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# Child Marriage in Bangladesh
## Determinants, Consequences and Policy Implications

**The State of Bangladesh Population 2014**
Child Marriage in Bangladesh: Determinants, Consequences and Implications


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# Overview and Introduction

Tehmina Ghafur, PhD[*]
Mohammad Bellal Hossain[*]
Mohammad Mainul Islam, PhD[*]

Bangladesh has been one of the few countries in the world where prevalence of child marriage consistently remained very high. It stands fourth in terms of prevalence of child marriage among the ten countries with highest rates of child marriage (UNICEF, 2013). These ten countries are located in South Asia and Sub-Saharan Africa. Bangladesh has the highest rates of child marriage among the South Asian countries. It also has the highest rates of child marriage among girls below 15 years (UNICEF 2014). Thus, situation here is grave as far as it relates to child marriage and deprivations associated with it. There is little room for moving further leaving this issue aside.

Bangladesh has made significant gains in many development spheres. The country has made impressive progress in increasing girls' enrollment in school, lowering fertility and child and maternal mortality over the last decades (NIPORT and *et al.* 2013; NIPORT and *et al.* 2012). The issue of child marriage is closely linked with further decline of these issues. Persistent high level of the prevalence of child marriage in the country is frowned upon both nationally and internationally. Development partners have been taking keen interest on this issue for it being considered as one of the most important development concerns. Despite governmental efforts and measures towards ending child marriage over the years, government's recent move for lowering the legal age of marriage for girls has generated new debates and concerns among researchers, development partners, policy makers and other stakeholders.

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Bangladesh. This report being the first of its kind, the State of Bangladesh Population has chosen child marriage as its theme recognizing it as a major challenge for the development of the country. The report intends to contribute to the existing knowledge on issue of child marriage and to inform the policy makers for appropriate interventions. Moreover, this exercise on the basis of secondary data from different sources has been considered as the stepping stone for carrying out further research on this issue by the department.

Child marriage in this report is referred to any marriage where the age of the girl is less than 18 years. The report focuses on child marriage as an issue of girl child as because child marriage hardly takes place among boys (UNICEF 2014). Child marriage is considered as a violation of child rights as it is internationally recognized and is viewed as a major source of inequality and loss of opportunities.

This report has analysed the issue of child marriage in Bangladesh at length and in depth on the basis of secondary data and information. The chapters in the report are while independent from each other; they are at the same time thematically organized for comprehensively analyzing the issue of child marriage. These chapters together have looked into the trends, causes and consequences of child marriage, causes of regional variations in the prevalence of child marriage and the legal and policy framework for preventing child marriage in Bangladesh. They altogether create the support for evidence based policy recommendations for the country.

The chapters collectively form the evidence of how child marriage occurs amidst inequalities and continues the same cycle through generating further inequalities. The report got engaged in the recent debate over lowering the age at marriage for girls through showing the consequence of it in terms of educational attainment of girls. It chiefly attempted to identify the most critical issues relating to child marriage so that these issues receive greatest policy attention. The chapters on trends, causes and consequences of child marriage and regional variation of child marriage are based on Bangladesh Demographic and Health Survey (BDHS) data and therefore, limited to the variables available in these surveys. The legal and policy framework for child marriage in Bangladesh has

been analyzed on the basis of the systematic review of legal and policy instruments relating to child marriage.

Chapter 2 of the report is titled 'Trends and determinants of child marriage in Bangladesh' and is based on six rounds of Bangladesh Demographic and Health Survey (BDHS) data (BDHS 1993, 1996, 1999, 2004, 2007 and 2011). As it is clear from its title, the chapter aimed to examine if there has been a declining trend in child marriage from 1993 to 2011 to mark any significant progress made on this issue. The chapter has also used the data set of BDHS 2011 to identify the major socioeconomic, demographic and cultural determinants of child marriage in the country for getting deeper understanding on the context of child marriage in this country.

Chapter 3 of the report is titled 'Regional variations of child marriage in Bangladesh' and is based the data set of BDHS 2011. Regional variations on the prevalence of child marriage in Bangladesh have not been adequately examined by other studies on child marriage. Therefore, examining the regional variations on the prevalence of child marriage on the basis of variations in the determining factors of child marriage intends to add depth in the knowledge of causes of child marriage in the country and thus, show the necessity of context specific interventions for prevention of child marriage.

Chapter 4 of the report is titled 'Effect of marital age on women's educational attainment in Bangladesh' is based the data set of BDHS 2011. This chapter investigates the consequence of child marriage in attainment of women's education in the context of government's recent move towards lowering the legal age of marriage for girls. The chapter draws attention on the recent debate generated over government's attempt to brining down legal age for marriage from 18 to 16 years. Thus, the chapter has mainly attempted to examine to what extent educational attainment of women vary among who are married before 16 or who are married below 18 years. The chapter has also examined how age at first marriage affects women's length of schooling. The chapter comes up with stimulating findings in the context of recent developments at the policy level.

Chapter 5 is titled 'Child marriage: how it affects the fertility and reproductive outcome in Bangladesh' is based on the data of BDHS 2011. The chapter has aimed to find out consequence of child marriage on women's fertility and on a number of reproductive outcomes having negative health consequences like rapid repeat child birth, unwanted pregnancy and risk of early child bearing. The findings provide evidence for demographic and health consequences of child marriage.

Chapter 6 is titled 'Prevention of and protection against child marriage in Bangladesh: issues and factors vis-à-vis legal and policy framework'. The chapter has aimed to critically analyze the scope of legal and policy framework of the country for preventing child marriage and mitigating its effects. The chapter is based on the systematic review of the legal and policy instruments of the country. The chapter analyses the legal and policy framework in the context of the existing risk and protecting factors for child marriage in Bangladesh. It has attempted to identify the major lapses and gaps of the legal and policy framework for prevention of and protection against child marriage.

Finally, chapter 7 concludes on the basis of the findings of all the independent but interlinked chapters. In doing so it deals with the issues of child marriage comprehensively on the basis of the findings of each chapter. The chapter then comes up with policy recommendations and future directions for research.

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# Trends and Determinants of Child Marriage in Bangladesh

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Mohammad Bellal Hossain[*]

## Abstract

*This study aims to show the trends and identify the determinants of child marriage in Bangladesh. Bangladesh Demographic and Health Survey data from 1993 to 2011 were used. We analyzed the data through multivariate regression analysis. We find that although there are some declining trends of child marriage in Bangladesh, the rates are still high. Women's education, employment status, husbands' education, wealth quintile, birth cohort, and religion are among the major determinants of child marriage in Bangladesh. Therefore, the government of Bangladesh should take policy interventions to increase females' education and employment opportunities to prevent child marriage in Bangladesh.*

**Keywords:** Child Marriage, Trends, Determinants, Bangladesh

## Introduction

Marriage is an important social institution and played vital role both at individual and societal levels in maintaining reproduction and social harmony. However, child marriage is one of the important obstacles for social and economic expansion at all levels. Marriage before 18 years of age (for girls) is nationally and internationally recognized as child marriage (ICRW, 2007; UNICEF, 2005). Child marriage affects millions of women worldwide and most of them are from developing countries with socio-economically disadvantaged position. The practice of child marriage has been recognized as the extreme violation of child's human rights since it adversely affects child's health and well-being. Despite these negative consequences, it is estimated that around 142 million child marriages will occur in 2011-2020, which will increase to 151 million in 2021-2030, respectively (UNFPA, 2012). Globally, one in every seven women aged 20-24 years were married before age 15, and one-third of the same aged women were married before age 18 (Amin, 2011).

The rate of child marriage has decreased worldwide over the last two decades (Raj *et al.*, 2009). Average age at marriage has also increased in most regions of the developing world (Amin, 2011). However, child marriage persists for large populations especially in south Asian countries such as India, Bangladesh, Nepal and Pakistan. South Asia alone comprises more than half of the total child marriages (Raj *et al.*, 2009). One out of every seven girls in developing world married before they reached their 15th birthday (ICRW, 2007) and more than 165 million girls out of 331 million are expected to marry by their 20th birthday (Kamal and Hassan, 2015). The rate of child marriage is higher in countries with lowest gross domestic product in general and among the poor and rural inhabitants in developing countries in particular (ICRW, 2006).

Reduction of child marriage has long been on the agenda of Bangladesh as a signatory country of the Convention on the Rights of Child (CRC). In spite of well-established laws, child marriage is one of the utmost human rights violation as well as development challenges in Bangladesh. The median age at marriage for females has increased slightly from 14.8 years in 2004 to 16.6 years in 2011 (NIPORT *et al.*, 2013) though marriage before the minimum legal age of marriage – 18 years for females and 21 for males– is a punishable act (GoB, 1984). One-third of Bangladeshi women aged 20-24 years were married by the age of 15 and two-thirds of them were married by the age of 18 (NIPORT *et al.*, 2013). It is estimated that 68 percent of the Bangladeshi girls aged 18 years married before celebrating their 18th birthday and one out of every three girls married by the age of 15 (Amin, 2011). However, a recent study shows an improving trend of child marriage in Bangladesh, 64 percent women aged 20-24 years were married before they reach 18 years of age (Lewis, 2013), which is still one of the highest rates of child marriage in the world (UNFPA, 2012).

Considering the higher rate of child marriage and its wide range of socioeconomic, demographic and health consequences, it is worthwhile to examine the trends and determinants of child marriage in Bangladesh. The trends of child marriage will give

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an overview about the extent to which GO-NGO interventions during last two decades have been able to reduce the rate of child marriage while examining the determinants will facilitate designing more effective strategies for preventing child marriage in Bangladesh. Thus, this study is an attempt to accomplish both of these objectives. In addition, examining the trends and determinants of child marriage will not only have substantial contribution to the literature but also will generate further interest among researchers in conducting future research in areas of child marriage in greater detail.

## Causes of Child Marriage in Bangladesh

Child marriage is determined by several causes due to the multi-dimensional nature of social phenomena. Thus, various components of social structure determine the occurrence of child marriage to a large extent. More specifically, education, employment status, financial condition, demographic and cultural factors such as birth cohort and religion play an important role in the occurrence of child marriage (Gyimah, 2009; Kamal, 2011; USAID, 2012). Previous research shows that women's education is one of the major determinants of child marriage. Less educated women are more likely to have child marriage than the more educated women. The less educated women are not quite aware about the negative consequences of child marriage. They also suffer from social insecurity due to their lower social status and lower levels of social network. In addition, families of less educated women undergo some kind of social pressure of arranging marriage for their daughters earlier in order to avoid problems of arranging marriage at relatively older age with discontinuation of education (Bates et al., 2007, Mensch et al., 2005; Lewis, 2013). These factors also exert similar influence on the occurrence of child marriage in the case of lower education for males (Kamal et al., in press).

Another pivotal determinant of child marriage is women's employment status. Employed women have lower risk of having child marriage compared to unemployed women (Amin, 2011; Lewis, 2013; Kamal et al., in press). For instance, Amin et al. (1998) noticed that working in garments industries in Bangladesh significantly contributed to delay marriage among female workers. The mechanism through which unemployed women become more vulnerable to child marriage is that they have lower participation in decision-making process in their family; and thus, live in an adverse situation of resisting child marriage. On the other hand, employed women enjoy higher status in the society and have greater role in decision-making process. As a result, they are in a better situation to postpone their marriage and focus more on their career. In addition, all three factors mentioned in relation to education (lack of awareness, social insecurity and social pressure) and child marriage also apply in the case of employment status and child marriage (Atkinson et al., 1986; Amin et al., 1998; Lewis, 2013; Sayer et al., 2011).

Financial condition of women has emerged as the most common predictor of child marriage in all studies. Higher rate of poverty is associated with a higher prevalence of child marriage (Brown, 2012; Kamal, 2012). Because of poverty, parents cannot bear the expenditure of higher education for their daughters, which eventually lead to higher incidence of child marriage. This situation is further compounded because higher age of female is associated with higher demand of dowry in Bangladesh. As a result, poor parents arrange their daughters' marriage relatively at younger age. Because of higher expenditure related to education, dowry, and daily living, in many cases, poor parents consider their daughters as a burden, which motivates them to arrange marriage as early as possible (Blomgren, 2013; Mathur et al., 2003; Lewis, 2013).

Apart from the socioeconomic factors, demographic characteristics also exert strong influence on the occurrence of child marriage. Earlier research shows that older cohorts have higher prevalence of child marriage than the recent birth cohorts (Kamal et al., in press). This may be because of greater concurrence on following family tradition of early marriage and role of socialization where women are largely considered as the sole agent of household maintenance, child rearing, and higher practice of sacrificing self-interest to family desires. On the other hand, recent birth cohorts have relatively better education, higher exposure of mass media, and greater participation in the family decision-making process and enjoy more freedom in implementing their own desires (Chen, 1983; Chowdhury, 2004; Jahan, 1975). Consequently, these factors essentially lead to differential pattern in the prevalence of child marriage across birth cohorts.

Along with socioeconomic and demographic factors, cultural factors also led to higher prevalence of child marriage (Amin *et al.*, 2013; Mensch *et al.*, 2005 ) For example, religion plays an important role in determining the levels of child marriage in a society (Kamal *et al.*, in press). If a society is largely dominated by Muslims, the prevalence of child marriage will be higher in that society due to norms and beliefs in Islam that promotes child marriage. In addition, encouragement of preserving virginity and marriage, Islam also exert positive influence towards higher rate of child marriage (Lewis, 2013).

Based on the above discussion regarding the causes of child marriage, the following conceptual framework is developed for exploring the determinants of child marriage in Bangladesh.

**Conceptual Framework of the Determinants of Child Marriage**

Figure 1 presents the conceptual framework of the determinants of child marriage in Bangladesh. It is assumed that different components of social structure work as determinants of child marriage in Bangladesh. More specifically, social factors (education and employment), economic factors (wealth quintile), demographic factors (birth cohort and cultural factors (religion) largely determines the levels of child marriage. The impacts of these factors are mediated through a series of other intermediate factors shown in figure 1 with each of the determinants. For example, the impact of lower education and unemployment on child marriage is mediated through their lack of awareness about the adverse consequences of child marriage, higher levels of social insecurity and social pressure. In addition to these indirect effects, there is a direct effect of social structure on child marriage that indicates the existence of many other unobserved factors (e.g., parental educational background, social insecurity, and social pressure) as the possible determinants of child marriage in Bangladesh. Possible unobserved factors might include gender inequality, child trafficking, and threats of rape or throwing acid. Godha *et al.* (2013) argues that the contributing factors to child marriage also include greater incidence of conflict and civil strife and lower levels of overall development indicators such as schooling, employment and healthcare.

**Figure-1: Conceptual framework of the determinants of child marriage**
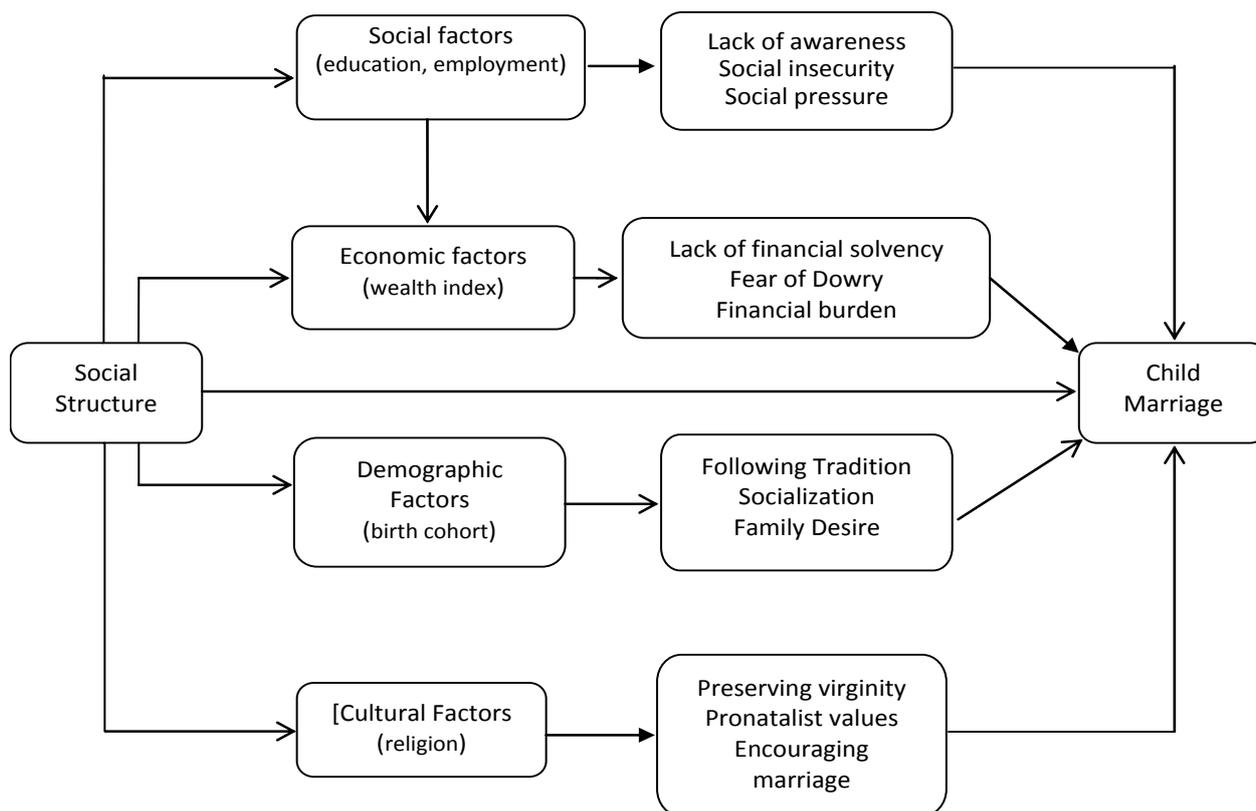
**Research Hypotheses**

Based on the above conceptual framework following research hypotheses are developed for testing in this study:

*Hypothesis 1*: Women with lower education have higher rate of child marriage.

*Hypothesis 2*: Unemployed women have higher rate of child marriage.

*Hypothesis 3*: Women with lower wealth have the higher likelihood of child marriage.

*Hypothesis 4*: Younger birth cohorts have lower prevalence of child marriage.

*Hypothesis 5*: Muslim women have higher rate of child marriage.

**Data and Methods**

We used six rounds of Bangladesh Demographic and Health Survey (BDHS) data (1993, 1996, 1999, 2004, 2007 and 2011) to estimate the trends of child marriage in Bangladesh over time. We employed data from the 2011 BDHS to identify the determinants of child marriage in Bangladesh. The survey was conducted in 2010 using a representative sample of households throughout the country by the National Institute of Population Research and Training (NIPORT), Ministry of Health and Family Welfare in cooperation with Mitra and Associates, ICF International, and US agency for International Aid (USAID).

The 2011 data set contains information on 17,842 ever-married women aged 12-49 years. Assuming the randomization of missing values, list-wise delete method was employed to finalize the study population due to less than 5 percent of missing values. As a result, the sample size for this study was reduced to 17,808. The detailed method about how the data was collected is available elsewhere (NIPORT *et al.*, 2013).

*Dependent variable*

The dependent variable of interest in this study was *status of child marriage*. The 2011 data set contains respondents' 'age at first cohabitation' (in years). This variable used to define two categories of the status of child marriage: (1) child marriage, and (2) adult marriage. The women who were married before reaching age 18 were defined as *child marriage,* and those who were married at age 18 or above were defined as *adult marriage.*

*Independent variables*

The independent variables incorporated in this study are respondents' birth cohort, education, employment status, husband's education, wealth quintile, and religion. The 2011 BDHS contains respondents' year of birth. This variable has been used to develop the independent variable of *birth cohort*. In this case, birth cohort is comprised of four categories: (1) 1960-1969, (2) 1970-1979, (3) 1980-1989 and (4) 1990-1999. The last category has been considered as reference category in the multivariate analysis.

Respondents' education was coded into four categories: (1) no education, (2) primary, (3) secondary, and (4) higher than secondary. The *higher than secondary* was used as the reference category in the analysis. Similar procedure was followed in coding and applying *husband's education* in the analysis. Respondents' employment status was coded into two categories: employed and not employed.

Regarding wealth quintile, the 2011 BDHS contains respondents' information on wealth quintile into five categories: (1) lowest, (2) second, (3) middle, (4) fourth, and (5) highest. This variable was directly used in the multivariate analysis as categorical variable and the last category was used as the reference category in the analysis. Finally, respondents' *religion* was coded into two categories: *Islam* and *others religion*.

It should be mentioned that earlier research (e.g., Kamal *et al.*, in press) showed that the prevalence of child marriage also varied by respondents' place of residence (i.e., rural-urban). However, most recent studies shows that respondents' place of residence was not statistically significant in explaining differences in child marriage when wealth was included in the model suggesting that variation in child marriage is largely due to their differences in wealth quintile (Islam *et al.*, in press). For this reason, wealth quintile was included in the analysis as control variable and the place of residence was not included in the analysis.

We analyzed data using a combination of descriptive, bivariate and multivariate analyses. In multivariate analysis, logistic regression was carried out due to the dichotomous nature of the dependent variable of interest. The findings of the logistic regression were reported in odds ratios. An

advantage of reporting logistic regression output as odds ratio is that it is convenient to interpret and easy to follow for common readers. For instance, the null value of odds ratio is 1.00 indicating that there is no difference in child marriage between study group and reference group. An odds ratio of less than 1.00 denotes lower chance of child marriage for the study group as compared to the reference group and vice versa.

*Sample characteristics*

Table 1 shows the sociodemographic, economic, and cultural characteristics of the respondents. Among the respondents, 77.7 percent had child marriage. The mean age at first marriage of ever-married women aged 12-49 years was 15.6 years. The percentage distribution of ever-married women by birth cohort shows that the highest percentage of women (37.9 percent) was born during 1980-1989 followed by 1970-1979 (27.3 percent). Almost equal proportions of ever-married women were born during 1960-1969 and 1990-1999 (17.0 and 17.8 percent, respectively).

**Table-1: Characteristics of ever-married women aged 12-49 years in Bangladesh, 2011**

| Variables | Frequency | Percentage/ (Mean) |
|---|---|---|
| ***Status of marriage*** | | |
| Child marriage | 13,832 | 77.7 |
| Adult marriage | 3,976 | 22.3 |
| ***Age at first marriage (years)*** | 17,808 | (15.6) |
| ***Birth cohorts of respondents*** | | |
| 1960-1969 | 3,033 | 17.0 |
| 1970-1979 | 4,867 | 27.3 |
| 1980-1989 | 6,741 | 37.9 |
| 1990-1999 | 3,167 | 17.8 |
| ***Respondents' education*** | | |
| No education | 4,636 | 26.0 |
| Primary | 5,315 | 29.8 |
| Secondary | 6,394 | 35.9 |
| Higher | 1,463 | 8.2 |
| ***Respondent's employment status*** | | |
| Employed | 2,368 | 13.3 |
| Not employed | 15,440 | 86.7 |
| ***Husband's education*** | | |
| No education | 5,194 | 29.2 |
| Primary | 4,825 | 27.1 |
| Secondary | 5,166 | 29.0 |
| Higher | 2,623 | 14.7 |
| ***Wealth quintile*** | | |
| Lowest | 3,093 | 17.4 |
| Second | 3,338 | 18.7 |
| Middle | 3,416 | 19.2 |
| Fourth | 3,770 | 21.2 |
| Highest | 4,191 | 23.5 |
| ***Religion*** | | |
| Islam | 15,813 | 88.8 |
| Other | 1,995 | 11.2 |
| N | 17,808 | 100.0 |

One-fourth of the respondents do not have any education and 8.2 percent of the respondents have higher than secondary education. Only 13.3 percent of the respondents were employed at the time of the survey. Concerning husband's education, 29.2 percent have no education, 27.1 percent have primary education, 29.0 percent have secondary education, and 14.7 percent have higher than secondary education (Table 1).

Regarding wealth quintile, about one-third of the respondents belonged to either lowest or second category while 19.2 percent was in the middle income group. The fourth and the highest categories jointly comprised of 44.7 percent of the total respondents. Distribution of religion shows that the Muslims were predominant (88.8 percent).

**Results**

*Trends in age at first marriage*

In general, there has been a slower increase in age at first marriage in Bangladesh during 1993 to 2001 with some fluctuations in 1996-97 and 2004. For example, in 1993-94 the median age was 14.4 years, which has increased to 15.0 in 2000. Since then the median age at first marriage has increased to 15.8 years in 2011 (figure 2).

**Figure-2: Median age at first marriage among women aged 20-49 years in Bangladesh, 1993-2011**
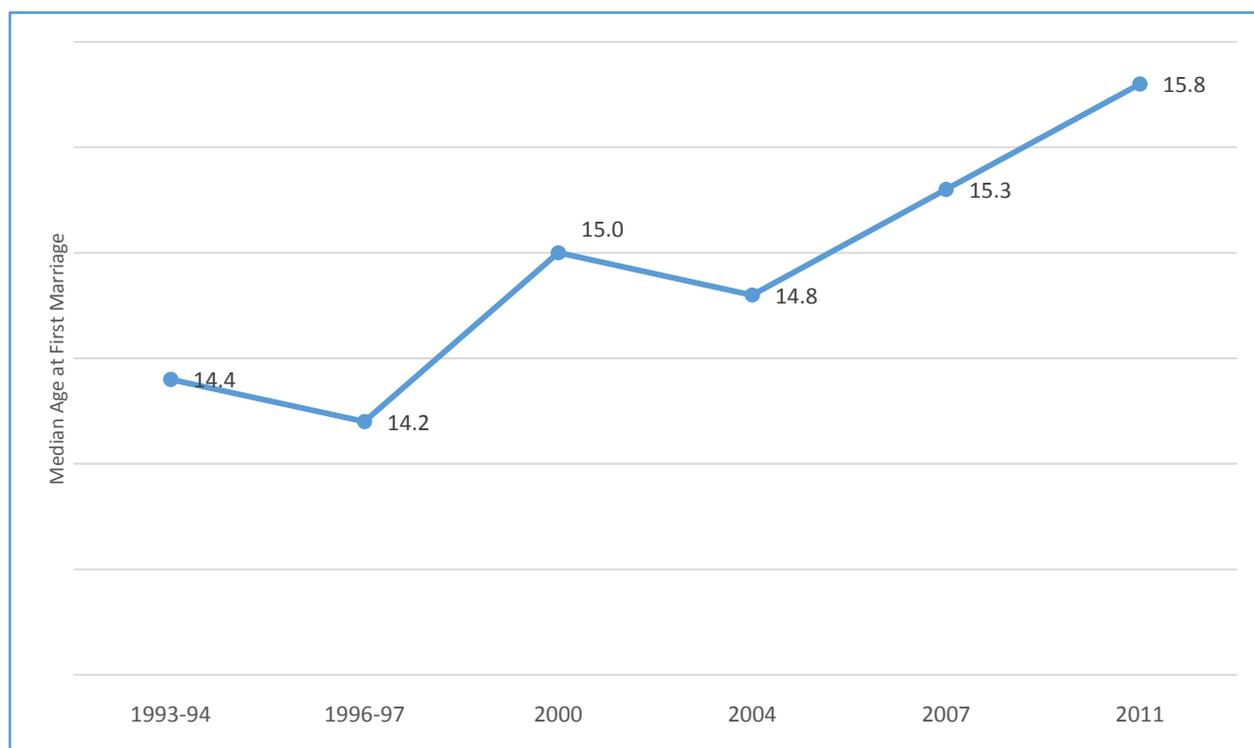


*Trends of child marriage*

Figure 3 shows the percentages of child marriage among the women aged 20-24 years in six different consecutive periods using two different denominators: (1) all women (both married and never married) and (2) ever-married women only. If we consider all women as the denominator to compute rates of child marriage then we see that 73.0 percent women had child marriage in 1993, which has reduced to 65.0 percent in 2011 undergoing some fluctuations between these two time points. On the other hand, if we consider only

among ever-married women aged 20-24 years as the denominator then we see that the percentages of child marriage are slightly higher as compared to the estimated based on all women as the denominator. For instance, 84.0 percent women aged 20-24 years had child marriage in 1993 which has reduced to 75.0 percent in 2011. What comes out clearly from the trends of child marriage in Bangladesh is that, whatever the denominator, there is no remarkable decline in the rates of child marriage in Bangladesh from 1993 to 2011.

**Figure-3: Trends in proportion of women age 20-24 who were first married by age 18**

| | 1993 BDHS | 1996 BDHS | 1999 BDHS | 2004 BDHS | 2007 BDHS | 2011 BDHS |
|---|---|---|---|---|---|---|
| Never & ever married women | 73 | 69 | 65 | 69 | 66 | 65 |
| Ever married women | 84 | 83 | 80 | 81 | 77 | 75 |
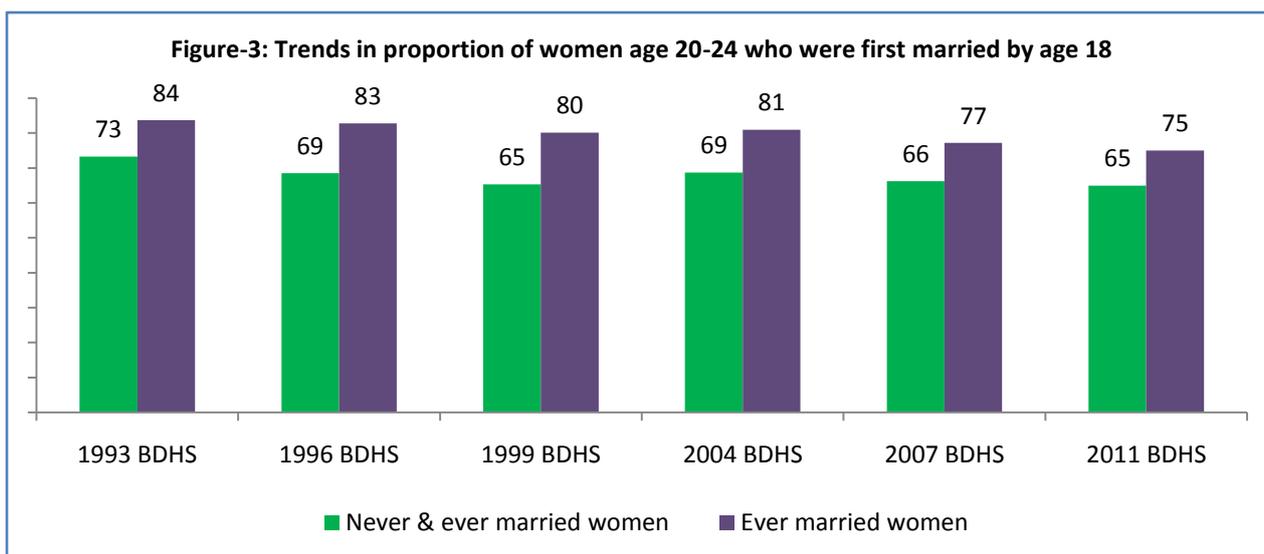
*Correlates of child marriage*

Table 2 shows the status of child marriage and different characteristics of the respondents. It shows that earlier cohorts have higher rate of marriage than recent cohorts with an exception for the cohort of 1990-1999. For example, 80.9 percent of 1960-1969 cohort had child marriage which is 76.5, 73.3, and 85.7 percent for 1970-1979 and 1980-1989 cohorts, respectively. In contrast, recent cohorts have higher percentages of adult marriage than older cohorts with an exception for the 1990-1999 cohorts. These differences in status of child marriage by cohorts are statistically significant (*p*<0.001). The highest percentage of child marriage among the most recent cohort (1990-1999) is due to truncation in age group,

which restricts inclusion of adult marriages and facilitates greater number of child marriages.

Lower educated women are more likely to have higher rate of child marriage and lower rate of adult marriage compared to higher educated women. For example, women with no education have the highest percentage of child marriage (87.3 percent) followed by primary (85.5 percent), secondary (75.2 percent) and higher than secondary education (29.2 percent). However, 12.7 percent of the women with no education have adult marriage, which is 75.7 percent for women having higher than secondary education. These differences in status of child marriage by education are also statistically significant (*p*<0.001). This is also true in the case of husband's education and status of child marriage.

**Table 2: Percentage of child marriage by background characteristics in Bangladesh, 2011**

| Characteristics | Age at marriage (years) | | Chi-square, p-value |
|---|---|---|---|
| | <18 | >=18 | |
| ***Birth cohort*** | | | *214.188,<0.001* |
| 1960-1969 | 2454 (80.9) | 579 (19.1) | |
| 1970-1979 | 3723 (76.5) | 1144 (23.5) | |
| 1980-1989 | 4941 (73.3) | 1800 (26.7) | |
| 1990-1999 | 2714 (85.7) | 453 (14.3) | |
| ***Respondent's education*** | | | *2418.425,<0.001* |
| No education | 4049 (87.3) | 587 (12.7) | |
| Primary | 4542 (85.5) | 773 (14.5) | |
| Secondary | 4810 (75.2) | 1584 (24.8) | |
| Higher | 431 (29.5) | 1032 (70.5) | |

*(continued)*

**Table 2:** *(continued)*

| Characteristics | Age at marriage (years) | | Chi-square, p-value |
| --- | --- | --- | --- |
| | **<18** | **>=18** | |
| ***Employment status*** | | | *58.478,<0.001* |
| Not employed | 12137 (78.6) | 3303 (21.4) | |
| Employed | 1695 (71.6) | 673 (28.4) | |
| ***Husband's education*** | | | *1522.066,<0.001* |
| No education | 4548 (87.6) | 646 (12.4) | |
| Primary | 4045 (83.8) | 780 (16.2) | |
| Secondary | 3913 (75.7) | 1253 (24.3) | |
| Higher | 1326 (50.6) | 1297 (49.4) | |
| ***Wealth quintile*** | | | *963.113,<0.001* |
| Lowest | 2688 (86.9) | 405 (13.1) | |
| Second | 2842 (85.1) | 496 (14.9) | |
| Middle | 2833 (82.9) | 583 (17.1) | |
| Fourth | 2900 (76.9) | 870 (23.1) | |
| Highest | 2569 (61.3) | 1622 (38.7) | |
| ***Religion*** | | | *177.587,<0.001* |
| Islam | 12516 (79.2) | 3297 (20.8) | |
| Others | 1316 (66.0) | 679 (34.0) | |
| Total | 13832 (77.7) | 3976 (22.3) | |

Concerning employment, we noticed that employment status is associated with child marriage. Table 2 shows that among the unemployed respondents 78.6 percent had child marriage, which was 71.6 percent for employed respondents. Conversely, the percentage of adult marriage was lower among unemployed respondents (21.4 percent) than employed respondents (28.4 percent). These differences in status of child marriage by employment are statistically significant ($p<0.001$).

There is an association between the rates of child marriage and wealth quintile. Table 2 reveals that the highest percentage of child marriage occurred among the respondents with the lowest wealth quintile (86.9 percent), followed by second (85.1 percent), middle (82.9 percent), fourth (76.9 percent), and the highest (61.3 percent). Nevertheless, the respondents with the lowest wealth quintile had the lowest percentage of adult marriage (13.1 percent) and the highest category

had the highest percentage of adult marriage (38.7 percent). The variations in status of child marriage and wealth quintile are statistically significant ($p<0.001$).

There are also substantial variations in the rates of child marriage by religion. Table 2 depicts that among the Muslim respondents 79.2 percent had child marriage whereas the percentage of child marriage was 66.0 percent among the followers of others religion. Consequently, the percentage of adult marriage was lower among the Muslim respondents (20.8 percent) compared to the followers of other religions (34 percent). The difference in status of child marriage and religion are also statistically significant ($p<0.001$).

The bivariate analyses show that respondents' socioeconomic, cultural and demographic factors were associated with the occurrence of child marriage. However, it is worthwhile to further examine whether these associations are statistically significant even after adjusting for

respondents' background characteristics to identify the determinants of child marriage. Thus, identifying the determinants of child marriage in Bangladesh will not only enable us to better predict the impact of socioeconomic, demographic and cultural factors on the occurrence of child marriage, but also will contribute a lot to design effective strategies to prevent child marriage in Bangladesh. The following section presents multivariate regression analysis concerning the determinants of child marriage in Bangladesh.

*Determinants of child marriage*

Table 3 shows the logistic regression estimates of the determinants of child marriage in Bangladesh. There are four models in Table 3. Model 1 is the basic model and includes only respondents' education as the determinant of child marriage. Model 2 takes respondents' employment status into account in addition to respondents' education as the predictors of child marriage. Model 3 incorporates husband's education and wealth quintile along with respondents' education and

employment status to estimate the impact of these variables on child marriage. Finally, model 4 (full model) includes the respondents' birth cohort and religion in addition to all variables in model 3.

Model 1 shows that the respondents with no education had 16.52 times higher odds of having child marriage than the reference category of respondents who had higher than secondary education. The odds of having child marriage for respondents with primary and secondary education were 14.07 and 7.27 times, respectively compared to the reference category. The impact of education on child marriage was similar even after inclusion of respondents' employment status in model 2. Model 2 also shows that employed women were likely to have 24.6 percent lower odds of having child marriage than the unemployed women (Table 3). These findings support our second hypothesis: *unemployed women have higher rate of child marriage than employed women.*

**Table-3: Logistic regression estimates of the determinants of child marriage**

| Variables | Model 1 OR (Std. Error) | Model 2 OR (Std. Error) | Model 3 OR (Std. Error) | Model 4 OR (Std. Error) |
|---|---|---|---|---|
| ***Respondents' education*** | | | | |
| No education | 16.516 (1.196)** | 16.329 (1.183)** | 7.881 (0.724)** | 9.166 (0.894)** |
| Primary | 14.069 (0.975)** | 13.707 (0.953)** | 7.428 (0.627)** | 8.213 (0.719)** |
| Secondary | 7.271 (0.467)** | 7.033 (0.454)** | 4.879 (0.353)** | 4.991 (0.367)** |
| Higher (ref) | 1.000 | 1.000 | 1.000 | 1.000 |
| ***Respondent's employment status*** | | | | |
| Employed | | 0.754 (0.042)** | 0.741 (0.041)** | 0.810 (0.045)** |
| Not employed (ref) | | 1.000 | 1.000 | 1.000 |
| ***Husband's education*** | | | | |
| No education | | | 1.840 (0.149)** | 1.762 (0.145)** |
| Primary | | | 1.592 (0.114)** | 1.506 (0.110)** |
| Secondary | | | 1.320 (0.081)** | 1.272 (0.079)** |
| Higher (ref) | | | 1.000 | 1.000 |

*(continued)*

**Table-3:** *(continued)*

| Variables | Model 1 OR (Std. Error) | Model 2 OR (Std. Error) | Model 3 OR (Std. Error) | Model 4 OR (Std. Error) |
|---|---|---|---|---|
| ***Wealth Quintile*** | | | | |
| Lowest | | | 1.570 (0.115)** | 1.482 (0.113)** |
| Second | | | 1.562 (0.104)** | 1.439 (0.097)** |
| Middle | | | 1.597 (0.099)** | 1.512 (0.096)** |
| Fourth | | | 1.324 (0.073)** | 1.272 (0.071)** |
| Highest (ref) | | | 1.000 | 1.000 |
| ***Birth cohorts of respondents*** | | | | |
| 1960-1969 (ref) | | | | 1.000 |
| 1970-1979 | | | | 0.920 (0.058) |
| 1980-1989 | | | | 0.851 (0.052)** |
| 1990-1999 | | | | **1.961** (0.154)** |
| ***Religion*** | | | | |
| Islam | | | | 1.890 (0.106)** |
| Other (ref) | | | | 1.000 |
| Constant | 0.418 (0.024)** | 0.445 (0.026)** | 0.375 (0.023)** | 0.211 (0.019)** |
| -2 Log Likelihood chi-square | -8431.895 | -8419.147 | -8318.857 | -8151.953 |
| **N** | 17808 | 17808 | 17808 | 17808 |

*$p<0.05$ and **$p<0.01$

Inclusion of husband's education and wealth quintile had reduced the odds of having child marriage for each of the three categories of education in model 3 to just half from that of model 2. Model 3 shows that lower education of husband was associated with higher prevalence of child marriage. This was also true for wealth quintile (Table 3).

Model 4 shows that even after inclusion of respondents' birth cohort and religion, less educated women were more likely to have higher prevalence of child marriage than the women who were higher educated. More specifically, the respondents with no education had 9.17 times higher odds of child marriage than their higher educated counterparts after controlling respondents' employment status, husbands'

education, wealth quintile, birth cohort and religion. The odds of having child marriage for respondents with primary and secondary education were 8.21 and 4.99 times higher than the reference category. These findings clearly support our first hypothesis: *women with less education have higher rate of child marriage than their higher educated counterparts.*

Consistent with the expectation in hypothesis 2 we have found that employed women were likely to have 19.0 percent lower odds of child marriage than those women who were not employed (model 4 in Table 3). Model 4 shows that husbands with no education had 76.2 percent higher odds of having child marriage than the reference category of higher than secondary education. In addition, husbands with primary and secondary education

were likely to have 50.6 and 27.2 percent higher odds of child marriage than the reference category (Table 3). These findings clearly show that husbands' education is also an important determinant of child marriage for women.

Another strong determinant of child marriage is respondents' wealth quintile. Model 4 shows that women belong to lowest quintile had 48.2 percent higher odds of child marriage than the women belong to the highest wealth quintile even after adjusting for the selected socio-demographic and cultural factors. The higher odds of having child marriage for the women belong to second and fourth quintile were 43.9 and 27.2 percent, respectively than the reference category of the women belongs to the highest wealth quintile (Table 4). These findings provide evidence in support of our third hypothesis: *women with lower wealth have the higher risk of child marriage than the women with higher wealth.*

In accordance with the expectation in our fourth hypothesis, we also have found that recent birth cohorts had lower incidence of child marriage than the older birth cohorts except for the birth cohort of 1990-1999. For instance, the respondents who were born during 1980-1989 had 14.9 percent lower odds of having child marriage than those who were born between 1960 and 1969. These findings suggest a decreasing trend in child marriage over time in Bangladesh. Regarding the exception of 1990-1999 birth cohort, which shows almost two times higher odds of child marriage than the oldest cohort (1960-1969), it should be mentioned that the higher odds of child marriage does not indicate an increase in child marriage in recent years rather it has happened due to limited possibility of including adult marriage in this cohort. More specifically, those who were born after 1993 were less than 18 years old at the time of the survey and all of them were married. Thus, this cohort is overwhelmingly represented by the young females who were married before attaining 18 years of age. For this reason, the odds of having child marriage for this cohort were showing higher than the reference category.

Finally, we have noticed that Muslims had 89.0 percent higher odds of having child marriage than the followers of other religion adjusted for the socioeconomic, demographic and cultural characteristics (model 4 in Table 3). Thus, our fifth hypothesis of *higher prevalence of child marriage among Muslims as compared to other religions* is also supported.

**Discussion and Conclusions**

The objectives of this study were to describe trends of child marriage and identify the determinants of child marriage in Bangladesh. The first objective has been accomplished through using six waves of BDHS (1993 to 2011) and the second objective was fulfilled through the application of multivariate logistic regression using the 2011 BDHS data set. We have found that despite a slight decrease in the rates of child marriage during the last two decades, it is still high in Bangladesh context. Multivariate logistic regression estimates show that the occurrence of child marriage in Bangladesh is determined by multiplicity of causes such as socioeconomic, demographic and cultural factors.

Regarding the socioeconomic factors, we find that the occurrence of child marriage in Bangladesh is largely determined by women's education, employment status, husband's education and wealth quintile. Less educated women have the highest prevalence of child marriage than the higher educated women. Those who have lower education are more likely to have lower rate of participation in the labour market, and thus at higher risk of becoming vulnerable in terms of financial solvency and taking decision about their own lives. As a result, unemployed women have the higher rate of child marriage than employed women. Another important determinant of child marriage is husband's education. It should be mentioned that the occurrence of child marriage is a two-way process where bride's family decides to arrange marriage for their daughter and bridegroom agrees to take part in the marriage process. Higher educated bridegrooms are less likely to take part in a marriage where the bride is less than 18 years old. Thus, the lower education of males actually facilitates higher incidence of child marriage in Bangladesh Therefore, necessary initiatives should be taken both by the government and non-government organizations (NGO) to

ensure appropriate education and employment opportunities both for males and females in order to prevent child marriage in Bangladesh.

Another pivotal determinant of child marriage in Bangladesh is wealth quintile. Lower wealth quintile leads to higher rate of child marriage. In many cases, parents cannot afford higher education for their children because of extreme poverty and, therefore, arrange marriage for their daughters who are yet to become 18 years old. This situation is further aggravated by higher practice of dowry in Bangladesh. Earlier research shows that the amount of dowry is relatively lower for young girls (Brown, 2012). For this reason, parents try to arrange their daughters' marriage as early as possible so that they do not have to pay too much as dowry. These findings clearly suggest that the ultimate goal of a state should be to eradicate poverty. This is particularly important for those who are living in slum areas, rural areas and are disadvantaged in terms of basic needs in our society. Eradicating poverty will have huge impact in preventing child marriage in Bangladesh.

The values of the intercepts in all models shown in Table 3 are positive which indicates that even if all covariates are set to zero, there will be some incidence of child marriage in Bangladesh. This raises the question of what are the other determinants of child marriage in Bangladesh. Possible unobserved determinants might include child trafficking, social insecurity, social pressure,

and fear of dowry (Lewis, 2013). For instance, Sathkhira is having one of the highest incidences of child marriage in Bangladesh (BBS and UNICEF, 2014) which has also high rate of women and child trafficking. Therefore, the reasons for high rate of child marriage in this area partly might be due to higher prevalence of child trafficking. Thus, the possible existence of unobserved factors as the determinants of child marriage suggests that the government (GO) and NGO initiatives should adapt a multi-dimensional approach that will address not only socioeconomic problems but also will bring qualitative change among people regarding their attitude towards child marriage.

In this study, we have looked at the determinants of child marriage in Bangladesh in general. However, it is important to look at the region-specific determinants of child marriage in Bangladesh. We did not look at the consequences of child marriage. Having a better understanding of the consequences would enable policy-makers to design most appropriate awareness programme in one hand and preventive programmes on the other. Therefore, future research should focus on both the regional variations and consequences of child marriage in Bangladesh. Finally, other important avenues for future research could be assessing the adequacy of current GO-NGO initiatives and examining the appropriateness of existing legal and policy frameworks of preventing child marriage in Bangladesh.

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# Regional Variations in Child Marriage in Bangladesh

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## Abstract

*This study aims to investigate regional variations of child marriage in Bangladesh with a view to generate recommendations for division-specific policy interventions. Another objective of this study is to quantify the relative contribution of each of the selected socio-demographic, economic, and cultural factors to the regional variations in child marriage. Using data from the Bangladesh Demographic and Health Survey 2011, multivariate logistic regression and decomposition analysis were done. We found substantial regional variations in child marriage in Bangladesh. Rangpur and Khulna had more than four times higher odds of child marriage than Sylhet. Barisal and Rajshahi had more than three times higher odds of child marriage than Sylhet. Chittagong and Dhaka had about two times odds of child marriage than Sylhet even after controlling for selected socio-demographic, economic and cultural characteristics. We also noticed that child marriage had association with respondents' education, employment status, husband's education, and wealth quintile. Policy implications of these findings are discussed in the context of Bangladesh.*

**Keywords:** Child marriage, Regional variation, Decomposition analysis, Bangladesh

## Introduction

Bangladesh has received inordinate attention among developing partners and international organizations because of its high rate of child marriage which has wide range of physical, socioeconomic, intellectual, psychological and emotional consequences in the lives of young girls (Aryal, 2007; Bruce and Clark, 2004; Godha *et al.,* 2013). It has also received huge attention among researchers, policy makers and human rights advocates within the country. Most of the earlier research on child marriage in Bangladesh has looked at the causes (Islam and Ahmed, 1998; Kamal, 2011; Kamal *et al.,* in press; Sarkar, 2009) or consequences of child marriage (Islam and Mahmud, 1996; Kamal and Hassan, in press) or both causes and consequences (Sarkar, 2009). In addition, some of the previous research has focused on assessing the adequacy of the government (GO) and non-government organizations' (NGO) interventions to prevent child marriage in Bangladesh (Lewis, 2013; UNICEF, 2002; UNFPA, 2012).

The earlier studies suggest that the determinants of child marriage in Bangladesh are multidimensional. Lewis (2013) reported that the causes of child marriage include poverty, low education, lack of security both at home and public space, dowry, traditional norms and related social pressure, and parent's anxiety about protecting daughter's chastity until marriage. Besides, Human Development Research Centre (HDRC) (2011) noticed that higher incidence of civil conflict and lower levels of development in areas of education, employment and healthcare facilities lead to higher occurrence of child marriage. Similar findings were also confirmed elsewhere (Islam and Ahmed, 1998; Kamal, 2011; Kamal *et al.,* in press).

Concerning the consequences of child marriage Plan International (2013) found that poor health due to early pregnancy, unable to manage relationship in the marital home, and stopping education were the most common outcomes of child marriage in Bangladesh. Consistent with these findings, Center for Reproductive Rights (2010) revealed that higher rate of unwanted pregnancy, complications associated with early pregnancy, discrimination and violence, little or no ability to leave abusive partners, and lack of capability to secure legal and social support were the major consequences of child marriage. Field (2004:1) also reported similar findings and argued that "these individual outcomes suggest a number of larger social consequences of early marriage, including higher population growth, greater spread of disease, and a higher incidence of orphans".

Although the causes and consequences of child marriage have received adequate attention in earlier studies in Bangladesh, the aspect of regional variations in child marriage in Bangladesh has

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received limited to no attention. Hence, it is worthwhile to explore the extent to which the occurrence of child marriage in Bangladesh varies by regions (in this case, by divisions) in order to ensure that no region is left unattended in terms of policy interventions despite having relatively higher rate of child marriage. Moreover, examining the regional variations in child marriage will provide better insight about role of specific determinants of child marriage for a particular region. This would eventually enable policy makers to design region-specific most effective intervention.

Thus, the objective of this study is to examine the extent to which the prevalence of child marriage varies by divisions in Bangladesh. Another objective of this study is to quantify the relative contribution of each of the selected determinants of child marriage by division. This would help recommending the most viable and effective policy options to prevent child marriage in Bangladesh. The theoretical framework for plausible explanations of regional variations in child marriage is presented below.

**Causes of Regional Variations in Child Marriage**

Regional variations of child marriage arise from multiple reasons due to the multi-dimensional nature of the causes of child marriage. Firstly, substantial differences in educational levels of young females by division could lead to regional variations in child marriage in Bangladesh. A division with greater percentage of higher education would have lower rate of child marriage than another division with a lower percentage of higher education. This assumption is consistent with the findings of previous research conducted by Lewis (2013). They found that education had strong negative association with child marriage. For example, 86 percent women with no education were married before 18 years of age whereas only 26 percent women who had completed secondary or higher education were married before the same age. In connection with this, USAID (2012:12) argued that "one of the best ways to enable children to avoid early marriage is to keep them in school...children are less likely to marry early if they are kept in school, emphasizing quality primary schooling, which facilitates the transition to higher levels of schooling."

Another possible source of the regional variations in child marriage is the differential levels of husband's education. This presumption is based on the premise that lower educated males are more likely to marry girls aged below 18 years than their higher educated counterparts. Kamal *et al.* (in press) examined the determinants of child marriage in Bangladesh using Bangladesh Demographic and Health Surveys (BDHS) from 1993 to 2011. They observed that the odds of marrying girls below age 18 years was 93 percent lower for higher educated husbands compared to their counterparts with no education. Therefore, if there are significant differences in males' education by division then it will eventually lead to substantial variations in child marriage across the divisions in Bangladesh.

Secondly, another potential source of regional variations in child marriage is differences in the rate of employment among young females by division. This assumption is based on two cogent grounds: (1) employed females are more likely to have greater access in decision making regarding their marriage because of their financial solvency, and (2) the opportunity cost of marrying early would be too high for young females. Here, the term opportunity cost refers to the loss (both financial and career opportunity) that young females would incur if they marry early. There is evidence in support of these arguments (Kamal *et al.*, in press; Amin, 2011; Lewis, 2013). Lewis (2013) found that the rate of child marriage was 57 percent among employed females whereas the rate was 70 percent for unemployed females.

Thirdly, regional differences in people's economic condition also facilitate variations in child marriage. In this case, a division with better financial condition would have lower rate of child marriage than another division which has relatively higher rate of poverty. It is well established that poverty is one of the dominant causes of child marriage. In many cases, parents cannot afford educational expenses of their children which motivate them to arrange earlier marriage for their daughters. In addition, economic pressures related to dowry payments (younger the bride lower is the

dowry) also work as a contributing factor to child marriage (Plan International, 2013; Lewis, 2013).

Fourthly, differences in cultural norms and practices work as the determinants of regional variations in child marriage. For example, if the cultural norms and values that encourage child marriage are practiced more in a region then the rate of child marriage would be higher in that region compared to other regions where those norms and values are practiced less. For instance, Lewis (2013) noticed that social and cultural values of emphasizing more on morality, protecting female virginity exerted strong influence on the occurrence of child marriage. They also added that there is a cultural perception that girls would become less attractive with increasing age; therefore, it is better to arrange their marriage earlier. Furthermore, differences in percentage of people by religion can lead to regional variations in child marriage since there are significant differences in the impact of religion on child marriage. Muslims are more likely to practice child

marriage than the followers of other religion (Kamal et al. 2014).

Finally, regional variations in child marriage could arise due to other reasons such as social insecurity, threat, and child trafficking. The incidences of these phenomena are not equal across various divisions in Bangladesh. Thus, it is reasonable to argue that there would be regional variations in child marriage in Bangladesh.

## Conceptual Framework of Regional Variations in Child Marriage in Bangladesh

The following conceptual model has been developed to examine the regional variations of child marriage in Bangladesh on the basis of the above discussion on the causes of child marriage. In the model, division is used to indicate region. There are seven divisions in Bangladesh: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur and Sylhet.

**Figure 1: Conceptual framework of examining regional variations of child marriage**
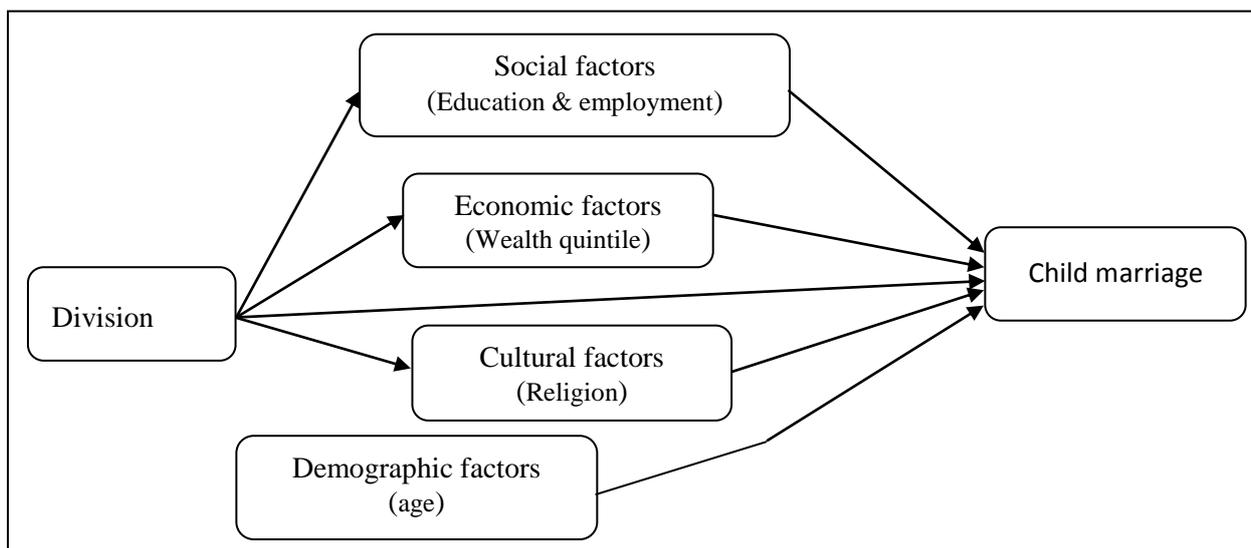


In the conceptual framework it is assumed that the division has both direct and indirect effects on child marriage. The indirect effect of division on child marriage is mediated through respondents' social characteristics (education and employment), economic (wealth quintile) and spatial (place of residence) and cultural characteristics (religion). The framework also considers husband's education as one of the mediating variables in assessing the impact of division on child marriage. Age has been

included in the model as control variable to adjust the age effect in producing valid and reliable estimates of the effect of division on child marriage. The model assumes that a division which is characterized by lower education, higher unemployment, lowest wealth quintile, higher number of people living in rural areas and higher percentage of Muslims would have higher rate of child marriage than other division that has higher rates of education, employment, wealth quintile,

and other religions. The direct effect indicates that division would have significant effect on child marriage even after adjusting for respondents' age, education, employment status, religion, husband's education, and wealth quintile. Possible reasons for the direct effect might include unobserved factors that are not included in the model due to unavailability of data in BDHS 2011. These unobserved factors may include social insecurity, cultural norms-related social pressure, and ensuring girls' virginity (Plan International, 2013). The detail procedure of examining the regional variations of child marriage in Bangladesh using the conceptual framework is presented below.

**Data and Methods**

We used data from the BDHS 2011 to examine the extent to which child marriage varies by region (division of residence) and to assess the relative contribution of the selected determinants of child marriage to the regional variations. The 2011 BDHS contains interviews of randomly selected 17,842 ever-married women aged 12-49 years. After excluding missing values, the final sample size was reduced to 17,808. Since missing values were less than 5 percent, list-wise delete procedure was followed to select the study population assuming that the missing values are completely at random (MCAR). The response rate of the survey was 98 percent. The detailed method about how the data was collected is available elsewhere (NIPORT *et al.*, 2013).

*Independent variable*

The main independent variable for this study was division i.e., respondents' place of residence. The 2011 BDHS contains respondents' division into seven divisional categories: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet. Sylhet, the division with the lowest percentage of child marriage, was used as the reference category in the analysis.

*Dependent variable*

The dependent variable of interest in this study was status of child marriage. The 2011 BDHS does not directly contain any variable on the status of child marriage. However, the data set provides information on respondents' age at first cohabitation. This variable was used to identify respondents' status of child marriage. In this case,

the status of child marriage was measured in terms of two components: a) child marriage and b) adult marriage. Those who entered into first cohabitation before age 18 years were defined as child marriage, and those started first cohabitation at age 18 years or above were defined as adult marriage. Adult marriage was used as the reference category in the analysis.

*Control variables*

To obtain adjusted estimates of the regional variations in child marriage in Bangladesh we introduced control variables in multivariate analysis. The control variables include respondents' age, education, employment status, religion, partners' education, and wealth quintile. The 2011 BDHS includes respondents' age in years from 12 to 49. This variable was included in the analysis as control variable.

The second control variable is respondents' educational attainment. The 2011 BDHS contains respondents' education into four categories: 1) none, 2) primary, 3) secondary, and 4) higher. The fourth category of higher education was used as the reference category. Similarly, the dataset also contains husband's education into four categories. The last category of higher education was also used as reference category.

The 2011 BDHS collected information on whether the respondents were working at the time of survey. This information was used to create the variable of employment status. Those who were working at the time of the survey were coded as "employed", and those who were not working at the time of the survey were coded as "not employed". The category of "not employed" was used as the reference category.

The 2011 BDHS provides respondents' economic status through the measurement of wealth quintile. The wealth quintile was constructed from data on household assets and dwelling characteristics such as television, bicycles, source of drinking water, sanitation facilities, and construction materials. The wealth quintile is reported into five categories: lowest, second, middle, fourth, and highest (coded as 0, 1, 2, 3, and 4, respectively). This variable was directly included in the analysis as categorical variable. In the

analysis, the last category of 'highest' was used as the reference category.

Information on religion was collected in 2011 BDHS into four categories: Islam, Hinduism, Buddhism, and Christianity. Religion is coded into two categories for this study: a) Islam and b) other (comprised of Hinduism, Buddhism, and Christianity). The category of 'Other' was used as the reference in the multivariate analysis.

It should be mentioned that earlier research (e.g., Kamal *et al.*, in press) showed that the prevalence of child marriage also varied by respondents' place of residence (i.e., rural-urban). However, most recent studies shows that respondents' place of residence was not statistically significant in explaining differences in child marriage when wealth was included in the model suggesting that variation in child marriage is largely due to their differences in wealth quintile (Islam *et al.*, in press). For this reason, wealth quintile was included in the analysis as control variable and the place of residence was not included in the analysis.

*Analytical approach*

The dependent variable of interest in this study was a dichotomous variable (status of child marriage: 1= child marriage and 0=adult marriage). As such, we applied logistic regression to examine the regional variations in child marriage. More specifically, the logistic regression model for examining regional differences takes the following form:

$$log_e \frac{P_j}{1 - P_j} = BX = \Sigma \beta_k X_{kj}$$

This model expresses the log odds of the outcome variable (child marriage) as a linear function of the exposure variables. Here $P_j$=1 which indicates that the respondent had child marriage, and $P_i$=0 denoting adult marriage of the respondent. And $\beta_k$ is the coefficient for the vectors of predictors of $X_j$: respondents' division, age, education, employment status, religion, husband's education, and wealth quintile.

We estimated four models to examine regional variations of child marriage in Bangladesh. The first model is the basic model (division only) and contains no control variables. The second model takes respondents' three socio-demographic characteristics into account: age, education, and employment status. The third model incorporates two covariates of husband's education and wealth quintile in addition to the three control variables included in the second model. The fourth model (full model) includes respondents' religion in addition to all control variables mentioned in the third model. One advantage of including control variables step-by-step is that it allows us to assess the extent to which the control variables are contributing to a better model in one hand and the extent to which they contribute to determine the outcome variable of interest (in this case, the prevalence of child marriage).

The logistic regression estimates show the effect of division on the prevalence of child marriage. Thus, we can establish whether there is a significant difference in child marriage across seven divisions in Bangladesh. But using only the logistic regression estimates, it is not possible to quantify the relative contribution of each covariate in the model to the observed differences in child marriage. For this reason, we also carried out decomposition analysis to quantify the observed differences in child marriage across various divisions. Application of decomposition analysis is particularly important for policy recommendations. For example, it could be that increasing education will decrease the prevalence of child marriage in some divisions while same interventions may not be effective for other divisions to the same extent. In this case, we need to recommend alternative policy interventions for those divisions. We can do this by simply looking at the relative contribution of each covariates obtained through decomposition analysis.

*Sample characteristics*

Table 1 shows the sample characteristics of the respondents disaggregated by division. As mentioned above the total sample size for this study wass 17,808.

Concerning respondents' education, Sylhet had the highest rate of 'no education' (33.2 percent) while Barisal showed the lowest (15.1 percent). In addition, Dhaka had the highest rate of 'higher than secondary education' (10.1 percent) while Sylhet had the lowest rate (5.5 percent). Regarding employment status, Dhaka had the highest rate (16.1 percent) which is followed by Rajshahi (14.2

percent), Rangpur (13.6 percent), Khulna (13.5 percent), Chittagong (12.4 percent), and Sylhet (11.3 percent). Husband's education also showed similar patterns with few exceptions (Table 1).

Percentage distribution of wealth quintile showed that respondents living in Rangpur division had the highest rate of poverty (52.0 percent). On the other hand, about one-third of the respondents in Chittagong, Dhaka, Khulna, and Rajshahi division belonged to this category. Among the total respondents, 88.8 percent were Muslims. Distribution of religion by division shows that the percentage of Muslims was the highest in Dhaka (94.1 percent), followed by Rajshahi (93.2 percent), Barisal (91.1 percent), Chittagong (89.4 percent),

Khulna (87.3 percent), Sylhet (82.8 percent), and Rangpur (81.5 percent).

## Results

### Regional variations in child marriage

In this study the prevalence of child marriage was measured based on age at marriage of ever married women only. Among the ever married women aged 12-49 years, 77.7 percent had child marriage. Rangpur had the highest percentage of child marriage (85.4 percent) while Sylhet had the lowest (62.2 percent). Barisal, Khulna and Rajshahi had above 80 percent child marriage while Chittagong and Dhaka divisions had below 80 percent. These differences in child marriage were statistically significant (*p*<0.001) (Table 2).

**Table-1: Distribution of the respondents' characteristics by division (N=17,808)**

| Variables | Division | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|
| | Barisal | Chittagong | Dhaka | Khulna | Rajshahi | Rangpur | Sylhet | |
| **Respondents' Age (in years)** | 30.7 | 30.2 | 30.6 | 31.1 | 30.9 | 30.5 | 31.2 | 30.7 |
| **Respondents' education** | | | | | | | | |
| No education | 15.1 | 23.8 | 27.6 | 21.9 | 27.9 | 32.3 | 33.2 | 26.0 |
| Primary | 36.0 | 27.6 | 29.5 | 28.7 | 29.2 | 27.7 | 32.1 | 29.8 |
| Secondary | 39.3 | 41.2 | 32.8 | 40.6 | 34.3 | 33.0 | 29.3 | 35.9 |
| Higher | 9.5 | 7.5 | 10.1 | 8.8 | 8.5 | 7.0 | 5.5 | 8.2 |
| **Respondent's employment status** | | | | | | | | |
| Employed | 10.5 | 12.4 | 16.1 | 13.5 | 14.2 | 13.6 | 11.3 | 13.3 |
| Not employed | 89.5 | 87.6 | 83.9 | 86.5 | 85.8 | 86.4 | 88.7 | 86.7 |
| **Husband's education** | | | | | | | | |
| No education | 19.5 | 24.9 | 30.2 | 27.0 | 32.8 | 35.9 | 33.3 | 29.2 |
| Primary | 31.9 | 28.7 | 25.4 | 25.8 | 24.9 | 25.2 | 29.2 | 27.1 |
| Secondary | 32.7 | 31.1 | 27.2 | 32.5 | 27.2 | 26.3 | 26.1 | 29.0 |
| Higher | 15.9 | 15.2 | 17.2 | 14.6 | 15.1 | 12.6 | 11.4 | 14.7 |
| *Wealth quintile* | | | | | | | | |
| Lowest | 16.8 | 11.9 | 15.9 | 15.1 | 16.8 | 26.7 | 20.2 | 17.4 |
| Second | 24.2 | 17.4 | 14.4 | 16.6 | 19.7 | 25.3 | 15.5 | 18.7 |
| Middle | 22.7 | 19.7 | 16.2 | 20.7 | 22.2 | 17.7 | 15.4 | 19.2 |
| Fourth | 20.9 | 25.7 | 19.3 | 23.4 | 22.5 | 16.9 | 18.6 | 21.2 |
| Highest | 15.4 | 25.3 | 34.2 | 24.3 | 18.8 | 13.4 | 30.3 | 23.5 |
| **Religion** | | | | | | | | |
| Islam | 91.1 | 89.4 | 94.1 | 87.3 | 93.2 | 81.5 | 82.8 | 88.8 |
| Other | 8.9 | 10.6 | 5.9 | 12.7 | 6.8 | 18.5 | 17.2 | 11.2 |
| **N** | 2063 | 2864 | 3080 | 2655 | 2600 | 2462 | 2084 | 17808 |

*Regional variations in child marriage by respondents' education*

There were marked differences in the effect of respondents' education on their child marriage by division (Table 3). Among the respondents who had no education the highest percentage of child marriage was found the highest in Sylhet (41.0 percent), whereas their counterparts in Barisal had the lowest percentage of child marriage (17.2 percent). The differential impact of education on child marriage was also evident. The differences in the effect of educational attainment on child marriage by division were statistically significant (*p*<0.001) (Table 2).

*Regional variations in child marriage by respondents' employment status*

Table 2 also presents the percentage distribution of child marriage by respondents' employment status and division. Overall, a vast majority of the respondents in all the seven divisions were unemployed (87.7 percent). One obvious pattern was that the percentages of child marriage were much higher in all divisions among not employed women compared to employed women. In addition, among unemployed women, Barisal had the highest rate of child marriage (90.0 percent) while Dhaka had the lowest rate (85.6 percent). These regional variations in child marriage by respondents' employment status were statistically significant (*p*<0.001).

*Regional variations in child marriage by husbands' education*

Table 2 revealed three distinct patters of child marriage: 1) lower education of husband was associated with higher rate of child marriage in all divisions; 2) in some divisions the percentages of child marriage were higher among respondents whose husbands' had primary or secondary education compared to those who had no education (e.g., Barisal and Chittagong); and 3) there were divisional variation in child marriage in each category of husband's education. For example, among the respondents whose husbands had no education, the percentage of child marriage was 41.4 in Sylhet whereas it was 21.1 percent among their counterparts in Barisal. These variations in child marriage by husbands' education and division were statistically significant (*p*<0.001).

**Table 2. Divisional variations in child marriage across background characteristics**

| Variables | Barisal | Chittagong | Dhaka | Khulna | Rajshahi | Rangpur | Sylhet | Total |
|---|---|---|---|---|---|---|---|---|
| **Child marriage** | 81.0 | 72.8 | 76.9 | 82.3 | 81.7 | 85.4 | 62.2 | 77.7 |
| **Respondents' Education*** | | | | | | | | |
| No education | 17.2 | 27.6 | 31.4 | 23.8 | 30.8 | 35.0 | 41.0 | 29.3 |
| Primary | 39.4 | 30.3 | 33.6 | 32.1 | 32.0 | 29.5 | 35.0 | 32.8 |
| Secondary | 38.1 | 39.3 | 31.6 | 40.8 | 34.4 | 32.6 | 22.8 | 34.8 |
| Higher | 5.2 | 2.8 | 3.4 | 3.2 | 2.8 | 2.9 | 1.2 | 3.1 |
| **Employment Status*** | | | | | | | | |
| Employed | 10.0 | 11.8 | 14.4 | 12.3 | 12.8 | 12.4 | 10.9 | 12.3 |
| Not employed | 90.0 | 88.2 | 85.6 | 87.7 | 87.2 | 87.6 | 89.1 | 87.7 |
| **Husband's education*** | | | | | | | | |
| No education | 22.1 | 28.5 | 34.2 | 29.7 | 36.8 | 38.4 | 41.4 | 32.9 |
| Primary | 35.5 | 31.1 | 28.1 | 28.0 | 26.3 | 27.2 | 30.6 | 29.2 |
| Secondary | 30.8 | 30.0 | 27.4 | 32.4 | 27.2 | 26.0 | 22.5 | 28.3 |
| Higher | 11.6 | 10.4 | 10.2 | 10.0 | 9.7 | 8.5 | 5.4 | 9.6 |
| **Wealth quintile*** | | | | | | | | |
| Lowest | 18.9 | 13.4 | 18.3 | 15.8 | 18.7 | 28.2 | 24.8 | 19.4 |
| Second | 25.7 | 18.6 | 16.2 | 17.9 | 21.0 | 27.3 | 17.6 | 20.5 |
| Middle | 23.5 | 20.6 | 17.7 | 22.2 | 23.7 | 18.4 | 16.7 | 20.5 |
| Fourth | 19.4 | 26.5 | 19.9 | 23.6 | 21.9 | 15.9 | 18.1 | 21.0 |
| Highest | 12.4 | 20.8 | 27.9 | 20.5 | 14.7 | 10.1 | 22.7 | 18.6 |
| **Religion*** | | | | | | | | |
| Islam | 92.2 | 91.7 | 96.4 | 88.4 | 94.2 | 81.7 | 87.2 | 90.5 |
| Other | 7.8 | 8.3 | 3.6 | 11.6 | 5.8 | 18.3 | 12.8 | 9.5 |
| **Number of Women** | 1671 | 2084 | 2368 | 2185 | 2125 | 2103 | 1296 | 13832 |

*P<0.001

*Regional variations in child marriage by wealth quintile*

Table 2 showed an inverse U-shape pattern child marriage in relation to wealth suggesting that the prevalence of child marriage increased with increasing wealth quintile and thereafter started to decline for respondents with the highest wealth quintile. This pattern was particularly true for Barisal, Chittagong, Khulna, and Rajshahi. In addition, there were variations in the prevalence of child marriage for each category of wealth quintile by division. For instance, the percentage of child marriage among women with the highest wealth quintile is 10.1 in Rangpur whereas it is 22.7 among their counterparts in Sylhet. This regional variation in child marriage by wealth quintile was statistically significant (*p*<0.001).

*Regional variations in child marriage by respondents' religion*

Child marriage is highly prevalent among Muslims compared to other religions. However, there were variations in child marriage for each category of religion by division. For example, among those who had child marriage in Dhaka, 96.4 percent were Muslims while this rate was the lowest in Rangpur (81.7 percent). These variations in child marriage by religion and division were statistically significant (*p*<0.001) (Table 2)

The bivariate analyses showed that there are substantial variations in the prevalence of child marriage by division and also across various categories of socio-demographic, economic and cultural factors. An important question that remained to be answered is whether these divisional variations in child marriage persist statistically significant even after controlling for the socio-demographic, economic and cultural factors. And if so then what kind of policy interventions should be taken for each of the seven divisions by the government and NGOs to prevent child marriage in Bangladesh. These aspects are explored in detail in the subsequent sections of multivariate logistic estimates and decomposition analysis.

Logistic regression estimates of the regional variations in child marriage were presented in the form of odds ratios. In this case, an odds ratio of more than 1 indicates that the study group had higher incidence of having child marriage than the reference group and an odds ratio of less than 1 suggests that the study group had lower incidence of having child marriage.

Table 3 presents odds ratios of the regional variations in child marriage. Model 1 in Table 3 was the basic model and included only division as the predictor of child marriage. This model showed that all divisions had higher odds of child marriage compared to Sylhet. More specifically, Rangpur had 3.56 times higher odds of child marriage than Sylhet which was followed by Khulna (2.83 times), Rajshahi (2.72 times), Barisal (2.59 times), Dhaka (2.02 times) and Chittagong (1.63 times).

**Table-3: Logistic regression estimates of the regional variation in child marriage**

| Variables | Model 1 OR (Std. Error) | Model 2 OR (Std. Error) | Model 3 OR (Std. Error) | Model 4 OR (Std. Error) |
|---|---|---|---|---|
| **Divisions** | | | | |
| Barisal | 2.592 (0.187)*** | 3.991 (0.316)*** | 3.896 (0.314)*** | 3.698 (0.299)*** |
| Chittagong | 1.625 (0.100)*** | 2.073 (0.138)*** | 2.065 (0.138)*** | 1.982 (0.134)*** |
| Dhaka | 2.022 (0.126)*** | 2.809 (0.192)*** | 2.858 (0.196)*** | 2.669 (0.185)*** |
| Khulna | 2.827 (0.192)*** | 4.286 (0.319)*** | 4.213 (0.316)*** | 4.113 (0.310)*** |
| Rajshahi | 2.720 (0.185)*** | 3.807 (0.283)*** | 3.729 (0.279)*** | 3.483 (0.263)*** |
| Rangpur | 3.562 (0.259)*** | 4.685 (0.370)*** | 4.551 (0.365)*** | 4.571 (0.367)*** |
| Sylhet (ref) | | | | |
| **Age** | | 0.976 (0.002)*** | 0.981 (0.002)*** | 0.983 (0.002)*** |
| **Respondents' education** | | | | |
| No education | | 24.405 (1.903)*** | 13.058 (1.317)*** | 12.726 (1.286)*** |
| Primary | | 17.267 (1.248)*** | 10.529 (0.938)*** | 10.359 (0.927)*** |
| Secondary | | 7.544 (0.501)*** | 5.729 (0.426)*** | 5.739 (0.429)*** |
| Higher (ref) | | | | |

*(continued)*

**Table-3:** *(continued)*

| Variables | Model 1<br>OR  (Std. Error) | Model 2<br>OR  (Std. Error) | Model 3<br>OR  (Std. Error) | Model 4<br>OR  (Std. Error) |
|---|---|---|---|---|
| *Respondent's employment status* | | | | |
| Employed | | 0.742 (0.042)*** | 0.724 (0.042)*** | 0.746 (0.043)*** |
| Not employed (ref) | | | | |
| *Husband's education* | | | | |
| No education | | | 1.923 (0.161)*** | 1.886 (0.158)*** |
| Primary | | | 1.641 (0.122)*** | 1.641 (0.122)*** |
| Secondary | | | 1.305 (0.083)*** | 1.331 (0.085)*** |
| Higher (ref) | | | | |
| *Wealth quintile* | | | | |
| Lowest | | | 1.143 (0.089)* | 1.179 (0.093)** |
| Second | | | 1.152 (0.081)** | 1.178 (0.083)** |
| Middle | | | 1.260 (0.082)*** | 1.286 (0.084)*** |
| Fourth | | | 1.118 (0.064)* | 1.133 (0.066)** |
| Highest (ref) | | | | |
| *Religion* | | | | |
| Islam | | | | 1.808 (0.106)*** |
| Other (ref) | | | | |
| Constant | 1.645 (0.074)*** | 0.282 (0.029)*** | 0.221 (0.024)*** | 0.127 (0.156)*** |
| -2 Log Likelihood chi-square | -9225.840 | -8042.066 | -7990.017 | -7940.766 |
| **N** | 17808 | 17808 | 17808 | 17808 |

*p<0.10 and **p<0.05 ***p<0.01

Model 2 in Table 3 included respondents' age, education, and employment status along with division. Model 2 shows that inclusion of three covariates in the models had led to an increase in the odds ratios of child marriage for each of the six divisions in relation to the reference category of Sylhet. For example, Rangpur, Khulna, and Barisal showed 4.69, 4.29, and 3.99 times higher odds of child marriage than Sylhet after controlling for respondents' age, education, and employment.

Model 3 in Table 3 included husband's education and wealth quintile along with all predictors of child marriage shown in model 2. The odd ratios of child marriage for each of the six divisions had decreased slightly after including two additional control variables. However, the differences were still much high in relation to the reference category of Sylhet. For instance, Rangpur, Khulna, and Rajshahi had 4.55, 4.21, and 3.73 times higher odds of child marriage than Sylhet even after adjusting for respondents' age, education, employment status, husband's education and wealth quintile.

Model 4 in Table 3 included respondents' religion along with all covariates of model 3. We found that Rangpur and Khulna had more than four times higher odds of child marriage (4.57 and 4.11 times,

respectively) than Sylhet. Barisal and Rajshahi had more than three times higher odds of child marriage (3.70 and 3.48 times, respectively) than the reference category. Chittagong and Dhaka had about two times odds of child marriage (1.98 and 2.67 times, respectively) than Sylhet after adjusting for the selected socio-demographic, economic and cultural characteristics.

In bivariate analysis an inverse U-shape pattern of child marriage was noticed across various categories of education indicating that the respondents with no education had lower odds of child marriage than those who had primary education. However, model 4 in Table 3 shows that when other factors are taken into account the relationship between education and child marriage became straight inverse meaning that lower education was associated with higher child marriage. For instance, respondents with no education had 12.73 times higher odds of child marriage than the respondents with higher than secondary education. The respondents with primary education had 10.36 times higher odds of child marriage than the reference category. This pattern was also true in the case of husband's education (Table 3).

Concerning the impact of employment on child marriage, we noticed that employed respondents had 25.4 percent lower odds of child marriage than the unemployed respondents. This finding suggests increasing rate of employment will certainly contribute to reduce and prevent child marriage in Bangladesh.

Model 4 in Table 3 also showed that the respondents with lowest or second wealth quintile had about 18.0 percent higher odds of child marriage compared to those with the highest wealth quintile. In addition, the respondents with middle or fourth category of wealth quintile also had higher odds of child marriage than the reference category. These findings clearly denotes that higher the poverty, greater is the odds of child marriage in Bangladesh. Furthermore, we found that Muslims had 80.8 percent higher odds of child marriage than that of other religions (Table 3).

*Decomposition analysis*

The objective of decomposition analysis was to quantify the relative contribution of each of the selected covariates to the regional variations in child marriage in Bangladesh. The decomposition analysis of the regional variations in child marriage for six divisions is presented in Table 4. There are

three sources of regional variations – 1) differences due to respondents' characteristics, 2) differences due to slopes, and 3) differences in intercepts (i.e., group effect).

Table 4 shows that Barisal had 18.8 percent higher child marriage than Sylhet. This difference is decomposed into three components: the contribution of mean differences in characteristics was -3.089; the contribution due to difference in slopes was 7.012; and the contribution due to difference in intercepts was 14.887 (Table 4). The negative value of the differences due to characteristics (-3.089) suggests that if respondents' in Barisal were to receive socioeconomic characteristics similar to that of Sylhet then their child marriage would have further increased by this amount (3.08 percent). Therefore, the main contributing factor to the higher rate of child marriage in Barisal was the difference in intercepts, which is also known as group effect—in this case division effect. The positive value of the differences in intercepts (14.887) suggests that some other factors (other than the variables included in the model), in fact, facilitating higher rate of child marriage in Barisal. Plausible explanations of these unobserved factors are given in the discussion section.

**Table-4: Decomposition of the regional variations in child marriage in Bangladesh**

| Variables | Division | | | | | |
|---|---|---|---|---|---|---|
| | Barisal | Chittagong | Dhaka | Khulna | Rajshahi | Rangpur |
| | Prevalence of Child Marriage by region (in percent) | | | | | |
| **Division** | | | | | | |
| Study region | 81.0 | 72.8 | 76.9 | 82.3 | 81.7 | 85.4 |
| Reference Region (Sylhet) | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 | 62.2 |
| **Differences** | **18.8** | **10.6** | **14.7** | **20.1** | **19.5** | **23.2** |
| **Decomposition Analysis** | Decomposition Analysis of the above differences in child marriage | | | | | |
| | Coefficients | Coefficients | Coefficients | Coefficients | Coefficients | Coefficients |
| *A. Differences in Means* | | | | | | |
| Respondents' age | 0.029 | 0.224 | 0.180 | 0.012 | 0.077 | -2.918 |
| Respondents' education | -2.485 | -2.384 | -1.495 | -2.890 | -1.056 | 8.749 |
| Respondent's employment status | 0.010 | -0.055 | -0.221 | -0.112 | -0.118 | 2.384 |
| Husband's education | -1.234 | -0.694 | -0.329 | -0.450 | -0.195 | 0.046 |
| Wealth quintile | 0.167 | -0.005 | -0.138 | 0.007 | 0.009 | -8.448 |
| Religion | 0.425 | 0.650 | 1.313 | 0.165 | 0.603 | 0.590 |
| *Total* | *-3.089* | *-2.264* | *-0.689* | *-3.264* | *-0.681* | *0.403* |
| *B. Differences in Slopes* | | | | | | |
| Respondents' age | 10.474 | 7.791 | -1.146 | -1.015 | -6.800 | -1.884 |
| Respondents' education | -0.751 | -0.302 | -3.057 | -6.097 | -4.431 | -4.361 |
| Respondent's employment status | -0.071 | -0.545 | -0.686 | -0.733 | -0.826 | -1.209 |
| Husband's education | -2.125 | 1.232 | 1.423 | 0.615 | -0.359 | 0.012 |
| Wealth quintile | 0.252 | 2.405 | -0.428 | 3.252 | 1.771 | -1.701 |
| Religion | -0.767 | 1.504 | 7.406 | -2.070 | 3.020 | -2.271 |
| *Total* | *7.012* | *12.085* | *3.512* | *-6.048* | *-7.625* | *-11.414* |
| **C. Differences in intercept** | **14.887** | **0.755** | **11.873** | **29.426** | **27.850** | **33.057** |
| **Total Difference (A + B+C)** | **18.8** | **10.6** | **14.7** | **20.1** | **19.5** | **23.2** |
| N | 4147 | 4948 | 5164 | 4739 | 4684 | 4546 |

The observed difference in child marriage between Chittagong and Sylhet (72.8 minus 62.2) was 10.6 percent (Table 4). Mean differences in respondents' sociodemographic, economic, and cultural factors explained -2.264 of the total difference; the differences in slopes explained 12.085 of the total difference; and differences in intercept contributed only 0.755 to the total difference. The relatively lower value of the intercept difference (0.755) suggests that in contrast to Barisal the role of unobserved factors are limited in facilitating higher child marriage for Chittagong compared to the reference category of Sylhet. The positive value of the differences due to slopes (12.085) denotes that if Chittagong were to receive the slopes of Sylhet for each covariate included in the model then their rate of child marriage would have decreased 12.08 percent. The differential impact of slope is evident in bivariate analyses shown in Table 4. For instance, 1.2 percent of the respondents who had higher than secondary education in Sylhet had child marriage, whereas in Chittagong the percentage was 2.8 for their counterparts.

Dhaka had 14.7 percent higher rate of child marriage than Sylhet (Table 4). The decomposition analysis showed that -0.689 of the total difference was due to mean differences in characteristics; 3.512 of the difference was due to differences in slopes; and 11.873 of the difference was due to differences in intercepts. The findings related to decomposition analysis of differences in child marriage for Khulna and Rajshahi with reference to Sylhet were similar to that of Dhaka (Table 4). These findings suggest that even if the government ensures education, employment, wealth quintile for other divisions similar to that of Sylhet division the differences in child marriage will not eliminate to large extent. Part of the reason is the huge impact of other unobserved factors that contributing to escalate child marriage in those divisions.

Rangpur had the highest percentages of child marriage among all the divisions. The observed difference in child marriage between Rangpur and Sylhet is 23.2 percent. The decomposition analysis in Table 4 shows that 0.403 of the total difference was due to mean differences in characteristics; -11.414 of the difference was due to differences in slopes; and 33.057 was due to difference in intercepts. The findings of Rangpur were different from other divisions in the sense that policy intervention in education, employment, and income (i.e., wealth quintile) would have huge impact in reducing child marriage in Rangpur. More specifically, if the government can ensure education, employment and wealth qunitile for Rangpur similar to the levels of Sylhet then these three factors alone would reduce 11.72 percent (8.749 + 2.384 + 0.590) of the total difference in child marriage. Nonetheless, to erase the difference in child marriage between Rangpur and Sylhet completely, further interventions would require in other factors that are not included in the model. Alternative policy interventions are mentioned in the subsequent section.

**Discussion and Conclusions**

This study aimed to investigate the regional variations of child marriage in Bangladesh. It also aimed to quantify the relative contribution for each of the selected sociodemographic, economic, and cultural factors to the regional variations in child marriage. These objectives had been accomplished through the application of multivariate logistic regression and decomposition analysis using data from the 2011 BDHS. Substantial regional variations in child marriage in Bangladesh were found even after controlling for respondents' age, education, employment status, husbands' education, wealth quintile, and religion.

Women's education, employment status, husband's education, and wealth quintile were also found to be associated with the prevalence of child marriage. Therefore, policy interventions in these areas certainly would have significant impact on preventing child marriage in Bangladesh. However, the decomposition analysis showed that in addition to the socioeconomic factors there were many other unobserved factors that exerted substantial influence in accelerating child marriage in Bangladesh. Possible factors might include social insecurity, child trafficking, threats, and cultural norms related social pressure (Lewis, 2013). Proper initiatives should be taken by the government and NGOs to address these issues in order to prevent child marriage in Bangladesh.

It is important to clarify one aspect of the findings derived from logistic regression. The odds ratio of age in multivariate logistic regression suggests that the odds of child marriage decreases with increasing age of the respondents (current age). Therefore, earlier cohorts of women were less likely to have child marriage compared to younger

cohorts of women. This could be misleading because earlier research shows that the prevalence of child marriage was higher among older cohorts compared to young cohorts (Kamal *et al.*, 2014). Most of the earlier research excluded respondents aged below 20 years in their analysis. However, we included all women aged 12-49 years in the analysis because there were about 2,000 women aged below 20 years at the time of survey. Among these women about 90.0 percent had child marriage. Since our main objective was to examine the prevalence of child marriage, it was reasonable to include them in the analysis. Among this younger age group (who were aged below 20 years at the time of survey) the possibility of having adult marriage was very low because of the cut-off point for child marriage (i.e., age 18 years). For this reason, the odds ratio of age showed inverse relationship with the prevalence of child marriage. We still included age in the analysis because our aim was to adjust the age effect in order to obtain unbiased and reliable estimates of the regional variations of child marriage in Bangladesh.

One of the limitations of this study is that education of the respondents' parents was not included in the analysis because the 2011 BDHS does not contain information on this variable. In fact, parents are the main decision-maker about arranging marriage for their daughters in Bangladesh. Therefore, parents' education should be considered as an important determinant of child marriage in Bangladesh. Future research should give special focus on this aspect. Another limitation

of this study is the use of cross-sectional data in the analysis. As a result, it was not possible to obtain respondents' or their parent's socioeconomic status at the time of their marriage. Using longitudinal data for examining regional variation of child marriage would shed better insight about the determinants of child marriage and would facilitate uncovering many unobserved factors related to child marriage. Furthermore, the 2011 BDHS data set contains only ever-married women. Therefore, this analysis was restricted to ever-married women only. However, an ideal study should include both married and unmarried women with a view to explore the factors that are contributing to postpone marriage (thus, avoiding child marriage). Hence, it would be worthwhile to include both married and unmarried women in the future analysis in examining child marriage in Bangladesh

The application of decomposition analysis provided us with the precise estimate of the effect of sociodemographic, economic, and cultural factors on child marriage. It highlighted the importance of conducting further research to uncover unobserved factors of child marriage in Bangladesh so that the government and NGOs can take adequate intervention to prevent child marriage in Bangladesh. Further research should be conducted to evaluate the effectiveness of current programmes and interventions for preventing child marriage to design large-scale effective programmes for eliminating child marriage in Bangladesh.

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# Effect of Child Marriage on Women's Educational Attainment in Bangladesh

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## Abstract

*In spite of high prevalence of child marriage in Bangladesh, limited attention has been given in in-depth analysis of the effect of child marriage on educational attainment of women. A recent attempt by the Bangladesh government to legalize 16 years as legal age of marriage for girls with parental consent or court's approval has raised debate among activists who are working to prevent child marriage, development partners, researchers, academicians, and policy-makers to accelerate women empowerment including educational attainment of the girls. Thus, we sought to answer the questions: a) to what extent the effect of child marriage on educational attainment vary by women married below 16 and 18 years of age? and b) how does age at first marriage affect a woman's length of participation in school? We analyzed the 2011 Bangladesh Demographic and Health Survey of 17,749 ever-married women. Bivariate and multivariate analyses were conducted. We found that child marriage before age 16 years (instead of 18 years) leads to higher rate of incompletion of primary and secondary education, and lower rate of higher educational attainment for women of selected socio-demographic, economic and cultural factors. We also found that for one-year decrease in age at first marriage leads to six months loss of education for women. Thus, the government may refrain from fixing legal age of marriage for women at 16 years, in order to ensure their socioeconomic advancement including educational development.*

**Keywords:** Child marriage, Marital age, Educational attainment, Bangladesh

## Introduction

Lower educational level for girls is common in developing world. Here, a lost opportunity for education is not only harmful for girls, but also has wide-reaching implications (ICRW, 2006). Considering education as the best contraceptive to development, many governments now support women's education not only to accelerate economic growth but also for other social advancement, including prevention of child marriage (Population Reference Bureau, 2000). As we know child marriage constitutes a violation of the rights of the girls who are forced to be married as children, it deeply affects their life through considerably lower educational conditions, health complications, higher risk of violence at home, and social exclusion (Nguyen & Wodon, 2014).

Concerning the negative consequences, literature shows that child marriage is an important factor leading girls to curtail their education, even if it may not be the key factor. There is clear evidence that the higher educated young girls go late for marriage, especially if they reach secondary school (Brown, 2012). Compared with women who have either no education or only a primary school education, the median age for marriage among those with a secondary education is over two years higher in Bangladesh (Brown, 2012). Here, it can be noted that Bangladesh has done remarkable progress on primary educational enrollment. The net percent of primary school-age-children is 98 for females whereas 94 for males (UNFPA, 2014). Although improvements are being made over the years in primary education; there are still significant differences between males and females in secondary school enrollment (UNFPA, 2014). Thus, to combat child marriage still there is a challenge to ensure primary to secondary education to girls. However, the country has major obstacles to overcome child marriage as it has far reaching social and economic implications for the girls who marry before 18 years of age. Studies on early marriage suggest that a number of socioeconomic factors (e.g., lower education, unemployment, poverty, social insecurity, and social pressure) are associated with child marriage. On the contrary, these socioeconomic factors also compound the vulnerability of child brides, which hamper higher individual educational attainment, employment opportunities and improved wealth condition (Bhabha and Kelly, 2013; Ikamari, 2005;

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Islam and Gagnon, 2014; Jensen and Thronton, 2003; Kamal *et al.*, in press).

Relatively few studies have been conducted to assess the consequence of child marriage on education. Field and Ambrus (2008) explored the hypothesis that women attain less schooling as a result of social and financial pressure to marry at young age in rural Bangladesh. They found that each additional year that marriage was delayed was associated with 0.22 additional years of schooling and 5.6 percent higher literacy (Field and Ambrus, 2008). In addition, single year of primary schooling increases women's wages later in life from 10 to 12 percent, while the boost from secondary education is 15 to 25 percent (Psacharopoulos and Patrinos, 2004). The families of girls who have married later also benefit from their added income and more likely to invest in their families and children (Lloyd, 2006; World Bank, 2007).

Considering social as well as physiological factors, an earlier study suggests that the cut-off point of 18 years is an appropriate minimum age for marriage, although legal reforms of age at marriage are often ineffective in curbing the practice of child marriage (Dixon-Mueller, 2008). In Bangladesh, the legal age of marriage is 18 years for females and 21 years for males (GoB, 1984). Despite the legal age barrier, higher prevalence of marriage before attaining 18 years of age in Bangladesh has led young females to become more susceptible to poverty, violence, abuse, and sexual exploitation (Islam and Mahmud, 1996; Kamal and Hassan, 2013; Sarkar, 2009). Although the legal age of marriage remains 18 years for girls, recently the government of Bangladesh has taken an initiative to make 16 years as the legal age of marriage with permission either from their parents or from the court. The vulnerable situation of millions of young females will be under the threat of further deterioration if women get married before age 16 years. This will raise questions to achieve socioeconomic enhancement and empowerment of the women who marry by below 16 years as well as below 18 years as children (GoB, 2014). Moreover, studies on the impact of different married age groups on educational attainment, particularly below 16 and below 18 years of women are not adequately available.

Thus, the research questions of our study are: (a) to what extent the effects of child marriage on educational attainment vary by women married as children aged below 16 and 18 years? and (b) how does age at first marriage of a woman affect her length of participation in school? These research questions are guided by the objective of examining the contributions of two different age groups of women married as children to gain educational attainment, and their degree of effects. The specific objectives of our study are: (1) to examine the effects of child marriage on level of educational attainment of women married before 16 and 18 years of age; (2) to examine to effect of child marriage on years of schooling of women who were married before age 16 and 18 years; and (3) to provide policy suggestions to the government to justify the current legal age of marriage for women in order to ensure their educational advancement.

**Data and Methods**

We used the most recent Bangladesh Demographic and Health Survey (BDHS) 2011 of which 17,749 respondents were 15-49 years old ever-married women (NIPORT *et al.*, 2013). The BDHS contains a wide range of information on individuals' education, employment, wealth quintile, age at cohabitation, division, region of residence and religion. These variables are particularly important to carry out multivariate analysis regarding the effect of child marriage on educational attainment while controlling for a host of socio-demographic and cultural factors.

*Independent variable*

*Status of child marriage,* the main independent variable in this study, was derived based on respondents' *age at first cohabitation*. The *status of child marriage* was coded into two categories: a) child marriage (first cohabitation before age 18 years), and b) adult marriage (first cohabitation at age 18 years or above). The category of *child marriage* was further divided into two categories: a) married before age 16 years, and b) married before age 18 years. These two categories are not mutually exclusive suggesting that those who were married before age 16 years are also included in the latter category of married before age 18. For this reason, separate analyses were carried out for both categories instead of keeping them in the

same regression model. More specifically, the different contrasts of child marriage include: 1) married before age 16 years versus married at age 16 years and above, and 2) married before age 18 years versus married at age 18 years and above. In both the cases, the latter category was used as the reference category in the analysis. Moreover, for subsequent analysis of the effect of age at first marriage on the years of schooling, the *age at first cohabitation* (in years) has been used directly in the analysis as continuous variable.

*Dependent variables*

There are four specific outcome variables of interest in our study: primary incomplete, secondary incomplete, higher education, and total years of schooling. *Primary incomplete* was coded into two categories: a) primary incomplete, and b) primary complete and above. Thus, in *primary incomplete* related models the respondents who have *no education* were excluded from the analysis.

The second dependent variable of *secondary incomplete* was coded into two categories: a) secondary incomplete; and b) secondary complete and above. Thus, the secondary incomplete related models exclude respondents who have less than secondary education.

The third dependent variable of *higher education* was coded into two categories: a) less than secondary; and b) secondary and above. Thus, there is no exclusion of respondents in models related to higher educational attainment.

The fourth dependent variable of *total years of schooling* was used as continuous variable. The 2011 BDHS also contains respondents' *education in single year.* We took this variable for our analysis to assess the years of lost education because of child marriage.

*Control variables*

Socio-demographic, economic and cultural variables were taken into account while examining the impact of child marriage on educational attainment through the application of multivariate analysis. The control variables included respondents' current age, employment status, division, religion, and wealth status. Respondents' *age* was coded into seven categories: 15-19, 20-24,

25-29, 30-34, 35-39, 40-44 and 45-49. Inclusion of age in the regression model would also capture the cohort differences in child marriage. *Employment status* was coded into two categories: employed and not employed. *Wealth status* was coded into two categories: poor and not poor. *Religion* was coded into two categories: Islam and others. Currently, there are seven divisions in Bangladesh: Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur, and Sylhet. All were included in the analysis.

*Analytical approach*

The effect of child marriage on educational attainment was examined through a combination of bivariate and multivariate analysis. The bivariate analyses between age at first marriage (below 16 and below 18 years) and three categories of educational attainment–primary incomplete, secondary incomplete and higher education – were done. The multivariate analysis included logistic regression and Ordinary Least Squares (OLS) regression depending on the type of outcome variables of interest. For instance, we applied logistic regression for the first three dichotomous dependent variables and the OLS regression models for the fourth outcome variable of interest: *total years of schooling.*

*Sample characteristics*

The socioeconomic and demographic characteristics of the respondents are reported in the BDHS 2011 (NIPORT *et al.*, 2013). Approximately one-third of the respondents (27.7 percent) had no formal education. On the contrary, only 12.0 percent of the respondents had secondary and higher than secondary education complete. A vast majority of the respondents are Muslim (90.0 percent). More than 32.0 percent of women were from Dhaka division, followed by Rajshahi, Chittagong, Khulna, Sylhet and Barisal. Regarding the wealth quintile, around 38.0 percent respondents were from the lowest two quintiles while more than two-fifths were from rich households. Most of the respondents were unemployed (87.0 percent).

**Results**

*Association between child marriage and primary incomplete education (Contrast A)*

Table 1 presents three contrasts of educational attainment of the respondents (primary incomplete, secondary incomplete and higher education) based on their age at first marriage (whether married before age 16 or 18 years). Regarding primary incomplete education, table 1 shows that earlier age at marriage is associated with higher rate of primary incompletion for women. For instance, 60.2 percent of the respondents who were married before age 16 years were unable to complete primary education as compared to 36.9 percent of their counterparts who were married at age 16 years and above. The differences in primary incompletion rate between two categories of women based on age at first marriage are statistically significant ($p<0.001$). This pattern of higher primary incompletion rate is also true for women who were married before age 18 years in relation to their counterparts who were married as adult (table 1).

**Table-1: Association between child marriage and primary incomplete education**

| Education | Age at marriage (years) | | | | | |
|---|---|---|---|---|---|---|
| | <16 | >=16 | Chi-square | <18 | >=18 | Chi-square |
| *Contrast A* | | | | | | |
| Primary incomplete | 60.2 | 36.9 | 510.46 | 55.4 | 28.9 | 388.97 |
| Primary complete and above | 39.8 | 63.1 | *P*<0.001 | 44.6 | 71.1 | *P*<0.001 |
| No. of women | 3672 | 2856 | | 5193 | 1335 | |
| *Contrast B* | | | | | | |
| Secondary incomplete | 89.7 | 59.5 | 813.43 | 83.2 | 47.6 | 1029.50 |
| Secondary complete and above | 10.3 | 40.5 | *P*<0.001 | 16.8 | 52.4 | *P*<0.001 |
| No. of women | 3029 | 4481 | | 5079 | 2431 | |
| *Contrast C* | | | | | | |
| Secondary and above | 3.1 | 23.3 | 1682.39 | 25.7 | 8.8 | 2179.64 |
| Less than secondary | 96.9 | 76.7 | *P*<0.001 | 74.3 | 91.2 | *P*<0.001 |
| No. of women | 9949 | 7800 | | 3321 | 14428 | |

*Association between child marriage and secondary incomplete education (Contrast B)*

Concerning secondary education, we found that 83.2 percent women who married off before 18 years of age dropped out before completion of secondary education (table 1). On the other hand, 89.7 percent of women married off before 16 years of age dropped out from same level of education. On the contrary, 16.8 percent of women completed secondary and higher than secondary education after marrying before 18 years of age, while 10.3 percent completed the level after marrying before 16 years of age. It is noteworthy that the incompletion at secondary level of education is significantly associated with the age of the first marriage regardless of the definition of child marriage (table 1).

*Association between child marriage and higher education (Contrast C)*

Table 1 show that minor proportion of the respondents who were married relatively at higher age had greater rate of completing higher education. For example, 23.3 percent of the women who were married at age 16 years and above had completed higher education whereas 96.9 percent of those who were married before age 16 could not attained higher level of education. This pattern is also true in the case of women who were married at age 18 years and above compared to their counterparts who were married before age 18 years. The differences are statistically significant in both the cases (table 1).

What comes out from the above findings is that there is a strong negative association between child marriage (whether below 16 or below 18 years) and educational attainment. More specifically, women who were married as children had higher percentages of primary incomplete, secondary incomplete and lower percentage of higher educational attainment. These findings raise two important questions: (1) are there substantial differences in educational attainment based on whether women are married before age 16 or 18

years? In another word, are women who were married before age 16 years more susceptible to lower educational attainment compared to their counterparts who were married before age 18 years? Secondly, whether the differences in educational attainment across two categories of age at first marriage (below 16 or below 18 years) are statistically significant even after controlling for women's socio-demographic, economic and cultural factors. We explored these aspects in greater detail in the subsequent sections of multivariate analysis.

*Multivariate analysis*

We aimed to investigate the effect of child marriage on education of women for different definition of child marriage. We considered six logistic regression models. The models are paired in three different tables (table 2-5) for child marriage defined 'below 16 years' and 'below 18 years'. We presented logistic regression estimates in the form of odds ratios. In this case, an odds ratio of greater than 1 indicates that the study group has higher risk of the outcome variable of interest (e.g., primary incomplete, secondary incomplete or higher education).

*Child marriage and primary incomplete education*

Table 2 present odds ratios of the effect of two categories of child marriage on primary incomplete

education: a) married before age 16 years, and b) married before age 18 years. The first model in each category is the basic model without any control variables. The second model includes control variables of respondents' current age, division, religion, economic status and employment status. Model 1 shows that women married before age 16 years had 2.58 times higher odds of primary incomplete education than women who were married at age 16 years and above. After including control variables in the model we found that the odd of primary incomplete is 2.42 times higher for women married before their sixteenth birthday than their corresponding counterparts. In addition, model 4 for women married before age 18 shows that the odds of having primary incomplete for women married before age 18 years was 3.1 times higher compared to those who were married at age 18 years or above (table 2) even after controlling for their age, employment status, economic status, division, and religion.

The likelihood of having primary incomplete education decreased when child marriage is defined as 'marriage below age 16 years'. Although it is found that among the women who went to school and married off before the age of eleven, 36 percent of them had incomplete primary education, this lower likelihood possibly not due to child marriage but some other factors like, poverty.

**Table-2: Odds ratios (OR) of the effect of child marriage on primary incomplete education**

| Characteristics | Age at marriage <16 years | | Age at marriage <18 years | |
| --- | --- | --- | --- | --- |
| | Primary level incomplete | | Primary level incomplete | |
| | Unadjusted OR (SE) | Adjusted OR (SE) | Unadjusted OR (SE) | Adjusted OR (SE) |
| | Model 1 | Model 2 | Model 3 | Model 4 |
| **Child marriage** | | | | |
| No | 1.000 | 1.000 | 1.000 | 1.000 |
| Yes | 2.583 (0.125)*** | 2.422 (0.128)*** | 3.059 (0.202)*** | 3.100 (0.219)*** |
| **Current age of women (years)** | | | | |
| 15-19 | | 1.000 | | 1.000 |
| 20-24 | | 1.282 (0.126)** | | 1.322 (0.128)*** |
| 25-29 | | 2.083 (0.205)*** | | 2.182 (0.210)*** |
| 30-34 | | 3.478 (0.359)*** | | 3.750 (0.380)*** |
| 35-39 | | 3.758 (0.408)*** | | 4.039 (0.432)*** |
| 40-44 | | 5.064 (0.566)*** | | 5.443 (0.598)*** |
| 45-49 | | 6.165 (0.726)*** | | 6.801 (0.798)*** |

*(continued)*

**Table-2:** *(continued)*

| Characteristics | Age at marriage <16 years | | Age at marriage <18 years | |
|---|---|---|---|---|
| | Primary level incomplete | | Primary level incomplete | |
| | Unadjusted OR (SE) | Adjusted OR (SE) | Unadjusted OR (SE) | Adjusted OR (SE) |
| | Model 1 | Model 2 | Model 3 | Model 4 |
| **Divisions** | | | | |
| Barisal | | 1.000 | | 1.000 |
| Chittagong | | 1.273 (0.112)** | | 1.239 (0.109)** |
| Dhaka | | 1.457 (0.123)*** | | 1.524 (0.128)*** |
| Khulna | | 1.238 (0.107)** | | 1.263 (0.109)** |
| Rajshahi | | 1.231 (0.112)** | | 1.296 (0.118)** |
| Rangpur | | 1.180 (0.107) | | 1.202 (0.108)* |
| Sylhet | | 1.705 (0.167)*** | | 1.727 (0.172)*** |
| **Religion** | | | | |
| Islam | | 1.000 | | 1.000 |
| Others | | 0.753 (0.062)*** | | 0.735 (0.061)*** |
| **Economic Status** | | | | |
| Not poor | | 1.000 | | 1.000 |
| Poor[a] | | 3.995 (0.219)*** | | 3.992 (0.218)*** |
| **Employment Status** | | | | |
| Employed | | 1 | | 1 |
| Not employed | | 0.921 (0.070) | | 0.878 (0.067)* |
| *-2LL* | 14036.079 | 12677.538 | 14120.723 | 12680.514 |
| **N** | 12837 | 12837 | 12837 | 12837 |

*\*\*\*p value <0.001, \*\*p value < 0.05, \*p value <0.10*

*[a] belong to lowest and second quintile*

*Child marriage and secondary incomplete education*

Table 3 presents the odds ratios of the effect of child marriage on secondary incomplete education. The significantly higher risk of secondary incomplete for child marriage is evident both for women married before age 16 or 18 years. For instance, unadjusted model (model 3) shows that women married before age 18 years had 5.46 times higher odds of having secondary education incomplete than those who were married at age 18 years or above. After adjusting for the control variables we found that women married before 18 years had five times higher odds of secondary level

incompletion compared to women married off after 18 years of age (OR=5.02, p<0.001). On the other hand, the likelihood of secondary dropouts had increased to 5.7 for women married before 16 years (OR=5.72, p<0.001) than those married after age 16 years after controlling effect of other socio-demographic characteristics. The higher likelihood of secondary incomplete for child marriage before age 16 and 18 years indicates that child marriage mostly affects the secondary education for the girls than primary education. Moreover, this risk will be elevated if the definition of child marriage moved down to age 16 from current definition of 18 years.

**Table-3: Odds ratios of the effect of child marriage on secondary incomplete education**

| Characteristics | Age at marriage <16 years | | Age at marriage <18 years | |
| | Secondary level incomplete | | Secondary level incomplete | |
| | Unadjusted OR (SE) | Adjusted OR (SE) | Unadjusted OR (SE) | Adjusted OR (SE) |
| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| **Child marriage** | | | | |
| No | 1.000 | 1.000 | 1.000 | 1.000 |
| Yes | 5.937 (0.445)*** | 5.721 (0.452)*** | 5.462 (0.337)*** | 5.018 (0.339)*** |
| **Age (years)** | | | | |
| 15-19 | | 1.000 | | 1.000 |
| 20-24 | | 0.918 (0.105) | | 1.146 (0.130) |
| 25-29 | | 0.565 (0.065)*** | | 0.729 (0.083)** |
| 30-34 | | 0.422 (0.052)*** | | 0.557 (0.067)*** |
| 35-39 | | 0.447 (0.059)*** | | 0.585 (0.078)*** |
| 40-44 | | 0.499 (0.075)*** | | 0.655 (0.100)** |
| 45-49 | | 0.693 (0.128)** | | 0.900 (0.167) |
| **Divisions** | | | | |
| Barisal | | 1.000 | | 1.000 |
| Chittagong | | 1.370 (0.153)** | | 1.412 (0.160)** |
| Dhaka | | 0.957 (0.105) | | 1.096 (0.121) |
| Khulna | | 1.246 (0.143) | | 1.333 (0.152)** |
| Rajshahi | | 1.034 (0.124) | | 1.213 (0.143) |
| Rangpur | | 0.746 (0.093)* | | 0.747 (0.091)* |
| Sylhet | | 2.269 (0.298)*** | | 2.795 (0.383)*** |
| **Religion** | | | | |
| Islam | | 1.000 | | 1.000 |
| Others | | 0.977 (0.092) | | 1.016 (0.100) |
| **Economic Status** | | | | |
| Not poor | | 1.000 | | 1.000 |
| Poor[a] | | 5.611 (0.701)*** | | 5.714 (0.720)*** |
| **Employment Status** | | | | |
| Employed | | 1.000 | | 1.000 |
| Not employed | | 2.207 (0.200)*** | | 2.004 (0.178)*** |
| *-2LL* | 8057.545 | 7352.88 | 7960.918 | 7352.417 |
| *N* | *7510* | *7510* | *7510* | *7510* |

*\*\*\*p value <0.001, \*\*p value < 0.05, \*p value <0.10*

*[a] belong to lowest and second quintile*

*Child marriage and higher education*

Table 4 presents the odds ratios (both adjusted and unadjusted) of the effect of child marriage on higher education of women. We found that child marriage (whether before 16 or before 18 years) exerts strong negative effect on the higher educational attainment of women. Marriage before age 18 years led to 86.0 percent lower odds of completing higher level of education compared to adult marriage after controlling for current age of the women, division, religion, economic condition, and women's employment status (OR=0.14, p<0.001). This odds increases to 88.0 percent (OR=0.12, p<0.001) when child marriage is defined as 'marriage before age 16 years' indicating higher likelihood of incompletion of higher education due to marriage before 16 years compared to 'marriage before age 18 years'.

**Table-4: Odds ratios of the effect of child marriage on higher education**

| Characteristics | Age at marriage <16 years | | Age at marriage <18 years | |
|---|---|---|---|---|
| | Higher education | | Higher education | |
| | Unadjusted OR (SE) | Adjusted OR (SE) | Unadjusted OR (SE) | Adjusted OR (SE) |
| | Model 1 | Model 2 | Model 3 | Model 4 |
| **Child marriage** | | | | |
| No | 1.000 | 1.000 | 1.000 | 1.000 |
| Yes | 0.107 (0.008)*** | 0.115 (0.009)*** | 0.126 | 0.135 (0.008)*** |
| **Age (years)** | | | | |
| 15-19 | | 1.000 | | 1.000 |
| 20-24 | | 1.086 (0.124) | | 0.754 (0.087)** |
| 25-29 | | 1.436 (0.163)*** | | 0.978 (0.111) |
| 30-34 | | 1.454 (0.171)*** | | 0.943 (0.109) |
| 35-39 | | 1.203 (0.149)* | | 0.745 (0.091)** |
| 40-44 | | 0.778 (0.105)** | | 0.507 (0.067)*** |
| 45-49 | | 0.495 (0.077)*** | | 0.306 (0.048)*** |
| **Divisions** | | | | |
| Barisal | | 1.000 | | 1.000 |
| Chittagong | | 0.641 (0.064)*** | | 0.618 (0.065)*** |
| Dhaka | | 0.860 (0.084) | | 0.737 (0.074)** |
| Khulna | | 0.792 (0.082)* | | 0.734 (0.077)** |
| Rajshahi | | 0.834 (0.090) | | 0.700 (0.075)** |
| Rangpur | | 1.191 (0.133) | | 1.135 (0.125) |
| Sylhet | | 0.302 (0.035)*** | | 0.254 (0.031)*** |
| **Religion** | | | | |
| Islam | | 1.000 | | 1.000 |
| Others | | 1.160 (0.097)* | | 1.139 (0.101) |
| **Economic Status** | | | | |
| Not poor | | 1.000 | | 1.000 |
| Poor[a] | | 0.069 (0.008)*** | | 0.069 (0.008)*** |
| **Employment Status** | | | | |
| Employed | | 1.000 | | 1.000 |
| Not employed | | 0.577 (0.045)*** | | 0.613 (0.048)*** |
| **-2LL** | 11235.513 | 9712.08 | 11233.623 | 9752.874 |
| **N** | 17749 | 17749 | 17749 | 17749 |

***p value < 0.001, **p value < 0.05, *p value <0.10

[a] belong to lowest and second quintile

*Age at first marriage and years of schooling*

Another objective of our study was to assess the extent to which women's years of schooling increase due to each year postponement of marriage. Alternatively, this would allow us to report the years of schooling lost for each year of decline in age at marriage. Table 5 presents the findings related to the effect of age at first marriage on years of schooling. Model 1 in table 5 is the basic model with no control variables which shows that increasing age at first marriage has positive impact on the years of schooling. In model 2, respondent's employment status and economic status were taken into account. This has led to substantial increase in explained variance (38.9

percent from 17.5 percent). Model 3 includes respondents' division along with all variables included in model 2. The full model (model 4) includes respondents' religion along with their age, division, employment status, and economic status. We found that each year delay in the age at first marriage would increase respondents' year of schooling to six months on average. This leads to the conclusion that if the definition of 'child marriage' moved from 'below 18' to 'below 16' years, the girls will tend to sacrifice complete one year of schooling on average. This might lead to severe negative consequences on their employment, health, empowerment, and social participation.

**Table-5: OLS regression estimates of the effect of age at first marriage on years of schooling**

| Characteristics | Years of schooling | | | |
| --- | --- | --- | --- | --- |
| | **Model 1** | **Model 2** | **Model 3** | **Model 4** |
| | Beta (SE) | Beta (SE) | Beta (SE) | Beta (SE) |
| **Age at first marriage** | 0.576 (0.009)*** | 0.483 (0.008)*** | 0.500 (0.008) | 0.500 (0.008)*** |
| **Age (years)** | | -0.143 (0.003)*** | -0.143 (0.003)*** | -0.143 (0.003)*** |
| **Employment Status** | | | | |
| Not employed | | 0.006 (0.070) | 0.002 (0.070) | 0.008 (0.070) |
| Employed (ref) | | | | |
| **Economic Status** | | | | |
| Poor | | -2.812 (0.049)*** | -2.844 (0.049)*** | -2.842 (0.050)*** |
| Not Poor (ref) | | | | |
| **Divisions** | | | | |
| Chittagong | | | -1.019 (0.113)*** | -1.019 (0.113)*** |
| Dhaka | | | -1.092 (0.107)*** | -1.087 (0.107)*** |
| Khulna | | | -0.522 (0.119)*** | -0.527 (0.120)*** |
| Rajshahi | | | -0.943 (0.116)*** | -0.939 (0.116)*** |
| Rangpur | | | -0.604 (0.120)*** | -0.617 (0.121)*** |
| Sylhet | | | -2.145 (0.141)*** | -2.154 (0.141)*** |
| Barisal (ref) | | | | |
| **Religion** | | | | |
| Other religion | | | | 0.132 (0.080)* |
| Islam (ref) | | | | |
| **Constant** | -4.246 (0.149)*** | 2.676 (0.175)*** | 3.347 (0.200)*** | 3.229 (0.212)*** |
| *F (df)* | 3771.846*** | 2826.364*** | 1180.582*** | 1073.609*** |
| *R-squared* | 17.523 | 38.904 | 39.927 | 39.932 |
| *N* | 17749 | 17749 | 17749 | 17749 |

**Discussion and Conclusions**

Women who got married before age 16 years were mostly unable to complete primary education compared to women who were married at age 18 years and above. Similarly, women who were married before age 18 years were unable to complete primary education compared to those who were married at age 18 years or above. Here, it can be argued that although the current age for enrolment in primary school is 6-10 years, before a decade or earlier children were used to enter primary school at later age. This might have had further implication to become late primary or secondary graduates. Considering age at first marriage rather than current age of the women, our study shows that child marriage affects women's higher educational attainment. However, the association between education and marriage is well established (Heaton and Forste, 1998; Bates, Maselko and Schuler, 2007).

From our study we arrived at three basic conclusions. Firstly, child marriage (whether married before 16 or 18 years) leads to higher rate of primary incomplete and secondary incomplete education for women compared to their respective reference category even after adjusting for their age, employment status, economic condition, religion and division. The higher rate of incompletion both at primary and secondary levels among women who are married as children would exert wide range of consequences both at individual and national levels. At the individual level, women will have lower participation in the labour market and consequently would undergo higher incidence of poverty during their life time. Due to lower education many of them would have unintended pregnancies and higher number of children at younger age, which would pave the way for many health complications. At national level, a large number of citizens with less than primary education will certainly have negative social effects on community in terms of higher gender inequality, discrimination, discouragement, disparity, tension and disloyalty among people (Axinn, 1993; Brown, 2012; Hadden and London, 1996; Hannum and Buchmann, 2003).

Secondly, higher educational attainment rate is lower for women who were married as children

(whether before 16 or 18 years) after controlling the effect of selected socio-demographic characteristics. This finding is consistent with the findings of some earlier research (Brown, 2012; Lewis, 2013; Kamal, 2012). In connection with the negative consequences of child marriage on education Brown (2012: 6) mentioned that "one of the gravest injustices suffered by child brides is the denial of education." In the case of higher education, we found that the denial of education was much higher for women who were married before age 16 years than those who were married before age 18 years. The lower rate of higher educational attainment is a matter of great concern because achieving higher education can make huge changes in the lives of millions of young females. Completing higher education would open the door for many jobs which could bring substantial changes in their lives in terms of social, economic, demographic and psychological conditions (UNESCO, 2002; UNICEF, 1995; World Bank, 2002). In accordance with this the World Bank (2002:5) argues that "education increases individual income; that it is positively correlated with macroeconomic growth; that it is strongly correlated with reductions in poverty, illiteracy and income inequality; and that it has strong complementary effects on the achievement of lower infant and child mortality, better nutrition, and the construction of democratic societies." If Bangladesh wants to harvest the benefits of education, effective strategies should be taken to prevent child marriage instead of making 16 years as the legal age of marriage for female.

Finally, we found that reducing each year of age at first marriage for women would lead to six months reduction in their years of schooling suggesting that two years decline in age at marriage (e.g., from 18 to 16 years) would cause one year loss of schooling on average. Young females' access to formal and even non-formal education become extremely limited after marriage due to household responsibilities, childbearing and social norm that view marriage and schooling as incompatible (Mathur *et al.*, 2003). It should be mentioned that for the one-year loss in education will throw millions of young females into poverty, exploitation, abuse, and vulnerability. For instance, thousands of young females become married while

studying in grade 11. If they get one additional year of schooling, then they can complete higher secondary education. Completing higher secondary education will bring higher employment opportunities compared to those who could not finish higher secondary education. Therefore, the government should take this rationally while reviewing legal age of marriage.

Due to non-availability of data it was not possible to include parents' education into analysis to predict the differential impact of child marriage (whether before 16 or 18 years) on educational attainment of women. Despite this limitation, this study will have at least four key implications. Firstly, the findings will provide better understanding of the extent to which young females cannot complete primary and secondary education due to their marriage as child compared to those who were married as adults. Secondly, the precise estimate of the years of education lost due to each year decline in age at first marriage would facilitate future research in conducting rigorous assessment of the loss of females' education for child marriage. Thirdly, this study will generate further interest among researchers in carrying out in-depth study on the effect of child marriage (disaggregated marriage by below 16 and below 18 years of age) in other areas such as on employment and economic status. Finally, the findings of this study would draw attention among policy-makers in creating legal framework of marriage for young females in a way that is conducive for their socioeconomic advancement in

general, more particularly for educational development.

Our analysis showed that child marriage can significantly end-up the opportunities to complete secondary and higher education for women. Improving educational level of the people is one of the constitutional obligations of the government. It is also one of the millennium development goals (MDG). MDG goal 2 and 3 clearly defined the importance of education and promoting gender equality. However, it will be very difficult for the government to prevent higher incompletion of secondary education among millions of young females with such higher prevalence of child marriage. These findings clearly established that women who were married before 16 years of age have five times higher chance of not completing secondary education compared to women married after 18 years of age. Most of the available literatures attempted to analyze the effect of education and age at marriage (Bates *et al.*, 2007; Bernardi and Martínez-Pastor, 2011; Chaudhury, 1983), child marriage (Henry *et al.*, 2015; Raj *et al.*, 2014), and dynamics of child marriage but not on educational attainment (Bernardi and Martínez-Pastor, 2010; Henry *et al.*, 2014; Kamal *et al.*, in press; Kamal, 2012). It is expected that our above-mentioned findings would help researchers and policy-makers to rethink and examine further the effects of child marriage on education and the overall socioeconomic development of the nation. Countries with similar socioeconomic setting may also use the findings to get new insight about the negative effect of child marriage.

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# Child Marriage: How It Affects the Fertility and Reproductive Outcomes in Bangladesh?

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**Abstract:**

*Child marriage is a common phenomenon in Bangladesh that affects social and economic development of women and their health status. Women, who marry early, on an average, are more likely to have their first childbirth at young age and give birth to more children over their reproductive life, contributing to higher fertility. We assessed the magnitude of child marriage and its effects on various fertility and reproductive outcomes using data from the nationally representative 2011 Bangladesh Demographic and Health Survey (BDHS). Simple cross-tabulation, Chi-square tests, and a series of multivariate logistic regression were performed to control the effects of demographics and social equity indicators. Among the respondents aged 20 to 24 years at the time of survey, almost 75.0 percent were married as a child when only ever-married women were included in denominator. Adjusted logistic regression models showed that child marriage significantly elevated the risk of having high fertility, rapid repeat childbirth, unwanted pregnancy, and decreased risk of early childbearing. To prevent all these negative effects of child marriage, comprehensive programmes should be undertaken by the government and non-government organizations focusing on awareness-raising activities, enforcing legal protection, improving girls' safety in the community, and investing on girls' education.*

**Keywords:** Child marriage, Early childbearing, Unintended pregnancy, Rapid repeat childbirth, Fertility

## Introduction

Child marriage, as defined by any marriage before 18 years of age, is a violation of human rights which compromises the development of children, especially of girls and often leads to early pregnancy and social isolation (UNICEF, 2005). Most child marriages are also forced marriages, where consent of children is not considered leading to the violation of child rights as well as human rights. The impacts of child marriage on girls are more severe in terms of number and intensity than their male counterparts (UNICEF, 2005).

The magnitude of child marriage varies across regions and nations. According to the International Center for Research on Women (ICRW), there are around 70 million child brides worldwide; tens of millions of girls are at risk of being forced to wed as child in the developing world (ICRW & Plan International, 2013). Bangladesh is one of the countries in the world that have one of the highest rates of child marriage. In Bangladesh, 65 percent[†] of women aged 20-24 years were married by age 18 years (NIPORT *et al.*, 2013) which is the third-highest in the world (UNICEF, 2013). The Bangladesh Demographic and Health Survey (BDHS) 2011 showed that the median age at first marriage for females aged 20–24 years was 16.6 years (NIPORT *et al.*, 2013) although the legal age of marriage in Bangladesh is 18 years for girls. This is despite the fact that the Child Marriage Restraint Act 1929 adopted in Bangladesh, states that child marriage is a punishable act (GoB, 1984).

The higher rate of child marriage in Bangladesh is a serious concern both from development and policy perspectives. The total number of child marriage is very high compared to other developing countries. This high rate can be attributed to lower levels of education, poverty, place of residence, and social norms (Ferdousi, 2014).

Child marriage has multi-dimensional consequences, such as loss of personal development, denial of education, health problems, and complications due to premature pregnancy (Ferdousi, 2014). Child marriage violates all the rights of the girls leading to loss of freedom and makes them subject to the carnages of

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[†] This percentage is calculated based on the household population, i.e. both married and unmarried women in the household were considered. This proportion is much higher (75 percent) when only the married women are taken into account.

domestic violence and abandonment (Ferdousi, 2014). Child marriage also shortens the educational opportunity of the child and makes the personal growth difficult (Begum and Khan, 1999; Lewis, 2013; Islam *et al.*, in press). Postponing marriage by one year between 11 and 16 years of age could lead to an increase in educational attainment by an average of 0.22 years (Field and Ambrus, 2008). This reflects the seriousness of child marriage in terms of its negative consequence on girl's education.

Child marriage also causes health problems both for mother and child. It has been observed that child marriage resulted early, frequent, and unplanned pregnancies due to lack of access to contraceptive methods (Raj *et al.*, 2009). It has also been witnessed that lack of physiological maturity among the young girls stems pregnancy-related complications or risk of life of the newborn (UNICEF, 2009). Moreover, child marriage extends the reproductive span of the women that creates the opportunity of having high fertility (Bongaarts and Potter, 1983; Ferdousi, 2014). In addition, women who were married as a child have more children because of their limited role in decision-making regarding family planning and lack of awareness about the negative consequences of having more children.

Timing of the first marriage or union is a crucial element of women's reproductive behaviour for their reproductive health and social status (Singh and Samara, 1996). This element has far-reaching consequences leading to increased maternal and neonatal deaths. Research shows that an estimated 0.27 pregnancies could be averted by delaying each additional year of marriage (Field, 2004). This can be achieved primarily through an increase in age of first pregnancy, providing additional health benefits in the form of lower incidence of stillbirths and miscarriages among younger cohorts of women. Delayed marriage is also associated with a significant increase in quality of marital life (Field, 2004).

Thus, age at marriage deserved an in-depth attention due to its close association with various reproductive and social outcomes. Studies conducted so far on age at marriage in Bangladesh have focused mainly on examining customs and factors affecting females' age at first marriage (Chowdhury, 2004; Islam and Ahmed, 1998; Islam and Mahmud, 1996). Kamal (2012) explored the

decline in child marriage and changes in its effect on reproductive outcomes of Bangladeshi women, using the 2007 BDHS data. He found that, overall, 82 percent of women aged 20-49 years were married-off before 18 years of age, and 63 percent of the marriages occurred before 16 years of age. It was also revealed that, child marriage compared to adult marriage appeared to be significantly associated with lower age at first birth, higher fertility, increased risk of child mortality, giving three or more childbirth, unplanned pregnancies, pregnancy termination, and use of any current contraceptive method; decreased risk of contraceptive-use before any childbirths after controlling for the effects of socio-demographic factors (Kamal, 2012). Similar studies were conducted (Nasrullah *et al.*, 2014; Raj *et al.*, 2009) in countries other than Bangladesh on the association between age at marriage and various reproductive outcomes. Raj *et al.* (2009) found that child marriage is significantly associated with 'no contraceptive use' that results early first childbirth, high fertility, rapid repeat childbirth, multiple unwanted pregnancies, pregnancy termination and sterilization for women in India. Similarly, Nasrullah *et al.* (2014) found significant association between child marriage and high fertility, rapid-repeat childbirth, multiple unwanted pregnancies, and pregnancy termination in the context of Pakistan. In these contexts, this paper aims to investigate the magnitude of child marriage and its effect on various reproductive outcomes among Bangladeshi women, using the nationally representative BDHS data of 2011.

**Data and Methods**

The most recent and nationally representative 2011BDHS data were used for this study. The BDHS 2011 collected information from 17,749 ever-married women aged 15-49 years and 3,997 men aged 15-54 years from both urban and rural areas covering all regions of the country. We have used the information of 17,749 ever-married women aged 15-49 years for indicators 1) 'childbirth within first year of marriage' and 2) 'most recent pregnancy was unwanted /mistimed'. On the other hand, we selected a sub-sample of 12,265 ever-married women aged 25-49 years for the indicators[‡]1) 'three or more births' and 2) 'rapid

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[‡] This sub-sample was created as it has been observed that the median age at first childbirth for women aged 20-24 years in Bangladesh is 18.9 years (BDHS, 2011), and the average birth interval is about 20 months (Bongaarts and Potter, 1983). Thus, a

repeat childbirth'. The detail of sampling and methodology is described elsewhere (NIPORT *et al.*, 2013)

*Dependent variables*

We assessed the effect of child marriage on reproductive behaviour by defining some indicators. The dependent variables included for analyses are 1) *childbirth within first year of marriage* to assess early fertility, 2) *three or more childbirth* to assess high fertility, 3) *most recent pregnancy was unwanted or mistimed* to assess poor fertility outcomes, and 4) *rapid repeat childbirth* to assess low fertility control where *repeat* has been defined as delivering a subsequent child in less than 24 months time period (Rigsby *et al.,* 1998).

*Independent variables*

We considered the following variables as the independent variables to examine the effect of child marriage on the fertility and reproductive outcomes of women: *child marriage (1=woman was married before 18 years of age; 0= otherwise), current age of the women (1=15-19, 2=20-24,...., 7=45-49), administrative regions (1=Barisal, 2=Chittagong, 3=Dhaka, 4=Khulna, 5=Rajshahi, 6=Rangpur, 7=Sylhet), place of residence (1=urban, 2= rural), women's education (1=no education, 2=primary, 3=secondary, 4=higher than secondary), husband's education (1=no education, 2=primary, 3=secondary, 4=higher than secondary), women's employment status (1=employed, 2=not employed), religion (1=Muslim, 2=non-Muslim), wealth quintile (1= lowest, 2 = second, 3 = middle, 4 = fourth, 5 = highest), and women empowerment (0 = no participation in household decision making, 1 = participation in one decision, 2 = participation in two decisions, 3 = participation in three decisions, 4 =participation in all decisions)*. Women's empowerment has important implications for demographic and health outcomes, including women's use of family planning and maternal healthcare services (NIPORT *et al.,* 2013). The women empowerment scale was constructed by using four questions regarding women's participation in decision-making process related to own healthcare, major household purchases, child

healthcare, and visits to family or relatives. This scale is positively related to women's empowerment and reflects the degree of control that women are able to exercise through making decisions. The Cronbach alpha of this scale was 0.82. The wealth quintile has been constructed based on the possession of durable assets in the household. The detail methodology is described elsewhere (NIPORT *et al.*, 2013).

*Statistical analyses*

The effect of child marriage on fertility and reproductive outcomes were assessed through using both bivariate and multivariate analyses. Chi-square tests were used to examine the differential effects of child marriage and other socioeconomic factors on reproductive outcomes. These were followed by a series of multivariate logistic regression analysis to assess the effect of child marriage on the reproductive outcomes of women after controlling for the effects of other selected independent variables. The results of the multilevel logistic regression analyses have been presented as odds ratios (OR) along with 95 percent confidence intervals and corresponding p-values.

**Results**

*Socioeconomic characteristics of the respondents*

Table 1 shows the socioeconomic and demographic characteristics of the respondents. The respondents (n=17,749) reported a median age of 22 years (mean age=30.7 years, SD=9.23) (Table-1). Approximately one-third of the respondents (27.7 percent) had no formal education, and 74.0 percent resided in rural areas. Ninety percent of the respondents were Muslim. More women were from Dhaka division, followed by Rajshahi, Chittagong, Khulna, Sylhet and Barisal. Considering the wealth quintile, around two-fifths were from poor households, and more than two-fifths were from rich households. Most of the respondents were unemployed (87 percent).

*Effect of child marriage on early childbearing*

Chi-square tests were conducted to assess the association between childbirth within first year of marriage and the following independent variables - current age of the women, administrative regions, place of residence, women's education, husband's education, women's employment status, religion, wealth quintile, empowerment index, and child

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woman needs to be at least 23.9 years of age to have three or more children. Therefore, women aged less than 25 years cannot contribute to these indicators and thus excluded from the analysis.

marriage. Bivariate analysis indicates that all the independent variables are significantly associated with the dependent variable (p<0.05). Thus, all of them were included in the multivariate logistic regression analysis. The result shows that child marriage led to 41.0 percent lower odds of having first birth within first year of their marriage compared to adult marriage after controlling for (OR=0.59, p<0.001) the above-mentioned independent variables (table 2). This indicates that the women who were married as child postponed having children earlier whereas those were married-off as an adult advanced having their first child within one year of first marriage. On the contrary, women aged more than or equal to 45 years are less likely (OR=0.29; p<0.001) to have child within first year of marriage than women aged 15-19 years.

*Effect of child marriage on high fertility*

A number of chi-square tests were performed to assess the association between 'three or more childbirth' and the following variables, namely, current age of the women, administrative regions, place of residence, women's education, husband's education, women's employment status, religion, wealth quintile, empowerment index, and child marriage. Bivariate analysis indicates that all the independent variables are significantly (p<0.05) associated with the dependent variable. Thus, all of them were included in the multivariate logistic regression analysis. Table 3 shows that the women married as child had three times higher odds (OR=3.01; p<0.001) of having three or more children as compared to women who got married as adult. This indicates the risk to result high fertility for early marriage. Women aged more than or equal to 45 years were more likely (OR=9.21; p<0.001) to have three or more children than women aged 25-29 years. Rural women were significantly at higher risk to produce three or more children (OR=1.19; p<0.001) than urban women. Women having education higher than secondary level (OR=0.37, p<0.001), being non-Muslim (OR=0.58, p<0.001), and belonging to richest quintile (OR=0.56, p<0.001) were less likely to have three or more children compared to their corresponding reference groups.

**Table-1: Distribution of women by background characteristics, BDHS 2011**

| Characteristics | Percentage | Number of women |
|---|---|---|
| **Current age of women (years)** | | |
| 15-19 | 11.1 | 1970 |
| 20-24 | 19.8 | 3514 |
| 25-29 | 19.1 | 3394 |
| 30-34 | 15.0 | 2654 |
| 35-39 | 12.7 | 2246 |
| 40-44 | 12.1 | 2152 |
| 45-49 | 10.3 | 1820 |
| **Mean age of women** | 30.7 (±9.23) | |
| **Women's employment status** | | |
| Not employed | 86.8 | 15414 |
| Employed | 13.2 | 2335 |
| **Divisions** | | |
| Barisal | 5.6 | 1002 |
| Chittagong | 18.2 | 3222 |
| Dhaka | 32.3 | 5736 |
| Khulna | 12.0 | 2139 |
| Rajshahi | 14.9 | 2646 |
| Rangpur | 11.5 | 2039 |
| Sylhet | 5.4 | 967 |
| **Place of residence** | | |
| Urban | 26.0 | 4619 |
| Rural | 74.0 | 13130 |

*(continued)*

**Table-1:** *(continued)*

| Characteristics | Percentage | Number of women |
|---|---|---|
| **Women's education** | | |
| No education | 27.7 | 4912 |
| Primary | 30.0 | 5326 |
| Secondary | 35.0 | 6210 |
| Higher | 7.3 | 1300 |
| **Husband's education** | | |
| No education | 31.2 | 5528 |
| Primary | 27.1 | 4803 |
| Secondary | 28.2 | 4998 |
| Higher | 13.6 | 2412 |
| **Religion** | | |
| Islam | 90.0 | 15980 |
| Others | 10.0 | 1769 |
| **Wealth quintile** | | |
| Lowest | 18.3 | 3250 |
| Second | 19.6 | 3487 |
| Middle | 20.1 | 3567 |
| Fourth | 20.6 | 3664 |
| Highest | 21.3 | 3781 |
| Total | 100.0 | 17749 |

**Table-2: Multivariate logistic regression model regarding the effect of child marriage on childbirth within first year of marriage among women in Bangladesh, BDHS 2011**

| Characteristics | Women had childbirth within first year of marriage | | | p-value |
|---|---|---|---|---|
| | **Adjusted OR** | **95 percent CI** | | |
| **Age at marriage <18 years** | | | | |
| No | 1 | | | |
| Yes | 0.59 | 0.53 | 0.64 | 0.000 |
| **Current age of women (years)** | | | | |
| 15-19 | 1 | | | |
| 20-24 | 0.72 | 0.62 | 0.84 | 0.000 |
| 25-29 | 0.65 | 0.56 | 0.76 | 0.000 |
| 30-34 | 0.57 | 0.49 | 0.67 | 0.000 |
| 35-39 | 0.45 | 0.38 | 0.54 | 0.000 |
| 40-44 | 0.35 | 0.30 | 0.42 | 0.000 |
| 45-49 | 0.29 | 0.24 | 0.35 | 0.000 |
| **Women's employment status** | | | | |
| Not employed | 1 | | | |
| Employed | 0.90 | 0.81 | 1.00 | 0.055 |
| **Divisions** | | | | |
| Barisal | 1 | | | |
| Chittagong | 1.70 | 1.42 | 2.03 | 0.000 |
| Dhaka | 1.19 | 1.00 | 1.42 | 0.045 |
| Khulna | 1.06 | 0.88 | 1.29 | 0.524 |
| Rajshahi | 1.20 | 1.00 | 1.45 | 0.048 |
| Rangpur | 1.36 | 1.12 | 1.64 | 0.002 |
| Sylhet | 1.78 | 1.44 | 2.21 | 0.000 |

*(continued)*

**Table-2:** *(continued)*

| Characteristics | Women had childbirth within first year of marriage | | | p-value |
|---|---|---|---|---|
| **Place of residence** | | | | |
| Urban | 1 | | | |
| Rural | 0.91 | 0.82 | 1.00 | 0.049 |
| **Women's education** | | | | |
| No education | 1 | | | |
| Primary | 1.02 | 0.92 | 1.12 | 0.758 |
| Secondary | 0.78 | 0.69 | 0.88 | 0.000 |
| Higher | 0.41 | 0.33 | 0.51 | 0.000 |
| **Husband's education** | | | | |
| No education | 1 | | | |
| Primary | 0.91 | 0.83 | 1.00 | 0.052 |
| Secondary | 0.82 | 0.74 | 0.92 | 0.000 |
| Higher | 0.73 | 0.62 | 0.86 | 0.000 |
| **Religion** | | | | |
| Islam | 1 | | | |
| Others | 1.05 | 0.93 | 1.18 | 0.454 |
| **Wealth quintile** | | | | |
| Lowest | 1 | | | |
| Second | 0.99 | 0.88 | 1.11 | 0.856 |
| Middle | 1.03 | 0.91 | 1.16 | 0.650 |
| Fourth | 1.07 | 0.94 | 1.21 | 0.304 |
| Highest | 1.08 | 0.94 | 1.26 | 0.286 |
| **Empowerment index** | | | | |
| 0 | 1 | | | |
| 1 | 1.03 | 0.90 | 1.17 | 0.698 |
| 2 | 0.96 | 0.84 | 1.09 | 0.508 |
| 3 | 0.95 | 0.84 | 1.07 | 0.409 |
| 4 | 0.93 | 0.85 | 1.02 | 0.126 |

*-2LL=18361.21*

*N=15969*

**Table-3: Multivariate logistic regression model regarding the effect of child marriage on three or more children among women aged 25-49 in Bangladesh, BDHS 2011**

| Characteristics | Women had three or more children | | p-value |
|---|---|---|---|
| | **Adjusted OR** | **95 percent CI** | |
| **Age at marriage <18 years** | | | |
| No | 1 | | - |
| Yes | 3.02 | 2.70    3.38 | 0.000 |
| **Current age of women (years)*** | | | |
| 25-29 | 1 | | - |
| 30-34 | 2.93 | 2.60    3.30 | 0.000 |
| 35-39 | 5.37 | 4.70    6.13 | 0.000 |
| 40-44 | 6.86 | 5.95    7.90 | 0.000 |
| 45-49 | 9.21 | 7.86    10.80 | 0.000 |
| **Women's employment status** | | | |
| Not employed | 1 | | - |
| Employed | 0.54 | 0.48    0.62 | 0.000 |

*(continued)*

| Characteristics | Women had three or more children | | | p-value |
|---|---|---|---|---|
| | **Adjusted OR** | **95 percent CI** | | |
| **Divisions** | | | | |
| Barisal | 1 | | | - |
| Chittagong | 1.87 | 1.51 | 2.32 | 0.000 |
| Dhaka | 0.97 | 0.79 | 1.19 | 0.756 |
| Khulna | 0.50 | 0.40 | 0.62 | 0.000 |
| Rajshahi | 0.54 | 0.43 | 0.66 | 0.000 |
| Rangpur | 0.73 | 0.59 | 0.92 | 0.006 |
| Sylhet | 2.10 | 1.60 | 2.76 | 0.000 |
| **Place of residence** | | | | |
| Urban | 1 | | | - |
| Rural | 1.19 | 1.06 | 1.34 | 0.004 |
| **Women's education** | | | | |
| No education | 1 | | | - |
| Primary | 1.02 | 0.91 | 1.14 | 0.749 |
| Secondary | 0.55 | 0.48 | 0.63 | 0.000 |
| Higher | 0.37 | 0.29 | 0.48 | 0.000 |
| **Husband's education** | | | | |
| No education | 1 | | | - |
| Primary | 1.06 | 0.94 | 1.19 | 0.345 |
| Secondary | 0.91 | 0.80 | 1.05 | 0.191 |
| Higher | 0.63 | 0.52 | 0.76 | 0.000 |
| **Religion** | | | | |
| Islam | 1 | | | - |
| Others | 0.58 | 0.50 | 0.66 | 0.000 |
| **Wealth quintile** | | | | |
| Lowest | 1 | | | - |
| Second | 0.80 | 0.69 | 0.93 | 0.003 |
| Middle | 0.73 | 0.63 | 0.85 | 0.000 |
| Fourth | 0.70 | 0.60 | 0.82 | 0.000 |
| Highest | 0.56 | 0.46 | 0.67 | 0.000 |
| **Empowerment index** | | | | |
| 0 | 1 | | | - |
| 1 | 1.61 | 1.35 | 1.93 | 0.000 |
| 2 | 1.59 | 1.35 | 1.87 | 0.000 |
| 3 | 1.21 | 1.05 | 1.40 | 0.009 |
| 4 | 1.56 | 1.39 | 1.75 | 0.000 |

*-2LL=12591.72*

*N=12262*

*Reason for selecting women aged 25-49 years is discussed in methodology section

**Table-4: Multivariate logistic regression model regarding the effect of child marriage on most recent pregnancy was unwanted or mistimed among women in Bangladesh, BDHS 2011**

| Characteristics | Most recent pregnancy was unwanted or mistimed | | | p-value |
| --- | --- | --- | --- | --- |
| | Adjusted OR | 95 percent CI | | |
| **Age at marriage <18 years** | | | | |
| No | 1 | | | - |
| Yes | 1.26 | 1.10 | 1.44 | 0.000 |
| **Current age of women (years)** | | | | |
| 15-19 | 1 | | | - |
| 20-24 | 1.01 | 0.87 | 1.18 | 0.880 |
| 25-29 | 1.43 | 1.21 | 1.68 | 0.000 |
| 30-34 | 1.87 | 1.55 | 2.26 | 0.000 |
| 35-39 | 3.08 | 2.43 | 3.90 | 0.000 |
| 40-44 | 4.24 | 3.03 | 5.94 | 0.000 |
| 45-49 | 4.21 | 2.17 | 8.19 | 0.000 |
| **Women's employment status** | | | | |
| Not employed | 1 | | | - |
| Employed | 1.05 | 0.89 | 1.24 | 0.560 |
| **Divisions** | | | | |
| Barisal | 1 | | | - |
| Chittagong | 1.04 | 0.82 | 1.31 | 0.760 |
| Dhaka | 1.09 | 0.87 | 1.36 | 0.450 |
| Khulna | 1.08 | 0.83 | 1.40 | 0.560 |
| Rajshahi | 1.12 | 0.88 | 1.43 | 0.360 |
| Rangpur | 1.04 | 0.81 | 1.34 | 0.760 |
| Sylhet | 0.97 | 0.73 | 1.29 | 0.840 |
| **Place of residence** | | | | |
| Urban | 1 | | | - |
| Rural | 0.89 | 0.77 | 1.02 | 0.090 |
| **Women's education** | | | | |
| No education | 1.00 | | | - |
| Primary | 1.06 | 0.91 | 1.23 | 0.460 |
| Secondary | 0.87 | 0.73 | 1.02 | 0.090 |
| Higher | 0.68 | 0.50 | 0.91 | 0.010 |
| **Husband's education** | | | | |
| No education | 1 | | | - |
| Primary | 1.04 | 0.91 | 1.19 | 0.530 |
| Secondary | 1.10 | 0.95 | 1.28 | 0.210 |
| Higher | 0.85 | 0.68 | 1.07 | 0.180 |
| **Religion** | | | | |
| Islam | 1 | | | - |
| Others | 0.62 | 0.51 | 0.76 | 0.000 |
| **Wealth quintile** | | | | |
| Lowest | 1 | | | - |
| Second | 0.85 | 0.73 | 0.98 | 0.030 |
| Middle | 0.77 | 0.65 | 0.90 | 0.000 |
| Fourth | 0.74 | 0.63 | 0.88 | 0.000 |
| Highest | 0.58 | 0.47 | 0.72 | 0.000 |
| **Empowerment index** | | | | |
| 0 | | | | |
| 1 | 1 | | | - |
| 2 | 1.03 | 0.86 | 1.24 | 0.740 |
| 3 | 1.14 | 0.96 | 1.36 | 0.140 |
| 4 | 1.07 | 0.91 | 1.26 | 0.430 |
| Richest | 1.06 | 0.92 | 1.21 | 0.430 |

*-2LL=9429.7*
*N=7962*

**Table-5: Multivariate logistic regression model regarding the effect of child marriage on rapid repeat childbirth among women aged 25-49 in Bangladesh, BDHS 2011**

| Characteristics | Women had rapid repeat childbirth | | | p-value |
|---|---|---|---|---|
| | Adjusted OR | 95 percent CI | | |
| **Age at marriage <18 years** | | | | |
| No | 1 | | | - |
| Yes | 1.57 | 1.40 | 1.77 | 0.000 |
| **Current age of women (years)*** | | | | |
| 25-29 | 1 | | | - |
| 30-34 | 1.52 | 1.34 | 1.73 | 0.000 |
| 35-39 | 2.21 | 1.95 | 2.52 | 0.000 |
| 40-44 | 2.71 | 2.38 | 3.09 | 0.000 |
| 45-49 | 3.89 | 3.39 | 4.46 | 0.000 |
| **Women's employment status** | | | | |
| Not employed | 1 | | | - |
| Employed | 0.84 | 0.75 | 0.95 | 0.010 |
| **Divisions** | | | | |
| Barisal | 1 | | | - |
| Chittagong | 1.71 | 1.41 | 2.07 | 0.000 |
| Dhaka | 0.96 | 0.79 | 1.15 | 0.640 |
| Khulna | 0.67 | 0.54 | 0.82 | 0.000 |
| Rajshahi | 0.80 | 0.65 | 0.97 | 0.020 |
| Rangpur | 0.89 | 0.72 | 1.10 | 0.270 |
| Sylhet | 2.20 | 1.74 | 2.79 | 0.000 |
| **Place of residence** | | | | |
| Urban | 1 | | | - |
| Rural | 1.18 | 1.05 | 1.32 | 0.010 |
| **Women's education** | | | | |
| No education | 1 | | | - |
| Primary | 0.92 | 0.83 | 1.02 | 0.100 |
| Secondary | 0.59 | 0.51 | 0.68 | 0.000 |
| Higher | 0.31 | 0.23 | 0.42 | 0.000 |
| **Husband's education** | | | | |
| No education | 1 | | | - |
| Primary | 1.02 | 0.92 | 1.14 | 0.690 |
| Secondary | 0.99 | 0.87 | 1.12 | 0.820 |
| Higher | 0.79 | 0.65 | 0.96 | 0.020 |
| **Religion** | | | | |
| Islam | 1 | | | - |
| Others | 0.72 | 0.63 | 0.83 | 0.000 |
| **Wealth quintile** | | | | |
| Lowest | 1 | | | - |
| Second | 1.01 | 0.89 | 1.15 | 0.850 |
| Middle | 0.81 | 0.71 | 0.92 | 0.000 |
| Fourth | 0.85 | 0.74 | 0.98 | 0.030 |
| Highest | 0.72 | 0.61 | 0.86 | 0.000 |
| **Empowerment index** | | | | |
| 0 | 1 | | | - |
| 1 | 1.33 | 1.14 | 1.57 | 0.000 |
| 2 | 1.07 | 0.92 | 1.25 | 0.360 |
| 3 | 1.10 | 0.96 | 1.26 | 0.180 |
| 4 | 1.20 | 1.08 | 1.34 | 0.000 |

*-2LL=13921.84*
*N=12261*

*Reason for selecting women aged 25-49 years is discussed in methodology section

*Effect of child marriage on poor fertility outcome*

A series of chi-square tests were conducted to assess the association between 'most recent pregnancy was unwanted or mistimed' and the following independent variables -current age of the women, administrative regions, place of residence, women's education, husband's education, women's employment status, religion, wealth quintile, empowerment index, and child marriage. Bivariate analysis indicates that all the independent variables are significantly ($p<0.05$) associated with the dependent variables. Thus, all of them were included in the multivariate logistic regression analysis. Table 4 shows the significant elevated risk of unintended pregnancy (OR=1.26, $p<0.001$) for child marriage than adult marriage. Moreover, we found that the risk of unintended pregnancy was lower in the younger age groups than those who are aged more than or equal to 45 years (OR=4.12, $p<0.001$). Women having higher than secondary education (OR=0.68, $p=0.01$), being non-Muslim (OR=0.62, $p<0.001$), and belonging to richest quintile (OR=0.58, $p<0.001$) are less likely to have unintended or mistimed pregnancy compared to their corresponding reference groups.

*Effect of child marriage on low fertility control*

Chi-square tests were conducted to assess the association between 'rapid repeat childbirth' and the following independent variables -current age of the women, administrative regions, place of residence, women's education, husband's education, women's employment status, religion, wealth quintile, empowerment index, and child marriage. Bivariate analysis indicates that all the independent variables are significantly ($p<0.05$) associated with the dependent variables. Thus, all of them were included in the multivariate logistic regression analysis. It is observed that the risk of having rapid repeat childbirth was higher for women who were married off as child (OR=1.57, $p<0.001$) than those married as adult (table 5). This risk of low lifetime fertility control was increased to four times for women aged more than or equal to 45 years (OR=3.89, $p<0.001$) compared to women

aged 25-29 years. Women who resided in rural areas were more likely to have rapid repeat childbirth than urban residents (OR=1.18, $p=0.01$). The more women were educated, the less was the risk of low fertility control as the odds ratios showing declining trend from 1.00 ($p<0.001$) to 0.31 ($p<0.001$). Women from non-Muslim community (OR=0.72, $p<0.001$) and from highest quintile (OR=0.72, $p<0.001$) were less likely to have rapid repeat childbirth in their lifetime.

**Discussion and Conclusions**

Marriage is a sine qua non of forming family in our society, where childbirth is socially recognized after conformation of this social agreement. This study aimed at examining the effect of child marriage on various fertility and reproductive outcomes. The findings show that the practice of child marriage is still a common phenomenon in Bangladesh. Overall, the rate of child marriage was 79 percent for the ever-married women who were aged from 15-49 years and 75 percent among 20-24 years age group. These high rate of child marriage results in higher fertility and poor control of fertility, which are responsible for maternal and child mortality and poor fertility outcomes.

In a country like Bangladesh, where the main purpose of marriage is to procreate, the childbearing within first year of marriage is well established (Kamal, 2012; Wong, 2005). In this study, the lower risk of childbearing within one year of marriage among women married as child compared to their adult counterparts possibly be explained by the biological and physiological immaturity of the women. Moreover, women married as adult have to enter into early motherhood not only to proof their fertility but also to tackle the family or social pressure. Making delay in childbearing often causes sufferings to the women as the family or society starts blaming for not being capable of childbearing. This finding is consistent with earlier study (Kamal, 2012).

Our study also found accelerating effect of child marriage on high fertility which is consistent with earlier study (Kamal, 2012). Early marriage results

longer reproductive span and this longer span increase the cumulative fertility for women. However, this longer exposure period due to early marriage increases the likelihood of child mortality for biological and physical immaturity of the women (Kamal, 2012).

Besides, this study also reveals the increased risk of having unintended or mistimed pregnancy among the women married off as a child. The likelihood of this kind, which put the life of the mothers at risk, not only attributable to the biological and physiological immaturity but also the lack of knowledge about the family planning process, i.e. education and low performance of the contraceptive methods themselves. Nevertheless, the risk of rapid repeat childbirth is also significantly high among the child brides. This consequence of poor control on contraception methods may be attributed to failure in poor knowledge of family planning, poor access to family planning services and lack of decision-making power (Jain and Kurz, 2007; Raj *et al.*, 2009; UNFPA, 2005) though our study did not find any significant association regarding women empowerment.

As a whole, to mitigate all these negative effects of child marriage, comprehensive programmes should be undertaken focusing on awareness-raising activities about child marriage along with enforcement of legal process to protect child marriage, investing in girls education, adolescent and reproductive health as well as (Lewis, 2013) and other issues involving development among various stakeholders, and the promotion of community-based organizations for children and adults. The teenage girls should be the primary concern as well as their parents and service providers. Capacity of both formal and informal mechanisms, such as social protection, advocacy at community and national level should be strengthened and must ensure easy access for both children and their parents. Insufficient effort in implementation and enforcement of marriage laws also contribute to rates of child marriage. Even after the Birth and Death Registration Act was amended in 2004, most marriages in Bangladesh were not officially registered (International Development Law Organization, 2010). Many parents deliberately misreported girls' ages to conform to the marriage law, enabling marriage before it become legally acceptable. Proper registration and monitoring system is required to tackle the parent's reluctance towards birth registration.

The study also has some limitations. Firstly, it made use of self-reported data, which is prone to recall-bias and misreporting. Women are likely to misreport their age so as to appear young. Moreover, women try to hide their actual age at first marriage and report older age than the actual age to avoid accusation of violating marriage act. The information on unintended pregnancies are sensitive and hence subject to misreporting as well. Secondly, women often cannot recall their mistimed pregnancies and cause biasness. Another limitation lies into the definition of the information collected on the 'age at marriage'. The data collection is made on 'age at first cohabitation' rather 'age at first marriage', which presents different idea of marriage in the context of Bangladesh. Many important variables have been left out such as, parent's education, parent's socioeconomic status due to unavailability of data. Despite these limitations, the study used nationally representative DHS data, which ensures international-standard quality and hence enhances the strength of the study.

This study clearly established the facts that child marriage has wide range of fertility and reproductive health consequences. It has been observed that various initiatives have been taken by the government (GO) and the NGOs in Bangladesh during last four decades. However, the rate of child marriage is still high. Thus, future research should focus on evaluating GO-NGO activities in preventing child marriage in Bangladesh. This will help policy-makers to design more effective programmes for preventing child marriage in Bangladesh.

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# Prevention of and Protection Against Child Marriage in Bangladesh: Issues and Factors *vis-à-vis* Legal and Policy Framework

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## Abstract

*This paper analyses the legal and policy framework in creating an enabling environment for prevention of child marriage. The paper asserts that an enabling legal and policy environment can contribute in turning child marriage practice into a less viable option for parents and girls. It illustrates that legal framework with respect to restraining child marriage in Bangladesh suffers from ambiguity. It neither allows nor disallows child marriage. Ambiguity and conflicting position on crimializing and invalidating child marriage by the legal framework is the major obstacle in the enforcement of legislative instruments for restraining child marriage in Bangladesh. Contemporary social policies on issue of child marriage reflect lack of shared aims and vision in comprehending and approaching the problem. Few policies have explicitly brought the issue of child marriage as an impediment to social and economic development. However, in general there has been implicit recognition of the issue. The strategies set out in the social policies while focus on many of the risk and protective factors for child marriage they lack cohesiveness, connectedness and vigor. The issue has not been thematically mainstreamed into the entire social sector. Appropriate framework for elimination of child marriage requires greater synergy and harmonization between and among social policies and five year plans. Laws, policies, and programmes for elimination of child marriage should be woven around poverty, vulnerability, discrimination, abuse, violence, and dowry. Child marriage restraining programs needs to involve multiple sectors and follow multiple approaches.*

**Keywords:** Child marriage; Risk factor, Protective factor, Legal framework, Policy framework

## Introduction

Bangladesh has been identified as one of the 'hot spots' for child marriage in the world. Child marriage in Bangladesh remains one of the highest in the world and the highest in South Asia (Jain and Kurz, 2007; Nanda *et al.,* 2012; Myers, 2013; UNFPA, 2012). Child marriage remains higher in places that are in conflict situation and where level of development is relatively lower and poverty, birth and death rates are higher (UNFPA, 2005). Over the past three decades Bangladesh has made great strides on various fronts including education and health. However, child marriage has persisted here as a daunting social ill. Ending child marriage is crucial to protect child rights and achieve other social development goals.

Even though child marriage is widely prevalent in Bangladesh, it is not common across all the population groups. Bangladesh Demographic and Health Survey (BDHS) 2011 reports median age at marriage increases with increase in household wealth (NIPORT *et al.*, 2013). Women from the highest wealth quintile marry two years later than women from the lowest wealth quintile. The age at marriage for other wealth quintiles varies little. However, there has been an increase in the median age of first marriage by one-and-half years from 14.9 for women in their mid to late forties to 16.6 years for those in their early twenties.

There is no denying fact that child marriage practice in this country has its roots in its social construction of 'girl child' that deem girls inferior and undermine their potential (Verma *et al.*, 2013). However, inadequate opportunities, poverty, and other forms of vulnerabilities intensify such social practice (Lewis, 2013; Myers, 2013). Therefore, it is important to ask why disadvantaged people choose child marriage as an option of life for their daughters as opposed to those who are

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socioeconomically better off. This will help us in analyzing legal and policy instruments for eliminating child marriage in the light of major factors associated with child marriage in the country.

This paper aims to know if legal provisions may or may not work for preventing child marriage, and if there has been an appropriate integration of child marriage issue within policy framework for preventing child marriage and mitigating its effects. This paper argues that an enabling legal and policy environment can contribute in turning child marriage practice into a less viable option for parents and girls through minimizing the prevalence of risk factors and maximizing the prevalence of protective factors.

In analyzing legal and policy framework to eliminate child marriage in Bangladesh, this paper seeks to address three questions: a) why do a large proportion of parents in Bangladesh choose child marriage as an option of life for their daughters? b) what legal and policy instruments are in place to restrain child marriage? and c) how far the legal and policy framework in Bangladesh have the possibility of creating an enabling environment for protecting girls against such practice?

**Methods**

The study tried to address its research questions through analyzing a) the risk and protective factors for child marriage practice in Bangladesh, b) how social policies have integrated child marriage issue, and c) possibility of the legal and policy frameworks to offset the influence of risk factors and enhance the influence of protective factors to deter child marriage practice in Bangladesh.

For examining and analyzing the legal and policy framework the study systematically reviewed all the relevant: a) international and national legal instruments for prevention of and protection against child marriage; and b) national policies of social sector having bearing on child marriage.

Risk and protective factors have been identified and analyzed through a review of studies on the issues and factors associated with child marriage

and the determinants of age at first marriage in Bangladesh. Reviewed literatures were both quantitative and qualitative in nature. Literatures were searched through the use of database, PubMed and Google Scholar. Key words used for literature search were: child marriage in Bangladesh; determinants of child marriage in Bangladesh; issues of child marriage in Bangladesh; causes of child marriage in Bangladesh; factors affecting child marriage in Bangladesh. The study also used grey literatures on child marriage in Bangladesh. Websites of UNICEF, Plan International and Population Council, were searched for relevant publications. The study adopted legalistic definition of child marriage and thus, any marriage where one of the spouses is below the age of 18 years is referred to as child marriage.

The study examined the contemporary national policy documents and the sixth five-year plan on issue of child marriage. Reflection of the policies and strategies on child marriage prevention programmes and interventions is beyond the scope of this paper.

**Framework for analysis**

The study analyzed the legal and policy framework in creating an enabling environment for prevention of child marriage in the light of risk and protective factors for child marriage in Bangladesh. Risk and protective factors are widely used as a framework for analyzing adolescent behaviour including substance abuse, violence, and health behaviour, and therefore, for policy intervention to address these issues (Kalmus *et al.*, 2003; Blum and Mmari, 2004; Turbin *et al.*, 2006; Currie *et al.*, 2012). Risk factors are generally defined in terms of conditions, life events or experiences that are associated with undesirable behaviour or practice. Protective factors are the life events or experiences that on the one hand, mitigate the effects of risk factors and reduce the likelihood of problematic behaviour. Protective factors also increase resiliency, the ability to overcome the adverse conditions.

Thus, factors associated with child marriage are considered to be 'risk factors' if exposure to those makes people more prone to child marriage practice. Factors are considered 'protective' if exposure to those makes people less prone to child marriage practice or are associated with behaviours that discourage, restrict, and prevent child marriage. The greater the prevalence of risk factors, the greater the likelihood of prevalence of child marriage.

Risk factors are, therefore, referred in this study to conditions and features that make parents apprehensive about the social and economic penalties they may face for postponing their daughters' marriage until their daughters attain the legal age for marriage. Presence and prominence of these features and conditions makes parents more likely to choose child marriage as an option for their daughters' life.

Protective factors in this study are referred to the conditions that provide parents with incentives for postponing their daughters' marriage until they attain a certain age (at least legal age for marriage). Presence and prominence of these features and factors makes parents less likely to go for child marriage and in the long run offset the influence of risk factors.

The study sought whether there has been an appropriate linking of child marriage issue with social policy framework. Integration of the issue of child marriage with social policy framework requires pursuing elimination of child marriage as a means to development as well as a goal of development.

In analyzing how social policies have integrated child marriage we have made distinction between child marriage as a social and development issue and child marriage as a rights issue. Acknowledging child marriage as a social and development issue requires linking child marriage issue with the challenges and goals of social policies. Therefore, from this perspective ending child marriage is pursued for achieving various social and development goals. Ending child marriage as a rights issue is pursued on its own right and child

marriage is considered a violation of child rights causing a continuum of child rights violation.

However, the legal and policy recognition of the issue does not necessarily ensure efficacy of the legal and policy environment to restrain child marriage practice until they are implemented through appropriate interventions.

**Risk factors for child marriage practice in Bangladesh**

This section examines and analyses the risk factors that tend to intensify the practice of child marriage by posing threats of penalties in various forms for parents who do not marry off their daughters at an age considered appropriate by the community. Risk factors do not function in similar fashion across all population groups and do not equally influence marriage practice across all groups of population. These factors operate more strongly amidst the web of multiple disadvantages i.e., poverty, exclusion, vulnerabilities, lack of opportunities, etc. (UNICEF, 2001; Jain and Kurz, 2007). Higher prevalence of risk factors creates a vicious circle of child marriage, widening and deepening vulnerabilities, shrinking opportunities, dehumanizing of girls, and poverty and deprivation.

Child marriage practice in Bangladesh is an outcome of a complex interplay of factors like social and religious values, tradition, poverty, deprivation, outlaws against girls, etc. (Lewis, 2013; UNICEF, 2005; Geirbo and Imam, 2006). Social and religious values and tradition collectively influence standards and norms for marriage. However, standards and norms for marriage also differ among different population groups on the basis of exposure to the risk factors like poverty, deprivation, outlaws against girls, etc.

Child marriage is common in Bangladesh. Marriage for girls is near universal here. Marriage is perceived as the only means for women to gain social identity and status. Thus, failing to marry at all or at an age appropriate considered by the community ends in social stigmatization. Girls are commonly and traditionally considered to be of marriageable age as soon as they attain puberty,

signaling their reproductive ability (Aziz and Maloney, 1985; Geirbo and Imam, 2006). While traditionally child marriage is common here, there is also no restriction from religious laws in this regard. Muslim, Hindu, and Christian religious personal laws also permit girls' marriage before 18 years. Therefore, tradition, social values and religious laws together set conducive social setting for child marriage.

Child marriage is traditionally perceived here as a 'protection' for girls. It is perceived and practiced as one of the most important means to control female sexuality. Parents here, put most importance in preserving their daughters' chastity to protect their family honour in accordance with the religious and social value ascribed on girls' virginity (Aziz and Maloney, 1985; Lewis, 2013). Most parents view delay in marriage for girls after menarche as a risk factor for sexual exposure or sexual abuse (Aziz and Maloney, 1985; Geirbo and Imam, 2006). Girls who have been victim of sexual assault or violence run the risk of losing the chance of ever getting married (Geirbo and Imam, 2006). Even without being the victim of such violence, girls can earn labels of sexual debut. Spreading rumors about girls who are not married but are considered adult in the eyes of the community are common and such labeling often endangers girls' prospect of ever getting married (Amin and Huq, 2008).

Thus, child marriage is pursued by many parents as a strategy for 'protection' against the risk of sexual abuse and violence on girls. Such protection is sought from the fear of social sanctions against sexually violated or sexually active girls. However, child marriages frequently end up with very instable, short lived, and multiple marriages and violent marital life (Lewis, 2013; Amin et al., 2012). Study on spousal physical violence reported that younger women are more likely to experience certain forms of abuse by husbands (Naved and Persson, 2005). Social pressures for marriage are so great that even an abusive marriage is preferred by parents than risking sexual abuse and violence outside marriage.

While social and religious values and tradition collectively influence in setting standards and norms for marriage, influence of social value is stronger over some standards and norms than religious values and tradition. Child marriage practice in Bangladesh is associated with certain social values and practices that are contrary to the religious proscriptions of the majority population in the country. Dowry (payments made by the bride's family to the grooms family) has turned into a common practice in Bangladesh particularly among poor and disadvantaged population irrespective of their religion (almost 90 percent of population being Muslim in the country has important social and economic bearings on introduction of such a practice). Islamic law provides different directive in marriage practice which requires groom to provide *mahar* or 'dower' in the form of property, payment or any other valuables to the bride. Provision of *mahar* or 'dower' as per Islamic law intends to give economic security to wife and limits husband's arbitrary use of unilateral divorce. However, instead of 'dower', practice of dowry now became a common feature of marriage practice in Bangladesh but had not been a tradition among Muslims (Hossain, 2003; Bates et al., 2004; Amin and Huq, 2008).

Connection between dowry and child marriage is channeled through social perception about appropriate age of marriage for girls. Amount for dowry payments demanded by grooms' family increases with increase in girls' age at marriage (Amin et al., 1998; Bates et al., 2004). Research shows a strong association between age at marriage and amounts of dowry paid in Bangladesh (Bates et al., 2004; Amin and Bajracharya, 2011). In a society where marriage for girls is highly valued, refusal of marriage prospect for dowry demand is not perceived as a viable option by many parents (Bates et al., 2004; Geirbo and Imam, 2006; Amin and Bajracharya, 2011). Dowry is also considered by parents as an insurance against maltreatment of girls at marital home (Bates et al., 2004; Geirbo and Imam, 2006). Violence on girls and women in Bangladesh are also associated with dowry practice in marriage (Bates et al., 2004; Naved and Persson

2005; Naved and Persson, 2010; Amin and Bajracharya, 2011). Ironically, even dowry payment does not ensure violence and abuse free life for girls. Bates *et al.* (2004) reported that women's vulnerability to maltreatment rather increases if dowry payment is considered meager by the grooms' family. Similarly, Suran *et al.* (2004) reported that among those who paid dowry, only those who paid the largest amount possess a lower risk of violence and abuse. More importantly, those who did not pay any dowry are found to possess an overall lower risk (Suran *et al.*, 2004; Naved and Persson, 2010).

High value placed on marriage for girls and girls' chastity, risk to the exposure of sexual violence, and dowry practice each of these works in connection with another. For instance, while looks of bride is a very desirable attribute in marriage for getting prospective brides, it is also associated with increased risk for higher dowry if girls' good looks elevate the risk of bad reputation (Suran *et al.*, 2004).

Thus, traditions, social, and religious values together set a normative standard for marriage practice including age for marriage in general. However, these traditions, and social and religious values are changing and are being replaced by new values, standards, and norms. People with better socioeconomic opportunities have the option to adopt different strategy and pursue different marriage strategies. Marriage strategies adopted by parents of educated girls and less or uneducated girls differ significantly. Education opens up a range of marriage strategy including self-initiated marriages without requiring any dowry payment (Suran *et al.*, 2004).

While discrimination of girls against boys is a general feature of this society like many others, this discrimination turns ruthless amidst poverty. Poor parents consider girl child as an economic burden on them (Myers, 2013). Parents prioritize boys over girls in terms of household resource allocation for food, health, and education where there is competing demand for resources allocation among siblings. Poor parents see

marriage for daughters as a means of getting relief from economic stress because upon marriage husbands are supposed to be the providers (Aziz and Maloney, 1985; Lewis, 2013).

All the risk factors for child marriage operate strongly within multifaceted poverty and deprivation. Girls in rural areas are at the most risk of child marriage with 70 percent of girls getting married before they reach 18 years of age (UNFPA, 2012; Nanda *et al.*, 2012; Lewis, 2013). Forces of the risk factors are channeled through multiple deprivations to promote and sustain child marriages. Such as, while risk for sexual abuse and violence prevails for all groups of girls, such risks are much higher for poorer section because of their residence, weaker social connections, etc. On the other hand, stronger social and economic position of parents by default creates some protection against such outlaws in terms of secured habitat, stronger connections, etc. Thus, risk of sexual abuse and violence driven child marriages are also most common among them. Similarly, research shows the practice of dowry disproportionately affects the disadvantaged (Bates *et al.*, 2004). Non-payment of dowry is found to be associated with higher income levels and geographic location. While poorer people pay a higher proportion of dowry, they pay smaller amounts. Smaller amount of dowry payment rather increases girls' vulnerability in their marital life (Suran *et al.,* 2004).

**Protective factors those restrain child marriage**

The intrinsic virtues of the protective factors tend to offset the influence of risk factors. Effective functioning of protective factors against child marriage is contingent on lesser prevalence and prominence of the risk factors.

Studies on the determinants of child marriage have universally found that girls' schooling affects child marriage practice. Education and age at first marriage are found to be strongly associated both at the individual and societal level across the countries (UNICEF, 2005). Women attending secondary school across the countries are less likely to get married at younger age than those

with lesser education. Countries with a higher proportion of women with a secondary education have a lower proportion of women who marry as adolescents (Sing and Samara, 1996). Likewise, BDHS 2011 has also shown that women who have completed secondary or higher education marry 5 years later than those with no education (NIPORT et al., 2013). This is consistent with the findings of other studies in Bangladesh (Kamal, 2012; Kabeer, 2011; Haque et al., 2014).

Education operates directly through improving women's status and indirectly through increasing their income potential. Thus, education is often perceived as a means of improving marriageability and increasing affordability for marriage by working as a substitute for dowry (Bates et al., 2004). Education also gives protection against violence. Bates et al. (2004) showed that odds of violence had significantly reduced for women with more than 5 years of education compared to women with no education. Naved and Persson (2005) showed that husband's education beyond the tenth grade had a protective effect on violence.

However, the quality of schooling is more important than years of schooling for contributing in delaying marriage and childbirth. Quality schooling provides better chance for delaying marriage through providing girls with better social network, opportunities, and raising their self-esteem and expectation of their own life (Schurmann, 2009).

Working or income earning opportunities before marriage as a determinant for age at first marriage in Bangladesh has not been adequately studied to form an evidence for it to be called as a protective factor against child marriage. Non-availability of data for this indicator in the national level surveys in Bangladesh has been a major reason for it not being studied as a predictor for prevalence of child marriage. Therefore, evidence for income earning opportunities before marriage as a determinant for age at first marriage for Bangladesh is lacking. However, while such evidence is lacking for child marriage, work with regular and independent income earning opportunities for women on the whole acts for women's overall empowerment in many ways (Kabeer et al., 2011). A study on young female garment workers in Bangladesh showed that young female garment workers married significantly later than girls who did not work (Amin et al., 1998).

**Legal and policy framework to redress child marriage**

Child marriage prevention programmes and strategies of the national and international agencies working in the prevalent countries focuses on the followings: a) empowering girls with information, skills, and support networks or social assets; b) educating and mobilizing parents and community members to transform detrimental social norms; c) enhancing the accessibility and quality of formal schooling for girls; d) enhancing economic support and incentives for girls and their families; e) fostering an enabling legal and policy framework (Malhotra et al., 2011; UNFPA, 2012).

First three areas of focus of child marriage prevention strategies and programmes at the international level are the product of the fourth one, i.e. an enabling legal and policy framework. Therefore, fostering an enabling legal and policy framework is the key in ending child marriage practice, which requires: a) provision of legal and policy instruments taking into account the risk and protective factors for child marriage; and b) appropriate enforcement of the legal and policy instruments.

Last two sections have set the context within which legal and policy framework is required to operate for creating an environment that is conducive for ending child marriage practice. Thus, it needs to operate at two fronts to address systemic failures to prevent child marriage: a) to minimize the prevalence and prominence of the risk factors, and b) to promote the prevalence and prominence of the protective factors. Following two sections will describe and analyze the legal and policy framework from this perspective.

## International and national legal obligations relating to child marriage

This section focuses on Bangladesh's international and national legal obligations relating to child marriage. The first sub-section presents the international and regional human rights instruments applicable to child marriage and highlights Bangladesh's relevant reservations to these instruments. The second sub-section discusses Bangladesh's national laws relating to child marriage.

### International laws on marriage, age of marriage, consent of marriage, and registration of marriage

International concern on the issue of marriage, age of marriage, consent of marriage and registration of marriage is essentially a post United Nations (UN) development. One of the features of the UN Charter which distinguishes it from the Covenant of the League of Nations is its concern for human rights in general and rights of women in particular. There are seven specific references in the Charter of human rights but nowhere does it catalogue or define them. Nevertheless, the Universal Declaration of Human Rights 1948 (UDHR) and the subsequent treaties adopted by the UN and other regional organizations have laid down the standards.

### International law on consent of marriage

The UDHR, without making any reference to age or registration of marriage clearly spells out that marriage shall not take place without free and full consent of the intending partners [article 16(2)]. Similar provisions have been restated in the International Covenant on Economic, Social and Cultural Rights 1966 [article 10(1)] and the International Covenant on Civil and Political Rights 1966 [article 23(3)]. At the regional level, even though the European Convention on Human Rights 1950 and the African Charter on Human and Peoples' Right 1981 is silent on the issue of consent of marriage, the American Convention on Human Rights, 1969 [article 17(3)] echoes the UDHR and the two covenants. The African Charter on the Rights and Welfare of the Child, 1990, while talks

about minimum age of marriage and registration of marriage, it is silent about the consent of marriage. On the other hand, the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Woman in Africa 2003 clearly spells out that no marriage shall take place without the free and full consent of both parties [article 6(b)].

The UN General Assembly by resolution 843 (IX) of 17 December 1954declared that certain customs, ancient laws, and practice relating to marriage and family were inconsistent with the principles set forth in the Charter of the UN and in the Universal Declaration of Human Rights. Such declaration was followed by adoption of the Convention on the Consent to Marriage, Minimum Age for Marriage and Registration of Marriage 1962 by the UN Article 1(1) of the convention clearly spelled out that no marriage shall be legally entered into without the full and free consent of both parties, such consent to be expressed by them in person after due publicity and in the presence of the competent authority competent to solemnize the marriage and of the witness, as prescribed by law.

The Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery 1956 emphasizes about facilities whereby the consent of both parties to a marriage may be freely expressed in the presence of a competent civil or religious authority (article 2) while the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) 1979 calls upon states parties to ensure that couples enter into marriage only with their free and full consent [article 16(2)].

### International law on age of marriage

The international concern on the age of marriage i.e., the UN begins with mere reference to 'full age' as opposed to suggesting a specific age for marriage as article 16(1) envisages "man and women of full age . . . shall have the right to marry and to found a family.' The Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery 1956 merely invites state parties "to

prescribe, where appropriate, suitable minimum ages of marriage" (article 2). The same expression i.e., 'minimum age of marriage' are found in the Convention on the Consent to Marriage, Minimum Age for Marriage and Registration of Marriage 1962 (article 2) and the CEDAW 1979 [16(2)] albeit without making any reference to the expression 'suitable'. The International Covenant on Civil and Political Rights 1966 without suggesting any specific age of marriage guarantees the right of men and women of marriageable age to marry and found a family [article 23(2)].

The first international effort directly suggesting the minimum age of marriage appears to be the Recommendation on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages 1956 (General Assembly Resolution 2018 (XX) of 1 November 1956) which is a non-binding instrument. Principle II of the same reads as follows: "Member states shall take legislative action to specify a minimum age of marriage, which in any case shall not be less than 15 years of age; no marriage shall be legally entered into by any person under this age, except where a competent authority has granted a dispensation as to age, for reasons, in the interest of the intending spouses." It is however, interesting to note that the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages 1962, and CEDAW 1979 leaves the determination of age of marriage by the state parties and requires legislative action to specify a minimum age of marriage [article 2 and article 16(2) respectively].

### International law on registration of marriage

In international law, the registration of marriages was first introduced in the Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery 1956. As opposed to compulsory registration, under this convention the state parties only assumed obligation to encourage registration of marriages (article 2). The Convention on the Consent to Marriage, Minimum Age for Marriage and Registration of Marriage

1962 was the first document to suggest compulsory registration of marriages in the following manner: "all marriages shall be registered in an appropriate official register by the competent authority." This was subsequently echoed in article 16(2) of CEDAW 1979 and article 21 (2) of the African Charter on the Rights and Welfare of Child 1990.

### Ratification/accession and reservation of certain provisions of the conventions by Bangladesh

Bangladesh has ratified the major international human rights instruments relevant to the issue of child marriage, yet has also made reservations and declarations to some of these instruments that seek to limit its obligations under those instruments. On 5October 1998, Bangladesh acceded to the Convention on the Consent to Marriage, Minimum Age for Marriage and Registration of Marriage with reservations to Articles 1 and 2 in the following terms: "the Government of the People's Republic of Bangladesh reserves the right to apply the provisions Articles 1 and 2 in so far as they relate to the question of legal validity of child marriage, in accordance with the personal laws of different religious communities of the country. At the time of acceding to CEDAW 1979 on 6 November 1984, the government of Bangladesh entered reservations to Article 2 regarding the elimination of discrimination against women and to Article 16 (1) (c) regarding equality of rights in marriage and upon its dissolution "as they conflict with *Sharia* law based on Holy Quran and Sunna."

Consequently, women's groups started advocacy at the national level and thereafter, a CEDAW Forum was formed and launched in 1992, composed of individuals and organizations dedicated to the women's cause and the implementation of CEDAW. Bangladesh National Women Lawyers Association (BNWLA), *Mahila Parishad, and Nari Pokkho* had front-lined the said Forum. With the help of the International Women's Rights Action Watch (IWRAW), workshops, training, and CEDAW forums were organized for different groups including lawyers, journalists and citizens. The

main aim of these workshops and forums were to raise public awareness on how to incorporate the convention with emphasis on Articles 2, 13.1 [a], 16.1[c] and [f] into the domestic laws.

Such advocacy for the withdrawal of Bangladesh's reservations compelled the government to call on several women's groups to discuss their opinions about the country's CEDAW Report which was due in 1997. This ultimately led the government of Bangladesh to withdrew its reservation on the 23 July 1997, on article 16 (1) (c) dealing with marriage issue.

### *National laws on marriage, age of marriage, consent of marriage, and registration of marriage*

The national law of Bangladesh on the above issue predates international development as the first law on the subject was enacted in 1929 to restrain solemnization of child marriages. Under the Child Marriage Restraint Act 1929, minimum age of marriage was set at 14 years for females and 18 years for males (Section 2).

National law predating the international development as well as the minimum age of girls for marriage setting at 14 years by law reflects that marrying off girls at a very young age was the age old custom here which the law sought to contest in restraining child marriage. The minimum age of marriage was subsequently raised to 16 and then to 18 for female and 21 for male in 1984. The age of consent of marriage is linked to the minimum age of marriage. One can lawfully consent to marriage when the law allows him/her to marry.

The Child Marriage Restraint Act 1929 applies to all religions. There are three separate offences under this Act: a) marriage by an adult to a child; b) solemnization of a marriage involving a child; and c) promoting or permitting the solemnization of a marriage involving a child. However, this Act does not invalidate child marriage. The involved persons in the said three categories of offences are liable to imprisonment or fine or both. According to section 4, whoever being a male below 21 years of age, or being a female below 18 years of age, contracts a child marriage shall be punishable with simple

imprisonment (one month) and/or monetary penalty (one thousand taka).

Registration of marriage has an important bearing on restraining child marriage. Marriage registration is the formal recording of essential details of a marriage including age of bride and bridegroom and the date of marriage at an official register. A copy of such entry in the register is the evidence of marriage. The Muslim Marriage and Divorce (Registration) Act 1974 requires every Muslim marriage to be registered. The Hindu Family Law Rules contain no provision for registration of marriage. Buddhist marriage also takes place without registration. The Christian Marriage Act 1872 requires compulsory registration of every Christian marriage.

The Birth and Death Registration Act 2004 assists in determining the age, which is crucial for restraining child marriage. Before this enactment, birth, death, and marriage registration used to be dealt by the Births and Deaths Registration Act 1873 and the Births, Deaths, and Marriages Registration Act 1886. Birth and Death Registration Act 2004 requires birth certificates as proof of age to be accompanied for obtaining many services including marriage registration. Therefore, strict implementation of birth registration and marriage registration are important instruments for restraining child marriage. Besides providing with protection against child marriage, birth registration is an important instrument for children to be protected against all forms of child abuses including child labour, child trafficking, sexual abuses, and to be entitled to different services like health and education.

### *National law prohibiting dowry in Bangladesh*

Recognizing dowry as a major social problem, the Dowry Prohibition Act 1980 has come into force. According to section 3 of the Dowry Prohibition Act 1980, if any person gives or takes or abets the giving or taking of dowry, he or she shall be punishable with imprisonment which may extend to five years and shall not be less than one year, or with fine, or with both.

On the other hand, according to section 4 if any person demands, directly or indirectly, from the parents or guardian of a bride or bridegroom, as the case may be, any dowry, he shall be punishable with imprisonment, which may extend to five years and shall not be less than one year, or with fine, or with both.

### Issues in fostering an enabling legal environment in Bangladesh

In Bangladesh, marriage laws are based on a combination of religious and statutory laws. As stated earlier, statutory laws dictate that the age of consent and minimum age for marriage is 18 years for women and 21 years for men. However, legally, the consent of both parties to a marriage is required. Consent to marry becomes one of the primary factors in determining the validity of a marriage only if parties to a marriage are above the legal age of consent. A forced marriage may, therefore, be challenged and declared invalid if there is evidence to indicate that either party did not consent to the union. Where the parties are minors, consent to the marriage may be given by their legal guardians. On the contrary, marrying off minors is a criminal offence, and persons who marry off minors may be prosecuted under the Child Marriage Restraint Act. However, the marriage itself would not be invalidated by this process. Thus, legal bar on age at marriage applies only to marriages taking place without parental consent and does not apply to marriages arranged by parents for children below the legal minimum age.

Thus, statutory law does not invalidate child marriage solemnized by parents, but it intends to limit, restrict, and regulate child marriage practice. All religious personal laws i.e., Muslim, Hindu, and Christian allow marriage below the minimum legal age for marriage set by the statutory laws. Therefore, religious laws allow child marriage and the statutory laws neither allow nor disallow child marriage. Further, penalties for child marriage under statutory law are too weak to establish it as a serious offence and deter people from committing such offences. Moreover, there is no

scope for bringing criminal prosecution after one year of the solemnization of marriage (Section 9 of the Child Marriage Restraint Act 1929). Such provision creates a culture of impunity thereby making child marriages all pervasive.

Determination of age at marriage is complicated because registration of births has never been commonly practiced in Bangladesh. This greatly limits the possibility for legal remedy. The lack of birth registration makes falsification of the ages of couples easy (Lewis, 2013; Geirbo and Imam 2006). However, there has been an improvement in this situation after enactment of Birth and Death Registration Act in 2004. Initiative for development of an online Birth Registration Information System is also in place. Despite lack of enforcement, marriage registration has increased (Bates *et al.,* 2004; Amin *et al.,* 2012). Studies show that marriage registration is perceived by women and their guardians as an important mechanism for ensuring marital security and resorting to legal justice against maltreatments and abandonment (Bates *et al.*, 2004).

Addressing the issue of dowry by prohibition law remains bleak. Enforcement of this law is limited because desperate need for marrying off daughters at an age considered appropriate by the society compels parents to accept dowry demand. Seeking legal justice for dowry demand at the cost of jeopardizing the marriage prospect of daughters is not a feasible option for parents in a social setting where marriage for girls is highly valued and scope for empowering girls is limited.

**Policy framework to redress child marriage practice**

International strategies and programmes ending child marriage focuses on the following aspects of policy initiation and reforms towards an enabling policy environment (Hervish and Feldman-Jacobs, 2011): a) framing policies and programmes on the basis of risk factors; b) inclusion of multiple sectors in interventions; c) using behaviour change techniques to change community norms; d) addressing the needs of young adolescent girls; and e) collecting and providing evidence about "what works".

Following section reviews major social sector policies having relevance with elimination of child marriage in the light of risk and protective factors of child marriage as has been focused by the international strategies and programmes for ending child marriage. The Sixth Five-Year Plan (2011-2015) (GoB, 2011a), the National Health Policy 2011 (GoB, 2011b), The National Education Policy 2010 (GoB, 2010), the National Population Policy 2012 (GoB, 2012), the National Policy for Women's Advancement 2011 (GoB, 2011c), the National Communication Strategy for Family Planning and Reproductive Health 2008 (GoB, 2008), and have been analyzed to examine if these policies have adequately linked issue of child marriage in framing their challenges, in setting their goals, and in constituting their strategies. Strategies set out in the policy documents have been reviewed in the light of the risk and protective factors for child marriage. MDGs are directly related to all the social sector policies. Therefore, all these policy goals are related to and relevant for achievement of MDGs. Elimination of child marriage is critical for achieving all the MDGs. Therefore, mainstreaming the issue of child marriage into social sector is crucial for both elimination of child marriage as well as achievement of social policy or sectoral goals including MDGs. Child marriage is one of the most crucial child rights issues of the country and is the source of violation of other child rights. Policies to address child marriage must evolve around its risks factors like, poverty, lower value of girls, dowry, sexual violence, etc. Policies and strategies for restraining child marriage must include married children to support them out of the trap of vicious circle of diminishing opportunities, increasing vulnerabilities, ill health, and poverty. Therefore, policy position on married children has also been reviewed.

### Contemporary social policies to redress child marriage

National law for restraining child marriage which predated international concern shows that Bangladesh has traditionally been featured with

marriage at very low age and national concern on this issue is also not new. Focus on adolescents in the policy framework is a recent phenomenon but restraining child marriage is not. However, while policy concern for child marriage is not new, the framing of the problem had many lacking. Initially at the policy level issue of early marriage had been an element of focus mainly within the realm of population sector of the country. Thus, its relevance had been brought mainly in connection with the demographic issues of the country and was located within the population sector. It has already been mentioned in the preceding section that the Child Marriage Restraints Act 1929 had set the minimum legal age for marriage at 14 for girls and 18 for boys. The minimum age for marriage set by the Child Marriage Restraint Act 1929 has been recognized very low at the policy level. Thus, the main concern of the initial plans and policy documents (five-year plan documents and population policy 1976) of the country on child marriage was on raising the legal age for marriage. Persistent claim on raising legal age for marriage at the policy level has ultimately succeeded in revising it, and therefore, raising the minimum legal age for marriage. Success in raising legal age for marriage has moved the country one step forward in dealing with child marriage. It has created the platform to work for taking further measures to delay marriage for girls at least until 18 years.

Education and health sectors have profound effect on positive social transformation and development. Education sector can directly work in restraining child marriage through bringing attitudinal change and empowering children for restraining child marriage. Health sector's role in mitigating the effects of child marriage is more pronounced than in bringing attitudinal changes for restraining child marriage. However, despite having distinctive roles of the two sectors, health sector can also contribute in brining attitudinal change by extensive health education against child marriage and child bearing by children. Similarly, education sector can mitigate the effects of child marriage by focusing on married children through inclusion strategies. These two sectors could be

considered as the vanguard for positive social transformation and development. In order for these sectors to play a transformative role it is crucial to appropriately link issues like child marriage with their sector challenges, goals, and strategies.

The National Education Policy 2010 (GoB, 2010) has duly emphasized on women's education for their overall empowerment without explicitly linking it to the issue of child marriage. The policy has argued for special attention and allocation of resources for women's education including stipends for poor and meritorious girls to enable them to pursue higher education. The policy has not explicitly mentioned child marriage as a prime challenge for attaining education sector's goals including MDGs. However, the policy's overall emphasis on women's education and special protection of poorer girls for enabling them to pursue education, minimizing dropouts of girl students are all linked with child marriage. For ensuring girls' safety at the educational institutions it has emphasized on strict enforcement of law for sexual harassment. The policy has also recognized the need for updating the curriculum to play its transformative role through educating students on gender, reproductive health, etc. Thus, while education policy has duly emphasized girls' education it has not explicitly recognized child marriage as a prime development, social or rights issue in connection with the challenges and goals of education sector.

The Sixth Five-Year Plan (2011-2015) (GoB, 2011a) has integrated the issue of child marriage in constructing its challenges and strategies for human development more rationally and pronouncedly. Its human resources development strategy has recognized high prevalence of child marriage, dowry, gender-based violence, persisting low wage for women and the continuing low value placed on girls and women as the most important challenges for human development. It has linked the access, drop out, and equity issues in the secondary education level with discrimination of girl child, child marriage, perceived insecurity, and sexual harassment of girls. Consequently, education strategies framed by the plan included provision of stipend and other financial support to the poor and especially to the female students to encourage their enrolment, retention, and completion. Thus, child marriage has been addressed by the plan as a prime social and development issue in connection with its risk factors.

Nevertheless, married children are focused neither by the education policy nor by the sixth five-year plan. While denial of education as a child right and consequence of child marriage are widely recognized, the education of married children as a right or as a social and development issue has not been a policy concern. Thus, there has not been a strategic focus either by the education policy or by the sixth five-year plan on married children.

The National Health Policy 2011 (GoB, 2011b) has not linked child marriage in constructing its challenges for achieving its health goals in general and MDGs in particular. Thus, despite putting major attention on improvement of maternal and child health in line with MDGs, the policy has not integrated child marriage in framing its strategies to address maternal and child health challenges. In other words, the issue of child marriage has not been appropriately mainstreamed with maternal and child health strategies. Social awareness, advocacy, education, and mobilization on child marriage, violence, and dowry are very important but missing components in the national health policy. Thus, health sector's role in restraining child marriage has not been tapped by the policy. However, maternal and child health strategies intrinsically include married children and children of child parents. Issue of child marriage is incorporated within the health policy to the extent its maternal and child health strategies are intrinsically linked to provisioning of health services for married children and children of child parents. Thus, health sector's role in mitigating the effects of child marriage has only been partially tapped.

The issue of child marriage has constituted a major concern in the population sector in connection

with its recent focus on adolescents' health and well-being. In the National Population Policy 2012 (GoB, 2012) the issue of child marriage has been brought in connection with adolescents' welfare programmes. Delaying marriage and childbirth, reproductive health education for adolescents, vocational training, credit facilities, and working opportunities for unmarried adolescents constitute the strategies for ensuring adolescents' welfare. The population policy has identified child marriage as a major demographic challenge of the country. Accordingly, strict enforcement of birth and marriage registration has been recognized as one of the most effective means to restrain child marriages. Therefore, the policy in setting its strategy highlighted the important role of relevant ministries for enforcement of registration of birth, death, marriage, and divorce. The population policy did not explicitly focus on the need of the married children. However, issue of married children is incorporated within the population policy to the extent its reproductive health strategies including family planning and maternal and child health strategies are intrinsically linked to provisioning of health services for married children and children of child parents. Thus, the policy has primarily dealt the issue of child marriage as a demographic challenge. Child marriage as a health and development issue got prominence in connection with adolescents' development. However, child marriage has not been dealt as a rights issue by the policy even in connection with adolescents.

The National Communication Strategy for Family Planning and Reproductive Health 2008 (GoB, 2008) has included enhancing awareness about the importance of delaying marriage and first pregnancy and preventing sexually transmitted diseases. For unmarried youths the strategy has recommended culturally sensitive communication materials about healthy perceptions of the opposite sex, negative impacts of dowry exchange, domestic violence, and women's rights. For adolescents, the strategy has recommended for adolescent life-skills programmes into school curriculum and creating an enabling environment

for adolescents to seek information and services at local health facilities. Thus, the strategy has integrated child marriage as a health issue in connection with gender issues. However, child marriage as child rights issue has not been dealt by the policy.

The National Policy for Women's Advancement 2011 (GoB, 2011c) has framed child marriage as a rights issue having its roots in various forms of vulnerabilities and deprivations of girls. It has set explicit goal for restraining child marriage, sexual abuse, and other forms of violations on girls through strict enforcement of law. Its main strategic focus for eliminating discriminatory practices against girls are: a) empowerment of girls and women through education, training, skill development programmes, and creating income earning opportunities; b) gender sensitization through education, training, and mass awareness programmes at all levels; and c) enforcement of laws against violation and repression of women.

However, National Policy for Women's Advancement (GoB, 2011c) cannot work in isolation in dealing with any social aspects affecting women's life and well-being. Women's Advancement Policy should be mainstreamed into all other relevant sector policies and programmes. Women's Advancement Policy focus on empowerment, gender sensitization, skill development training, credit facilities, etc. cannot be dealt only by the ministry of women and children affairs and the ministry of social welfare. These strategies need to be mainstreamed into other sectors to work in an integrated way towards elimination of harmful social practices like child marriage, dowry, violence, etc.

Sixth Five-Year Plan (2011-2015) (GoB, 2011a) has duly emphasized on social inclusion and empowerment of women and children. The plan reiterated women's policy on issue of women's empowerment for addressing multifarious discrimination. Creating multifaceted opportunities for women has been considered as the most important means to fight against discrimination and outlaws on women. It has recognized violence,

dowry, child marriage, social attitude as major challenges in the way to women's advancement. Similarly, children's protection and empowerment in addition to their education, health, and nutrition has been outlined as important way to promoting children's advancement and protecting child rights. Social mobilization for birth registration involving Municipal Corporations and *Pourashabhas*, *Union Parishad* members, and other local leaders on issues of children's advancement and rights has been explicitly mentioned in the plan. Therefore, the plan has acknowledged child marriage as a rights issue by recognizing child marriage and its risk factors (violence, dowry, social attitude, etc.) as impediments for women's empowerment and advancement.

Sixth Five-Year Plan (2011-2015) (GoB, 2011a) has integrated the issue of child marriage in its strategic framework in a much better way than the social policies. Such lack of cohesion shows an overall inadequacy in comprehensiveness and connectedness on issue of child marriage.

### *Issues in fostering an enabling policy environment for restraining child marriage in Bangladesh*

Review of the major social policies depicts that child marriage despite being one of the most daunting social and development challenges and child rights issue of the country, it has not been adequately and explicitly framed as a social, development, and rights issue within the social policy framework. Thus, it has not been appropriately mainstreamed into the social sector policies. Few policies have explicitly recognized it as a social or development challenge or rights issue. However, the policies in general gave implicit recognition of the issue in one way or another. The policies in general also include components in their strategies those are related to, relevant for, or have implications on the risk and protective factors for child marriage. Thus, one may claim that issue of child marriage has been integrated with social policies. However, integrating an issue within a framework calls for much more than just implicit and sporadic mention of the issue or occasional inclusion within the strategies. It demands appropriate framing of the issue and an application of a systematic and well-knitted approach involving multiple sectors, strategies, and approaches.

Child marriage having its multiple roots and being a cross cutting issue cannot be dealt with one or two sectors' intervention. Issue of child marriage has been an explicit focus of population policy and women's policy only. Other social policies on issue of child marriage reflect lack of coherence and connection in comprehending and approaching the problem. The policies have largely failed to link their sector goals and strategies with elimination of child marriage. It has not been dealt as a cross cutting issue in the social sector. However, the sixth five-year plan has incorporated the issues of child marriage within its human development framework much more comprehensively than the national education and health policy.

Social mobilization through advocacy, awareness building despite being one of the most effective routes for dealing with issues like child marriage, dowry, violence, etc. remained much neglected as a strategy in the social policies. Health policy in particular has not paid due attention in these areas for achieving its role in restraining child marriage.

Policies have not recognized the issue of supporting or protecting children who are already married. Policies have inadequately addressed the subject of mitigating the effects of child marriage. Thus, on the one hand, failure of legal and policy framework in giving due protection to a very large percent of young girls ends in child marriage. On the other hand, policies turn a blind eye to the need of supporting those who are already trapped into it.

### Conclusions

The perceived notion on primacy of marriage in girls' life, appropriate age of marriage for girls, chastity of girls, 'marriage as a protection' for girls from premarital sexual exposure and sexual violence or abuse, and dowry, poverty, and other forms of deprivations are the major risk factors for child marriage in Bangladesh. Education is the single most predictive factor for protection against

child marriage practice. Higher prevalence of multifarious risk factors makes child marriage a feasible option for many poor parents in Bangladesh. Child marriage turns into a realistic response for many girls and parents in the context of multifaceted vulnerabilities in their life. In addition, customs or tradition as derivative of socio-cultural values centering marriage takes precedence over legal and sometimes even over religious directives.

Child Marriage Restrain Act of the country predates international legal commitment on this issue. Policy concern on child marriage is also not new. However, earlier policy focus concerning child marriage issue was narrow. In addition to Child Marriage Restrain Act, few more legislations have been made to restrain child marriage through protecting girls against the risk factors. However, such legislation and policy concerns could hardly restrain the harmful practice and protect girls from child marriage.

Legal provisions in Bangladesh do not invalidate child marriage. All religious personal laws i.e., Muslim, Hindu, and Christian, allow marriage below the minimum legal age for marriage set by the statutory laws. Statutory laws while intend to restrict child marriage, these preserve the legal validity of child marriage arranged by parents. Legal bar on age at marriage applies only to marriages where parental consent is absent. It does not apply to marriages arranged by parents for children below the minimum legal age. For the minors, consent to marriages may be given by their legal guardians. Contrarily, marrying off minors is a criminal offence, and persons who marry off minors may be prosecuted under the Child Marriage Restraint Act. However, such marriages will not be invalidated by this process. Thus, statutory law neither allows nor disallows child marriage. Therefore, legal framework with respect to restraining child marriage suffers from ambiguity and loses its strength. Such ambiguity and conflicting position on criminalizing and invalidating child marriage by the legal framework is the major obstacle in the enforcement of

legislative instruments for restraining child marriage in Bangladesh. Hence, legal protection against child marriage in Bangladesh turns into a paradox.

Recognizing dowry as a major social problem and a risk factor for child marriage the Dowry Prohibition Act 1980 came into force. Enforcement of this law is limited by the fact that refusal of marriage prospect for dowry demand is not perceived as a viable option for parents. Desperate need for marrying off their daughters at an age considered appropriate by the society compels parents to accept such practices. Seeking legal protection for dowry demand ends marriage prospect. Negating marriage prospect is not considered viable by parents because marriage for girls remains the most valued option for gaining status, power, and inclusion within the mainstream. Therefore, dowry as a major risk factor for child marriage remains inadequately served by the legislation.

Enforcement of birth and marriage registration system is crucial in restraining child marriage. Registration of births has not been a common practice and a systemic requirement of the country. Therefore, determining age at marriage remains difficult. However, recently there has been an improvement in birth and marriage registration.

Legislation is very important but cannot be effective without a comprehensive policy framework for restraining child marriage. Moreover, in a situation where child marriages are not invalidated by the laws and enforcement of laws for aiding the determination of age at marriage also remains weak, the role of social policy is of paramount importance in preventing child marriage. Role of social policies in transforming mindset of the society is crucial. This does not implicate legal reforms for removing ambiguity about child marriage is of lesser importance and should not be pursued.

Review of the national social policies depicts that child marriage has not been appropriately framed as a social, development and rights issue for the country. On the whole, child marriage issue has not been aptly integrated with the framework for

social development. Contemporary social policies on issue of child marriage reflect lack of shared aims and vision in comprehending and approaching the problem. Few policies have explicitly brought the issue of child marriage as an impediment to social and economic development and even fewer have considered it as rights issue. However, in general there has been implicit recognition of the issue. The strategies set out in the social policies while focus on many of the risk and protective factors for child marriage they lack cohesiveness, connectedness, and vigor. The issue has not been thematically mainstreamed into the entire social sector. National social policies have largely failed to frame child marriage as a cross cutting issue and link their respective MDGs with this issue. Hence, there has not been an appropriate linking of the sector goals and strategies with elimination of child marriage.

Furthermore, despite widespread recognition of multifaceted consequences of child marriage the policies are silent on mitigating the effects of child marriage by supporting married children. There is no mention of married children on issue of protection of children from child marriage. Such silence equals to denial of protecting those who are already violated.

Education being the single most predictive factor for protection against child marriage remains the most effective conduit for challenging prevailing child marriage practice in the guise of tradition, culture, and religion. While education gives protection against it, girls in poorer households are more likely to drop out before they reach secondary school. Thus, the key is to give more protection to the vulnerable regions, rural girls, urban slum population, etc. with respect to continuing education and improve the quality of education. This may include cash transfers to poor families on condition of girls' attending schools.

Advocacy should constitute a major strategy against child marriage, dowry, and violence wherein multi-sector involvement should be sought. Inclusion of issues of child marriage, dowry, and violence in the textbooks at the primary and secondary level should be one of the important strategies for educating and empowering adolescents and altering their mindset. Imparting life skills should be more prioritized in the education curriculum for equipping young people to handle the challenges they face from within and outside family.

Enforcement of birth and marriage registration systems is crucial in restraining child marriage. Empowering marriage registrars through sensitizing and training and evolving an effective monitoring system for making them accountable on this issue should be a major focus for enforcement of birth and marriage registration system.

Appropriate framework for elimination of child marriage requires more synergy and harmonization between and among social policies and five-year plan. Integrating the issue of child marriage with social sector framework is crucial for building national programmes and interventions for elimination of child marriage. Laws, policies, and programmes for elimination of child marriage should be woven around poverty, vulnerability, discrimination, abuse, violence, and dowry. Child marriage restraining programmes needs to involve multiple sectors, follow multiple approaches, target multiple stakeholders and work at multiple levels.

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# Chapter 7

# Conclusions and Recommendations

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This report intended to investigate child marriage situation in Bangladesh including its trends, determinants and regional variations, and effect of marital age on women's educational attainment, affects of child marriage on fertility and reproductive health outcome; and issues and factors relating g to legal and policy framework for prevention of and protection against child marriage. This report is constituted of five research articles of which four are based on *Demographic and Health Survey* data. Findings of the report shows child marriage in Bangladesh persists at very high level though there has been a slight decrease in its rates of occurrence during last two decades. It is determined by a range of socioeconomic, demographic and cultural factors Women's education, employment status, husbands' education, wealth index, birth cohort, and religion are constitute he major determinants of child marriage in Bangladesh. There exists a substantial regional variation in the rate of child marriage in Bangladesh. The report focuses on consequences of child marriage relating to fertility and selected reproductive health outcome and educational attainment of women. The risk of having higher fertility, rapid repeat childbirth and unwanted pregnancy are higher among those who had child marriage. While education is the strongest inhibiting factor for child marriage the rate of secondary incomplete education is much higher and rate of higher education is much lower for those who had child marriage. The report in its analysis of policy environment of Bangladesh relating to prevention and protection of child marriage shows lack of cohesiveness in the policy framework and presence of ambiguity in the legal framework to fight against child marriage.

Comprehensive policies and programmes focusing on causes and consequences of child marriage should be conceived to deal with the issues relating to child marriage in Bangladesh. Child marriage prevention programmes must emphasize on awareness-raising activities, enforcing legal protection, improving girls' safety and security in the community, and investing on girls' education. Considering the grave consequences of child marriage government must rethink about its recently held position on legal age of marriage refrain from bringing down the legal age of marriage from 18 to 16 years. Furthermore, in the context of regional variations of child marriage government must take context specific strategies for its prevention.

The report for being constituted of articles based on Bangladesh Demographic and Health Survey data could not study various pertinent issues and factors relating to child marriage. Therefore, for in-depth comprehension of child marriage in Bangladesh, future studies are needed so that all related issues and factors of child marriage can be thoroughly examined. Future studies are needed to explore many other unobserved factors that might contribute to child marriage in Bangladesh. To examine child marriage in detail data are needed from both married and unmarried women. Parents' education should be considered as an important determinant of child marriage in Bangladesh. Although there are good source of data on prevalence of child marriage at national, divisional, and district level in Bangladesh, in-depth studies are needed to focus on causes and consequences of child marriage to fill the gaps of the existing studies in the following ways: (1) examining social norms, values and practices, gender beliefs and construction as drivers of child marriage besides education and income; (2) assessing men's and women's attitude towards child marriage and inter-generational gaps in their attitude towards it; and (4) consequences of child marriage on education, reproductive health, and gender roles and relations. Future research is also needed to look into the adequacy of current GO-NGO initiatives for addressing causes and consequences of child marriage and examining the scope of legal and policy frameworks for prevention child marriage and providing protection against child marriage in Bangladesh.

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