

FOOD CONSUMPTION LEVEL AND NUTRITIONAL STATUS OF FISHERMEN COMMUNITY IN TRIVANDRUM DISTRICT

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Nutrition is one of the major factors responsible for the maintenance and physical fitness of man. Surveys carried out in Kerala state show that the diets of expectant and nursing mothers, infants and young children (vulnerable groups) belonging to the low income group of population are grossly deficient in proteins, certain vitamins and minerals (Mukundan, 1971; Anonymous, 1975). Among the low income groups, fishermen community is the worst affected. No study has so far been conducted to find out the dietary habits of the vulnerable groups among the fishermen community in Kerala and the present study was an effort in this direction.

Materials and Methods

One hundred families selected at random, from among the fishermen community in Trivandrum District formed the samples for the study. Data were collected by interviewing the respondents individually using a structured and pre-tested schedule prepared in Malayalam. The schedule consisted of questions on the socio-economic and personal characteristics of the respondents and also their dietary habits. The respondents of the survey were the housewives of the families of the fishermen community.

The average nutrient intake of 57 nursing and pregnant mothers and 93 pre-school children in the 100 sample families were also calculated. For this, the average daily intake of different food materials was calculated from the three days' food intake of the families collected by recall method (Jelliffe, 1966).

For this, the scale of coefficient suggested by Aykroyd *et al.* (1966) was used. The food intake per day was calculated by multiplying the quantities per consumption unit by 0.9 which is the coefficient for mothers and by 0.4 and 0.5 for pre-school children of 1-2 and 3-4 years old respectively.

Results and Discussion

Table 1 presents the monthly income and expenditure pattern of the fishermen families.

The data presented in Table 1 show that 1% of the families have an average income up to Rs. 100/- per month. The respondents spend 78-93% of their income on food. Expenditure on other items increases with the increase in income. It is significant that the respondents having an income less than Rs. 100/ do not spend anything on health care. It is presumed that they are availing free Government medical aid.

Table 2 depicts the frequency of use of various food items by the respondents and the average monthly expenditure on the different groups of food.

Table 2 reveals that 76% of the income is spent for carbohydrate foods-like cereals and roots while only 15% is spent for protective foods like pulses, milk, meat, fish etc. Cereal consumption alone accounts for 43% of the income. The purchase of pulses, milk, vegetables etc. increases as the income of the family increases among the fishermen of the Trivandrum District. The respondents spend 11% of their income on fleshy foods including fish. It is also to be noted that fish is consumed by the respondents from their daily catch.

Regarding the food habits and meal pattern of the families of fishermen, 96 families consume two meals a day and only four families take three meals a day. Although rice is the preferred food item, tapioca is also quite popular as a staple food

Table I
Monthly income and expenditure pattern of the fishermen families

Income range (per month)	No. of families	Monthly expenditure on various items (per cent)								
		Food	Clothing	Shelter	Transport	Education	Entertain- ment	Health	Miscellaneous	Others
Below Rs.50/-	53	93	3	1	—	0	—	—	—	100
Rs. 51/-100/-	38	88	5	2	—	3	1	—	1	100
Rs. 101/and above	9	78	9	2	2	4	4	1	—	100
Average	100	86.6	5.6	1.6	.6	3.3	1.6	0.3	0.3	100

Table-2
Frequency of the use of various food items by the fishermen families

Food items	Daily use of different groups of food items by the families	Monthly expenditure of the families on food items
	(Per cent)	(Per cent)
Cereals	100	43
Roots & tubers	100	33
Pulses	7	1
Vegetables	8	2
Milk & milk products	2	1
Meat, fish, egg etc.	100	11
Spices	100	9

Table-3

Consumption level of food groups in daily diet by the fisherman families

Food groups	Number of families		
	Complete absence (N=100)	Below desired level (N.100)	Desired level (N- 100)
Cereals	—	92	8
Pulses	93	7	—
Vegetables	92	8	—
Leafy vegetables	100	—	—
Roots & tubers	—	—	100
Fruits	100	—	—
Milk & milk products	98	2	—
Meat, fishes, eggs	—	100	—

Table-4

Average nutrient intake of pre-school children (N=93)

Nutrients	Average intake	Recommended allowances (Aykroyd <i>et al.</i> , 1966)
Calories	798.00	1,200
Protein (g)	20.80	35
Calcium (mg)	496.20	1,000-1500
Iron (mg)	6.90	10-30
Vitamin A (INU)	6.20	3,000-4000
Thiamine (mg)	0.50	0.5-1.0
Vitamin C (mg)	61.40	30-50

Table 5

Average nutrient intake of mothers on special conditions (N=57)

Nutrients	Average intake	Recommended allowances (Aykroyd <i>et al.</i> , 1966)
Calories	1,178.00	2,300-2,700
Protein (g)	45.00	100-110
Calcium (mg)	798.00	1,500-2000
Iron (mg)	11.50	20-30
Vitamin-A (INU)	51.10	3,000-4,000
Thiamine (mg)	0.63	1.0-2.0
Vitamin-C (mg)	125.10	50

article. Vegetables are consumed in small quantities whenever available. The consumption of milk and milk products is negligible. Food items like fruits, green leafy vegetables etc. are not popular among these families

Boiling and steaming methods are the common methods of cooking followed by housewives of the community. For fleshy foods, frying in oil is also practised.

The survey revealed that the families of fishermen adopt some preservation methods also. The families are in the habit of preserving tapioca by chipping and drying fresh tubers. Though fruits are not very popular among fishermen, mango, lime, amla and fish are the foods which are commonly preserved by salting and pickling whenever these are available in plenty.

The families do not show interest in home production of food articles. Poultry keeping, dairying, kitchen gardening etc., are not practised at all by these families,

Table-3 shows the consumption pattern of food groups of the families.

It can be observed from Table 3 that majority of the families do not include protective foods in their diet at all. This may be either due to the non-availability of protective foods in the coastal areas or due to the ignorance among the respondents about the utility of these items or due to financial constraints. Even those food groups included are not up to the desired level except roots and tubers.

Table 4 and 5 present data on the nutrient content of the diets consumed by 83 pre-school children and 57 mothers selected from 100 families included in the survey

It will be seen that except vitamin C, the nutrients present in the diets of pre-school children and mothers in special conditions are not adequate to meet their nutritional requirements. Nutrients like calcium, iron, vitamin A etc. are not adequate since fruits and vegetables are not included in their diets. Moreover, the protein supplied by cereals is inadequate both in quality and quantity. High quality proteins available from fish which is consumed by the respondents is also not enough to meet their requirements. It is significant that the calorie intake of the pre-school children and mothers (Table 4 and 5) are considerably below the recommended levels. Therefore, there is urgent need for taking steps to make up their calorie intake.

Summary

The dietary intake, nutritional level and nutritional problems of the vulnerable group among the fishermen's families of the coastal areas of Trivandrum District were assessed by conducting a survey in the area. It was found that cereals, roots and tubers and fish are the commonly used food items among these families while other foods are rarely used. The diets were found to be deficient in all the nutrients except vitamin C. Home production of foods such as vegetables, fruits etc., was not popular among these families.

സംഗ്രഹം

തിരുവനന്തപുരം ജില്ലയിലെ മുക്കുവ കുടുംബങ്ങളുടെ ആഹാര രീതിയെ സംബന്ധിക്കുന്ന പഠനങ്ങളിൽ $r_{tra} > 1$, കിഴങ്ങുവർഗങ്ങൾ എന്നിവയാണ് ഇവരുടെ പ്രധാന ആഹാര പദാർത്ഥങ്ങൾ എന്നു കാണുകയുണ്ടായി. വൈറമിൻ സി ഒഴികെയുള്ള പോഷക മൂല്യങ്ങളെ സംബന്ധിച്ചിടത്തോളം കുടുംബാംഗങ്ങളുടെ ആഹാരം മോശമായ നിലവാരത്തിലുള്ളതായിരുന്നു.

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