Factors Affecting Marital Instability and Its Impact on Fertility in Bangladesh

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Abstract

Marriage is an important determinant of fertility pattern of a country. The population with lower age at first marriage of a country will experience early child bearing and will yield high fertility. The main objective of this paper is to assess the effect of socio-economic characteristics on marital instability as well as the fertility of women who have experienced marital disruption and those who are in marital union. Data from Bangladesh Demographic Health Survey (BDHS) 2007 were used for this paper. A multi-stage cluster sampling technique was adopted for this survey. In this paper both descriptive measures and cross-tabulation were used. The multivariate regression analysis was performed using logistic model, where marital dissolution is considered as the dependent variable. Multivariate logistic regression analysis showed that women with secondary education were less likely to have marital dissolution compared to those with no education. The working women had higher risk of marital instability than non working women. Mean number of children ever born of currently married women had 2.8, against widowed, divorced or separated women had 3.7 and 1.6 respectively. The adjusted mean number of children was 2.8 for women who were married once and it was 2.3 for women who married more than once. The analysis showed that marital dissolution seems to have impact on fertility in Bangladesh.

Key words: *Marriage, Divorce, Fertility, Reproduction and Bangladesh*

Introduction

Marriage is a key factor in women's exposure to risk of childbearing in societies where sexual activity usually takes place within marriage. Age at marriage has a major effect on childbearing because women who marry early have, on average, a longer period of exposure to the risk of becoming pregnant and consequently higher number of lifetime births. Marital instability is thought to lower a woman's fertility because it leads to period of little or no sexual activity, and therefore reduces pregnancy risk. Formation of marital condition is responsible for most of the human reproduction. Marriage patterns and levels hold non-demographic implication for the socio-economic development of a country (Shaikh, 1998). Society where contraception is not practised well and where births do not occur outside marriage, age at marriage has an important effect on the rate of population growth (Coale and Tye, 1961). The population with lower age at first marriage of a country may experience early child bearing and high fertility (Luc et al, 1993; Varea, 1993). In Bangladesh 15.9 percent of women aged 15-49 were never married and 78

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percent of women were currently married (NIPORT, 2009). Marriage before the age 15 years is common in Bangladesh (Singh and Sarma, 1996). Despite early age at marriage, fertility has been declining in Bangladesh. Urbanization and more education are associated with later marriage in all developing countries (Bongaarts and Potters, 1983; Sivaram et al, 1995; Santow and Bracher, 1994).

Fertility goes down when marriage takes place at later stage. Also longer period of separation with husband has influence on fertility. Marital instability is thought to lower a woman's fertility because it leads to period of little or no sexual activity, and reduces pregnancy risk (Burch, 1983). So marital disruption through widowhood, divorce and separation diminishes effective participation in reproductive process because these women are no longer continuously exposed to the risk of child bearing (Isiugo-Abanihe, 1998). The main aim of this paper is to investigate the effect of socio-economic characteristics on marital disruption and the role of marital instability on fertility of women.

Data and methods

The data used in this study obtained from the Bangladesh Demographic and Health Survey (BDHS) 2007. A total 10996 ever married (women include those who are "married", "widowed", "divorced" and "not living together") women were interviewed between aged 15 to 49 years. Detailed information on socio-economic, health and demographic characteristics, including marital histories was collected with a structured questionnaire. A two-stage sampling technique was conducted for this survey. Simple descriptive measure and bivariate analysis were used to assess the marital condition and marital stability. Logistic regression was used to evaluate the effect of marital stability among women. The dependent variable was measured of the log odds of marital instability among women 15 years and over, coded 1 if a woman had ever been divorced, widowed or not living together, and 0 otherwise. In the regression, dependent variable is defined
Y=1 woman had ever been divorced, widowed or not living together
Y=0 if a woman is in union
The model is

$$Ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + - - - - - + \beta_n X_n$$

Where
P(Y=1)= p_i and P(Y=0)=1- p_i

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + - - - - - + \beta_n X_n$$

Here,
Z=Log odds whether a woman had ever been divorced, widowed or not living together
X_i= Independent variables;
β_0= Intercept term;
β_i=Regression coefficients of the respective variable;

Mean number of ever born children were computed for each marital category and for women who are either in stable or multiple unions. Because of variations in the composition of different marital categories with respect to age, the procedure of direct standardisation was adopted to eliminate extraneous sources of variation in the data (the compositional effect of age) that may seriously affect parity with respect to marital status. The computed age-standardised mean number of children ever born enabled the evaluation of the relative differences in fertility between different marital sub-groups. The total and net effects of marriage types and the indirect effect of age could be identified, with the overall female population in reproductive ages as the standard population.

Results

More than 47 percent women got married before reaching their 15th birthday. Majority (77.4 percent) of the respondents lived in rural area. Almost 34.0 percent women had no education as opposed to only 5.9 percent who had secondary and higher education. About 47.0 percent women had 1-2 parity and 12 percent women had 6 and higher parity. More than 67 percent of ever-married women aged 15-49 years said that they were not employed at the time of survey. Median age at first marriage is 15 years. Among the ever-married women 93.6 percent reported that their first marriages remained intact whereas 6.4 percent experienced marital disruption.

Logistic regression analysis of marital instability

Table 1 shows the differentials of marital instability with a set of background variables using binary logistic model. The analysis disclosed that marital dissolution was positively associated with duration of marriage; as duration of marriage increases, the risk that the first marriage has been dissolved also increase ($p<.001$) (table 2). It is evident that duration of marriage influences the frequency of divorce. Education of women has an inverse effect on marital dissolution. In general, marriage becomes more stable as woman education increases. The women who had no education are 62% less likely to dissolve their marital status than the women who had secondary and higher education ($p<.001$). The analysis suggests that, in general, marriage become more stable as female education increases. However, educated women were more likely to terminate their marriage through divorce and separation. Parity had also inverse effect on marital dissolution. The woman who had 1-2 parity is 57% and less likely to be experienced marital dissolution than the women who had no children ever born ($p<.001$).

Table 1: Logistic Regression of marital dissolution, by selected socioeconomic variables, ever married women 15-49 years, BDHS 2007

Variables		Percent	OR	95% CI
Age at first marriage				
	<15	47.1	1.0	
	≥15	52.9	1.0	0.9-1.2
Duration of marriage				
	<10	36.4	1.0	
	10-19	30.4	2.0***	1.5-2.6
	20+	23.0	5.4***	4.2-7.0
Women education				
	No education	34.1	1.0	
	Primary	29.7	0.6***	0.5-0.8
	Secondary	30.3	0.4***	0.4-0.6
	Higher	5.9	0.2***	0.1-0.4
Parity				
	None	11.0	1.0	
	1-2	46.8	0.4***	0.3-0.6
	3-4	30.3	0.1***	0.1-0.2
	6+	11.9	0.1***	0.1-0.2
Currently working				
	No	67.9	1.0	
	Yes	32.1	2.2***	1.9-2.6
Residence				
	Urban	22.6	1.0	
	Rural	77.4	0.7**	0.6-0.9
Religion				
	Islam	91.0	1.0	
	Others	9.0	0.7**	0.5-0.9
Total		100		
Constant		-2.1		
-2 log likelihood		4980.8		
Model chi-square		773.2		

*p<.05; **p<.01; ***p<.001; OR= Odds Ratio; CI= Confidence Interval

Place of residence had significant effect on marital stability. However, rural women appeared less likely to be in stable union than urban women. Rural women are 26% less likely to have marital dissolution than urban women. Currently working women were in 2.2 times higher risk of marital dissolution than women who did not work (p<.001). There was no significant impact of age at first marriage on marital dissolution. Religion affiliation indicates that Muslim women were more experienced in marital dissolution than women of other religions such as Hindus and Buddhist.

Reproduction and marital status

Women's age is the powerful indicator, by which curtail the rough dissolution of marriage of the most fertile fecund period of women helps reducing the total fertility during their reproductive ages. The result disclosed that mean number of children ever born by all ever-married women was 2.8 (Table 2). Women who had first married at age below 15 years had the highest mean number of children (3.3). Average children by the women who married first time at an age between 15 and 19 were 2.4. The analysis represents that the difference of mean number of children ever born of all women in different age at first marriage is statistically significant ($p<.001$).

Table 2: Mean numbers of children ever born of ever married women by marital status, BDHS, 2007

Age 5-year groups	Marital status			No. of times married		
	Married	Widowed	Divorced/ separated	Once	More than once	Total
15-19	0.7	0.4	0.5	0.7	0.5	0.7
20-24	1.5	1.7	1.0	1.5	1.3	1.5
25-29	2.5	2.5	1.4	2.5	2.1	2.5
30-34	3.3	3.0	1.8	3.2	2.8	3.2
35-39	3.9	3.3	1.9	3.8	3.3	3.8
40-44	4.5	3.9	2.2	4.4	3.6	4.3
45-49	5.0	4.5	3.2	5.0	3.9	4.9
Mean	2.8	3.7	1.6	2.8	2.8	2.8
Adjusted mean	2.8	2.6	1.6	2.8	2.3	
Total effect	0.0	1.0	-1.2	0.0	0.1	
Net effect of marital status	0.0	-0.1	-1.2	0.0	-0.4	
Indirect effect of age	0.0	1.1	0.0	0.0	0.5	
Total	10192	449	356	10271	701	

The average number of children ever born by married women, widowed and divorced or separated was 2.8, 3.7 and 1.6 respectively. After standardisation, the adjusted mean number of children of married, widowed and divorced or separated was 2.8, 2.6 and 1.6 respectively. Evidently, the age composition of women of the different marital status types was partly responsible for these differences. Direct standardisation was done, considering all ever-married women in the reproductive ages as standard population to find the level of fertility of each marital category to remove the age compositional effects. Among the women who were currently not in unions, such as widowed women appeared to be different from the divorced or separated women. Standardisation reduced the mean parity for widowed women by 1.1, which was significant and implied that the age composition of widowed was favourable for higher parity relative to all ever married women. After controlling the effect of age, the fertility of women who were not living together has remained unchanged. Therefore, the net effect of marital status was to decrease it

below the average among widowed and divorced women. The effect of age was significant only among widowed women, whose parity was 1.1 above the unstandardised average.

Table 2 stated that if all women, irrespective of marital status, had the same age composition, the parity of widowed women would be less by 0.2 children than that of currently married women, while that of divorced women would be less by 1.2 children. This finding suggests that dissolution of marriage seems to have little impact on fertility in Bangladesh. Higher parity among the widowed women was found as compared to others. For the divorced or separated women a long period might elapse before another marriage takes place.

Table 2 also showed that the age-adjusted parity for women in stable union is 2.8, relative to 2.3 for their counterparts who have married more than once. In other words, the age difference between the two categories of women tends to increase the parity of women in stable unions above the overall average, but reduces to below average than that of women married more than once. So, standardisation reduced the parity of women who had been married more than once by only 0.5% and demonstrated that women in stable union would have slightly higher parity (0.4) if they had same age structure as those who had ever married. This Difference is not statistically significant, and suggests that where unions were unstable, but little time was lost between dissolution and remarriage, fertility would not be affected adversely. This is so because a woman has a tendency to bear children in a new home, thereby establishing herself firmly in the family and giving her a stake in family wealth and property.

Discussion and Conclusion

Marriage is universal among females in Bangladesh (Islam and Mahmud, 1996; Islam and Abedin, 1996). The paper suggests that marital union in Bangladesh is relatively stable, although exception emerged for some socio-economic groups. Percentage of remarriage rate in Bangladesh remained constant during last decade (NIPORT, 2009). Remarriage in Bangladesh is frequently occurred after the separation of women and their husband's death, a significant proportion of the divorce and separation may be due to the informal union. It is quite exception in Hindus religion. Religion is a factor of stable union among Hindu women (Lehrer and Chiswick, 1993). Women's social security with a husband leads to a situation where remarriage tends to be universal. Other studies have cited adolescent's marriages are less stable than adult's marriages. Marital instability decreases with increased level of female education (Isiugo-Abanihe, 1998). Wife socio-economic characteristics like work outside home have positive effect on marital disruption (Tzeng and Mare, 1995). Lowering the age gap between husband and wife could reduce the incidence of widowhood significantly.

This paper showed age and marital status of women indirectly affect fertility. Remarriage of women had no significant impact on fertility. Thus, despite the observed low level of marital instability, Bangladeshi women, once married, live most of their life in the married state. Therefore, the net effect of the marital instability on fertility is understandably low. More data are needed to (such as on family setting) to unravel the role of marital disruption on fertility.

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