Paper prepared for 25th IUSSP International Population Conference, Tours, France, 18-23 July 2005

Adolescent Self Reported Reproductive Morbidity and Health Care Seeking Behaviour in Bangladesh

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ACKNOWLEDGEMENT

The research was funded by a grant from Social Science Research Council (SSRC), Ministry of Planning, Government of the Peoples Republic of Bangladesh. We acknowledge Director, SSRC for financial assistance.

ABSTRACT

Addressing reproductive health issues of women especially adolescents is now on the global social agenda. In this paper, an attempt was made to assess the magnitude of self reported gynaecological morbidity unrelated to childbearing among the adolescents irrespective of their marital status. The paper also explored the determinants of health care seeking behaviour of the adolescents for their reproductive ailments. A nationally representative data on 2883 adolescents irrespective of their marital status were analysed. Analyses revealed a large proportion of the adolescents reportedly have been suffering from gynaecological morbidity. The most frequent morbidity was menstrual disorders followed by lower abdominal pain, burning sensation during urination, genital itching, and vaginal discharge. Multivariate logistic regression analysis was done to identify the predictors of adolescent's reproductive morbidity. Only one fifth adolescents sought health care for their gynaecological ailments indicating that adolescents are unaware about their reproductive morbidity. Adolescent reproductive health in Bangladesh indicates high incidence of maternal morbidity. The incidence of adolescent's health problems varied by socio-economic and demographic characteristics of the adolescents.

Key Words: Adolescents, reproductive morbidity, care seeking behaviour, Bangladesh.

INTRODUCTION

In developing countries, reproductive morbidity commonly affects the quality of women's lives. This form of ill health has largely been ignored by the policy makers, health planners as well as researchers. The reproductive morbidity includes the obstetric and gynaecological conditions of ill health related to the reproductive process during and outside the childbearing episodes. The obstetric morbidity encompasses the conditions during pregnancy, delivery and post partum period and gynaecological morbidity includes the conditions outside pregnancy related events (Zurayk *et al.,* 1993). In this part, the reproductive morbidity refers to gynaecological morbidity of ill health unrelated to pregnancy.

There are three methods for the diagnosis of gynaecological morbidity such as self reported symptoms, clinical examination and laboratory tests. Appropriate laboratory testing is considered as the "***Gold standard***" for the precise detection of reproductive morbidity and accurate measurement of prevalence of diseases. However, such tests have limited applicability in developing countries because they are expensive and present logistical difficulties (Jain *et al.,1996).* Health facilities at the community level are poorly equipped to deal with reproductive morbidity, since they do not have diagnostic facilities, drugs, supply of blood or surgical equipment to treat the diseases. Even, service providers are not well acquainted to detect the morbidity or to provide counselling.

Information about reproductive morbidity in developing countries is scanty. Although a few studies have been conducted in this field, but most of them are based on information obtained from clinics or hospitals. Large proportion of women does not visit health facilities unless the disease becomes serious. So, the results from hospitals or clinics do not reflect the magnitude of the disease burden. The statistics provided by the hospitals are based on biomedical causes only, but information on social, economic, demographic and behavioural determinants are rare. In fact, a search of literature reveals that knowledge about reproductive morbidity and its determinants in Bangladesh and also in the sub-continent are almost non-existent. A few studies in this area showed a varying prevalence of reproductive morbidity and these mainly considered the adult women of reproductive age (Wasscrheit *et al.,* 1989; Bang *et al.,* 1989; Bhatia and Cleland, 1995; BDHS, 1999-2000). Adolescent reproductive health has been ignored. Concerted efforts are needed to provide useful information for health planners and policy makers. So, the appropriate strategies to be designed to bring

about improvement in the reproductive health of women (Bhatia and Cleland 1995). With these objectives in view, the present study on self reported reproductive morbidity among adolescents was undertaken.

MATERIALS AND METHODS

This was a cross sectional study conducted in both rural and urban areas of Bangladesh. The female adolescents aged 10-19 years irrespective of their marital status constituted the study population. A multistage cluster sampling technique was adopted to select the sample. Both quantitative and qualitative data on reproductive morbidity were collected. A total of 2883 adolescents were selected. They were also inquired about their health care seeking behaviour for their problems. Both uni-variate and bi-variate analyses were performed. Multivariate logistic regression analysis was used to identify the socio-economic and demographic factors which were significantly related to reproductive morbidity and care seeking behaviour. Data analysis was performed using Statistical Package for Social Science (SPSS, version 11.5). To substantiate the results of quantitative study, a series of focus group discussions were also conducted among the adolescents. In the present study, the analysis on quantitative data was presented.

RESULTS

1. Socio-demographic characteristics

The mean age of the respondents was 16.3±1.8 years with a range of 10 to 19 years. Among the respondents, 34.9% were unmarried and 65.1% were married. The mean years of schooling was 4.7±3.3 years. Among them 23.6% were illiterate, 33.1% had 1-5 years of schooling and the rest had 6 and above years of schooling. Regarding parental education, more than two fifths (43.7%) of the adolescents' fathers were illiterate as against more than two thirds (69.9%) of mothers were illiterate indicating that mothers were more illiterate than fathers. The mean family size was 5.2 persons. About one third (29.6%) of the adolescents were currently engaged in different income generating activities other than household work. Overwhelmingly majority of the respondents were Muslims (89.0%) and only 11.0% were non-Muslims. About three fifths of the adolescents (57.3%) were from nuclear families and the rest from joint/ or extended families (42.7%). The median family income was Tk.2500.0 and about three fifths (58.1%) of the families had income less than Tk. 3000.0 (*Table I*).

Table –1: Socio-demographic characteristics of the adolescents (N=2883)

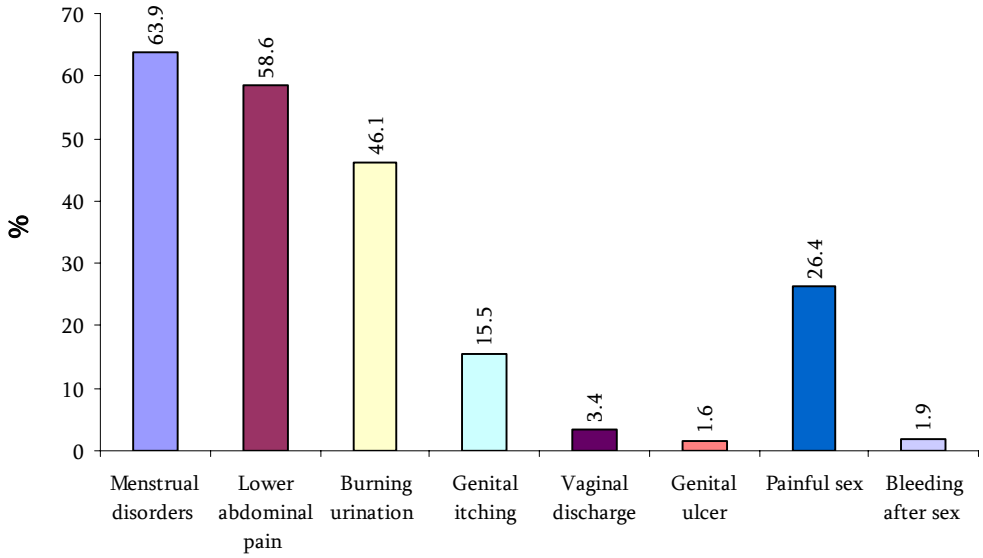
Characteristics	*Frequency*	*Percent*	*Mean ± SD*
Age in years			
10-14	567	19.7	16.3±1.8
15-19	2316	80.3	
Marital status			
Unmarried	1005	34.9	
Married	1878	65.1	
Residence			
Rural	1743	60.5	
Urban	1140	39.5	
Years of schooling (Res)			
0	680	23.6	4.7±3.3
1-5	955	33.1	
≥6	1248	43.3	
Religion			
Non-Muslim	317	11.0	
Muslim	2566	89.0	
Level of education (F)			
Illiterate	1260	43.7	
Literate	1623	56.3	
Level of education (M)			
Illiterate	2016	69.9	
Literate	867	30.1	
Work status			
No	2030	70.4	
Yes	853	29.6	
Type of family			
Nuclear	1651	57.3	
Joint	1232	42.7	
Family size			
2-3	862	23.7	5.2±2.1
4-5	1050	36.4	
≥6	1151	39.9	
Monthly family income (Tk.)			
<2000	569	23.0	Median income=
2000-3000	871	35.1	Tk. 2500.0
3000-4000	609	24.6	
≥4000	430	17.3	

2. Overall reproductive morbidity and frequency

Married adolescents with current pregnancy and unmarried adolescents not menstruating (that is who did not attain the age of menarche) were excluded from the analysis. So, a total

of 2883 adolescents were studied. The adolescents were inquired about symptoms of gynaecological morbidity for the last six months. Among them 35.5% had no gynaecological problem and the rest 64.5% had one or more gynaecological morbidities. The average number of problems was 1.9 ranging from 1-6. Two-fifths (40.0%) had one problem followed by 36.4% who had two, 18.6% have had three and 5.0% had four and more problems. The most frequent problem was menstrual disorders (63.9%) followed by lower abdominal pain (58.6%), burning urination (46.1%), genital itching (15.5%), vaginal discharge with fever (3.4%), genital ulcer (1.6%). More than one-fourth of the married adolescents (26.4%) had complain of pain during sexual intercourse and 1.9% had complain of bleeding after sexual intercourse (Married adolescents only) (Figure I).

Figure 1. Frequency of Self Reported Morbidity



3. Variation of self reported reproductive morbidity by marital status and age

Analysis revealed that the reproductive morbidities were found significantly higher among married than unmarried adolescents such as genital itching was 2.8 times, vaginal discharge 2.4 times, burning urination 1.6 times and lower abdominal pain 1.5 times higher among the married adolescents whereas the menstrual disorders were less among the married adolescents ($p<0.05$). (Table 2)

Table 2: Type of self reported reproductive morbidity by marital status

Reproductive morbidity	*N=2883*	*Marital status*		*Odds ratio*	*95% CI*
		Married n=1878	*Unmarried n=1005*		
Menstrual disorders					
Yes	41.2	38.3	46.5	0.716***	0.613-0.836
No	58.8	61.7	53.5		
Lower abdominal pain					
Yes	37.8	40.9	31.8	1.484***	1.263-1.744
No	62.2	59.1	68.2		
Burning urination					
Yes	29.7	33.0	23.7	1.584***	1.331-1886
No	70.3	67.0	76.3		
Genital itching					
Yes	10.0	12.7	5.0	2.785***	2.032-3.817
No	90.0	87.3	95.0		
Vaginal discharge					
Yes	2.2	2.8	1.2	2.357***	1.252-4.435
No	97.8	97.2	98.8		
Genital ulcer					
Yes	1.0	1.2	0.7	1.768	0.756-4.134
No	99.0	98.8	99.3		
****Pain during sexual intercourse***				-	-
Yes	17.2	26.4			
No	82.8	73.6	100.0		
****Bleeding after sexual intercourse***				-	-
Yes	1.2	1.9	0.0		
No	98.8	98.1	100.0		

****p<0.001*
Reference category = Unmarried adolescents
**Married adolescents*

On the other hand, the reproductive morbidities were significantly high among the older adolescents aged 15-19 years except pain during sexual intercourse among the married adolescents (*p<0.05*). Genital itching was 3.1 times, vaginal discharges 2.4 times, lower abdominal pain 1.9 times, burning urination 1.8 times and menstrual disorders 1.4 times higher among the older adolescents. But older married adolescents were less likely to complain of painful sexual intercourse. (This might be due to immaturity of physical development of younger adolescents). On the other hand, the reproductive morbidities were

higher among older and married adolescents. This might be due to their longer exposure to sexual environment (Table 3).

Table 3: Type of self reported reproductive morbidity by age

Reproductive morbidity	*Total N=2883*	*Age in years*		*Odds ratio*	*95% CI*
		10-14 (n=567)	*15-19 (n=2316)*		
Menstrual disorders					
Yes	41.2	34.9	42.7	1.3889***	1.471-1.6817
No	58.8	65.1	57.3		
Burning urination					
Yes	29.7	21.0	31.9	1.7607***	1.412-2.1944
No	70.3	79.0	68.1		
Lower abdominal pain					
Yes	37.8	26.1	40.6	1.9375***	1.5785-2.3782
No	62.2	73.9	59.4		
Genital itching					
Yes	10.0	4.1	11.5	3.0690***	1.9838-4.7478
No	90.0	95.9	88.5		
Vaginal discharge					
Yes	2.2	1.1	2.5	2.4013**	1.0309-5.5931
No	97.8	98.9	97.5		
Genital ulcer					
Yes	1.0	0.4	1.2	3.4560	0.8211-14.5470
No	99.0	99.6	98.8		
****Pain during sexual intercourse (n=1878)***					
Yes	26.4	24.5	53.3	0.2842***	0.1954-0.4134
No	73.6	46.7	75.5		
****Bleeding after sexual intercourse (n=1878)***				-	-
Yes	1.9	3.3	1.8	0.5377	0.1870-1.561
No	98.1	98.2	96.7		

****p<0.001; **p<0.01*
Reference category = 10-14 years
**Married adolescents*

4. Correlates of self reported symptoms of morbidity: Multivariate analysis

The present study found that 64.5% of the adolescents reported about one or more gynaecological problems. This indicates a high rate of reproductive morbidity among the adolescents. To examine the socio-demographic and behavioural factors associated with

reproductive morbidity, the variables which were found to be significantly associated in bi-variate analysis were considered in the logistic regression analysis. The dependent variable was dichotomous i.e. whether the adolescents reported any gynaecological problem in the last six months. Adolescents' current age was found to be significantly associated with reported morbidities. Older adolescents reported 1.8 times more gynaecological morbidity than younger adolescents. Similarly, adolescents having monthly family income Tk. 4000.0 and above 1.6 times and having monthly income Tk. 2000.0-3000.0 1.3 times reported about the symptoms of morbidity. The adolescents of joint or extended families were 1.4 times likely to report symptoms of morbidity. But adolescents of urban background and hygienic practice during menstruation were less likely to report about gynaecological morbidity **(Table 4).**

Table 4: Adolescent self reported reproductive morbidity: Multi-variate analysis

Attributes	*β*	*p value*	*Odds ratio*	*95% CI*
Age in years				
10-14 (RC)	-	-	-	-
15-19	0.6062	0.0000	1.8335	1.4341-2.3441
Marital status				
Unmarried (RC)	-	-	-	-
Married	-0.1390	0.2316	0.8702	0.6930-1.0928
Residence				
Rural (RC)	-	-	-	-
Urban	-0.2882	0.0024	0.7496	0.6224-.9029
Level of education (M)				
Illiterate (RC)	-	-	-	-
Literate	-0.1813	0.0739	0.8342	0.6838-1.0176
Monthly family income (Tk.)				
<2000 (RC)	-	-	-	-
2000-3000	0.2400	0.0380	1.2712	1.0134-1.5948
3000-4000	0.1519	0.2274	1.1641	0.9096-1.4897
≥4000	0.5002	0.0007	1.6490	1.2351-2.2017
Work status				
No (RC)	-	-	-	-
Yes	0.1553	0.1068	1.1681	0.9671-1.4108
Type of family				
Nuclear (RC)	-	-	-	-
Joint/extended	0.3676	0.0001	1.4443	1.2077-1.7273

(Contd…)

Table 4: Adolescent self reported reproductive morbidity: Multi-variate analysis

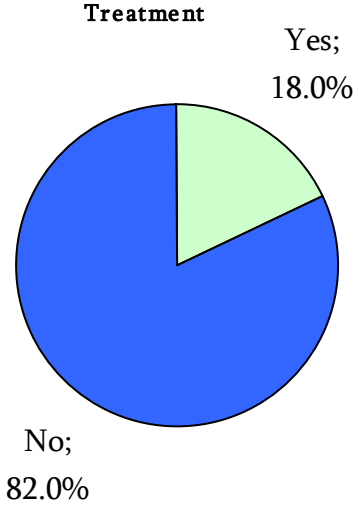
Attributes	*β*	*p value*	*Odds ratio*	*95% CI*
Practice of personal hygiene				
Non sanitary (RC)	-	-	-	-
Sanitary	-0.8530	0.0000	0.4261	0.3020-.6014
Model chi square	104.672			
df	10			
Significance	0.0000			
N	2479			
Constant	0.638			

**RC= Reference category*
***Variables not included in the regression model are: religion, years of schooling, father's level of education and family size, i.e. these are not statistically significant in bi-variate analysis*

5. Care Seeking Behaviour for reported morbidity

5.1 Type of health facilities attended by adolescents: Adolescents attended institutional as well as non-institutional health care facilities for their gynaecological morbidities. About sixty five per cent of the adolescents who had complain of gynaecological problems, only 18.0% attended health care facilities for treatment **(Figure 2).**

Figure 2. Percentage of those who Received Treatment



Although majority of the adolescents attended institutional health care facilities, a large proportion of them preferred to take treatment from quacks (25.4%). More than one tenth of the adolescents (11.9%) received treatment from traditional healers such as Homeopaths or Kabirajes (practitioners of indigenous medicine). About institutional health care receivers,

most of them received treatment from Thana Health Complexes (26.5%) followed by Family Welfare Centres (16.7%) and from other government hospitals1(2.8%).

5.2 Reasons for not receiving treatment: The major reasons, as mentioned by adolescents for not receiving any health care for gynaecological problems were personal grounds which include, 41.0% mentioned 'no need of treatment' followed by 'lack of knowledge' 19.8%, 'economic hardship' 18.4% and 'shyness to expose to doctor' 14.8%. In addition 6.1% of the adolescents reasoned related to inadequate service facilities such as 'no female doctor available in the hospital'.

6. Determinants of care seeking behaviour for reproductive morbidity: Multi-variate analysis

In order to examine the contribution of each of the factors and health care seeking behaviour, a multivariate logistic regression analysis was performed with dichotomous dependent variable "whether received health care or not". Analysis revealed that older adolescents aged 15-19 years were 3.4 times more likely to seek health care than their younger counterparts. Most importantly, adolescents having autonomy for their treatment that is having control over other members of the family were 1.4 times more likely to seek health care for their reproductive problems. Analysis also revealed that working adolescents and members of joint or extended families were 1.3 times more likely to seek health care **(Table 5)**

DISCUSSION

Most of the previous studies ignored the reproductive morbidities of unmarried adolescents, but unmarried adolescents are also exposed to similar environment as of married adolescents with the exception of marital sex. Older women were included in the study of Bhatia and Cleland (1995) and Wasscrheit *et al.,* (1989). So, in this study, unmarried adolescents were also included to find out the variation of their reproductive morbidity. In recent years, attention has focused on the problem of high level of maternal mortality in developing countries. Little is known about the prevalence of reproductive morbidity. Dixon-Mueller *et al.,* (1991) opined of "***culture of silence***" surrounding women's health that typifies these countries and the constraints of living conditions particularly for poor women that prevent the use of health services.

Table 5: Adolescent care seeking behaviour for reproductive morbidity: Multivariate analysis

Attributes	*β*	*p value*	*Odds ratio*	*95% CI*
Age in years				
10-14 (RC)	-	-	-	-
15-19	1.2331	0.0000	3.4318	2.0694-5.6910
Marital status				
Unmarried (RC)	-	-	-	-
Married	-0.0943	0.5300	0.9100	.6780-1.2214
Working status				
No (RC)	-	-	-	-
Yes	0.2904	0.0246	1.3370	1.0379-1.7224
Type of family				
Nuclear (RC)	-	-	-	-
Joint/extended	0.2782	0.0259	1.3208	1.0340-1.6871
Autonomy for treatment				
No (RC)	-	-	-	-
Yes	0.3581	0.0170	1.4307	1.0661-1.9199
Model chi square	57.008			
df	5			
Significance	0.0000			
N	1859			
Constant	-2.8569			

**RC= Reference category*

***Variables not included in the regression model are: residence, religion, years of schooling, father's and mother's level of education, monthly family income and family size, i.e. these are not statistically significant in bi-variate analysis*

Varying proportion of reproductive morbidity was reported by different studies ranging from 22.0% to 92.0% (Wasscrheit *et al.,* 1989; Bang *et al.,* 1989; Kambo *et al.,* 2003). The study revealed a heavy disease burden of reproductive morbidity. The vast majority of the adolescents have been suffering from at least one reproductive morbidity. This high prevalence of reproductive morbidity is certainly disabling women in the community under study, who are mostly illiterate having low socio-economic status. This high prevalence of morbidity raises great concern about women's physical and social well being which causes physical discomfort, personal embarrassment, marital discord and also problems of women's ability to achieve a sustained marital satisfaction (Wasscrheit *et al.,* 1989). Bang *et al.,* (1989) in rural India surprisingly found a high prevalence of gynaecological morbidity of 92 per cent. Both men and women in developing countries with low level of education and lack of health

information, especially about personal hygiene could promote misconceptions about many illnesses and limit preventive practices that lead to increased reproductive morbidity. Women of these areas tend to internalize their health problems because of their status in the family, they may not be allowed to seek health care, or they may feel shy about reporting such sort of reproductive problems causing them to be stigmatized by the community (Khattab, 1992; Barua, 2000). Another important factor might hinder them from seeking health care due to inadequate facilities under the government health infrastructure and or inaccessibility of public hospitals. Most of the public hospitals run with inadequate logistics and manpower in the relevant areas of maternal health care.

Analysis of the study revealed an important programme aspect of reproductive health. The older adolescents with rural background, joint or extended family and non-hygienic practice during menstruation are the causes of high prevalence of reproductive morbidity. Similarly, older adolescents having earnings and autonomy in treatment encouraged them to seek health care from any source. This is consistent with South Indian women (Bhatia and Cleland, 1995). So, the programme of health education should be designed in the line of women status in the family.

In conclusion, the study recommends for creating community awareness about health care facilities and instils self concern in adolescents for their own health needs. The first referral units at the grass root levels are Thana Health Complexes and Family Welfare Centres are required to be equipped infra-structurally as well as with skilled manpower for addressing reproductive health problems of women and to provide appropriate referral services. Built in service component and confidentiality may improve self reporting of reproductive morbidity in rapid health surveys. Studies have shown that self reporting is close to clinical diagnosis when diagnostic criterion is clear (Zurayk, 1995). Thus such surveys could be an inexpensive way for generating continuous information on reproductive health issues for health mangers. The improved and clear diagnostic algorithm for reproductive morbidity help in treating the women with reproductive ailments that will be more fruitful and cost effective in the context of socio-cultural milieu of Bangladesh.

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