Research Article

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Nutritional status and associated socioeconomic factors of 15-49years garo ethnic women residing in northern part of Bangladesh: a cross sectional observational survey

Abstract

Adequate nutrition is a prerequisite for attaining good health, quality of life, and national productivity. Ethnic women usually lead diverse life style and cultural practices. This makes them important area of study. An observational cross-sectional study was conducted at Mymensingh district to explore nutritional status and socioeconomic factors of 15-49years Garo ethnic women. Face to face interview was carried out and convenient sampling technique was used to collect data and verbal consent was taken from community leader prior to interview. Nutritional status was determined according to BMI cut off value for Asian population. Mean age of respondents was 34.27years. More than half of the respondents neither read nor write. Mean income of respondents was 73.087 USD per month. The study found 67%, 30% and 3% were underweight, normal and overweight respectively. Statistical significant association was found between nutritional status and age group, education and occupation. Effective nutrition education programme can be instituted.

Keywords: garo rthnic community, nutritional status, reproductive aged women

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Abbreviations: BMI, body mass index; UNICEF, united nations international children's emergency fund

Introduction

Reproductive health is closely related with nutritional status of a country. Women is regarded as the nerve centre of the family and society, maternal nutrition and health is consider as the most important regulator of human fetal growth.[1] In modern age malnutrition continues to be a serious public health problem.[2] Despite the economic growth observed in developing countries, malnutrition and particularly under-nutrition is still highly prevalent.[3] The socioeconomic, health and nutritional status of women depict gloomy pictures throughout their lives. Besides, like most developing countries, the picture of nutritional status of women is far too serious in the poorer socioeconomic groups who live in the rural areas and urban slums of Bangladesh. 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.[4] Several reviews have emphasized the vulnerability of women throughout their life cycle.[5–7] Nutritional status is a sensitive indicator of community health and if we want to formulate any strategy to combat malnutrition, measurement of nutritional status is the first step (Figure 1).

Figure 1 Languages of Bangladesh.

Methodology

This was a cross-sectional survey conducted among conveniently selected 200 Garo ethnic women by door to door visit. First of all we took permission from local community leader by making him understand about objective of the study and then he guided us to search garo women. After introducing us we collected socioeconomic

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information by face to face interview. Garo women talked each other in their own language but they know Bangla well. 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 0.1cm. Nutritional status was determined by BMI cut off value for Asian population. 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

Mean±SD age of respondents was 34.27±8.60. More than half (67%) of the women were illiterate followed by primary (21%), SSC (8%) and HSC (4%). Most of the study subjects were housewife (84%) followed by day labor (14%) and others (2%). Mean±SD income was 73.087±3.62 USD per month. (Table 1) Underweight, normal and overweight were 67%, 30% and 3% respectively (Table 1) (Table 2). Statistical significant association was found between nutritional status and age group (p<0.05), education (p<0.05) and occupation (p<0.05) (Table 3).

Table 1 Socio-demographic characteristics

Variables	Number	Percentage
Age (in years)		
Mean±SD	29.8±11.1	
Education		
Illiterate	134	67
Primary	42	21
SSC	16	8
HSC	8	4
Occupation		
Housewife	168	84
Day labor	28	14
Others	4	2
Monthly income(USD)		
Mean±SD	73.087±3.62	

Table 2 Nutritional status of respondents

Nutritional status	Number	Percentage
Underweight		67
Normal		30
Overweight		3

Table 3 Association between nutritional status and socioeconomic characteristics

Variables	Nutritional status		Total	χ2	p value
	Under weight n(%)	Normal n(%)			
Age group					
15-24	28(14)	4(2)	32(16)		
25-34	43(21.5)	16(8)	59(29.5)	11.227	0.011
35-44	49(24.5)	35(17.5)	84(42)		
≥45	14(7)	11(5.5)	25(12.5)		
Education					
Illiterate	87(43.5)	47(23.5)	134(67)		
Primary	25(12.5)	17(8.5)	42(21)	8.304	0.04
SSC	14(7)	2(1)	16(8)		
HSC	8(4)	0(0)	8(4)		
Occupation					
Housewife	121(60.5)	47(23.5)	168(84)		
Day labor	10(5)	19(9.5)	29(14.5)	17.264	0.001
Others	3(1.5)	0(0)	3(1.5)		

Discussion

There are as many as 30 tribal communities living at the different parts of Bangladesh.[8] The Garos are one of them. They mostly live in Mymensingh, Netrokona, Taogail, Sylhet and Sunamgonj districts of our country. The present study found that more than half of the respondents were underweight but Haque et al.,[1] in 2014 found that 17% underweight, 46% normal, 22% overweight and obese 15%.[1] Actually our study was carried out among tribal women living in plain land whether Haque et al. conducted their study in hilly area. Another study showed that overall, 28.5% of the reproductive aged women were found to be underweight.[9] A study showed that a total of 34% of the reproductive aged rural women suffer from malnutrition.[10] UNICEF stated that the nutritional status of women in Bangladesh is also alarming. Socioeconomic findings of this study were quite similar to the study conducted on indigenous reproductive aged women in Khagrachari district last year.[11] Nutritional status was significantly associated with age group (p<0.05), education (p<0.05) and occupation (p<0.05). A multivariate analysis shows association between malnutrition and monthly household income, history of taking oral contraceptive, current pregnancy status, and history of breastfeeding. The final regression model shows a statistically significant decreasing trend in malnutrition status with increasing income (p for trend <.001). The economic and health consequences of malnutrition in this group of women are enormous.[10] In future details

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study on food intake and physical activity can be introduced to get more precise result. There may be some discrepancy in case of age and monthly income estimating.

Conclusion

This study demonstrated gloomy picture of nutritional status of Garo ethnic women. It is concluded that two third of respondents suffered from underweight which is alarming. No external funding was provided for this study.

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None.

Conflict of interest

Author declares that there is no conflict of interest.

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