Socioeconomic and Demographic Predictors of Women's First Birth at an Early Age: Evidence from Bangladesh's Demographic and Health Survey, 2004-2014

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Abstract

Women's health is highly influenced by early childbearing in 95% of developing countries such as Bangladesh. Women who have their first child at an early age receive fewer years of schooling, which also influences their employment life. Women's early age at first birth creates health complications, increases both maternal and child mortality, and prolongs the reproductive duration as well as a country's fertility rate. This is a major social and public health problem around the world. This study aims to investigate the existing situation in Bangladesh and to identify the triggering influencing factors of age at first birth. A cross-sectional study design was implemented in this study, where we used the Bangladesh Demographic and Health Survey data from 2004, 2007, 2011, and 2014. Firstly, to identify different factors associated with first birth at an early age, the bi-variate analysis method was carried out. Then a logistic regression analysis was performed to assess the simultaneous effect of socioeconomic and demographic factors. Findings of the study reveal that respondent education level, partner's education level, religion, reading newspaper, and type of place of residence had significant contributions for early age at first birth among the female in Bangladesh. Based on the findings, there seems a decreasing trend of having early childbearing in Bangladeshi women over the years, but still, no optimal fertility rate has been achieved. For complex socio-cultural settings in Bangladesh, it is difficult to reduce the fertility rate. Hence, to reduce the prevalence of the age at early childbearing in Bangladesh, the Government and non-government organizations should take proper initiatives considering our study findings.

Keywords: Age at first birth, Factors, BDHS, Logistic regression, Bangladesh, women in Bangladesh.

Introduction

Over the last few decades, there have been major changes in some health development sectors in South Asia, including Bangladesh (Sarkar, 2010). Despite meeting significant health achievements worldwide, still, approximately 800 women die every day due to pregnancy and early childbirth around the world (Sarkar, 2010; Tarekegn, Lieberman, & Giedraitis, 2014). The majority of women in Bangladesh start bearing children before reaching the age of twenty, since they get married at a very early age (Singh, 1998). Bearing children at an initial early age results in higher risks of maternal and child mortality (Menken, Duffy & Kuhn, 2003). Data from 36 Demographic and Health Surveys and World Fertility Surveys (WFS) clearly shows that the average relative risk of death before age five is about 46% higher for children born to mothers

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under 18 and 13% higher for those born to mothers aged 18-19, compared to children of mothers aged 20-34 (Goli, Rammohan, & Singh, 2015). In developing countries, complications during pregnancy and childbirth are the leading causes of death for young women aged 15 to 19; meanwhile, the total fertility rate (TFR) of Bangladesh is 2.1, which means that women have 2.1 children on average in their lifetimes. For a woman, the first birth is one of the most important events in her life, because it is the beginning of maternity and childcare obligations. Therefore, we need to give more attention to the adolescent mother's well-being in Bangladesh (Hobcraft, 1992). Because the practice of teenage marriage and early pregnancy in Bangladesh is still widespread despite significant improvements in various indicators of human development (HDI) compared to 2004 to 2014 (Kamal, 2012).

Evidence shows that children born to teenage mothers have a higher risk of having low birth weight with long-term effects (Ganchimeg, Ota, Morisaki, Laopaiboon, Lumbiganon, Zhang & Vogel, 2014). Several studies emphasize that first birth at lower age results in higher completed fertility (Kohler, Skytthe, & Christensen, 2001). Also, population growth is higher when women give birth at an early age (Singh, 1998). Moreover, teenage mothers are less likely to receive adequate medical care in a health facility to have delivered their youngest child because of having fewer years of education, less involvement in the workforce and overall weak economic prospects (Avogo, & Somefun, 2019; Field, E., & Ambrus, A. 2008). Some studies also suggest the effect of education, wealth, race, living place (urban/rural), on age at first birth as well as the impact of education on young women's entry into motherhood (Lappegård, & Rønsen, 2005). Another study in Bangladesh reveals that, among 69.3% of married adolescents, 56.4% are already mothers, and 12.9% are pregnant for the first time.

Among married women aged 20-49, 62.1% initiate childbearing before age 19. Women's education, husband's education, place of residence, ever use of the contraceptive method, religion, wealth, and region are important determinants for this study (Kamal, 2012). A similar study finds that some social determinants, i.e., race, religion, smoking at a young age, have a significant effect at first birth through education (Rindfuss, & St. John, 1983). A study conducted in South Africa examined the linkages between the timing of union formation and childbearing across multiple countries and demonstrates that the net of individual characteristics and community variables are strong predictors, which means women's education, economic status of households, and those residing in female-headed households and in rural areas are other salient determinants of adolescent family transitions (Gyimah, 2003). Another study shows body mass index (BMI) as an essential indicator by examining that the prevalence of underweight among early pregnant mothers in Bangladesh is very high (32%), which is associated with the still common practice of teenage marriage. The nutritional status of early childbearing mothers is associated with education level, wealth index, occupation, place of residence, age at first marriage, and parity (Islam, Islam, Bharati, Aik & Hossain, 2016). Another study has found that the percentage of those having first birth is higher among women who are Muslim, rural residents, illiterates, or primary school graduates with below the secondary level of education and women from households categorized as economically poor or middle class. The age at first marriage, spousal age difference, lack of contraceptive use, religion, women's working status, and husbands' occupation have significant impacts on age at first birth (Nahar, & Zahangir, 2013).

In developing countries along with Bangladesh, socioeconomic and cultural determinants like perceiving an ideal number of children, literacy status, mass media exposure, wealth status, and child-death experiences of mothers, play a vital role in fertility. It is challenging to reduce fertility in complex socio-cultural settings in rural Bangladesh (Rabbi, & Kabir, 2013). Despite the

declining rate of fertility over the past twenty years, it appears that most of the decrease occurs in older rather than younger age groups (NIPORT, 2005; NIPORT, 2001).

While fecundability in Bangladesh shows an increasing trend, it is very low compared to developed countries (Hoque, Khan & Haque, 2012). Thus, it is essential to examine the reasons behind first births at an early age. Therefore, this study aimed to identify the prevalence and trend of first birth at an early age among married women in Bangladesh from 2004 to 2014. Our primary focus was to determine the triggering factors, so that policymakers can initiate appropriate steps to reduce rates. To achieve our goals, firstly, we used a bivariate analysis method to identify initial factors related to early childbearing. Then we used a logistic regression approach to quantify potential socioeconomic and demographic factors related to first birth at an early age in Bangladesh using Bangladesh Demographic and Health Survey Data 2004 to 2014.

Methods and Materials
Data Source
Bangladesh Demographic and Health Survey (BDHS) 2004, 2007, 2011 and 2014 data were stratified and selected in two stages. (NIPORT, 2014; NIPORT, 2011; NIPORT, 2007; NIPORT, 2004).

Statistical Analysis
To estimate determinants and trends of early childbearing in Bangladesh, univariate, bivariate, logistic regression methods were used. Initially, univariate analysis was performed to examine the levels and trends of first birth at an early age. Then bivariate analyses, i.e., the chi-square test was performed to examine the association between socioeconomic characteristics and early childbearing. The mean odds ratio for which 95% confidence interval was calculated to measure the association between dependent and independent variables, and statistically significant ($p < .005$) variables were further analyzed at the multivariate level by logistic regression. Then the adjusted odds ratio (AOR) was obtained to determine the association between dependent and independent variables along with a 95% confidence interval and p-values. Overall analyses were conducted in SPSS version 20.

Variables
Dependent Variable: The dependent variable for this study was the early age at first birth. Early age at first birth was recorded into two categories and defined as:

$$Y = \{1, if\ Mother's\ age\ at\ first\ birth \leq 19\ 0, otherwise\ \}$$

Independent Variable: To find out the influential factors of first birth at an early age, some socioeconomic and demographic factors were considered. These variables were survey year (2004, 2007, 2011, 2014), division (Barishal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, Sylhet), Type of residence (urban, rural), working status (yes, no), reading newspapers (yes, no), body mass index (normal, underweight, overweight), wealth index (poor, middle, rich), religion (non-Muslim, Muslim) and educational status (up to primary, secondary, higher).

Binary Logistic Regression Model

Bivariate analysis (Pearson's χ2) was performed to assess the relationship between the dependent and independent variables. To find the influencing factors for utilizing maternal healthcare services among pregnant women, we used logistic regression (David, & Lemeshow, 2000). As we categorized the outcome variable into two categories, binary logistic regression (BLR) was used to estimate the association to provide a clear idea about how intensely different factors influence the outcome. Logistic regression generates the coefficients (and its standard errors and significance levels) of a formula to predict a logit transformation of the probability of the presence of the characteristic of interest:

$$logit\ (p) = b_0 + b_1 X_1 + b_2 X_2 + \cdots + b_k X_k$$

Where p is the probability of the presence of the characteristic of interest. The logit transformation is defined as the logged odds:

$$Odds = \frac{p}{1-p} = \frac{Probality\ of\ presence\ of\ characteristic}{Probability\ of\ absence\ of\ characteristic}$$

And

$$logit\ (p) = loglog(\frac{p}{1-p})$$

Rather than choosing parameters that minimize the sum of squared errors (as in ordinary regression), estimation in logistic regression chooses parameters that maximize the likelihood of observing the sample values.

Result

Sociodemographic Backdrops

Analysis was based on the 51,221 valid observations of all ever-married women aged 15-49 in 2004-2014 BDHS survey data for early age at first birth. In order to show the pattern of the distribution and to study sociodemographic characteristics, from Table 1 we can view the percentage distribution of selected variables. Here we can see that, among the total women, 31.0% of women's information was taken from data 2014. The percentage of respondents of the year 2011, 2007, and 2004 were 30.5%, 19.0 %, and 19.5% respectively. In this research, 33.7% of women gave birth to their first child at the age of 19 or above, whereas 66.3% of women gave birth before reaching 19. The dataset consisted of 34.8% urban women and 65.2% rural women. Since most of the part of Bangladesh covered the village area, the percentage of rural women was high. Table 1 shows that 19.0% of respondents were from the Dhaka division, which showed the highest percentage compared to others. Rangpur showed the lowest percentage, which was 7.2% only. The percentages corresponding to Chittagong, Rajshahi, Khulna, Sylhet, and Barisal divisions were found to be 16.8, 16.8%, 15.0%, 13.3%, 11.9%, respectively. On the other hand, the percentage of illiterate partners of the respondents was higher compared to others, which was about 59.2%. The

percentage of the higher educated partner was 13.6%, which is the lowest than another group. Among all the respondents, 27.2% completed the secondary level, and 26.9% completed the primary level. The working status of the respondent was found to be an important variable at an early age at first birth. In our study, 75.5% were working women, and 24.5% were not. Bangladesh is a Muslim country, so the majority, 89.5% of women belonged to the Muslim religion, with 10.5% non-Muslim. The wealth index was an important variable in our study: 36.6% of the women were poor, 19.4% were middle class, and 44.0% were well-off. Body mass index was categorized into normal, underweight, and overweight. The percentages of normal, underweight, and overweight were 57.7%, 24.2%, and 18.1%, respectively. Thus, the percentage of overweight was the lowest. Table 1 shows that 7.1% of women were highly educated, i.e., the rate of higher education in our study was low. Amongst them, 31.7% of respondents completed the secondary level, and 61.7% completed the primary level. In our study, the respondents who read the newspaper were 84.7%, and 15.3% of respondents did not read newspapers.

Table 1: Baseline Characteristics for Selected Determinants

Variables	Categories	Frequency	Percentage (%)
Year of interview	2014	15899	31.0
	2011	15622	30.5
	2007	9687	19.0
	2004	10013	19.5
Early Age at First Birth	No	17242	33.7
	Yes	33979	66.3
Type of place of residence	Urban	17832	34.8
	Rural	33389	65.2
Partners Education level	Up to primary	30343	59.2
	Secondary	13928	27.2
	Higher	6950	13.6
Respondent Currently working	No	38681	75.5
	Yes	12540	24.5
Region	Barisal	6108	11.9
	Chittagong	8606	16.8
	Dhaka	9723	19.0
	Khulna	7663	15.0
	Rajshahi	8631	16.8
	Sylhet	6791	13.3

	Rangpur		3699	7.2
Religion	No Muslim		5376	10.5
	Muslim	4	4587	89.5
Wealth Index	Poor	9	1877	36.6
	Middle		9932	19.4
	Rich	9	2253	44.0
Body Mass Index	Normal	2	2957	57.7
	Underweight	8	1239	24.2
	Overweight		9280	18.1
Highest education Level	Up to primary	5	3133	61.2
	Secondary	7	1623	31.7
	Higher		3649	7.1
Reading newspaper	No	9	4336	84.7
	Yes		7852	15.3
	Yes	9	3397	66.3

Bivariate Analysis

All the demographic variables were significantly associated with first birth at an early age at p < 0.001 as shown in Table 2. The prevalence of early pregnancy among Bangladeshi women over the years 2004 to 2014 decreased from 72.1 % to 64.6 %, which remarked those interview years of the respondents were highly associated (P<0.001) with the first birth at an early age. Divisions were also significantly associated (P<0.001) with the age of their first birth. Here, the Rajshahi division showed the highest number of women (71.3 %) who gave first birth at an early age and the Rangpur division showed the lowest percentage (53.1 %) of first birth at an early age among respondents.

Women from rural areas were more likely to have early age births (69.6 %), compared to those from urban areas (60.3%). Moreover, those who had lower or primary education (73.6 %) were more likely to give their first birth earlier compared to those who had higher levels of education (16.8 %). Similarly, a husband's level of education also showed a similar pattern of influence on the early birth of these women. Women with husbands educated to through the primary level were more likely to give first birth at an early age compared to those with highly educated husbands (73.6 % vs. 38.1 %). A chi-square test showed that the association of all these factors with early first birth was statistically significant (p < 0.001). The wealth index was another factor that influenced the early first birth. This study shows that women from poor households were more likely (73.9 %) to give first birth at an early age compared to those who were not from poor households (middle 70.8 %, rich 58 %). It was also noted that women who did not work

outside the home (housewives) were less likely to give first birth at an early age compared to those who had to work (66.2 % vs. 66.9 %).

The association of religion and first birth at an early age was significant (p < 0.001). Muslim women were more likely (67.7 %) to give first birth at an early age compared to non-Muslim women (54.8 %). Additionally, the prevalence of media communication was significantly associated, with a 1% level of significance. Women who read newspapers on a regular basis were less likely to give first birth earlier compared than those who didn't read (44.8 % vs. 70.2 %). Also, the BMI showed a significant association (p<0.001) with the age of the first birth among the women in Bangladesh where underweight women were more likely (71 %) to produce children at an early age compared to normal (67.4 %) and overweight (56.7 %) women.

Table 2: Association of First Birth at an Early Age with Selected Factors Using the Chi-Square Test

Covariates	Categories	The first birth at early age status		Chi-square test	P-value
		No (%)	Yes (%)		
Year of interview	2014	5632(35.4)	10267(64.6)	184.659	P<0.001
	2011	5472(35.0)	10150(65.0)		
	2007	3340(34.5)	6347(65.5)		
	2004	2798(27.9)	7215(72.1)		
Division	Barisal	2307(33.3)	4071(66.7)	462.204	P<0.001
	Chittagong	3155(36.7)	5451(63.3)		
	Dhaka	3312(34.1)	6411(65.9)		
	Khulna	2337(30.5)	5326(69.5)		
	Rajshahi	2476(28.7)	6155(71.3)		
	Sylhet	2190(32.2)	4601(67.8)		
	Rangpur	1735(46.9)	1964(53.1)		
Type of place of residence	Urban	7082(39.7)	10750(60.3)	448.854	P<0.001
	Rural	10160(30.4)	23229(69.6)		
Partners education level	Up to Primary	7997(26.4)	22346(73.6)	3239.694	P<0.001
	Secondary	4938(35.5)	8990(64.5)		
	Higher	4307(61.9)	2643(38.1)		

Respondent currently working	No	13089(33.8)	25592(66.2)		P<0.001
	Yes	4153(33.7)	8387(66.9)		
Reading newspaper	No	12906(29.8)	30463(70.2)	1930.320	P<0.001
	Yes	4336(55.2)	3516(44.8)		
Body mass index	Normal	9635(32.6)	19926(67.4)	522.521	P<0.001
	Underweight	3592(29.0)	8797(71.0)		
	Overweight	4015(43.3)	5256(56.7)		
Religion	Non-Muslim	2427(45.2)	2947(54.8)	355.567	P<0.001
	Muslim	14815(32.3)	31032(67.7).		

Table 3: Illustrating Various Socioeconomic and Demographic Factors Influencing the Determination of Early Age at First Births in Bangladesh by Using Binary Logistic Regression

Covariates	Categories	OR	P-value	95% CI Odds Ratio	
				Lower	Upper
Year of interview	2014 (Ref)	1.000			
	2011	1.095	<0.001	1.044	1.149
	2007	1.004	0.877	.950	1.063
	2004	1.340	<0.001	1.264	1.421
Region	Barisal (Ref)	1.000			
	Chittagong	1.030	0.376	0.964	1.101
	Dhaka	1.165	<0.001	1.090	1.244
	Khulna	1.445	<0.001	1.347	1.550
	Rajshahi	1.470	<0.001	1.372	1.576
	Sylhet	1.269	<0.001	1.184	1.360
	Rangpur	0.645	<0.001	0.594	0.700
Type of place of residence	Urban (Ref)	1.000			
	Rural	1.171	<0.001	1.124	1.221
Partners education level	Primary (Ref)	1.000			
	Secondary	0.870	<0.001	0.828	0.914
	Higher	0.577	<0.001	0.535	0.622
Respondent currently working	No (Ref)	1.000			
	Yes	1.035	0.142	0.988	1.085
Body mass index	Normal (Ref)	1.000			
	Underweight	1.049	0.051	1.000	1.101
	Overweight	0.955	0.096	0.905	1.008
Wealth Index	Poor (Ref)	1.000			

|					
	Middle	1.065	0.026	1.008	1.126
	Rich	0.935	0.013	0.887	0.986
Religion	Non-Muslim (Ref)	1.000			
	Muslim	2.142	<0.001	2.037	2.251
Reading newspaper	No (Ref)	1.000			
	Yes	0.814	<0.001	0.764	0.867
Highest education level	Primary (Ref)	1.000			
	Secondary	0.845	<0.001	0.804	0.888
	Higher	0.143	<0.001	0.129	0.160

Logistic Regression Effects on Early Age at First Birth

The above table shows the logistic regression coefficient, p-value, and relative odds ratio corresponding to the selected explanatory variables of the required pooled data set. Table 3 shows that, the probability of being early first birth among women was 1.340 (OR= 1.340, p-value<.001, 95% CI: 1.264-1.421) times greater in 2004, 1.004 (OR= 1.004, p-value<.001, 95% CI: 0.950-1.063) times greater in 2007 and 1.095 (OR=1.095, p-value<.001, 95% CI: 1.044-1.149) times greater in 2011 compared to the year 2014. Except for the Chittagong division (p-value= 0.376), all divisions were significantly associated with early age at first birth. The respondents living in the Rajshahi division had 1.470 [OR=1.470, p-value<.001 95% CI: 1.372-1.576] times the higher practice of giving birth at an early age, but people of the Rangpur division had 0.645 (OR=0.645, p-value<.001, 95% CI: 0.594-0.700) times lower practice of giving birth at an early age compared to the Barishal division. The odds ratio corresponding to rural women had 1.171 (OR=1.171, p-value<.001, 95% CI: 1.124-1.221 times higher probability in getting early first birth than the women from the urban areas. Table 3 also shows that the woman whose husband completed secondary education was 0.870 (OR=0.870, p-value<.001, 95% CI: 0.828-0.914) times less and highly educated partners were .577 (OR=0.577, p-value<.001, 95% CI: 0.535-0.622) times less probably get early first birth referred to the women whose partners were primary educated. Moreover, the women who read newspapers were 0.814 (OR=0.814, p-value<.001, 95% CI: 0.764-0.867) times less likely to get early first birth than the women who did not read the newspaper. Women from rich families were less likely (OR= 0.935, 95% CI: 0.887-0.986) to give their birth at an early age compared to women from poor families. The odds ratios corresponded to the middle class (P<0.026) and rich (P<0.013) were statistically significant. Muslim women were 2.142 (OR=2.142, p-value<.001, 95% CI: 2.037-2.252) times higher in getting birth before reaching the age of 18 than the non-Muslin women and it was found as a statistically significant factor. Secondary educated women were 0.845 (OR= 0.845, p-value<.001, 95% CI: 0.804-0.888) times less likely and the women with higher education had 0.143 (OR= 0.143, p-value<.001, 95% CI: 0.129-0.160) times lower probability of early first birth than women with primary education. The regression results demonstrated that the working status of women had no significant effect (P=0.142) at an early age at first birth. The odds ratio corresponded to working women was 1.035 (OR=1.035, 95% CI: 0.988-1.085) times more probable to get the first birth at an early age referred to the women who did not work. Body Mass Index was also a significant factor for early first birth at a 5% level of significance. Overweight women were 0.069 (OR= 0.955, 95% CI: 0.905-1.008) times less likely to have early first birth than normal weighted women.

Trends of Early Age at First Birth Among Women During 2004 to 2014

There has been a substantial decrease of early age at first birth over several years. Figure 1 represents the percentages of first birth at an early age in 2014, 2011, 2007, and 2004, which shows that the tendency of having first birth at an early age was higher in 2004, but the trend decreased over time. A huge decrease was found in 2007 from 2004.

Figure 1: Trends in Giving First Birth at an Early Age from Bangladesh Demographic and Health Survey, 2004-2014.
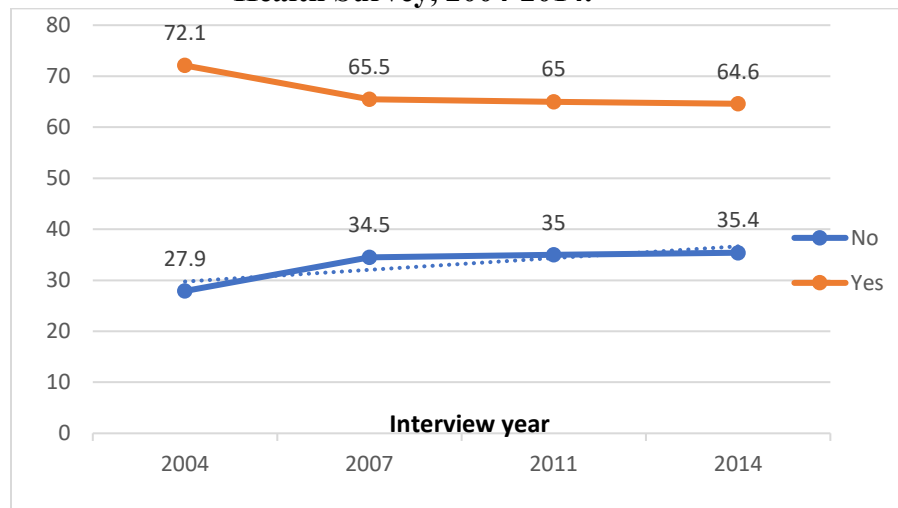
Discussion

Being an important indicator for maternal and child health, first birth is a rite of passage for a woman into motherhood (Rabbi, & Kabir, 2013). This study sought to demonstrate the different triggering key issues of giving first birth at an early age in Bangladesh. In the current study, a multivariate technique was used to explore the dependent variable that determined the respondent's age at first birth using the data of BDHS 2004 to 2014. Obtained results suggested that place of residence factor, partner's education level factor, reading newspaper factor, religion factor, and highest education level factor, were the significant determinants of age at first birth in Bangladeshi women. Our study revealed that the pace of having first birth at an early age was faster among women who were Muslims, rural residents, working women, underweight and middle-class women. Another study revealed that fecundability in Bangladesh followed an increasing trend between the years 1994-2007 (Hoque, Khan, & Haque, 2012), whereas this research found that early age at first birth decreased over time. Here, most of the pregnancies occurred between the ages of 14-19 years, which was consistent with another study conducted in rural areas of Bangladesh, where the mean age at first birth was relatively lower (Aminul Haque, & Sayem, 2009). Pregnancy at an early age was also reproductively higher in the USA within this age group (Berglas, Brindis, & Cohen, 2003).

Moreover, this research showed that urban women were less likely to experience early birth compared to rural women because the age at first marriage was lower for rural women than their urban counterparts in Bangladesh (Tarik, & Kabir, 2013). Also, the lack of working opportunities and significance of the establishment of a family might have important influences on women in rural areas. In urban areas, the establishment of a family at an early age, along with higher age at marriage may contribute lower early births. Moreover, marrying at an older age is the main factor

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in reducing early first births for rural women in Bangladesh (Nahar, & Zahangir, 2013; Berglas, Brindis, & Cohen, 2003).

Our study indicated that the body mass index of maximum childbearing women in Bangladesh was normal weight, while very few young childbearing women in our study were noted to be overweight. Similar outcomes were observed in a few other studies based on Bangladeshi women (Hossain, Bharati, Aik, Lestrel, Abeer, & Kamarul, 2012; Khan, & Kraemer, 2009). Another study in India reported similar findings where maximum numbers of women had normal weight (Bharati, Pal, Bhattacharya, & Bharati, 2007). The prevalence of normal weight among early childbearing mothers in Bangladesh is very high, which was associated with teenage marriage (Islam, Islam, Bharati, Aik, & Hossain, 2016). Women who got married early were pressured to become mothers soon after marriage, especially if they were poor (Nahar, & Zahangir, 2013; WHO 2018), unlike wealthy women. Better-educated women were more likely to take part in the workforce, delaying marriage, and therefore, first birth (Nahar, & Zahangir, 2013; Kamal, 2009). In the Bangladeshi context, due to religion and other belief systems, women's educational level (Adedini, S. A., Odimegwu, C., Imasiku, E. N., Ononokpono, D. N., & Ibisomi, L. (2015) still depends on family structure or socioeconomic condition (Abedin, 2011). Our study emphasized that a partner's education had a significant impact on early age at first birth, since an educated husband is more likely to be aware of early pregnancy-related complications. This research also indicated that the women who read newspapers were more conscious not to conceive a baby at an early age than those who did not read newspapers. A similar study also observed that women with no mass media exposure were more likely to have an early first birth (Nahar, & Zahangir, 2013). Thus, religion and media exposure are also significant determinants for affecting early childbearing. The respondents' working status also showed a significant impact on early age at first birth. It is notable that the current BDHS urges improving women's education levels and working status (Bharati, Pal, Bhattacharya, & Bharati, 2007).

Conclusion

Of all the variables, respondents' current working status and wealth status make by far the strongest contributions to the variability in early age at first birth of women in Bangladesh. To increase the age at first birth, and to curb the population growth rate, significant importance should be attached to the education women. If the literacy rate can be increased, it would develop a sense of national awareness and broader outlook. Hence, an all-out effort should be taken to end female illiteracy. Initiatives must also be taken to ensure at least a secondary education level among girls. In this context, the possibility of free education for females up to the secondary level can be justified, which will accelerate the transition to higher ages at first birth. Moreover, because husbands' education level has an impact on early age at first birth, the education of males must also improve. Working women are more aware of their first birth; hence, the Government should increase job opportunities for women, promoting higher educational access. We need to focus on women from rural areas with no media access and try to reduce the economic disparity and facilities among rural and urban women across the country. By highlighting the adverse effects of early marriage and early first birth in the health of young mothers and their children, integrated social awareness programs and print media may prove effective in reducing the rate of early age at first birth for the Bangladeshi women.

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