

Assessment of Nutritional Status & Fast Food Trends in College going Tribal Girls of Ambikapur, District Surguja, Chhattisgarh

Alka Jain

Assistant Professor, Govt. R. M. D. Girls P.G.College Ambikapur (C.G.), India

1. Introduction

Fast food is the term given to food that can be prepared and served very quickly. Fast food can also be defined as any food that contributes little or no nutrient value to the diet, but instead provides excess calories and fat. Fast food can be a good way to save time, but it is not the proper way for nutrition. Some of these food that are of little nutritional value and often high in fat, sugar, and calories. Common foods include salted snack foods, gum, candy, sweet desserts, fried fast food, and carbonated beverages. Fast food may include chips, hot pies, pasties, sandwiches, burgers, croissants, kebabs, pizzas, chicken, soups, and salads. It also includes drinks, for instance, milkshakes, and soft drinks.

Worst effects of Fast Food are: Obesity, Cardiovascular diseases, Type 2 Diabetes, Peptic Ulcer, Colitis, Liver Damage, Cancers & Migraine. Some other disadvantages are; Lack of Family Gathering, Irregular Timing of Eating, Waste of Money, Loss of Appetite, Lack of Essential Nutrients, Stress, Lower quality food.

Common menu items as fast food outlets include fish and chips, sandwiches, pastas, hamburgers, fried chicken, French fries, onion rings, chicken nuggets, tacos, pizza, hotdogs and ice cream, though many fast food restaurants offer slower foods like chilly mashed potatoes and salads.

Surguja district is located in the northern part of Chhattisgarh State of India. Borders of Uttar Pradesh, Jharkhand, Orissa and Madhya Pradesh States are adjoining to the district. This district has over extension between south-eastern parts of Vindhya - Baghelkhand region of peninsular India. Surguja is the largest district of Chhattisgarh state and is spread over an area of 22,237 sq. km.

Most of the terrain of the district is forested and hilly; about 52.06% of the district area accounts for the forest. Number of tribes live in Surguja, namely Oraon, Kaware, Munda, Nagesia, Korwa, Bhumia, Dhanwar, Saunta, Biyar, Majwar, Majhi, Kharia, Savra, Berhor, Kondh, Khairwar, Gond, Baiga and Agaria. Amongst the larger states in India,

2. Need and Importance of the Study

Now a day's fast food trend is increasing all over the world. India is also affected by this new trend of eating, specially college going girls are attracted towards fast food and street food which are attractive in looks but not healthy from the

nutritional point of view. Surguja is a tribal district. Many students come here from nearby tribal areas of Ambikapur town. They live either in hostels or in rental room. Many nutritious foods which they get easily in their villages are not available to them in the town. They face many problems in cooking and eating and preparation of meals. Fast food trend has been also introduced in these areas. There is need to create awareness regarding nutrition education and harmful effects of fast food and junk food to keep these college going girls healthy.

In the present study topic is In the present study topic is "Assessment of Nutritional status & fast food trends in college going tribal girls of Ambikapur district Surguja Chhattisgarh." The intake of fast food is increasing day by day, so this topic has been selected to find out fast food trend in urban & rural college going tribal girls of Ambikapur and to create awareness about harmful effects of fast food in young generation of tribal college going girls. Fast food trends in college going tribal girls of Ambikapur district Surguja Chhattisgarh. The intake of fast food is increasing day by day, so this topic has been selected to find out fast food trend in urban & rural college going tribal girls of Ambikapur and to create awareness about harmful effects of fast food in young generation of tribal college going girls.

Burger pizza, hotdogs, noodles, pastas, chips, pavbhajji, panipuri, etc. Foods are very much liked by children & young college boys & girls. These things do not give nourishment. Junk food contains too much fat which increases cholesterol. Too much eating of junk food creates obesity, diabetes, high blood pressure diseases of heart & liver.

Junk food removes the desire of eating healthy food. Scientist says that junk food changes the behavior & weakens the self control.

Many physical and psychological pressures influence college girls eating habits. These are: **Skipping meals, Snacking, Fast food, Unusual food choices, Alcohol Consumption, Obesity, Anorexia nervosa** etc.

Growth and development depend on nutrition to support heightened physiologic and metabolic processes. Nutrition in turn, depends on a multitude of social psychosocial, cultural, and environmental influences that affect individual growth potential throughout the life cycle.

The objectives of the present study are:-

- 1) To find out junk food trend in tribal college going girls of Ambikapur district Surguja and nearby villages Surguja district.
- 2) Measurement of height, weight & estimation of body mass index to find out the nutritional status of college going girls in Ambikapur and nearby villages Surguja district.
- 3) Diet survey by ICMR 24 hour recall method & find out the nutritional status in college going tribal girls in Ambikapur and nearby villages Surguja district.
- 4) Comparison of trend of junk food in college going tribal girls in Ambikapur & nearby villagers of Surguja district.
- 5) To find out how much money they spent on junk food daily & frequency of taking junk food.
- 6) To create awareness about nutritional education in tribal college going girls.
- 7) Nutrition education program & awareness program about harmful effect of junk food through extension programs limited to 4 programs.

The study was limited to 240 tribal college going girls between the age group of 18-25years. Awareness program will be limited to 4 sessions of health and nutrition education and creating awareness about harmful effects of fast food on health.

3. Review of Literature

Fast food is high in calories and sugar that contribute to increased-weight gain. Even small amount of fast food can increase your calorie intake considerably. Fast foods also replace healthy eating habit; People who consume fast foods are less likely to eat fruits, vegetables, milk etc. This change in eating habits can easily lead to obesity.

Fast foods create a much higher risk of heart disease because of the high level of saturated or trans-fats found in much of the food. Those fats can clog the arteries and, over time, contribute to high cholesterol levels. In future it creates chance of heart disease in children.

A well-balanced food contains all essential nutrients which are necessary for human development. Whereas fast food does not have all these nutrients, this type of food contains some nutrients in high quantity while others are absent. So, fast food does not fulfill all needs of body and sometime causes disorders.

There are basically two types of unsaturated fats. Let me start with the good ones, the unsaturated fats. These include both the mono unsaturated fats and PUFA. When you use these in moderation & use then in place of trans fats or saturated fats, you can reduce your cholesterol levels and your risk of heart disease polyunsaturated fat are found primarily in vegetable oils and can help lower cholesterol level, as well as triglycerides level is, and your risk of heart disease. HDL is good cholesterol and LDL is bad cholesterol. Primarily in vegetable oils, and can help lower cholesterol levels, as well as triglyceride levels, more so if you use then in place of saturated fats. Omega3 fatty acids are poly unsaturated fats.

Saturated fats are mainly found in animal products like whole milk, Dairy products, Red meat. Choose liquid vegetable oil such as canola or olive oil.

Root and tuber consumption in tribal community vary from season to season. Other vegetables like mushrooms, bamboo, tomatoes etc. are also consumed by tribal community. They cultivate the vegetables in kitchen garden or collect them from forest. They use the vegetables with staple food like rice or millets. Green leafy vegetables like tulip leaves, cassava leaves, caw pea, pumpkin, cabbage, are the important items in tribal dietaries outside India.

World Health Organization (2002), Improvement of Nutritional Status of Adolescents Report of the Regional Meeting Chandigarh, India, identified under nutrition in terms of stunting, thinness, catch-up growth, and intrauterine growth retardation in pregnant adolescent girls; Under nutrition reduces work capacity, endurance and ability to concentrate, and over nutrition predisposes a person to chronic diseases, e.g.: diabetes, cardio -vascular disease.

4. Materials and Methods

This chapter deals with the selection of samples and techniques adopted for conducting present work. The present study is an observational study with observations on fast food trends, liking of tribal college going girls of urban and tribal areas of Ambikapur and nearby villages, health, nutrition, nutritional pattern of tribal college going girls. The study was carried out in Ambikapur and the nearby villages that is Sitapur, Udaipur, Lakhapur, Mainpat in Surguja district of Chhattisgarh State.

Ambikapur city and nearby villages of Surguja district constituted the samples for the present study. Both purposive and random sampling procedure was adopted while selecting the sampling sites and the samples. The total sample size was 240 tribal college going girls with 120 tribal girls of Ambikapur town and 120 tribal girls of nearby villages tribal areas aged between 18 to 23years.

In studied population, to acquire acquaintance and cooperation, local people were approached who could communicate with them in Surgujia language. The purpose of the study was explained to the parents, hostel warden so that they permit their daughters and hostellers to participate in the study. Prior permission was taken from the hostel warden. It was explained to them that such studies are more beneficial for tribal college going girls to know about the areas where improvement is required and to improve the health and nutritional status of the tribal college going girls and create awareness regarding harmful effects of fast foods.

The Clinical examinations were carried out using pre-tested schedule which was prepared by slight modification in the list of clinical signs complied by the W.H.O. Body measurements like height and weight were recorded. All the measurements were taken thrice and the mean data was finally recorded. For the measurement of height, "anthropometer" was used. Platform beam balance was used for recording weight. Further using the above

measurements: Body Mass Index (B.M.I.) was calculated using the formula:

$B.M.I. = (kg/m^2) = \text{Body weight in Kilogram/Height in meter square}$

Socio economic survey was carried out employing a modified pre-tested schedule as described by Rajlakshmi. Information pertaining to the size and composition of the family, caste, tribal/rural/schedule caste, educational status, type of family, monthly income, per capita income, annual income, sources of income, other income opportunities as farm, cattle, poultry, fishery etc., Some additional information on housing, ventilation, sources of water, cleanliness of surroundings was collected.

Diet Survey was conducted on pre-tested schedule as described by I.C.M.R. Information regarding food intake was collected by 24 hours recall method. The data collected through diet survey was converted in terms of weight and tabulated; nutrients were calculated using food composition tables of the N.I.N. and I.C.M.R. and compared with R.D.A.

For Nutrition education A slightly modified questionnaire was framed which was developed by Dr. Aruna Palta and it was used to assess the Nutritional and health concepts of the individual. Contents of the questionnaire could be divided into the following broad areas-

- 1) Basics of health and nutrition.
- 2) Nutrition for college going girls.
- 3) Cooking practices.
- 4) Fast food trends.
- 5) Hygiene health and environmental sanitation.

The questions included in the schedule were of Yes/No/Don't know type. A short term nutrition and health education was imparted to college going girls in order to improve their awareness regarding food intake and maintenance of good health. The awareness was created by using lectures, charts, posters, group discussions methods on fast food and its harmful effects.

For statistical analysis non parametric and parametric statistical methods were used in this study. Based on the nature of the data, **Percentage, Frequency, Mean**, were applied to draw definite conclusions from the collected and tabulated data. For all statistical analysis and mathematical calculations the computer software Microsoft Excel add in was used.

5. Results & Discussion

The results of the study are systematically discussed under the following heads in order to draw conclusions from them.

Socio economic survey: An understanding of socio economic aspect of nutritive is very essential for implementation of food & nutritive policies & programme what people eat depends on many factors including the availability of food. The study comprised of 240 tribal college going girls age between 18-23 years of age, among which 120 tribal college going girls were from Ambikapur & 120 tribal girls were from nearby tribal village of Ambikapur i.e. Sitapur – Keshla, Jamdhodhi, Amatoli, Karju Poksari, Lithirma, Batauli – Chiranga, Umapur, Devari,

Gahil, Lakhanpur - Putputra, Kewari, Devi tikara Udaipur – Shayer, Namna, Darima, Libra, Raghunathpur, Latori, Sukhri. etc, Out of which 10% were between the age group of 21-23 years & 90% were between the age group of 18-20 years.

Out of the total population 48.33% were Kavar, 35% Oraon, 10% Gond, 1.67% Nagwanshi, 3.33% Cherwa & 1.67% Korwa. 81.67% of the surveyed tribal college going girls was Hindus & 18.33 % of the surveyed tribal college going girls was Christians.

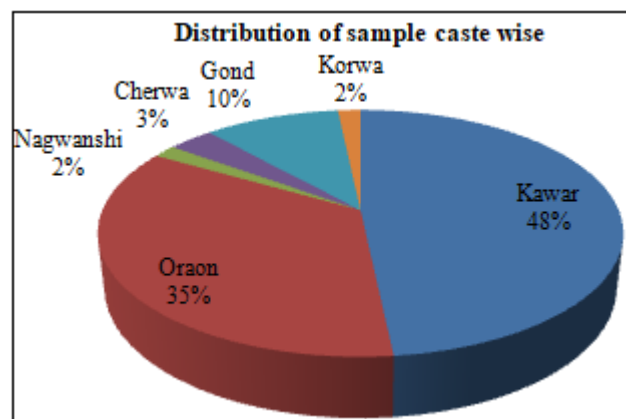


Figure 1: Distribution of total sample caste wise n=240

As far as nature of family was concerned 52% of the total subjects were from nuclear family & 48% of the total subjects were from joint family. Illiteracy % was more in females 43.33% mothers were illiterate. 31.67 % fathers were illiterate. Education level of tribal family was very low.

Main occupation was agriculture. Occupation of 96.67 % college going girl's

Father was agriculture 50 % were in service in urban areas; main source of income was agriculture. Major crops were paddy (70%), pulses and legumes (60%), oil seeds (28%), and all of them also produces vegetables, 100% people utilizes crop production for home purpose.

As for as food habits of the surveyed subjects were concerned 80% of the Surveyed subjects were non vegetarians & 20% subjects were vegetarians but they were occasionally non vegetarian because of unavailability or poor economic conditions. The tribal girls eat non vegetarian food once a week or twice in a month during special occasions or festivals. Animal rearing was common in home in many families.

The clinical examination of the subjects revealed some abnormalities which are indicative of micronutrient deficiency. 30% had thin built, 64% had normal B.M.I. 6% had overweight and obesity Mean of the Height of tribal college going girls of 5'.2'' & mean weight was 44.44 in the nearby villages of Ambikapur. Thin built was common in most of the girls.

Body Mass Index of the surveyed subjects: - The Body Mass Index of surveyed subjects of the whole 30% girls were under weight, 63.75% were normal weight 4.16%, over

weight & 2.08% suffering from obesity. 36.66% of the tribal girls of tribal areas were under weight, 60% were normal weight, 1.66% were overweight & 1.67% were obese while in urban area in Ambikapur 23.3% were under weight 67.5% were normal 6.66% over weight & 2.5% were obese. The problems over weight & obesity may be due to increasing trends of fast-food in few tribal college going girls.

Diet survey: The observation of average food intake and the nutrient intake of subjects revealed that the diet of shifted tribal college going girls of Ambikapur was moderately deficient in case of cereals, pulses, green leafy vegetables, other vegetables, roots and tubers, fats and oils. While, gross deficiency was observed for fruits, flesh foods, milk and milk products, nuts, sugar and jaggery as compared to, Recommended Daily Intake (R.D.A.) The diet of native tribal college going girls nearby villages was marginally deficient in the case of cereals, pulses, green leafy vegetables, other vegetables, roots and tubers, and moderately deficient for flesh foods, fats and oils, nuts, fruits. Gross deficiency was observed for milk and milk products as compared to, Recommended Daily Intake (R.D.A.). Two meal patterns were found in tribal college going girls of Ambikapur. Skipping breakfast was observed

in tribal girls of Ambikapur town, but in tribal girls of nearby villages of Ambikapur tendency of skipping meals was less than tribal college going girls of Ambikapur. Three meal patterns were found in tribal college going girls of nearby villages of Ambikapur. Mahua were eaten by tribal girls in the morning in breakfast along with baasi. Lakra chutney, tomato chutney, ginger, chili and garlic chutney was very much liked by tribal college going girls mostly these were eaten by them in dinner with rice and leafy vegetables in villages.

Fast-food trends in college going tribal girls of Ambikapur town & nearby villages: - Fast food trends are increasing in Ambikapur Town & nearby villages in tribal college going girl's 56.66% tribal girls liked Samosa, 50% liked chat. 61.67% liked Panipuri. These three fast foods Samosa, Chat & Panipuri were the first choice of most of the college going tribal girls of Ambikapur & nearby villages Panipuri with Samosa, Panipuri with chat & Samosa with chat, Samosa with chat & Panipuri were the choices of college going tribal girls, chips and kurkure were the another choices college going girls.

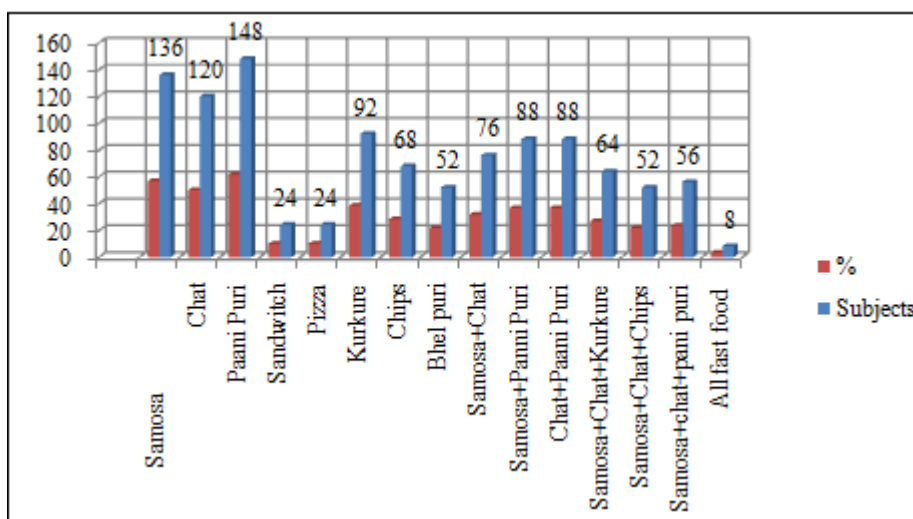


Figure 2: Showing liking of college going Tribal girls regarding fast food n=240

Fast food frequency: 76.67% of the surveyed subjects uses two times in a day while 10% uses one time, 11.67% uses fast food three times. Only 3.33% subjects never use fast food as stated by the tribal college going girls. Total 50% subjects cooks fast food at home especially Maggie noodles, pasta.

Average number of rupees spent on fast-food in a day by tribal college going girls was 10/- rupees in tribal areas & 18.83/- in urban area in Ambikapur town. 68.33% girls spent Rs. 10 /-daily on fast-food & 15% girls spent Rs. 15/- daily of fast-food. 3.33% of urban girls spent more than 100/- on fast-food daily. This figure depicts that fast food trends in tribal college going girls have been increasing now days, though it is not as much as in the Metro cities.

6. Recommendations

Diet of the college going tribal girls is very significant because it influences the future nutritional status. In India a large number of young girls are suffering from chronic under nutrition. Poor nutritional status is passed on from generation to generation. Psychological pressure influence food habits of tribal college going girls. Certain recommendations have been emerged out of the present study are listed below:

- 1) Health and nutritional status of the adolescent girls directly influence the health of future mother and next generation of the nation. Adequate well balanced nutritious foods should be taken to prevent under nutrition.
- 2) Encouragement of tribal college going girls to limit fast food and convenience food is must. Saturated fat intake should be avoided.

- 3) Do not eat foods from street vendors where food items are openly kept in unhygienic conditions.
- 4) No meal of the day should be missed. Encouragement of girls to eat regular meals and snacks, even if she is busy is required. If they eat at restaurant than have healthy food choices. One should not addict to eat outside.
- 5) Eating habits should be independent of emotions.
- 6) Parents should encourage the adolescents to cook at home nutritious and tasty food.
- 7) Avoid empty calorie foods such as carbonated beverages and chips.
- 8) Include fruits and vegetables in the diet daily to meet the vitamins, Minerals and fibre requirements. Half of the girl's plate should contain fruits and vegetables. Offer more dark green, red, yellow and orange vegetables and fruits. Take enough calcium rich foods in diet to increase bone density. Iron rich food should be included to prevent anaemia. Such as leafy vegetables, jaggery, beet root, jamun, amla, pomegranate, yolk of egg etc. Iron folic acid tablets should be distributed in girl's hostel.
- 9) Calorie and protein rich foods should be taken to support the growth of college girls.
- 10) Regular health checkups and medical facilities will definitely improve the health of tribal college going girls.
- 11) Interesting practices of nutrition and health education and awareness about disadvantages of fast-food will definitely eliminate wrong practices but also initiating good practices. So, short term Nutrition and Health education, at regular intervals should be provided in each college and hostels of college going girls.
- 12) Personal hygienic practice and environmental sanitation, limited use of street

Foods & fast-foods, better handling of food, food security, and the best use of locally available nutritious foods will be the right approach to bring a positive change in the health and nutritional status of tribal college going girls. College going girls need to be encouraged to do physical activity particularly outdoor games because physical activity regulates appetite.

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