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Diet, Nutrition and Ethnicity: A Cross Sectional Survey on Garo Tribal People

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Abstract

Food habits are related to short-and long-term nutrition and health. Nutritional status is a sensitive indicator of community health. Tribal people are an interesting area of research because of their diverse life style. A cross sectional survey was conducted to assess diet and nutritional status of Garo ethnic people. Nutritional status was determined by BMI cut off value for Asian population. Dietary pattern was determined by food frequency questionnaire. Most of the respondents (40%) came from 21-30 years age group. About 64% of the respondents were married. Distribution of illiterate, primary and secondary level of education was 38%, 18% and 32%. Low and middle income family were nearly same. About 84%, 72%, 96% study subjects had no COPD, arthritis, skin diseases. About 96% respondents had good appetite. Rice was taken by 98% respondents at 2-3/daily. About 74% respondents never took milk. About 70% study subjects consumed fish 2-3/week. Sixty four percent respondents took meat 1/week. More than half of the respondents took egg 2-3/week. Vegetables were taken randomly. More than half of the study subjects took fruits 2-3/week. Underweight, normal and overweight were 20%, 56% and 24% respectively. It is concluded from the study that half of the respondents suffered from underweight as well as overweight also.

Keywords: *Diet; Nutrition; Garo tribal*

Introduction

A healthy population can lead the nation better in all the frontiers [1]. Tribal population is generally at risk for under nutrition owing to their dependence on primitive agricultural practices, poverty, illiteracy, and poor personal and environmental hygienic practices. In addition, lack of access to healthcare, poor communication, traditional beliefs and customs aggravate the situation. Several studies [2-6] documented that the nutritional status of tribal population is influenced by their habitat and socio-economic conditions. Adequate nutrition is a prerequisite for attaining good health, quality of life, and national productivity. There is lots of tribal community residing in Bangladesh. Most of them live in hilly area and depends on primitive agricultural practices and habituate in diverse life style. The Garos have a different socio-cultural tradition in comparison with that of mainstream society of Bangladesh. Their family pattern, marriage, inheritage laws, norms and values, food habits, dressing, housing structure, language, cultural and religious festivals etc are different from any other tribal community, and of course not consistent with the tradition of mainstream Bangladeshi common people [7]. This study will explore their diet pattern as well as nutritional status.

Methodology

This was a cross-sectional survey conducted among conveniently selected 150 Garo ethnic people including both male and female by door to door visit. First of all we had to take permission from local community leader by making him understand about importance of the study and then he helped us to search Garo family. Socioeconomic information was gathered by face to face interview. Weight was recorded in kilograms by using standard weighting machine. During measuring weight, each subject was asked to bare footed and to

remove heavy cloth. For measurement of height, subjects were positioned to stand on the platform, bare footed with their head upright, looking straight forward by using standard height measurement scale. Height was measured to the nearest 0.1 cm. Nutritional status was determined by BMI cut off value for Asian population. Dietary pattern was determined by food frequency questionnaire. Questionnaires were checked each day after interviewing and again these were carefully checked after completion of all data collection and coded before entering into the computer. To minimize the errors, after entering the data set into the computer, these are checked and resolved by correction. This was a self-funding study and no external fund was provided to carry out this study.

Result

Most of the respondents (40%) came from 21-30 years age group. Male and female distribution was almost equal. About 64% of the respondents were married followed by unmarried 18% and widow 14%. Distribution of illiterate, primary and secondary level of education was 38%, 18% and 32%. About 46% and 34% were businessman and housewife. Joint family was prominent. Low and middle income family were nearly same (Table 1). Smoker and non-smoker were equal. About 84%, 72%, 96% study subjects had no COPD, arthritis, skin diseases. About 96% respondents had good appetite (Table 2). Rice was taken by 98% respondents at 2-3/daily. About 74% respondents never took milk. About 70% study subjects consumed fish 2-3/week. Sixty four percent respondents took meat 1/week. More than half of the respondents took egg 2-3/week. Vegetables were taken randomly by 86% respondents. More than half of the study subjects took fruits 2-3/week. Soyabean and lentil were consumed randomly at 2-3/day. About 88% took biscuits 2-3/week (Table 3) Underweight, normal and overweight was 20%, 56% and 24% respectively (Table 4).

Socioeconomic status of the respondents (n = 150)

Items	Frequency	Percentage
Age in years		
21-30	60	40
31-40	30	20
41-50	24	16
> 50	36	24
Gender		
Male	75	50
Female	72	48
Marital status		
Married	96	64
Unmarried	27	18
Widow	21	14
Widower	6	4
Educational status		
Illiterate	57	38
Primary	27	18
Secondary	48	32
Higher secondary	12	8
Graduate	6	4
Occupation		
Day labour	6	4
Housewife	51	34
Service	24	16

Business	69	46
Type of family		
Joint	132	88
Nuclear	18	12
Income		
Low (<10000 BDT)	69	46
Middle (10001-20000 BDT)	81	54

Table 1:

Behavior and personal health status of the respondents

Items	Frequency	Percentage
Smoking behavior		
Smoker	72	48
Non-smoker	78	52
COPD		
Yes	24	16
No	126	84
Arthritis		
Yes	42	28
No	108	72
Skin Diseases		
Yes	6	4
No	144	96
Appetite		
Good	141	94
Moderate	9	6

Table 2:

Dietary pattern of the respondents

Items	Frequency	Percentage
Rice		
2-3/daily	147	98
1/daily	3	2
Milk		
1/daily	0	0
2-3/week	36	24
1/week	3	2
Never	111	74

Fish		
2-3/day	9	6
1/day	3	2
2-3/week	105	70
1/week	30	20
Never	3	2
Meat		
2-3/daily	6	4
2-3/week	9	6
1/week	96	64
Never	39	26
Egg		
2-3/week	84	56
1/week	39	26
Never	27	18
Vegetable		
2-3/daily	129	86
1/daily	3	2
2-3/week	18	12
Fruits		
2-3/daily	9	6
2-3/week	78	52
1/week	54	36
Never	9	6
Soyabean		
2-3/daily	147	98
1/week	0	0
Never	3	2
Lentil		
2-3/daily	114	76
1/daily	3	2
2-3/week	15	10
Never	18	12
Biscuits		
1/daily	15	10
2-3/week	132	88
1/week	3	2

Table 3:

Nutritional status of respondents

Nutritional status	Frequency	Percentage
Underweight	30	20
Normal	84	56
Overweight	36	24

Table 4:

Discussion

Tribal/ethnic communities in Bangladesh are known for their distinct culture, belief system, economic activities, political system, customary laws, and languages. Local beliefs and customs influence what food is consumed during pregnancy and given to newborn and children. The socio-economic needs, health-seeking behavior, perception of family planning, practices affecting nutritional intake and aspirations vary from one tribal/ethnic community to another. Reach of development programmers are not even. Same can be said of health, population and nutrition services. Tribal/ethnic women are less educated compared to their male counterparts as well as compared to national figure of 32.4% as per the 1991 Census. Literacy level among various tribal/ethnic communities is also uneven. From the programme point of view diversity of tribal/ethnic community in a geographically contiguous area introduces another challenge. It would not be uncommon to find in one mouza if one finds four different tribal/ethnic communities speaking four different languages, practicing four different religions, varying levels of development, variations in educational attainment and having their own sets of world view [8]. The present study found more than half of the respondents were normal in terms of nutritional status. Socioeconomic characteristics and nutritional status of Garos were quite similar with another tribal community called Santals. Hoque M., *et al*. conducted a cross sectional survey recently on Santals and found similar result as like present study. A study conducted among tribal groups residing in different parts of India found that high prevalence of under nutrition were still exists there which influence health and nutritional status in non-satisfactory level [9,11]. In our country, so many donor driven projects may influence for the betterment of nutritional status and lifestyle issues of this tribal population [11] which reflected as outcome in our study. The high prevalence of malnutrition observed in a study and it could be mainly due to inadequate dietary intake and intake of cereals was higher than the recommended level [12]. Similar observations were also reported by other authors among tribes of Maharashtra and Bihar [13]. This is because most of the tribal's diet is a cereal-based diet. The present study showed that rice and vegetables were randomly taken by Garos people.

Conclusion

About half of the respondents suffered from underweight and overweight which is called double burden of malnutrition. Animal protein should consume frequently.

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