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## REPRODUCTIVE HEALTH AND NUTRITIONAL STATUS OF GIRL STUDENTS IN AN URBAN AREA OF BANGLADESH

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### Abstract

**Objectives:** To assess status of reproductive health and nutrition amongst girls attending high school in an urban area of Bangladesh.

**Methods:** This cross sectional descriptive study was conducted in four selected girl's high schools. A structured pre-tested questionnaire and a checklist were used to collect data through face-to-face interview and anthropometry.

**Results:** A total of 360 adolescents girls were interviewed. The mean age at menarche of the respondents was found to be 12.4 years. More than half (54.2%) of the respondents were malnourished (BMI < 18.5). More than four-fifths (83%) were found to be suffering from reproductive health problems during or after menstruation. The most common complain (60%) disclosed by the adolescent girls was dysmenorrhoea. Majority (300) of the respondents acknowledged practicing unhygienic protective measures during menstruation.

**Conclusion:** More than half of the adolescents were malnourished, practiced unhygienic protective measures during menstruation and disclosed different types of reproductive health complaints. Findings of the study strongly recommend that adolescent girls of urban Bangladesh need proper and appropriate management of their reproductive health problems.

*Ibrahim Med. Coll. J. 2008; 2(1): 9-11*

**Key words:** Nutritional Status, Reproductive Health, Adolescence.

### Introduction

According to the World Health Organization people aged between 10-19 years are taken as adolescence<sup>1</sup>. Adolescents form a distinct group in the society, which is clearly different from children and the adults. They need a special support, care and require special health services<sup>2</sup>. United Nations estimated that about 1/5<sup>th</sup> of the total population of the world are adolescents<sup>3</sup>. Again, among the total adolescents of the world, about one-fifth (19%) live in Asia<sup>4</sup>. In Bangladesh about 75% of the girls are married before they reach 16 years of age and become pregnant soon after, leading to a high mortality and morbidity<sup>5</sup>. About 67% of the rural

adolescents are thin (defined as BMI < 5<sup>th</sup> percentile of the WHO-recommended reference)<sup>2</sup> and 50% of the adolescent mothers are actually malnourished (BMI < 18.5)<sup>6</sup>. Malnutrition is a very important issue in life as it adversely affects the development of intelligence, physical size and resistance to diseases and ultimately on the economic development of a country<sup>7</sup>. Nutrition also has an affect on the age of puberty and menarche<sup>3</sup>. Unmarried adolescents do not have access to health care and for this reason they are unaware of the healthy practices. They need proper nutrition and hygienic practices, treatment of common ailments including menstrual problems<sup>8</sup>.

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Adolescents are an important resource for their families, communities and nation. With proper attention, support, guidance and nurturing, their contribution and participation can be greatly enhanced. To improve the health status of this group there is an urgent need to identify and address the reproductive health needs and address the nutritional status of the adolescent girls.

### Materials and Methods

This was a cross sectional type of descriptive study conducted for a period of 6 months (Jan' to June 2001) in four selected urban girls' high schools in Dhaka. Respondents were 360 adolescents who were selected randomly from class VIII and IX. Data were collected through face-to-face interview using a pre-tested structured questionnaire and a checklist. Finally the data were edited, processed and analyzed in computer using SPSS 10 version.

### Results

Among the selected 360 adolescent girls, less than half (45.8%) were found to have a BMI within the normal range (18.5-24.99). About half of the respondents (49.3%) had their BMI less than 18.5. Among the undernourished population, 15% of the total respondents had a BMI less than 16 with grade-3 under-nutrition. About 11.8% of the total had a BMI within the range of 16-16.99 with grade-2 under nutrition and 22.5% of the total were found to have BMI within the range of 17-18.49 with grade-1 under-nutrition. Only 4.6% had BMI  $\geq$  25 representing the overweight portion of the respondents. The mean BMI was  $18.9 \pm 3.1$  (Table1).

**Table-1: Nutrition status of the adolescent girls using BMI**

Nutrition status	Interpretation (Kg/sq.m.)	Number	(%)
Under nutrition	<16 (grade-3 under nutrition)	54	15.0
	16-16.99 (grade-2 under nutrition)	43	11.8
	17-18.49 (grade-1 under nutrition)	81	22.5
Normal	18.5-24.99	165	45.8
Overweight	25-29.99 (grade-1 overweight)	15	4.3
	30-39.99 (grade-2 overweight)	2	0.6
	40 (grade-3 overweight)	0	0
<b>Total</b>		<b>360</b>	<b>100.0</b>

Mean BMI =  $18.92 \pm 3.08$ ; Range 12.61 - 31.14

**Table-2: Reproductive health status of the adolescent urban school girls and hygienic practices during menstruation**

Reproductive health status of the adolescent urban school girls		
Pattern of problems:*	Number	(%)
Pain in lower abdomen during menstruation	216	60.0
Irregular menstruation	92	25.5
Excessive bleeding	88	24.5
Per vaginal whitish discharge	141	39.2
Desquamation/soreness of vulva/thigh	88	24.5
Scanty menstruation	29	7.9
Hygienic practices during menstruation:*		
Use old cloths	300	83.3
Sanitary/cotton pads	115	31.8
Soap/savlon/dettol	294	81.6
Wear under garments	191	52.9
Hot water	70	19.5

\* Multiple responses

It was found from the study that most of the adolescent girls (83%), 299 in number, suffered from some form of physical problem during or after menstruation. The rest 61 respondents (17%) did not complain of any problem. Almost three-fifths of the respondents (60%) had complaints of dysmenorrhoea. Among them about two-fifths (40%) and one-fourth (25%) were found to experience whitish discharge per vagina and desquamation/soreness in the inner part of thigh/vulva respectively. Information regarding the hygienic measures practiced by the adolescent girls during menstruation was found to be quite alarming. It was found that out of 360 respondents, majority (83%) were using old cloths, washed and reused again and again. Although only 30% were found to use sanitary/cotton pad, about 82% used soap/savlon /dettol occasionally for washing of the old cloths (Table 2).

### Discussion

This cross sectional study may not necessarily reflect the actual picture of the adolescent's nutritional and reproductive health status of the country, but it reflects a picture of the less privileged group. In this study the mean age of the 360 respondents was 14.5 years, which also support the study done by Haseen F<sup>9</sup> where the mean age at menarchae was 12.4 years. Lowest and highest age of the respondents was 9 and 15 years respectively that is consistent with other studies<sup>10,11</sup>. This similarity of the findings may be due to the

respondents belonging to very similar socio-economic groups, living standards and nutritional status between the studies on the adolescent girls.

Out of 360 adolescent girls, 54.2% were found malnourished among which 49.6% were under nourished and 4.6% were in overweight category. This observation is similar to the national figures of DDHS 1997<sup>2</sup> and some other studies<sup>4,6,12</sup>. All of the findings indicate that immediate interventions should be made to improve the nutritional status of the adolescent girls, as they are the future mothers of the nation. To contribute their share in economic development of the country they must be well nourished.

Regarding reproductive health status, majority (83%) reported having some sort of complaints during or after menstruation, which is also reflected in the findings of BIRPERHT study<sup>10</sup> where about 65% adolescents have had some menstrual problems. Considering menstrual problems, more than half (60%) experienced dysmenorrhoea, which is consistent with other study findings<sup>10,11</sup>. About one-fourth (25%) had complaints of per vaginal whitish discharge and the other one-fourth (25%) had desquamation or soreness in inner part of thigh or vulva. These findings may be due to improper drying of menstrual rags, use of rough cloths that become a vector for fungal infection and soreness, which ultimately leads to vaginal discharge. These results were also found in other studies<sup>11,13</sup>. Most of the respondents (84%) used old cloths during menstruation, which is an unhygienic practice and only 30% used sanitary or cotton pads that is considered hygienic. They practice unhygienic measures mostly due to monetary constrains and or ignorance. These findings correlate with other studies too<sup>9,14</sup>.

### Conclusion

It is evident from this study that more than half of the adolescents were malnourished, practiced unhygienic protective measures during menstruation and experienced different types of reproductive health complaints. So there is a distinct demand for proper steps to improve their nutrition status and appropriate management for their reproductive health care.

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