

# Nutritional status of women dwelling in urban slum area

## Abstract

**Background:** The deprivation to women starts from birth in Bangladesh. The socioeconomic, health and nutritional status of women depict gloomy pictures throughout their life.

**Objective:** The purpose of the study was to assess the nutritional status of the women dwelling in selected urban slum in Dhaka city.

**Methods:** This cross-sectional study was conducted among female aged between 19 to 45years living in South Monipur slum area of Dhaka city. The study was conducted from April 2012 to June 2012. About 95 samples were selected purposively to conduct this study.

**Results:** The mean age of the respondents was 29.32years. It also found that majority of the women (87.37%) were married, 10.53% were separated and 2.11% were divorced. The mean income of the study subjects was 2132.63 Tk. Result showed that mean height of respondents was  $152.01 \pm 3.29$  cm and mean weight was  $48.23 \pm 4.28$  kg. Result found that 13.68% respondents were underweight, 82.11% were normal and 4.21% respondents were overweight.

**Conclusion:** The findings of this cross-sectional study presented a gloomy picture of the slum women which might reflect the picture of the women in Bangladesh as a whole. So, a longitudinal study on a large scale including all the variables related to nutritional status of the women is desirable for gaining further insight

**Keywords:** nutritional status, urban slum

## Introduction

The prevalence of malnutrition in Bangladesh is among the highest in the world. Millions of children and women suffer from one or more forms of malnutrition including low birth weight, wasting, stunting, underweight, vitamin A deficiency, iodine deficiency disorder and anemia. Today malnutrition not only affects individual but its effects are passed from one generation to the next as malnourished mothers give birth to infants who struggle to develop and thrive. If these children are girls, they often grow up to become malnourished mothers themselves. Globally, malnutrition is attributed to almost one-half of all child deaths. Survivors are left vulnerable to illnesses, stunted growth and intellectual impairment.<sup>1</sup> The deprivation to women starts from birth in Bangladesh. The socioeconomic, health and nutritional status of women depict gloomy pictures throughout their life.<sup>2</sup> Moreover, 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.<sup>3,4</sup> It has been recognized that infants, children and women of the reproductive age constitute the most vulnerable group from the stand point of nutrition.<sup>5</sup> Malnutrition is the outcome of many complex biological and social processes. The roots of malnutrition run deep into its social soil and it is a matter of thought that malnutrition has not been changed significantly during the last two decades.<sup>6</sup> One fourth of non-pregnant mothers living in the slums suffer from severe malnutrition. About 70% of women in Bangladesh suffer from anaemia.<sup>7-9</sup> Following the liberation of Bangladesh, when Dhaka became the capital city and the centre of commercial and economic activities there was a rapid migration of rural people into the city which is still continuing. The rural to urban influx has lead to the development of slums in a large number of places within the city and its fringes with overcrowding,

unhygienic and poor sanitary conditions, along with economic insolvency lead to malnutrition and poor health condition. Around half of the city's poor people are concentrated in nearly 3000 densely populated and environmentally hazardous slums and the overall urban growth rate is very high.<sup>10,11</sup> It is very much clear that the health and nutritional status of the city people is quite impossible to improve without improving the health and nutritional status of the slum dwellers, specially, slum mothers. Research on urban slum mothers, specially, on nutrition is very relevant and deserve in depth studies. This could help to explain many of the interrelated variables which come into play in explaining the prevailing situation amongst the urban slum mothers. The purpose of the study was to assess the nutritional status of the women living in slum environment. So the findings of the study might provide a comprehensive picture on nutrition of slum women, which could inform and guide the concerned authorities for undertaking appropriate measures to improve the situation.

## Materials and methods

### Study design

This cross sectional study was conducted among female aged between 19 to 45years of the South Monipur slum area of Dhaka city. The study was conducted from April 2012 to June 2012.

### Sample size and sampling method

About 95 samples were selected purposively to conduct this study.

### Data analysis

Data was collected through face to face interview by semi-structured questionnaire. Collected data were coded and analyzed using SPSS-16 and plotted into different frequency table. Ethical

issues were considered during collection of data and taken the informed consent from the respondents.

## Results

Table 1 showed that the percent distribution of the age of the study subjects. It was found that the majority of the women (45.26%) were in the age of 26-32years, 26.32% were in 19-25years, 28.42% were in 30-40years. The mean age was 29.32years. It also found that majority of the respondents (87.37%) were married, 10.53% were separated and 2.11% were divorced. The above table showed that majority of the women (48.42%) were literate but no schooling (only signature), 20.00% were illiterate and did not know signature as well as 31.58% were primary level (up to class 5). Regarding monthly income, 19.95%, 68.42% and 12.63% of study people had  $\leq 1500$  Tk, 1501 to 2500 Tk and  $\geq 2500$  Tk per month. The mean income was 2132.63 Tk. Result also found that 12.63% of respondent's monthly total family income was  $\leq 5000$  Tk, 42.11% was 5001 to 7000 Tk, 30.53% was 7001-9000 Tk and 14.74% of monthly total family income was  $\geq 9000$  Tk. The mean income of the total family member was 7301.05 Tk. Table 2 indicated the height (cm) of the respondents. It was found that 7.37%, 45.26%, 40% and 7.37% was  $<148$  cm, 148-152 cm, 153-156 cm and  $>156$  cm high respectively. On the other hand Table 3 showed that 12.63%, 25.26%, 48.42% and 13.68% of women was  $<43$  kg, 43-47kg, 48-52 kg and  $>52$ kg weight. Figure 1 revealed that 13.68% respondents were underweight, 82.11% were normal and 4.21% respondents were overweight. Table 4 showed that 66.67% and 33.33% respondents were normal and underweight whose total family income was  $\leq 5000$  Tk per month. Besides 72.5%, 20.17% and 7.5% were normal, underweight and overweight respectively whose monthly income was 5001-7000 Tk. Normal and overweight was 96.55% and 3.45% in respect to their income was 7001-9000 Tk. About 92.86%, 7.14% and 4.21% respondents were normal, underweight and overweight whose total family income was  $>9000$  Tk per month.

**Table 1** Socio-demographic characteristics of the study subjects (n=95)

Variables	Frequency	Percentage
<b>Age (in Years)</b>		
19-25	25	26.32
31-40	43	45.26
$>40$	27	28.42
Mean age	29.32 $\pm$ 5.38	
<b>Marital status</b>		
Married		87.37
Single		10.53
Divorced		2.11
<b>Education</b>		
Illiterate	20	
Literate but no schooling (only signature)	48.42	
Primary	31.58	
<b>Monthly income (in Taka)</b>		
$\leq 1500$	18	18.95
1501-2500	65	68.42
2500	12	12.63
Mean income	2132.63 $\pm$ 608.35	
<b>Monthly family income (in Taka)</b>		
$\leq 5000$	12	18.95
5001-7000	40	68.42
7001-9000	29	12.63
$>9000$	14	
Mean Income	7301.05 $\pm$ 1768.37	

**Table 2** Distribution of height (cm) of the respondents (n=95)

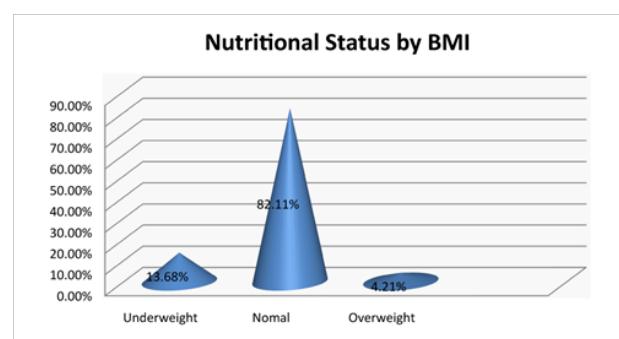
Height(cm)	Frequency	Percentage
$<148$	7	7.37
148-152	43	45.26
153-156	38	40
$>156$	7	7.37
Mean Height	152.01 $\pm$ 3.29	

**Table 3** Distribution of weight (kg) of the respondents (n=95)

Weight (cm)	Frequency	Percentage
$<43$ kg	12	12.63
43-47 kg	24	25.26
48-52 kg	46	48.42
$>52$ kg	13	13.68
Meanweight	48.23 $\pm$ 4.28	

**Table 4** BMI and total family income of the respondents (n=95)

Total family income in taka	Nutritional status (BMI)			
	Underweight	Normal	Overweight	Total
$\leq 5000$	4(33.33%)	8(66.67%)	0(0%)	12(100%)
5001-7000	8(20%)	29(72.5%)	3(7.5%)	40(100%)
7001-9000	0(0%)	28(96.55%)	1(3.45%)	29(100%)
$>9000$	7(7.14%)	13(92.86%)	0(0%)	14(100%)
Total	13(13.68%)	78(82.11%)	4(4.21%)	95(100%)



**Figure 1** Nutritional status of respondents by BMI (n=95).

## Discussion

This study provided some important features of the women, specially their socio-economic, demographic and nutritional status, living in a slum in Dhaka. It was found that about half (45.23%) of the respondents were young and majority of them (48.42%) were no formal education, just can sign their name. The mean age was 29.32year. The mean monthly family income was Tk. 7301.05. These findings were consistent with some studies done in different

slums in Dhaka.<sup>12-14</sup> A study carried out in different slums of Dhaka city showed that two thirds of the respondents were young, 74% of them were illiterate (no formal schooling) and most of the families were nuclear.<sup>12</sup> Another study in the similar situation showed that the mean age of the female was 26.1 year.<sup>13</sup> In the present study, 12% of the women was below 42kg and 7% was below 148cm. The mean weight and height of the respondents were 48.23kg and 152.01cm respectively. According to BMI, about 13.61% of the study subjects were suffering from malnutrition (BMI <18.5). But the real scenario is little bit different. More or less similar findings were observed by several studies carried out earlier in slums and rural Bangladesh.<sup>15-17</sup> In some studies it was found that the average weight and height of Bangladeshi women were 42kg and 154cm respectively.<sup>2,15</sup> The study showed that 25% of the pregnant slum mothers were suffering from severe malnutrition (BMI <17)<sup>8</sup> and the mean BMI of this study was similar to earlier reports from slums<sup>14</sup> and rural Bangladesh.<sup>18</sup>

## Conclusion

This study provided some important information on the nutritional status of women living slum within Dhaka city. The findings of this cross-sectional study presented a gloomy picture of the slum women which might reflect the picture of the women in Bangladesh as a whole. So, a longitudinal study on a large scale including all the variables related to nutritional status of the women is desirable for gaining further insight.

## Acknowledgments

None.

## Conflict of interest

Author declares that there is no conflict of interest.

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