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Anthropometry of reproductive aged women in remote area of Bangladesh

Abstract

This was a cross-sectional study carried out at Kurigram district in Bangladesh to assess anthropometry of reproductive aged women residing in remote (char) area with a sample size 200. Face to face interview was carried out with the semi-structured questionnaire. Non-probability convenient sampling technique was used to collect data on the basis of inclusion and exclusion criteria and written consent was taken prior to interview. Anthropometry was determined according to BMI cut off value for Asian population. Descriptive as well as inferential statistics were used to present data. Mean±SD age of respondents was 34.27±8.60. More than half (67%) of the respondents were illiterate and housewife (84%). Mean±SD income of respondents was 5700.71±282.89 per month. Underweight, normal and overweight were 67%, 30% and 3% respectively. Most respondents took rice 2-3times/day. Vegetables and soyabean were taken randomly. Lentil was taken daily. Arthritis, headache, skin disease was more common. Statistical significant association was found between nutritional status and age group ($p<0.05$), education ($p<0.05$), occupation ($p<0.05$) and monthly income ($p\leq0.05$). Half of the respondents suffered from underweight and most of them income was very low. Income generating capacity should be increased as well effective nutrition education programme must be instituted.

Keywords: anthropometry, reproductive age, remote area

Volume 7 Issue 5 - 2018

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Received: September 05, 2018 | **Published:** September 17 2018

Introduction

Nutrition is fundamental to ensure good health for women but the nutritional issues related to reproductive aged women have rarely been studied. In addition to this lack of attention was found to the nature, distribution, magnitude, etiology, and fate of malnutrition among women.[1] Number of reviews have given emphasis on vulnerable situation of women throughout life cycle.[1–3] We know men and women are different in terms of socially, psychologically and physically which in turn risk for women malnutrition. Moreover girls have to depend on others for meeting basic right such as food and education in some parts of the world.[4] Evidence showed that one third women were suffering from malnourishment.[5] Maternal nutritional status is important for herself and for her spring. It is alarming that low BMI is observed among women of reproductive age in many countries.[6] Several complications can arise of pregnant women with a low BMI such as preterm delivery, low birth weight, and fetal growth restrictions.[7] Besides women under nutrition is poorly addressed and documented. It is known in Bangladesh most people live in rural area. So it is assume that malnutrition will high in this area.

Methodology

It was observational type of study and cross-sectional in nature. The study was conducted among reproductive age women residing in char area of Kurigram district. It took six months to complete study. The sample size was three hundred and forty-five, for the time and economical constraints it was taken as 200. All reproductive aged women agreed to take part willing were included in this research. Non-reproductive aged women and not willing to participate were excluded. Non-probability convenient sampling technique was applied**.** Piloting was done. Face to face interview was carried out to collect data. Nutritional status was measured by calculating body mass index. (WHO cut off value for Asian population i.e. <18.50=underweight, 18.50-22.99=normal, 25-26.99=overweight and ≥27=obese).

Results

Table 1 shows that 42% of the respondents was in age group 35-44 years and 29.5%, 16% and 12.5% was in 25-34, 15-24 years and ≥45years with mean age 34.27±8.60 years. More than half (67%) of the respondents were illiterate followed by primary (21%), SSC (8%) and HSC (4%) (Table 2) (Figure 1). Most of the respondents were housewife (84%) followed by day labor (14%) and others (2%). Table 3 shows almost 95% respondents monthly family income was <5000 BDT followed by 5000-15000 BDT (4%) and ≥15000 (1.5%). Mean±SD income of respondents was 5700.71±282.89 per month (Figure 2). Underweight, normal and overweight were 67%, 30% and 3% respectively (Table 4). Age group ($p<0.05$), education ($p<0.05$), occupation ($p<0.05$) and monthly income ($p\leq0.05$) significantly affects nutritional status.

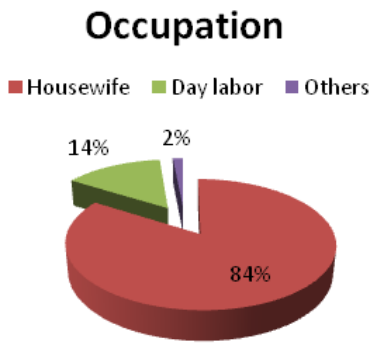

Figure 1 Distribution of respondents by occupation (n=200).

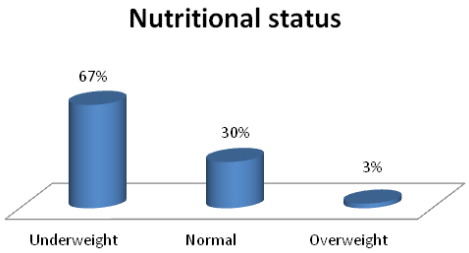

Figure 2 Nutritional status of respondents (n=200).

Table 1 Distribution of respondents by age group (n=200)

Age group (yrs)	Number	Percentage
15-24	32	16
25-34	59	29.5
35-44	84	42
≥45	25	12.5
Total	200	100
Mean±SD	34.27±8.60	

Table 2 Distribution of respondents by education (n=200)

Education	Number	Percentage
Illiterate	134	67
Primary	42	21
SSC	16	8
HSC	8	4
Total	200	100

Table 3 Monthly family income of respondents (n=200)

Income in BDT	Number	Percentage
Low (<5000)	189	94.5
Middle (5000-15000)	8	4
High (≥15000)	3	1.5
Total	200	100
Mean±SD	5700.71±282.89	

Table 4 Association between nutritional status and socio-demographic variables.

Results were expressed as frequency percentage, $\chi 2$ test was performed and $p<0.05$ was level of significance.

Variables	Nutritional status		Total	$\chi 2$	p value
	Underweight 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)		
Income					
Low	123(61.5)	67(33.5)	189(94.5)		
Middle	8(4)	0(0)	8(4)	5.733	0.05
High	3(1.5)	0(0)	3(1.5)		

Discussion

Nutrition is must in order to ensure good health throughout the life cycle. So many issues determine nutritional status of women namely earning capacity, individual choice, culture and food taboo. The present study found gloomy picture of nutritional status in child bearing age in hard to reach area in northern part of Bangladesh. More than half of the women were underweight which is a threat for good health. In another study found that only 10% women consumed balanced diet.[8] Similar findings have also been presented in a study conducted by Mallikharjuna Rao et al.,[9] Their study revealed tha iron, vitamin A, riboflavin and free folic acid deficiency was more.[9] Malnutrition among the rural Bangladeshi women is still very high. We know healthy mother can give birth to healthy child. If malnutrition is continuing among them definitely thier offspring will suffer which is not desirable and must be prevented. A multivariate analysis shows a statistically significant decreasing trend in malnutrition status with increasing income.[10] It is very difficult to find out income level. Even some respondents were incapable of understanding the importance of the study. In some cases they showed non-cooperation from the respondents' husbands who considered the interviews a waste of time.

Conclusion

It is concluded from the study that more than half of the reproductive aged women in Kurigram area suffered from underweight. Besides most of them were poor. Underweight was more seen among illiterate, low income and housewife and it was statistically significant.

Acknowledgements

None.

Conflict of interest

The author has no conflicts of interests in this work.

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Citation: Lima LS. Anthropometry of reproductive aged women in remote area of Bangladesh. *MOJ Public Health.* 2018;7(5):243–245.
DOI: 10.15406/mojph.2018.07.00237