner while modern food is enjoyed at leisure time or on especial occasion like birthday or gathering. Simultaneously, the improving economic power also enhanced the traditional food quality and quantity. For instance, people eat traditional food but add more sugar, more fat, more oil in traditional food preparation, sometimes even put cheese are the reason the increasing diseases like obesity, heart problem, and cancer. Changing food pattern from traditional one with more vegetable, which is more fibers to more fat and sugar contained food (Indrawaty, 2008).

Most commonly tribal consume high frequency of smoked. The studies linked eating smoke meat or barbecued meat, fried or roasted in high temperatures to esophageal cancer. These methods leave a coating of a high level of the chemical which may cause cancer. Some of these chemicals are polycyclic aromatic hydrocarbons, heterocyclic amines, and tar. Food expert says that when salty or fatty meat exposed to the smoke of wood or coal absorbs a large amount of tar, which may contain carcinogen. National Cancer Institute, USA conducted laboratory test in the cancer study. This report has compelled to retrospect the tribal food habit and food processing. The cancers cases are also prevalent China, Japan, and other northeastern states that food habit or consumed high amount smoked in their diet. Further, cultural food practice of rice beer

consumption increased the chances of cancer in the patient. Despite rich nutritious diet; traditional food habits consist of edible leafy, leafy vegetables, herbs, and berries, people are suffering from nutrition deficiency. Yet state continue to suffer from diet-related disease, Cancer highest in country 249 per one lakh (Hindu, 2016), 62.5% of the population are anemia. One aspect of nutritional deficiency is a frequent intake of traditional dishes such as Pike Pila and Tap, an indigenous version of sodium bicarbonate; neutralized the nutrition and micronutrients of the other food items due to its alkaline properties. Although Na_2CO_3 is also used as medicine in treating acidity, however, the excess intake of this substance may be hazardous and lead to health implication from mild to severe symptoms. Many of respondents knew that excess intakes of a traditional dish may be harmful because after eating traditional dishes. The present study has highlighted transition of traditional food habit among tribal population in Arunachal Pradesh, the impact of this changes resulted to various diet-related diseases. In order to combat the health problem of the state, nutritional intervention should be implemented at community-based, culturally appropriate, multi-institutional chronic disease prevention program that has worked at the individual, household, community and institutional level to improve diet, and increase physical activity among town dweller (Sharma, 2010).

6. Conclusions

The current phenomena of health status and food transition is the attributes of globalization in traditional food system, globalization through plethora of opportunities and choice, no doubt it reduced hunger, food crisis and malnourished, made the life more comfortable and easier life as compared to olden days especially in among indigenous tribes, however, it also brought various turmoil in indigenous social culture, as the cultural food value and traditional is being felt threaten as it the globalized food system is gradually replacing the traditional system.

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How to cite this article:

APA:

Rinya, P. (2017). Food Transition Among Tribal and Globalization with reference to Arunachal Pradesh. (A. Paul, Ed.) *Journal of Social Work Education and Practice*, II (1), 1-6.

MLA:

Rinya, Pura. "Food Transition Among Tribal and Globalization with reference to Arunachal Pradesh." *Journal of Social Work Education and Practice* II.1 (2017): 1-6.

Chicago:

Rinya, Pura. "Food Transition Among Tribal and Globalization with reference to Arunachal Pradesh." Edited by Arun Paul. *Journal of Social Work Education and Practice* II, no. 1 (2017): 1-6.