

February 2020

## Early Marriage in Bangladesh: A Cross-Sectional Study Exploring the Associated Factors

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### Recommended Citation

Talukder, Ashis; Hasan, Muhammad M.; Razu, Shaharior R.; and Hossain, Zobayer (2020). Early Marriage in Bangladesh: A Cross-Sectional Study Exploring the Associated Factors. *Journal of International Women's Studies*, 21(1), 68-78.

Available at: <https://vc.bridgew.edu/jiws/vol21/iss1/6>

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## **Early Marriage in Bangladesh: A Cross-Sectional Study Exploring the Associated Factors**

By Ashis Talukder<sup>1</sup>, Muhammad Mahmudul Hasan<sup>2</sup>, Shaharior Rahman Razu<sup>3</sup>, Md. Zobayer Hossain<sup>4</sup>

### **Abstract**

This cross-sectional study intends to explore the factors associated with the prevalence of early marriage among female teenagers in Bangladesh. Data from the Bangladesh Demographic and Health Survey (BDHS, 2014) were used to meet the study objective. Two binary logistic models were run to estimate the factors that influence early marriage. In Model-I, the covariates were considered in a bivariate setup, and unadjusted odds ratios (UOR) were obtained from Model-II, where all the covariates were taken into account to get the adjusted odds ratio. Results show that the level of education for both females and their partners, religiosity, possession of wealth and geographical location are some important factors with significant effects on the prevalence of early marriage in Bangladesh. Based on the findings, this study recommends gearing up provisions of education for all, awareness-building through social mobilization, reform initiatives concerning Islamic beliefs and strengthening poverty-reduction strategies to speed up the process of eliminating early marriage.

*Keywords:* Early marriage; Factors; BDHS; Binary logistic regression; Bangladesh

### **Introduction**

Marriage is a socially or ritually recognized union between spouses that establishes rights and obligations between them (Haviland, 2011). Although marriage is a universal social institution (United Nations, 1999) and observed as a major life event, sometimes this custom brings tension, especially for the girls when it happens at an early age (Nasrin & Rahman, 2012). Early marriage is a reality for millions of girls around the world and it remains quite prevalent in most of the South Asian countries and Bangladesh is no exception to this. Recent findings of the Bangladesh Demographic and Health Survey (BDHS) show that the average age at marriage is still below 18 and there are a number of sociocultural factors that contribute to marriage at such an early age (Ame, 2013; Kamal, Hassan, Alam & Ying 2014).

Child marriage is seemingly a social norm in Bangladesh (Islam & Mhamud). It is often thought that a girl acquires the status of an adult through marriage, regardless of her physical and mental development (Mehra, 1998). Around 90% of the total population in Bangladesh is Muslim (Fleischer, LutzJean & Schmidt, 2010) and the practice of early marriage is prevalent especially in rural areas, where there is a constant pressure on the parents to marry off their adolescent girls (Aziz & Maloney, 1985). Patriarchal social structure and traditional social values foster the

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practice in particular. Furthermore, family pressure and parental ignorance that are common in developing countries often play a pivotal role in deciding when a girl will marry. Some parents even withdraw their girls from school as soon as they begin to menstruate fearing that exposure to male pupils or teachers may put them at risk (De Smedt, 1998; Amin, 2008).

Poverty is another major factor underpinning early marriages in developing countries like Bangladesh. Where poverty is acute, a young girl is often regarded as a burden. In such cases, the parents opt for getting their daughters married early, as one less daughter is one less mouth to feed (Mathur, 2003; Nour, 2006). Some families also believe that it will bring blessings to their family if they marry off girls before they go through puberty (Tristam, 2014). Sometimes young girls show less interest in continuing their education, and in some cases, poor families are unable to bear the cost of education (Verma, Sinha & Khanna, 2013). A recent study explicated that traditional and cultural issues, including the low awareness of girls and their parents about the risks of child marriage, negative attitudes towards continuing education, freedom from undesirable and rigid rules, low authority of girls and lack of power to make decision, are important factors determining child marriage in rural areas (Matlabi et al., 2013). Existing literature also suggests that factors like female education (Bates, 2007; Field & Ambrus, 2008), husband's occupation, residence, woman's work status and husband's education (Caldwell, 2007), etc. play a crucial role in early marriage.

Marriage at an early age is often responsible for a number of biological and social adversities for both young girls and their children. Premature marriage deceptively denies a girl's right to health, education and a life free from violence (Jensen & Thornton, 2003). Women who marry younger tend to have less education, begin child-rearing earlier, have less decision-making power in their household and are more likely to experience domestic violence (Otoo-Oyortey & Pobi, 2010). Moreover, physical and emotional abuse is frequent among the women who get married early (Clark, Bruce & Annie, 2006) as they are more exposed to violence and intimidation in the form of threats of abandonment and divorce (Chatha, Khalil & Sajjad, 2014).

A comprehensive body of knowledge regarding early marriage and its determinants in local contexts is essential to reduce its prevalence. Previous studies on early marriage in Bangladesh were based on either primary data or data extracted from earlier BDHS estimates. To the best of our knowledge, the present study makes the first attempt to analyze the trend of early marriage and its determinants in Bangladesh using the latest BDHS 2014 dataset. Additionally, our research takes into consideration some of the important factors that were previously more or less ignored, like a husband's education level, geographical location, religiosity, etc. Given the context, this study tries to explore the associated factors of early marriage in Bangladesh for the development and improvement of better intervention strategies.

## **Methodology**

### *Data*

This study used the secondary data from the 2014 Bangladesh Demographic and Health Survey (BDHS), which was conducted using a two-stage stratified sampling. In the first stage of sampling, a total of 600 enumeration areas (EA) were selected as clusters, and then, in the second stage, systematic sampling was used to obtain 30 households from each enumeration area. A total of 17,883 women aged 15-49 who have been married, in these households, among them, 10,551 (59% of total respondents) were identified as adolescent females (NIPORT, 2014).

### *Response Variable*

In this study, age at first cohabitation has been used as the response variable. The variable was categorized into a binary outcome (1 as successes, 0 as failures). The legal age of marriage for females in Bangladesh is 18. Therefore, females who had cohabited before reaching 18 were coded as “1” and “0” was used for the rest.

### *Explanatory Variables*

For the purpose of the study, women’s education, partner’s education, religion, wealth index and division (administrative geographical areas) were used as predictor variables. The covariates of women’s education and their partner’s education were coded into three categories (no/primary education as reference category, secondary and above secondary). The variable of religion has been categorized into Muslim, Hindu and others, and the wealth index variable was categorized into three indices (poor, middle and rich). Finally, division was considered as an explanatory variable that includes Barisal, Chittagong, Dhaka, Khulna, Rajshahi, Rangpur and Sylhet.

### *Binary Logistic Regression Model*

Binary logistic regression is an extension of simple linear regression designed by David Cox (1995). In binary logistic regression, the response variable has two outcomes and it predicts the probability of success given the values of explanatory variables, i.e.:

$$L = Pr (W = 1 | M = m)$$

Let W be a binary response variable,

$$\text{where } W_i = \begin{cases} 1, & \text{if the attribute is present in individuals} \\ 0, & \text{if the attribute is absent in individuals} \end{cases}$$

and  $M = (m_1, m_2, \dots, m_k)$  be a set of explanatory variables which can be discrete or continuous or a combination of both.

So, the binary logistic regression model can be written as

$$\begin{aligned} L_i &= Pr (W_i = 1 | M_i = m_i) \\ &= \frac{\exp (\beta_0 + \beta_1 m_i)}{1 + \exp (\beta_0 + \beta_1 m_i)} \end{aligned}$$

The above relation also can be expressed as

$$\begin{aligned} \text{Logit } (L_i) &= \log \left( \frac{L_i}{1 - L_i} \right) \\ &= \beta_0 + \beta_1 m_i \\ &= \beta_0 + \beta_1 m_{i1} + \dots + \beta_k m_{ik} \end{aligned}$$

The maximum likelihood estimator (MLE) of  $\beta_0$  and  $\beta_1$  can be obtained by maximizing:

$$L(\beta_0, \beta_1) = \prod_{i=1}^N \frac{\exp \{W_i(\beta_0 + \beta_1 m_i)\}}{1 + \exp(\beta_0 + \beta_1 m_i)}$$

## Findings

To identify the factors associated with early marriage, two logistic regression models were considered. The results are given in Table 1. In Model-I, all the covariates were considered in a bivariate setup, as the unadjusted odds ratios (UOR) were thereby obtained. It was observed that women's education is inversely related with early marriage. For example, women with a secondary education were 45% [UOR=0.552, p-value=0.000] less likely to engage in early marriage than women with no primary education, and women with above secondary education women were 9% [UOR=0.083, p-value=0.000] less likely to be involved in early marriage compared women with primary or no education. A similar relation was found for the partner's education as well. Females having secondary education and above secondary educated partners had 41% [UOR=0.591, p-value=0.000] and 80% [UOR=0.205, p-value=0.000] less chance respectively to involve in early marriage compared to their male counterparts. Additionally, females who were followers of Hinduism [UOR=0.616, p-value=0.00] or other religions [UOR=0.210, p-value=0.000] were less likely to be involved in early marriage compared to females who belonged to the Muslim community. Findings also reveal that the rate of engaging in early marriage decreases with an increase in wealth. Those who were in the middle and rich wealth index levels were 27% [UOR=0.729, p-value=0.000] and 63% [UOR=0.373, p-value=0.000] less likely to be involved in early marriage, respectively. Moreover, it was observed that all the divisions had significant effects on practicing early marriage in Bangladesh. Since an unadjusted odds ratio cannot provide a sophisticated understanding of the phenomenon over time, all the covariates at a time were considered in Model-II to get the adjusted odds ratios of the selected covariates. This model exhibits that women and their partner's education and religion still had significant effects on early marriage. However, after the adjustment of the covariates, it was found that the females who belonged to the rich wealth index [AOR=0.858, p-value=0.011] were significantly less likely to be involved in early marriage. Among the divisions, Chittagong [AOR=0.555, p-value=0.000], Dhaka [AOR=0.660, p-value=0.000], Rajshahi [AOR=1.26, p-value=0.015], Rangpur [AOR=0.276, p-value=0.000] and Sylhet [AOR=0.852, p-value=0.001] had significant effects on the rate of early marriage in Bangladesh.

**Table 1: Unadjusted and adjusted odds ratios with p-values of associated factors for early marriage obtained from logistic regression models**

Covariates	Model-I		Model-II	
	Unadjusted Odds Ratio (UOR)	p-value	Adjusted Odds Ratio (AOR)	p-value
<b>Women's Education</b>				
No/primary (ref)	-	-	-	-
Secondary	0.552	0.000	0.638	0.000
Above secondary	0.083	0.000	0.117	0.000
<b>Partner's education</b>				
No/primary (ref)	-	-	-	-
Secondary	0.591	0.000	0.828	0.000
Above secondary	0.205	0.000	0.571	0.000
<b>Religion</b>				
Muslim (ref)	-	-	-	-
Hindu	0.616	0.000	0.593	0.000
Others	0.210	0.000	0.227	0.000
<b>Wealth Index</b>				
Poor (ref)	-	-	-	-
Middle	0.729	0.000	0.935	0.206
Rich	0.373	0.000	0.858	0.011
<b>Division</b>				
Barisal (ref)	-	-	-	-
Chittagong	0.608	0.000	0.555	0.000
Dhaka	0.782	0.002	0.660	0.000
Khulna	1.258	0.017	1.146	0.202
Rajshahi	1.378	0.001	1.296	0.015
Rangpur	1.481	0.000	0.276	0.000
Sylhet	0.442	0.000	0.852	0.001

## Discussion

This study reveals that women's education, their partners' education, religiosity, possession of wealth and geographical location (by division) are important predictors of early marriage. Literature suggests that early marriage hinders girls' education to a significant extent (Sekine & Hodgkin, 2017; Bayisenge, 2010; Delprato, Akyeampong, Sabates & Hernandez-Fernandez, 2015; Wodon, Nguyen and Tsimpo, 2016; Islam, Islam, Hasan and Haque, 2016). This

paper identified a reverse causality between education and early marriage: the probability of getting married at an earlier age for girls decreased with higher educational attainment, which complies with the findings of the existing literature (Hotchkiss, Godha, Gage and Cappa, 2016; Marchetta and Sahn, 2016; Male and Wodon, 2018). The reason is obvious. Despite the fact that education does not mechanically yield empowerment (Monkman, 2011), it has been perceived as a mechanism for empowerment (Porter, 2013). Education, as a capability input, helps generate wider opportunities for its receivers (Otto and Ziegler, 2006; Yousefy and Baratali, 2011). Empowering women will bring about changes in decision-making which will have a direct impact on development (Duflo, 2012). Therefore, fostering education for girls, on the part of the government, is suggested for the sake of increased nonoccurrence of early marriage.

The role of a partner's educational attainment is somewhat neglected in the discussion of early marriage. Therefore, the literature on this topic is inadequate. We observed that a partner's educational attainment is an important predictor of early marriage, which complies with the existing literature (UNICEF, 2005; ICRW, 2007; Kamal et.al, 2015). Kerckhoff and Parrow (1979) found that men who marry at an early age had less educational attainment. With education comes increased awareness on the adverse impacts of early marriage, as an educated man is less likely to go for marrying a girl under 18 years old. This study, therefore, confirms the necessity of awareness-raising programs through the education of both boys and girls.

Studies also suggest that factors like poverty and religiosity are associated with early marriage and adolescent motherhood in Bangladesh (Islam and Gagnon, 2014; ICRW, 2007; Islam, Islam, Hasan and Hossain, 2017). There is no definite answer in Islamic jurisprudence as to when a girl should be married (Hussain, 2018). Prophet Muhammad, whose deeds form the basis of Islamic rituals, married women below 18 years of age, which reflects the Islamic outlook on marriage (Esposito, 2011). Therefore, it is not unusual that Muslims in Bangladesh would have higher odds of being married at an early age than others, although recent reform initiatives across Muslim-majority countries increased the minimum age for marriage for both spouses, prohibiting child marriage (Esposito, 2011; Voorhoeve, 2012).

Stark (2017) found poverty to be a significant factor for girls' early marriage. Although improvements concerning early marriage have taken place, the pace towards eradicating child marriage has been dawdling (Nguyen and Wodon, 2015). Evidence suggests that in well-off countries where equity persists in terms of human capital formation such as access to education, training and other employment opportunities, early marriages are less common (Otoo-Oyortey and SonitaPobi, 2010). This study also found that with a higher possession of wealth, the likelihood of getting married early decreased, which complies with the findings of some previous studies (Kamal, 2012; Raj, Saggurti, Balaiiah and Silverman, 2009; Nasruallah, Muazzam, Bhutta, Raj, 2013). Therefore, we suggest that poverty alleviation strategies be strengthened on the part of the government so that the rate of early marriage can be reduced.

This study found that geographical location had significant effects for involving early marriage in Bangladesh, which supports the existing literature (Islam, Haque and Hossain, 2016). We observed that Sylhet division had the highest mean age at first marriage for both male and female compared to others (BBS, 2015), resulting in the lowest rate of adolescent motherhood (Islam et al., 2017) despite the prevalence of acute perceived social beliefs favoring early marriage and quick first birth (Henry et al., 2014). However, why divisions vary in terms of the prevalence of early marriage needs to be investigated further, as we do not have any plausible explanation for that.



## Conclusion

Early marriage is a major social problem in Bangladesh. This study reveals several socio-demographic factors such as women's education, partner's education, religiosity, possession of wealth and geographical location that are contributing to the prevalence of early marriage. In line with the findings, this study therefore calls for greater attention from the government to design appropriate policy responses such as more comprehensive planning for spreading education across the country, creating awareness through social mobilization, reform initiatives concerning Islamic beliefs favoring early marriage, strengthening poverty reduction initiatives, etc. to speed up the process of eliminating early marriage. Moreover, this study intends to provide some relevant and specific suggestions to address early marriage in Bangladesh and its consequences drawn from the wide array of gender scholarship. In line with Ferguson (2019), this study pleads for transformative change through gender training that would follow a feminist pedagogy embracing participation of both males and females, validation of personal experiences, encouragement of social activism and the development of critical thinking are efforts both government and NGOs should undertake.

Furthermore, a non-patriarchal approach to equality that would value the activities and qualities of women should be embraced. This would require a major re-evaluation of the gender roles and a realization that the behavior and situation of men as well as women needs to be changed (Bryson, 2007). The most powerful idea for reducing gender inequality is to let women participate in the labor force, followed by economic and political pressures to treat them equally (Ridgeway, 2011). When girls become sexualized in the eyes of the society, they become exposed to different forms of discrimination like child marriage, teenage pregnancy and so on (Hendricks and Bachan, 2015, p 904). As marriage reproduces and reinforces gender norms, challenging marriage-based gender roles is important (MacLachlan, 2017). This must come from the girls themselves. In Bangladesh, the BRAC (Bangladesh Rural Advancement Committee) Empowerment and Livelihood for Adolescents program came up with strategies like giving credit to girls that reduced the likelihood of early marriage and ensured that the girls continued their formal schooling. However, it was also evident that the program could not spread out to the most marginalized girls (Hendricks and Bachan, 2015, p 907; Nawaz, 2019). Therefore, it is of the utmost importance that credit services, or other similar initiatives that incentivize guardians to send their girls to school, reach out to every corner of the country.

The role of activism is something that should be duly noted in addressing early marriage. Women's activism requires women engaging themselves as activists (Fotopoulou, 2016). In addition to reducing the probability of early marriage, educational opportunities for girls was also found to have a significant influence upon involvement in feminist activism. Feminist consciousness is essential to joining the women's movement that comes from education. Besides this, group memberships and pre-existing social networks in the form of solidarity inspire women to be involved in feminist activism (Swank and Fahs, 2017). The most radical change would be for gender to disappear (Holmes, 2009) and for gender equality to be achieved, gender itself must matter less (Wharton, 2005). Women's self-realization about their gender roles and their implications, coupled with increased activism from both government, non-government and civil society organizations, seems to be the key here.

**Declaration of Conflicting Interests**

None of the authors have any competing interests.

**Funding**

No funding has been received.

**Availability of data and materials**

The secondary datasets BDHS, 2011 have been analyzed during the current study are freely available in the following website: <http://dhsprogram.com/data/available-datasets.cfm>

**Acknowledgements**

We would like to thank the National Institute of Population Research and Training NIPORT, Bangladesh and MEASURE DHS for allowing us to use BDHS, 2014 data for the analysis.

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