

Exploring the Socioeconomic Factors Associated with Girl Child Marriage and its Impact on Pregnancy Outcomes: A Study from Malda District of West Bengal

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Abstract

Background: Child marriage is not a new phenomenon in India. The prevalence of child marriage remains high in many districts of West Bengal. **Objectives:** The present study aims to address socioeconomic factors associated with girl child marriage and its effect on selected pregnancy outcomes among women in the Malda district of West Bengal. **Methods:** The study is based on primary data, collected from the Manikchak CD block by adopting a random sample survey technique. The participants in the study consisted of 357 ever married women aged 15–49 years. **Results:** Multivariate analysis revealed that the prevalence of child marriage was substantially higher among women who had no formal education resided in the marginalized family. Similarly, educated parents were less likely to marry their daughter at an early age. Besides, the likelihood of miscarried or stillbirth, complications during pregnancy and delivery were significantly higher among those married <18 years than those married at 18 years or later. **Conclusions:** The findings of this study suggest preventing child marriage by increasing opportunities for girls' education and employment. The targeted approach should be made among rural and poor girls to reduce the vulnerability of child marriage.

Keywords: Child marriage, education, poverty, pregnancy outcomes

INTRODUCTION

Child marriage is a great concern issue in public health of this 21st century, especially in African and South Asian countries.^[1,2] Worldwide about 21% of young women were married before they reached 18 years and around 12 million girls under 18 are married each year.^[3] The percentages of girls' child marriage are found in Sub-Saharan Africa.^[4] Developing countries such as India (59%), Bangladesh (71%), and Nepal (62%) also have a higher prevalence of child marriage in four South Asian countries.^[2] Concerning the associated factors of child marriage, female education is considered a strong predictor.^[5,6] Parents often stopped their daughter's education before could complete her elementary or secondary education to reduce the financial cope of the household. Child marriage is prevalent among poor families because they have limited resources and incentives to invest as alternative options for girls.^[6,7] Connection with poverty unemployment, expensive educational costs, and the rising cost of marriage are some of them.^[8] Even, poor

marginalized families desire to “married off” their daughters as soon as possible.^[9,10] Child married women have been exposed to severe pregnancy and delivery complications associated with adverse pregnancy (stillbirth and miscarriage) and birth outcomes (i.e., restricted fetal growth and low-birth-weight),^[11-13] which often leads to maternal death and child death. A study conducted in Bangladesh^[14] reported that stillbirth was significantly higher among adolescent mothers as compared to those who were married at 18 years or older (70.4% vs. 58.6%). A study also found in India^[15] that about 13.8% of the women who married at age 14 or before

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had stillbirth. Approximately 70%, 30%, and 39% of the early married women had any pregnancy complications, delivery complications, and postnatal complications, respectively. Moreover, women who are married at an early age are more vulnerable to the risk of intimate partner violence.^[16,17]

Most of the earlier studies in India are based on individual levels data in terms of girl's child marriage. According to the recent National Family Health Survey-4, the prevalence of child marriage was highest in West Bengal (41.6%) and

Malda district (56.8%). In this backdrop, the present study investigated socioeconomic factors associated with girl child marriage and its impact on pregnancy outcomes in a district level of West Bengal where the incidence of child marriage remain high.

METHODOLOGY

Sample and setting

The sample size was determined using a single population proportion formula^[18] by assuming a 95% confidence interval (CI), 5% marginal error. First, we have chosen 40 households from each village using a simple random sampling technique and then, we identified eligible women (15–49 years ever married) in the selected households. A total of 384 married women were identified from the villages and out of them, a survey of 357 women was successfully interviewed.

Variables

Child marriage prevalence was measured from age at first marriage of ever-married women aged 15–49 years. To capture the socioeconomic factor of child marriage women's age at marriage was considered as a dependent variable by categorizing <18 years and ≥18 years. On the other hand, age at first marriage of women is considered as the independent variable to find out the impact of child marriage on adverse pregnancy outcomes. In this part, each pregnancy-related outcomes were included as the dependent variable, i.e., stillbirth or miss carriage (yes = 1 or no = 0), complications during pregnancy (yes = 1 or no = 0), and complications during delivery (yes = 1 or no = 0).

Moreover, socioeconomic variables were included as predictor variables to determine the factors of child marriage. These variables are religion (Hindu and Muslim), social groups (general category, scheduled caste, scheduled tribes, and other backward classes), respondent's education (illiterate or no education, primary education, secondary, higher secondary, and above), parent's education (illiterate or no education, primary education and secondary, and above), father's occupation (farmer [who cultivated his own land], daily labor [who work daily wage basis], and others [who has own shops, business, and services in public and private sectors, etc.]), paternal monthly family income in Rs. (<10,000, 10,000–20,000 and >20,000).

Data analysis

Descriptive statistics were carried out to understand the distribution of the study participants. Bivariate analysis was conducted to examine the nature of the association between child marriage and socioeconomic factors. Furthermore, Pearson's Chi-square was performed to test the level of significance in the association. Finally, multivariate logistic regression was applied to examine the factors associated with child marriage and its impact on selected pregnancy outcomes of women. The regression results are presented by estimated odds ratios (ORs) with 95% CIs. STATA version

Table 1: Descriptive statistics and odds of child marriage by socio-economic characteristics

Variable	Respondent characteristic, n (%)	Child marriage n (%)	AOR [95% CI]
Social groups			
General	195 (54.9)	124 (63.6)	1
SC	98 (27.6)	60 (61.2)	1.07 [0.58-1.96]
ST	11 (3.1)	7 (63.6)	0.72 [0.19-1.97]
OBC	51 (14.4)	39 (76.5)	1.51 [0.65-1.89]
Religion			
Hindu	277 (78)	173 (62.5)	1
Muslim	78 (22)	57 (73.1)	1.23 [0.63-1.24]
Women's age*			
15-19 years	25 (7)	12 (48.7)	1
20-24 years	73 (20.5)	43 (58.9)	1.36 [0.12-1.57]
25-29 years	78 (21.9)	55 (70.7)	1.19 [0.35-1.21]
30+ years	181 (50.7)	152 (84)	1.43 [1.12-1.45]
Women's education*			
Illiterate	116 (32.8)	88 (75.9)	1
Primary	57 (16.1)	38 (66.7)	0.70 [0.32-0.98]
Secondary	143 (40.4)	98 (68.5)	0.72 [0.36-0.81]
Higher	38 (10.7)	6 (15.8)	0.06 [0.02-0.19]
Father's education*			
Illiterate	217 (61.8)	152 (70.1)	1
Primary	63 (18)	36 (57.1)	0.84 [0.34-1.22]
Secondary and above	71 (20.2)	38 (53.5)	0.70 [0.39-0.81]
Mother's education*			
Illiterate	732 (78.5)	185 (67.8)	1
Primary	41 (11.8)	24 (58.5)	0.97 [0.41-1.43]
Secondary and above	34 (9.8)	15 (44.1)	0.72 [0.57-0.81]
Father's occupation			
Farmer	195 (55.1)	121 (62.1)	1
Daily labor	108 (30.5)	76 (70.4)	2.45 [0.81-2.51]
Others	51 (14.4)	32 (62.8)	1.69 [0.72-1.79]
Monthly family income (Rs.)*			
<10,000	209 (59)	143 (68.4)	1
10,000-20,000	113 (31.9)	70 (62)	0.89 [0.51-1.12]
> 20,000	32 (9)	16 (50)	0.37 [0.25-0.56]

*Significant difference * $P < 0.05$, CI=Confidence interval, AOR= Adjusted odds ratio

12.1 (StataCorp LP, College Station, Texas, USA) has been used for all statistical analyses.

RESULTS

Among the total sample of 357 women, majority were Hindu (78%) and belonged to the general caste (54.9%). About half of the respondents (50%) were in the age group of 30+ years. Nearly one-third (32.8%) had no formal education. Regarding parent's educational attainment, majority had no education (61.8% fathers and 78.5% mothers). Majority of fathers were either farmers (55.1%) or daily wage labor (30.5%) [Table 1]. This table also shows the bivariate association between child marriage and socioeconomic factors. The incidence of early marriage decreases with an increasing level of women's education. It is observed that about 75.9% of women with no formal education got married as compared to 15.8% of higher educated women. Likewise, with an increasing level of parent education, the occurrence of child marriage decreases. About 70.4% of women got married at below age of 18 years whose fathers were engaged in daily labor, while the corresponding figure for the women is 62.1% whose fathers were engaged in farming. Nearly 68% of women who got married at an early age resided in monthly family income <10,000 Rs.

As per multivariate logistic regression analysis for assessing the socio-demographic factors of child marriage the educational attainment of women is found to be a strong predictor of child marriage [Table 1]. Higher educated women were less likely to opt for early marriage (adjusted Odds ratio [AOR]: 0.06, 95% CI: 0.02–0.19) compared to illiterate women. Parent's education also has a positive correlation with the occurrence of girl child marriage. Secondary and higher educated fathers' (AOR: 0.70, 95% CI: 0.39–0.81) and mothers (AOR: 0.72, 95% CI: 0.57–0.81) were less likely to marry their daughter at an early age as compared to illiterate parents. Furthermore, the prevalence of child marriage decreases with an increasing family income. Women resided in monthly family income >20,000 Rs. are 63% less likelihood of child marriage (AOR: 0.37, 95% CI: 0.25–0.56) as compared to women resided in monthly family income <10,000 Rs.

Prevalence of adverse reproductive outcomes such as stillbirth or miscarriage was significantly higher among women who were married < 18 years as compared to those women who were married at 18 years or older (11.2 vs. 7%) [Table 2]. Results

of logistic regression analyses show the effect of age at first marriage on pregnancy-related outcomes. The likelihood of stillbirth or miscarriage (OR: 1.03, CI: 0.83–1.21), pregnancy complications (OR: 1.8, CI: 1.27–2.01), and delivery complications (OR: 1.03, CI: 0.93–1.46) were significantly higher among the women who married <18 years compared to those married at 18 years or older [Table 2].

DISCUSSION

The incidence of girl child marriage considerably high in many districts of West Bengal. There is not much difference in the prevalence of child marriage irrespective of religion and caste. The wedding is celebrated as a ceremony whether it was not justified the bride is of legal age or not. Therefore, the social and cultural context may influence the age at marriage of a girl.^[19,20]

In the present study, secondary school graduates got married earlier than did those who were primary or higher secondary school graduates. The girls who do not have strong decision-making power because of their lower levels of education may get married at an advanced age.^[19] Those women may have to leave their education. It seems that child marriage deprives a girl of the right to education. In the earlier study, it is reported that there is interplay between the education level and child marriage; while the education level affects the decision of child marriages,^[21] it could eradicate by receiving education. Moreover, most of the mothers and fathers of respondents who got married at an early age were illiterate. Similar to the present study in previous studies^[22,23] was revealed that marriage at a younger age was more widespread among girls whose parents had lower levels of education. A study on Nepal stated that higher educated parents are less likely to married-off their daughter than illiterate.^[24] The existing studies found that girls from marginalized families marry at an early age.^[6,8] Likewise, this study also reveals that the prevalence of girl child marriage more widespread among the poorest families. According to respondents' views, with the increasing age of the bride, the demand for dowry will be increased. Moreover, people arrange their daughter's marriage with unknown grooms of other states due to fear of dowry. And thereafter, some of the times the parents could not find the whereabouts of their daughters. Hence, child trafficking is one of the societal disorders in this study area.

The risk of child marriage adversely affects on psychological and health consequences for both the young women and their children. However, the present study deals with the pregnancy-related consequences of child marriage. Consistent with other studies^[11,14,15] this study also found a significant association with maternal age at marriage and adverse pregnancy outcomes. However, the risk of adverse pregnancy outcomes not solely depends on child marriage but may also partly depend on the biological and physical fitness of the mother, proper health services, poor nutritional status, and inadequate antenatal care.

Table 2: Association between pregnancy-related outcomes and age at marriage

Age at marriage	Miscarried/ Still birth	Pregnancy complications	Delivery complications
<18 years	26 (11.2%)	163 (70.7%)	84 (36.6%)
≥18 years [Ref.]	9 (7%)	79 (62%)	30 (23.9%)
OR [95% CI]	1.03 [1.01-1.09]	1.80 [1.27-2.01]	1.11 [1.07-1.46]

Ref = Reference category, CI=Confidence interval, OR=Odds ratio

CONCLUSIONS

Factors that tend to facilitate child marriage in this study area include the educational level of the respondent and the parents, family income. Some societal norms might accelerate the incidence of forced marriage of girls at an early age. In the future what will occur if a suitable bridegroom cannot be found? This angst often exists at the back of child marriage in rural India. Improving the strategies which promote higher education will reduce the occurrence of child marriage. Moreover, from secondary to higher levels of education, women's studies should be included in the curriculum. Girls should be given equal rights in society; if girls are given a strong social value, then girls would not be considered as a burden to their poor families.

Programs should aim at enlightening adolescent girls as well as their parents of the durable adverse health outcomes of early marriage and early motherhood.

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Conflicts of interest

There are no conflicts of interest.

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