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Rice consumption pattern and calorie intake among the rural household of Chhattisgarh plains

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Abstract

The study aimed to assess the consumption pattern of rice among selected farm women belonging to Chhattisgarh state. A well-structured questionnaire was formulated and used to elicit the information from 120 respondents. The poor socio-economic conditions were found to have a significant effect on the health and nutritional status of the respondents which was also associated with poor intake of nutritious food such as vegetables, fruits, pulses, milk and milk products. Hence, nutrition education programs was imparted to create awareness and increase the consumption of micronutrient rich, low cost green leafy vegetables to improve nutrient intake and for better health. Health and nutrition are the most important contributory factors for human resources development in the country. The calorie intake through rice was studied among different family sizes. A sample of 120 respondents was selected from two villages Chatoud and Tarra of Raipur district. Study revealed that rice is the staple food and preferred over any other cereals. The pattern of food consumption was almost same in all the families of various groups. The consumption of rice and vegetables was higher than the minimum. Oil was used in small amounts. People mostly used rice, wheat and vegetables (leafy and other) in their diet. The study revealed that dietary pattern of rural household mainly rice based (80%). Intakes of other nutrients like pulses, tuber crop, were very low than the required norms. The variation in calorie intake by the farmers in both the villages was found to differ insignificantly in different groups whereas it was found significant at 5% level in different family size. Although, more than 80% of the diet consists of rice but prevailing common practice of draining excess water from rice during after boiling results in loss of water soluble vitamins and minerals from rice. It results wastage of water-soluble vitamins and minerals from rice.

Keywords: Rice, population, water and Chhattisgarh

Introduction

Rice is a dietary staple for more than half of the world's population and accounts for more than 20% of caloric intake. Studies demonstrate that with economic progress and growth in the disposable income of households, income elasticities for rice are becoming smaller over time. This has led to a decline in per capita rice consumption in a number of high- and middle-income countries. Because rice is a basic staple food, it is less enriched in food value. Rice is a dietary staple for more than half of the world's population and accounts for more than 20% of caloric intake. Studies demonstrate that with economic progress and growth in the disposable income of households, income elasticities for rice are becoming smaller over time. This has led to a decline in per capita rice consumption in a number of high- and middle-income countries. Because rice is a basic staple food, it is less enriched in food value. Rice is a dietary staple for more than half of the world's population and accounts for more than 20% of caloric intake. Studies demonstrate that with economic progress and growth in the disposable income of households, income elasticities for rice are becoming smaller over time. This has led to a decline in per capita rice consumption in a number of high- and middle-income countries. Because rice is a basic staple food, it is less enriched in food value. Rice is a dietary staple for more than half of the world's population and accounts for more than 20% of caloric intake. Studies demonstrate that with economic progress and growth in the disposable income of households, income elasticities for rice are becoming smaller over time. This has led to a decline in per capita rice consumption in a number of high- and middle-income countries. Because rice is a basic staple food, it is less enriched in food value. Rice is a dietary staple for more than half of the world's population and accounts for more than 20% of caloric intake. Studies demonstrate that with economic progress and growth in the disposable income of households, income elasticities for rice are becoming smaller over time. This has led to a decline in per capita rice consumption in a number of high- and middle-income countries.

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Rice is one of the most widely consumed cereals in the world. Rice is an essential and important cereal due to its beneficial effects on human health. Recent research and studies have shown that the consumption of various types of brown and red rice can reduce the risk of metabolic disorders, cardiovascular diseases, and some types of cancer. However, white rice is preferred for reasons connected to appearance, taste, palatability, ease of cooking, tradition, shelf-life, and about its benefits and availability. Rice, together with wheat, is one of the most widely consumed cereals in the world. Rice is rich in genetic diversity with thousands of varieties grown in the world. There are different types of rice available worldwide which generally fall under the category of short, medium, or long grain size. Chhattisgarh is the rice bowl of India. Here about 23000 germ plasma of different old and new varieties of rice is conserved at Agriculture University. In Chhattisgarh traditional culture has different preferences regarding the taste, texture, color and stickiness of the rice varieties they consume, and many dishes and rice recipes such as Chila, Pidia, Fara, Chausela, Rice Chapati, Laddu etc. The dietary habits of people of Chhattisgarh region have commonly been rice based. Dietary habit broadly indicates the types, variety and quality of food intake and is highly dependent on the demographics of the consumer population. With available household-level information on individual food items consumed, their shares in total consumption, frequency of intake and nutrient composition, it is possible to make general assessments of their dietary habits. Nutrition plays an important role in the efficiency and welfare of the workers, as adequate diets are essential for optimum output. Among the Indian population, about 40% in the rural and 30% in the urban areas are estimated to be below the poverty line, which is defined as the expenditure needed to obtain, on the average, 2400 kcal per capita per day in the rural areas and 2100 kcal in urban areas. Due to low socioeconomic status and household food insecurity, low intake of optimal diet and poor hygiene practices along with infection and infestation, lack of knowledge of nutritious foods, improper diet, and poor intake

especially by households with severe food insecurity are the major contributors and causes of deficiencies in food intake by the rural families. In the rural areas of Chhattisgarh, rice is the main and dominant cereal in the daily diet. The present study was launched at the micro level for rural areas of Raipur district of Chhattisgarh which is relatively backward economically, with the following objectives:-

- To examine the calorie intake through rice among different family size categories.
- To measure the variation of calorie intake within and between the villages.

Methodology

The study was conducted in two villages viz., Tarra and Chatoud of Raipur district (CG). A list of households had been prepared and stratified as per the categories of family size. For measuring the size of family, 2 to 4 members were considered a small sized family; 5 to 8 members as a medium sized family and 9 or above as a large sized family. A sample of 40 households from each category was selected. The method used for diet surveys was the interview schedule-cum-weighing of raw foods consumed by a family within one day.

Results and Discussion

The consumption patterns of the sample households across family size are dependent on significant variation observed in the level of utilization made by households at villages as well as family size. Quantities of different food items consumed by the sampled families under different groups were computed and are shown in Table 1. It was observed that the dietary pattern of households in different groups of farmers was mainly cereal based. Rice and wheat were the main cereals consumed by the sample families. Average consumption of cereal was 517.029 gm/person/day in Chatoud whereas in Tarra that was 534.107 gm/person/day. Contribution of rice in the selected villages was 474.014 and 486.462 gm/person/day respectively. Consumption of pulses, which are generally considered to be low cost protein sources for vegetarians, amounted to 28.80 gm/person/day in Chatoud and 18.29 gm/person/day in Tarra. Sugar was 34.56 gm and 30.63 gm/person/day in Chatoud and in Tarra respectively. It was also observed that consumption of cereals and vegetables was higher than the minimum requirement, whereas the consumption of all other food stuffs was much lower than the needed minimum. Oil was used in small amounts. Meats or fish was only used in meals on festival days.

Table 1: Per day per person consumption of food stuffs in Chatoud & Tarra

Villages	Rice	Wheat	Pulses	Sugar
Chatoud	474.014	43.016	28.80	34.56
Tarra	486.462	47.638	18.29	30.63
Average	480.238	45.327	23.54	32.59

The quantities of calories consumed by rice were computed using the food composition. Table by Narsingha Rao *et al.* (1989). The variation of calorie intake within and between the villages, the analysis of variance was carried out under the null hypothesis that calorie intake was homogenous with respect to the villages and among the farmers and presented in Table 2.

Table 2: Distribution of calorie intake through rice per person per day by farmers.

Villages	Categories of farmers			Mean
	Small	Medium	Large	
Chatoud	1847.53	1652.05	1290.99	1596.86
Tarra	1970.22	1511.94	1488.49	1656.88
Mean	1908.88	1582.00	1389.74	

CD for categories of farmers = 282.80.

It was observed that calorie intake by farmers between the villages were found insignificant whereas between different categories of farmers were significant at 5 percent level, indicated that consumption of calorie differ between the farmers under different categories. The farmers under small sized group take high calorie and differ significantly with medium and large groups.

Conclusion

The study revealed that dietary pattern of rural household was mainly rice based (80%). Intake of other nutrients like pulses, tuber crops were very low than the required norms. The results of the study demands that adequate measures are to be taken for value addition of rice by supplementing the diet with low cost food grains, such as coarse cereal, tuber crops and soybean. The State Government should look into the matter and motivate the people to adopt changes in diet for value addition. Programmes existing for the development of the rural population should also incorporate measures for nutritional upliftment. This study revealed the pattern of food consumption as well as dietary diversity in selected villages of Chhattisgarh with a view to understanding the homogeneity of food habits and its drivers in the region. Significant utilization of rice was observed across the sample villages in terms of different food items and their intake levels. Cereals were the main staples, though their shares in total food expenditure varied considerably across the villages. Majority of households predominantly depended on cereals only and less amount of vegetables to meet their energy and other nutrient requirements, with relatively low consumption of other food items such as pulses, fruits, edible oils, milk and its products. The investigation reported that rice based poor food consumption patterns, and these findings highlight the need to redesign effective nutrition promotion strategies to encourage healthy eating in rural families and targeting healthy food supply and availability. Government and NGOs should come forward to start awareness campaign and programme at village level. Some right food intake protocols, healthy eating and appropriate food habits should incorporate for betterment and easy life of villagers.

Reference

1. Narasinga Rao BS, Deosthale YG, Pant KC. Nutrient composition of Indian foods. National Institute of Nutrition ICMR, Hyderabad. 1989.
2. Sukhatme PV. The food and nutrition in India. Part-I. Ind. J Agril. Econ. 1962a;17(2):1-28.
3. Sarda AL. Consumption pattern and variation of calorie intake by rural household in Raipur district of Chhattisgarh. Unpublished Thesis, M. Sc. (Ag.) Stat. IGKV, Raipur. 2002.
4. Ruel M. Is dietary diversity an indicator of food security or dietary quality? A review of measurement and research needs. FCND Discussion Paper No. 140. Washington D.C.: International Food Policy Research

Institute. 2002.

5. Bernal RJ, Lorenzana AP. Dietary diversity and associated factors among beneficiaries of 77 child care centers: central regional. Venezuela. 2003;53:52-81.
6. Gulati A, Kumar G, Shreedhar Ganga A, Nandakumar T. Agriculture and malnutrition in India. Food and Nutrition Bulletin. 2012;33(1):74-86.
7. Kant AK. Dietary patterns and health outcomes. Journal of American Dietetic Association. 2004;104:615-635.