Factors Affecting Early Marriage in Bangladesh: An Analysis on BDHS, 2014 Data

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Abstract

Earlier marriage is usual throughout the world and has been enforced as severe and pulverizing outcomes for little kids. Most early marriages in developing countries are occurred with forcing and violating the laws. Early marriage is severely caused by maternal mortality and maternal health. Earlier marriage before the period of 18 years is moreover an impediment to numerous multinational human treaties expresses. Now it is essential to take the necessary steps to overcome this problem, and we should strictly respect the laws of early marriage in Bangladesh. Therefore, the factors affecting the use of early marriage should be clearly understood in Bangladesh. The 2014 Bangladesh Demographic Health Survey data has been operated for this inspection, which is multistage stratified bunched evidence. And here, Logistic Regression has been used to analyze this data. This study applies Binary Logistic Regression to draw an appropriate conclusion about the factors distressing on early marriage.

Keywords

Early marriage, factors, BDHS, Binary Logistic Regression, Bangladesh

1. Introduction

Earlier marriage interpreted as a traditional marriage or informal coalition before the period of 18. Childhood marriage is pervasive and can encourage a lifetime of complications and crises. What is additional, the outcomes of earlier marriage instruct numerous larger sociably consequences of an earlier marriage, including elevated quantities improvement, the progressively sharp expanse of ailment, and a higher rate of wanderers (Jensen and Thornton, 2003). Earlier marriage absolutely destroys the youthful lady's wellbeing and fortune. Marriage is regularly tailed by pregnancy, nonetheless of whether a youthful lady is not yet actually or intellectually capable. According to the June 2019 study by UNICEF, 12 million girls are married before they turn 18 each year, and one in nine girls is married before they turn 15, especially in the developing world. 650 million girls and women living today around the world were marrying until they turned 18. From a global dataset of UNICEF, 2019, without further acceleration, more than 120 million additional girls will marry before their 18th birthday by 2030 worldwide. Child marriage rates are highest in sub-Saharan Africa, where approximately 4 out of 10 young women were married before age 18, followed by South Asia where 3 out of 10 married before age 18. Bangladesh has some of the highest child marriage rates in the country. Less than half of all girls marry before they hit the minimum age of 18. According to the Child Marriage Restraint Act (1929), the legal marriage age for a girl is 18

years and for a boy is 21 years in Bangladesh. Despite the law, child marriage is sometimes considered as a social norm in Bangladesh (Islam & Mhamud, 1996). Many families also claim that marrying girls before they go to puberty will bring blessings to their families (Tristam, 2014). Girls who marry also get under pressure to give birth to a child early in life. Sometimes young women who are tied may furthermore be cited to explicitly transmitted infections, involving HIV. At the level when young ladies wed, they are repeatedly obliged to slip out of school so they can adopt family unit commitments. Earlier marriage likewise confines their opportunities, involving prospective work possibilities, and has lengthy hike influences on their households. This is no acceptance of their entitlement to education (Jensen & Thornton, 2003; Wodon et al., 2016). Furthermore, the lack of formal schooling has intergenerational consequences too. It makes it harder for girls to get access to and use health information for themselves and their children. Child marriage affects whole populations by leading to a continuing cycle of ill health, violence, and gender inequality. This institutional aspect with concerns to increased rates of earlier marriage illustrates a stitching imperative on an exhibition to earlier marriage openings. Young girls who leave school have more sad wellbeing and monetary outcomes than someone who remains in school, and in the end, their child's admission more awful too. So women who marry younger tend to have less education, have less ability to make decisions in their household, and are more likely to witness domestic violence (Otoo-Oyortey & Pobi, 2003; Clark, Bruce, & Annie, 2006; Chatha, Khalil, & Sajjad, 2014). Considering the context, this research is attempting to examine the related factors that influence early marriage in Bangladesh for establishing and enhancing improved intervention strategies. So primary objective of this study is to explore the factors that are statistically associated with early marriage and also develop an intercept that an early marriage is stunted without adjustment for predictors.

2. Literature Review

Early marriage or child marriage is generally described as marriage before the age of 18 and is more common among young girls (NIPORT, 2013). Marriage is an absolutely perceived affair between a man and a female where they are joined explicitly; combine financially, and may have teenagers through birth or allowance (Strong, DeVault, & Sayad, 1998). There are several factors that are linked to child marriage. The reasons behind early marriage in West and Central Africa are religion, tradition and culture, poverty, and gender inequalities (Johansson, 2015; Wodon et al., 2017). Due to early marriage young girls' physical immaturity results in adverse health effects leading to high maternal and neonatal mortality in sub-Saharan Africa (Larsen, 2009). According to Maheu-Giroux et al. (2016) in their study showed that early childbearing also includes other maternal health issues, including malnutrition, anemia, malaria, sexually transmitted decease, psychiatric disease, and obstetric fistula. The various researcher found that age, education, religion, region, and ethnicity are the most influential factors of child marriage (Kumchulesi et al., 2011). The study of Lowe et al. (2019) cultural background and the fear that girls may engage in premarital sex are two important factors associated with early marriage in the rural Gambia.

In their report, Jain et al. (2011) addressed the incidence of child marriage in India. The causes of child marriage were examined as economic security, the safety of young girls, regulation of female behavior, and socio-cultural and religious values. Based on their outcomes, they also proposed that early marriage can be controlled by making women economically empowered, promoting education, and raising awareness via mass media.

3. Data and Variables

3.1 Data Source

The data used in this study has been taken from the Bangladesh Demographic and Health Survey (BDHS) conducted in 2014. The 2014 Bangladesh Demographic and Health Survey (2014 BDHS) was implemented under the authority of the National Institute of Population Research and Training (NIPORT), Ministry of Health and Family Welfare. The survey was implemented by Mitra and Associates from June to November 2014. The funding for the 2014 BDHS was provided by the United States Agency for International Development (USAID) of Bangladesh. ICF International provided technical assistance as well as funding through The DHS Program, a USAID funded project.

3.2 Dependent Variable

As the purpose of the study to determine the factors affecting early marriage, the dependent variable is "Age at first marriage" which takes the value "1" for early married and "0" for not early married.

3.3 Explanatory Variables

Religion, Region, Types of residence, highest education level, Daughter at home, Husband/Partner's occupation, Husband/Partner's Education are the dependent variable.

4. Methodology

The present study aims to determine the factors affecting the use of early marriage. As a starting tool for the analysis provides a preliminary idea of how two variables are associated but do not provide an indicator of the causal relationship between them. Therefore, regression analysis is required to explore the form of their relationship. Available regression methods for analyzing binary data are linear probability, logistic regression model, and probit model. Logistic regression, the most popular method of fitting binary data, requires the assumption of independence of the observations. However, data considered in the following study is hierarchical in nature which violates this assumption. To settle down this problem one of the best possible solutions is to use multilevel logistic regression instead of traditional logistic regression. The bivariate analysis allows looking at the associations among two variables. These measures of association relate to how well one variable relates to others and helps to understand this relationship. Contingency tables are used to visually assess whether the variables might be related but it is not sufficient to test a hypothesis about the relationship between two variables. An additional statistic, chi-square, is needed to perform a hypothesis testing about two variables.

5. Analysis and Result

5.1 Introduction

The exploratory data analysis has been performed to get a visual understanding of the distribution of occurring early marriage across different categories of the explanatory variables. Then a bivariate analysis has been performed to assess percentage distributions of the different variables and association with occurring early marriage. After that to examine the simultaneous effect of all the explanatory variables on the use of early marriage.

5.2 Univariate Analysis

Table 1. Frequency Distribution

Variables	Categories	Percentage
	Sylhet	16.1
	Barisal	11.2
	Chittagong	20.0
Division	Dhaka	16.5
	Khulna	11.2
	Rajshahi	12.4
	Rangpur	12.6
Type of place of residence	Urban	30.5
	Rural	69.5
	Islam	90.3
	Hinduism	9.3
Religion	Buddhism	0.2
	Christianity	0.2

Highest educational level	No education	19.3
	Primary	30.7
	Secondary	42.2
	Higher	7.9
Daughters at home	0	29.7
	1	43.0
	2	18.8
	3	6.0
	4	1.9
	5	0.6
	6	0.1
Husband/partner's occupation	Agricultural Worker	69.4
	Non-Agricultural Worker	18.4
	Good Job	11.9
	Others	0.4
Husband/partner's education level	No education	28.1
	Primary	29.2
	Secondary	29.2
	Higher	13.5
Age at First Marriage	not early married	19.4
	early married	80.6

Source: Estimated

From Table 1, it can be seen that the highest child marriage occurs in the Chittagong division. In rural area, the incidence of a child, marriage is highest. Out of the total respondents, almost 81% of respondents married earlier.

5.3 Bivariate Analysis

In this section, the bivariate analysis of early marriage is discussed in a table. The result of this analysis and the P-value of the associated χ^2 test are shown in the following table.

On bivariate analysis, a cross-tabulation with Chi-square statistics are displayed in Table 2. Divisional variation is obvious and crucial for occurring child or adolescent marriage. Out of 7,046 child marriage, 19.2% on Chittagong, followed by 16.7% occurred on Dhaka and 13.9% on Rangpur. Through residential pattern, 72.1% nuptial status changes to the rural women before 18 years comes. As a Muslim maximized nation, the occurrence of nuptial engagement significantly occurs at 91.6% for Muslim adolescents than other religious children. Education is a striking force to root out the havoc of child marriage tradition. At or after the secondary level, the chances of occurring marriage in an immature state is low. This scenario is the same for the husband with same pattern. On the sight of the occupational status of the husband, the possibility of child marriage is larger for agriculture as a profession than other professions. This significant variation occurs due to agricultural-based husbands are not aware of family planning or educational insight. Using the Body mass index, the practice of child marriage is under the thin woman section. Taking the first child at an immature age is risky for both child and woman. This malpractice is still a burning question as it happens on 93.6% of the mother before 20 years occurred. For a more clear view, we take another variable of the gap between marriage and first child. 78% of the woman took the first child before 3 years of marriage happen. Some researchers took insight on having a daughter at home is crucial for child marriage. Having one daughter has a 42.1% chance of being married in the early stage. All of the variables are tabulated with Chi-square statistics under the null hypothesis of no association between early marriage occurrence and control variables. Each variable is rejected at a 1% level of significance and suggests that there lies a significant association.

Table 2. Results of Bivariate Analysis

Variables	Characteristics	Age at First Marriage		Total	Chi-square
		not early married	early married		
Division	Barisal	146 (8.8%)	828 (11.8%)	974 (11.2%)	148.69*
	Chittagong	384 (23.2%)	1,355 (19.2%)	1,739 (20%)	
	Dhaka	263 (15.9%)	1,174 (16.7%)	1,437 (16.5%)	
	Khulna	179 (10.8%)	800 (11.4%)	979 (11.3%)	
	Rajshahi	169 (10.2%)	907 (12.9%)	1,076 (12.4%)	
	Rangpur	122 (7.4%)	982 (13.9%)	1,104 (12.7%)	
	Sylhet	390 (23.6%)	1,000 (14.2%)	1,390 (16%)	
Residence	Urban	693 (41.9%)	1,965 (27.9%)	2,658 (30.6%)	124.30*
	Rural	960 (58.1%)	5,081 (72.1%)	6,041 (69.4%)	
Religion	Islam	1,399 (84.6%)	6,455 (91.6%)	7,854 (90.3%)	81.42*
	Hinduism	239 (14.5%)	575 (8.2%)	814 (9.4%)	
	Buddhism	8 (0.5%)	8 (0.1%)	16 (0.2%)	
	Christianity	7 (0.4%)	8 (0.1%)	15 (0.2%)	
Woman's education	No education	161 (9.7%)	1,512 (21.5%)	1,673(19.2%)	1377.48*
	Primary	293 (17.7%)	2,376 (33.7%)	2,669 (30.7%)	
	Secondary	715 (43.3%)	2,951 (41.9%)	3,666 (42.1%)	
	Higher	484 (29.3%)	207 (2.9%)	691(7.9%)	
Husband's occupation	Agricultural Worker	853 (51.6%)	5,177 (73.5%)	6,030 (69.3%)	530.44*
	Non-Agricultural Worker	331 (20%)	1,265 (18%)	1,596 (18.3%)	
	Good Job	460 (27.8%)	576 (8.2%)	1,036 (11.9%)	
	Others	9 (0.5%)	28 (0.4%)	37 (0.4%)	
Husband's education	No education	243 (14.7%)	2,203 (31.3%)	2,446 (28.1%)	855.48*
	Primary	309 (18.7%)	2,221 (31.5%)	2,530 (29.1%)	
	Secondary	537 (32.5%)	2,011 (28.5%)	2,548 (29.3%)	
	Higher	564 (34.1%)	611 (8.7%)	1,175 (13.5%)	
BMI of woman	Thin	400 (24.2%)	7,046 (100%)	7,446 (85.6%)	6239.75*
	Normal	1,118 (67.6%)	0	1,118 (12.9%)	
	Overweight	135 (8.2%)	0	135 (1.6%)	
Woman's age at first birth	less than 20	578 (35%)	6,597 (93.6%)	7,175 (82.5%)	3220.52*
	21-25	832 (50.3%)	395 (5.6%)	1,227 (14.1%)	
	26-30	198 (12%)	48 (0.7%)	246 (2.8%)	
	31-35	39 (2.4%)	5 (0.1%)	44 (0.5%)	
	36-40	6 (0.4%)	1 (0.0%)	7 (0.1%)	
Birth space of first child from marriage	0-3 years	1,398 (84.6%)	5,464 (77.5%)	6,862 (78.9%)	39.78*
	4-6 years	205 (12.4%)	1,256 (17.8%)	1,461 (16.8%)	
	more than 6 years	50 (3%)	326 (4.6%)	376 (4.3%)	
Daughter at home	No	559 (33.8%)	2,037 (28.9%)	2,596 (29.8%)	60.7*
	1	770 (46.6%)	2,968 (42.1%)	3,738 (43%)	
	2	229 (13.9%)	1,397 (19.8%)	1,626 (18.7%)	
	3 or more	95 (5.7%)	644 (9.1%)	739 (8.5%)	
Total		1,653	7,046	8,699	

Source: Estimated

5.4 Multivariate Analysis

In multivariate context, binary logistic regression is adopted (0 = not early married & 1= early married) in given Table 3. In the case of division, the chance of being early married is 2.825 times significantly more for Rangpur, followed 1.773 times for Khulna, 1.075 times more for Dhaka as compared to the Sylhet division. For residence, the chance of being early married is 0.015 times more for urban adolescents than rural. For the religious aspect, the chance of early married practice is more for Muslim families as compared to Christian, though it is statistically insignificant. Woman's education is crucial for nullifying child marriage. The odds of child marriage are 3.704 times statistically more for illiterate as compared to the higher educated woman. As the educational level increases, the risk of child marriage is statistically decreasing. The education of the husband is also crucial for this regard and 1.61 times more risk for an illiterate husband to be married to the adolescent as compared to a higher educated husband. Birth space of the first child after marriage is significantly associated with marriage in the teenage stage. Other variables like the occupation of husband, BMI of woman, age of the woman at first birth, and daughter at home are insignificant.

Table 3. Results of Multivariate Analysis

	Coefficient	Adj. OR	95% C.I. for Adj. OR	
			Lower	Upper
Division				
*Barisal******	0.995	2.706	1.729	4.236
Chittagong	0.174	1.19	0.86	1.645
*Dhaka******	0.73	2.075	1.406	3.062
*Khulna******	1.02	2.773	1.762	4.366
*Rajshahi******	0.896	2.449	1.564	3.836
*Rangpur******	1.342	3.825	2.382	6.143
Sylhet				
Residence				
Urban	0.015	1.015	0.795	1.296
Rural				
Religion				
Islam	0.859	2.36	0.274	20.315
Hinduism	0.408	1.503	0.171	13.207
Buddhism	0.631	1.88	0.089	39.843
Christianity				
Woman's education				
*No education******	1.548	4.704	2.685	8.24
*Primary******	1.576	4.835	2.95	7.923
*Secondary******	1.012	2.752	1.82	4.163
Higher				
Husband's occupation				
Agricultural Worker	-13.587	0	0	.
Non-Agricultural Worker	-13.626	0	0	.
Good Job	-13.438	0	0	.
Others				
Husband's education				
*No education******	0.99	2.691	1.682	4.307
*Primary******	0.642	1.9	1.271	2.84

*Secondary***	0.381	1.464	1.026	2.089
Higher				
BMI of woman				
Thin	30.762	2.29E+13	0	.
Normal	-0.51	0.6	0	.
Overweight				
Woman's at first birth				
less than 20	19.096	1.97E+08	0	.
21-25	-10.689	0	0	.
26-30	-11.75	0	0	.
31-35	-12.747	0	0	.
36-40				
Birth space of 1st child after marriage				
0-3 years	-29.986	0	0	.
*4-6 years***	-1.104	0.331	0.146	0.751
more than 6 years				
Daughter at home				
No	-0.413	0.662	0.396	1.107
1	-0.321	0.726	0.439	1.199
2	-0.473	0.623	0.367	1.057
3 or more				
Constant	-6.192	0.002		

Source: Estimated

6. Conclusion

Adolescence or early marriage is a threat to human reproduction. As it lies in south Asian nations as malpractice, woman and children healthy or nutrition issues are still nipped in the bud. To meet the goal of SDG, ensure good woman and children health & life expectancy is a maiden task. This study adopted the DHS dataset of 2014 for Bangladeshi around 8700 married women. Bivariate and multivariate analysis is carried out to assess the impact of factors affecting child marriage. In bivariate analysis, rural areas have a larger possibility of teenage marriage than urban areas. Chittagong, then Dhaka has comparatively more child marriage traits than others do division. The education of women, as well as husband, has effective power for abolishing child-woman. On multivariate analysis, binary logistic regression, and the impact is clearer of child marriage. The odds of having early-stage nuptial for Rangpur, Khulna, and Rajshahi is high than the Sylhet division. Education of women is more crucial for child marriage practice than a husband's education or any other aspect. Therefore, this study insight on the education of women, husband's education and occupation, birth space, and woman body mass index to improve through using the power of mass media and arranging women's freedom. A woman is still married under the pressure of family and creating dismantle to their family life. Henceforth, family planning issues and child-rearing is crucial for securing both physical and psychological demand. The government needs more alert for stopping child marriage like slow poison in our superstitious society. In addition, we need more consciousness to spread knowledge for ensuring education, opening occupational doors, and building sustainable development.

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