



A MULTIVARIATE ANALYSIS OF AGE AT MARRIAGE IN RURAL AND URBAN BANGLADESH

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Abstract: This study has attempted to identify some socio-economic, demographic and cultural variables by which age at marriage in Bangladesh is determined. Data have been collected from both rural and urban women to get a comparative picture of age at marriage using the face-to-face interview technique. From the findings of the regression analysis of this study, it was found that all the independent variables in combination explain 37.4 percent variance of the dependent variable in rural area. The explanatory power of the regression analysis model for urban area was more powerful in comparison to rural area. It was found that all the independent variables in combination, explained 48.8 percent variance of the dependent variable.

Key words: Early marriage, gender, reproductive health, rural area, urban area

Introduction

Throughout the world, marriage is a celebrated institution signifying a union or understood to mean a formal and binding partnership between two adults (a man and a woman) and the beginning of their future together, sanctioning sexual relations and legitimizing any offspring as members to the family and kin. Many such unions take place under religious or customary laws, and many not be formally registered. But the reality of marriage is a very different story, indeed, for millions of girls worldwide (Anon, 2003).

The UN convention on the rights of the child (CRC) defines a 'child' as anyone up to the age of 18. From a child rights perspective, therefore, marriage is not permissible during infancy, childhood or adolescence. Other international bodies are increasingly recognizing marriage under 18 to be 'early marriage'. The Inter-African Committee on Traditional Practices Affecting the Health of Women and Children defines early marriage as: 'Any marriage carried out below the age of 18 years, before the girl is physically, physiologically and psychologically ready to shoulder the responsibilities of marriage and childbearing' (Anon, 2000a). So, 'Early Marriage', therefore means the marriage of anyone under the age of 18, male or female. As per constitution of Bangladesh Government and Marriage Act of 1929, no marriage should taken place before 18 for girls and 21 for boys.

Early Marriage is much more widespread than many people realize, although reliable statistics are very hard to find since most of these marriages are not formally registered. Trends suggest that, on average, age at marriage is increasing everywhere, but there are a number of countries where the practices are still very common (Anon, 2006a).

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Bangladesh stands out in international comparisons as having an extraordinarily early age at marriage for girls and a considerable average age difference between girls and boys. As a result, a significantly high percentage of young adolescent girls are married. However, in an adolescent survey among the respondents, 51 percent of girls and 7 percent of boys aged 13 to 22 years found married (Anon, 2002). The survey revealed that early marriage is the dominant reality for rural adolescent girls.

Although, early marriage affects both girls and boys, pervasive gender discrimination and inequality throughout South Asia means that girls are usually more vulnerable to being married at a much younger age than boys. While early marriage has a negative impact on the lives of both girls and boys, the impact on girls is significantly more harmful. There are two fundamental issues which cut across early marriage and human rights. First, there is the issue of age. In keeping with the spirit of the United Nations Convention on the Rights of the Child (CRC), to which many countries in South Asia are signatories, 18 is recommended as the minimum age for marriage as a protection measure. This is further endorsed by the Convention on the Elimination of all Discrimination against Women (CEDAW) committee's recommendation number 21. The second key issue is that of consent. The Universal Declaration on Human Rights (UDHR), along with other international legal instruments, has long recognised the right to exercise choice (Anon, 2001). The younger the girl or boy, the worse the abuse of human rights, on the grounds of both lack of consent and forced early sex – though implications for girls are greater than boys. The younger the girl at the time of her first sexual relations, the greater her chance of experiencing pain, physical damage and birthing complications and injury – risks that boys do not face. Girls also face more human rights abuses resulting from being confined to the household after marriage, and being under the control of their in-law families (Anon, 2006 b).

In Bangladesh, marriage is perceived as a means of securing the future of daughters and protecting them. Girls are forced into marriage by their families in poorer households to secure their future. Premature marriage deprives the girls of the opportunity for personal development as well as their rights to full reproductive health (RH) and wellbeing, education, and participation in civic life. That is why this study has attempted to identify the factors which determinate age at marriage on the lives of girls.

Early Marriage: An Overview: International Center for Research on Women (ICRW) in a Policy Advisory Note on Early Marriage stated Bangladesh as at the second position amongst the 'Top Ten' list where Early Marriage takes place as per Demographic Health Survey (DHS) survey of all over the countries during 1996-2001 (Mitra *et al.*, 2001). The note tried to establish causes and consequences of early marriage. Amongst the causes it highlighted poverty, protection of girl child and lack of livelihood options. While as consequences it reported increase of maternal mortality and morbidity like fistula and mental trauma. Educating parents and young people about their rights and benefits of later (timely) marriage, increase access to education, providing safe employment environment, tailoring reproductive health services for young girls were amongst other tools to prevent early marriage the policy advisory note suggested (Anon, 2003). UNICEF assisted survey done by Population Council in three districts of Bangladesh to examine the marriage situation revealed that among the respondents, 51 percent girls and 7 percent boys aged 13 to 22 is married. It found dowry as marriage payments and older the bride more the price to pay to the groom. The report recommended for changing early marriage and dowry practices and to make this agenda for the social reformers (Anon, 2002).

Bangladesh stands out in international comparisons as having an extraordinarily early age of marriage for girls and a considerable average age difference between girls and boys. Early marriage cuts short childhood and compromises the fundamental rights to education by accelerating the end of schooling for many girls, especially (Huq and Amin, 2001).

Causes of early marriage: The literature on early marriage illustrates many factors instrumental in fuelling this practice. However, it is commonly argued that gender discrimination is the underlying reason why the practice affects many more girls than boys (Anon, 2000d). In Bangladesh, women and girls fare badly in almost all aspects of human development.

Other key reasons for early marriage fall into three broad areas: cultural, religious and social; poverty; and sexual and reproductive health with gender inequality as a cross-cutting theme across all three areas (Fig. 1).

Cultural, religious and social: Conservative social and cultural norms that dictate heightened concerns for the chastity and safety of adolescent daughters act as motivating factors for Bangladeshi parents to opt for early marriage. Cultural traditions embedded in a strong sense of family honors coupled with a deep fear about loss of virginity in girls before marriage, pre-marital sex and/or pregnancy, forces many parents to marry girls as they enter puberty (Anon, 2000c). Other reasons for early marriage may include the need to maintain strong community and family ties. This is particularly relevant in the context of an Islamic country, where the practice of marrying first cousins is fairly common. There is also the practice of giving girls as a substitute to the husband of a deceased sister (Anon, 2005b).

Poverty and economics: Poverty has been identified as one of the major factors underpinning child or early marriages. When poverty is acute, a young girl may be regarded as a burden and her marriage to a much older, sometimes even elderly man, is a family survival strategy. In Bangladesh, the marriage gap between husband and wife is estimated to be 7 to 9 years (Rob *et al.*, 2004). This customary age difference helps to preserve a traditional cultural pattern of an older husband dominating a much younger subservient wife (Mahmud, 2000).

There are also several dowry related issues which may force parents to marry daughters earlier rather than later. Marriage to a man much senior, may bring down the dowry demand. Additionally, dowry prices normally increases with age exerting additional pressure for action before the cut-off date. Despite strong nationwide efforts to eradicate the practice, dowry demands appears to continue unabated across the country (Anon, 1999). Data indicates that the incidence of early marriage is on an upward trajectory in response to poverty.

Sexual and reproductive health (SRH): There are many underlying SRH issues which support and help to perpetuate the practice of early marriage which have a direct significant impact on adolescent girls. Fear of pre-marital sex and or pregnancy leads parent to enter into marriage as soon as the girls reaches puberty. Low education levels and limited awareness of SRH issues may also lead a child or an adolescent to consent to marriage or actively exercise choice, where this is available (Anon, 2000b; Singh, 1998).

A desire to marry a young virgin bride is often another motivator for early marriage. In the context of extreme poverty, wealthy emigrants from abroad in search of a young virgin bride may seem an attractive alternative. A UNICEF study revealed a growing phenomenon of older men seeking young girls for sexual partners and wives across Bangladesh (Anon, 1999).

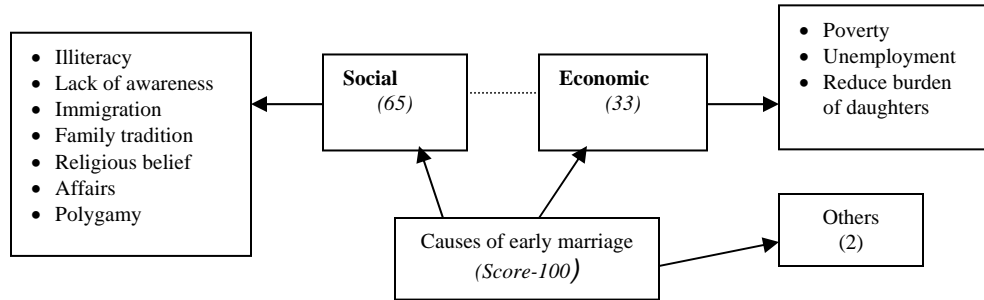


Fig. 1. Causes of early marriage mentioned by the participants in a study done by IPPF. Source: Anon, 2005a

Materials and Methods

A cross sectional survey had been utilized in this study. A structured interview schedule was prepared to collect the required information & data. Data were collected through face-to-face interviews. The collected data were analyzed by using the statistical software - SPSS. A judgmental decision had been considered in selecting the study population. To meet the requirement of the study title, a rural and an urban area were selected. For rural study area, village Chakuli of Manda thana in Naogaon district was purposively selected and for urban study area, Mohammadpur of Dhaka city was selected because Dhaka is the Capital City of the country and assumed to be model of urban area. With the logic of determination of sample size, it was categorically decided to interview 300 cases from the rural and 100 cases from the urban area. Thus, the total sample size became 400.

In rural area, a list was prepared for the study respondents from the union voter list of 2000. Taking an idea from the exiting voter list, and with the help of two local school teachers the researcher divided the village by different paras (small unit of village) and sample were drawn randomly, finally the interview started from one corner of the village. In urban area two staff-members of a renowned NGO helped identifying the respondents in the urban study area like the teachers did in rural area. The interviewing went on during November 2006 to January 2007.

For the multivariate analysis Ordinary Least Square regression analysis technique was used. Multivariate analysis has been attempted to examine the net effect of a set of independent variables on the dependent variable.

The equation takes the following algebraic form:

$$Y = a + b_1 * X_1 + \dots + b_k * X_k + e$$

Where,

Y= dependent variable; a= constant; b= the regression coefficient; X = independent variables of the model; K = end number of the series; e = error term

Multivariate regression analysis of differential determinants: In this study, multivariate analysis was done to find out the determinants of early marriage taking ‘age at first marriage’ as dependent variable. Taking age at marriage as dependent variable in bivariate analyses, it was found that several independent variables were significant (bivariate analyses were computed at the time of data analysis). These significant variables were: level of education of the respondents, their father, mother and husband, husband’s age at marriage, income of parental family, respondent’s exposure to mass media and harassments faced by the respondents before marriage etc. To further analyze

to determine explanatory variable of age at marriage, both Enter and Stepwise methods of the Ordinary Least Square Linear Multiple Regression was applied. The variables that show significant in bivariate analysis were entered into the regression computing process (correlation matrix was computed at the time of data analysis).

The result showed that at bivariate analyses which were found statistically significant relationship with dependent variable has lost their significance in the regression analysis. When the Stepwise Method was applied, the computer itself picked up serially those variables which had most significance. While computing regression, whole data set first taken and the obtained result showed that the variables had statistically significant relationships tested at bivariate level.

In the final analysis, ten independent variables were entered into the equations: level of education of the respondent, their father, mother and husband, husband's age at marriage, income of parental family, occupation of the respondent, respondent's exposure to mass media, social pressure and harassments faced by the respondents before marriage. A brief review of the operational measures of the determinants used in the regression model is necessary. Education, income, age, numbers of family members are continuous variable measured in this model easily. But respondent's exposure to mass media, social pressure and harassment issue were originally a nominal level of variables, these were transformed into a dichotomy, like – 'yes' and 'no'. The variables were entered into the equation following the stepwise method for the estimation of variance explained in the dependent variable by each predictor. The same model was applied separately in the rural and in the urban context.

Table 1 and 2 present the constant, the un-standardized regression coefficients, the standard error of un-standardized regression coefficients, standardized regression coefficients, significant level, and the R-Square change (proportion of variance explained by each of the independent variables in the dependent variable in the model).

Results

Early marriage in rural area: From the findings of the regression analysis of this study, it was found that all the independent variables in combination explain 37.4 percent variance of the dependent variable. Social or community pressure (derived from the tradition) was the most important variable among all the variables in determining the age at first marriage. Individually, this variable explained 23.1 percent variance of the dependent variable. The result was consistent with the hypothesis that the higher the level of social pressure, the lower the age at first marriage. This result was statistically significant at 0.01 levels of significance.

The second important variable was Respondents' level of the education. This variable explained 12.1 percent variance of the dependent variable. But the dependent variable and this variable was positively related to each other which was also consistent to the proposed hypothesis - the higher the level of respondent's education, the higher the age at first marriage. This result also was statistically significant.

The responses from the question – 'before your marriage, whether you were harassed or faced any kind of violence' explained 1.4 percent variance of the dependent variable. Although the explanatory power of this variable was very poor, the result was statistically significant and negatively related. Listening to Mass media explained 0.8 percent variance of the dependent variable which was also consistent with the proposed hypothesis.

Except the four variables mentioned above, no other variable's power of explanation was statistically significant. That is why only statistically significant variables were used in the table. That means the remaining all other independent variables (which are not mentioned in the table) jointly explained rest of the variance of the dependent variable, which would possible if Dummy variables were used in this model.

Table 1. Regression analysis for age at first marriage for rural area of Bangladesh.

Variables	b	S.E.b	B	Sig. t	R-Square	R-Square Changed
Social pressure	-2.183	0.238	-.427	.000	0.231	0.231
Education level of the respondents	0.226	0.035	0.310	.000	0.351	0.121
Faced harassment before marriage	-.550	0.238	-.110	0.022	0.366	0.014
Listening to mass media	0.483	0.242	0.095	0.047	0.374	0.008

Multiple R = 0.612; R square = 0.374; Adjusted R square = 0.366; Standard error = 1.993

Early marriage in urban area: The explanatory power of the regression analysis model for urban area was more powerful in comparison to rural area. It was found that all the independent variables in combination, explained 48.8 percent variance of the dependent variable. Respondents' level of education was the most important variable among all the variables in determining the age at first marriage. Individually, this variable explained 23.2 percent variance of the dependent variable and it was highly statistically significant variable at 0.01 levels of significance. The result was consistent with the hypothesis that the higher the level of respondent's education, the higher the age at first marriage.

The second important variable was respondents' occupation before marriage. This variable explained 16.0 percent variance of the dependent variable. But the dependent variable and this independent variable are adversely related to each other which were fact in urban area.

Table 2. Regression analysis for age at first marriage for urban area of Bangladesh.

Variables	b	S.E.b	B	Sig. t	R-Square Changed
Education level of the respondents	0.469	0.084	0.556	.000	0.232
Occupation of the respondents before marriage	3.019	0.613	0.439	.000	0.160
Age of husband at the time of marriage	0.156	0.056	0.231	0.007	0.037
Freedom of going outside alone	1.142	0.479	0.180	0.019	0.032
Faced harassment before marriage	-.984	0.442	-.167	0.028	0.027

Multiple R= 0.699; R square = 0.488; Adjusted R square =0.461; Standard error = 2.168

Age of the respondent's husband explained 3.7 percent variance of the dependent variable. Although the explanatory power of this variable was very poor, but the result was statistically significant at 0.05 levels of significance. 'Before marriage, whether you went outside alone' explained 3.2 percent variance of the dependent variable. Another variable, 'before marriage, whether the respondents faced harassment' explained 2.7. This variable was negatively related to the dependent variable and the power of explanation of this independent variable was also statistically significant. Except the five variables mentioned above, no other variable power of explanation was statistically significant. That means only statistically significant variables were used in the model.

Fitting the regression model: In this study, the regression analysis of two different areas provides us two different pictures. The variables important in rural area were not that much important in urban area and vice-versa, such as social pressure was the most important variable in rural area and statistically significant but in urban area, this variable lost its significance and explanatory power. On the other hand respondent's level of education was most important variable in urban area, but in rural area the variable had second important explanatory power. Due to these factors it was not possible to formulate a single statistical model for both place of residence. Therefore, it

was better to go for two separate models for these two areas. But one thing must be remembered that in both areas education level of the respondents and harassment faced before marriage were two common variables.

The second important factor as the determinant of age at marriage in rural area was the level of education, but in urban area occupation of the respondents before marriage was the second, which had no explanatory power in case of rural area. In rural area, those who were out of school were sitting idle (did not work), but in urban area they were somehow involved in doing some work (in occupation).

The third and fourth important variables of rural area were harassment faced by the respondents and exposure to mass media (listening to radio) respectively, but in urban area, these were age of husband at the time of marriage and freedom of going outside alone respectively. And harassment faced by the respondents was the fourth variable in urban area which was third for rural area. That variable was common and negatively statistically significant in both rural and urban areas.

All these indicate that it is better to construct two separate models for two areas studied (Table 3).

Table 3. Fitted regression models of early marriage for rural and urban Bangladesh.

Models	
Rural	$AFM = \text{Constant} - b_1*SP + b_2*ER - b_3*H + b_4*MM$
Urban	$AFM = \text{Constant} + b_1*ER + b_2*OR + b_3*AH + b_4*FR - b_5*H$

SP= Social Pressure; ER= Education of the Respondents; H= Harassment; MM= Mass Media; OR= Occupation of the Respondents; AH= Age of the Respondent husband at the time of marriage; FR= Freedom to go outside alone; b_1 to b_5 = Regression Coefficient

Since some of the variables have not been used in the regression models, it was not possible to determine the extent of explanatory power of cultural factors in explaining the dependent variables. But it could be expected that a result may be possible to obtain cultural variables are included in regression model. If we could include these variables in the multivariate analysis, we need extensive 'dummy variable regression analysis' which is not used in this study.

Conclusion

This study attempted to identify some socio-economic, demographic and cultural variables by which age at marriage in Bangladesh is determined. From the findings of the regression analysis of this study, it was found that some variables are important for both rural and urban areas, and some are important in rural area but not important in urban area. In rural area, all the independent variables in combination explain 37.4 percent variance of the dependent variable in rural area. The explanatory power of the regression analysis model for urban area was more powerful in comparison to rural area. It was found that all the independent variables in combination, explained 48.8 percent variance of the dependent variable.

From the above findings and discussions of the study, it is observed that socio-economic, demographic and programmatic variables are the determinants of the dependent variable (age at marriage). And from these identified variables, an idea was made about the level and pattern of marriage in both rural and urban areas. Though cultural variables could not be used in regression models extensively, so, it is not possible to determine the extent of affect of cultural variables to the dependent variable.

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