Original article

Study on factors affecting fertility of Bangladeshi women

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Abstract:

This is a cross sectional study conducted among Currently Married Women of Reproductive Age (CMWRA) with a sample size of 476 selected purposively using a semi-structured questionnaire in 2018 at Moulvibazar Sadar to explore the factors affecting fertility. The result shows that 55.26% respondents were within 35 years age whereas only 4.28% from age group 46-49 years age group, 33% of the respondents got married at <16 years of age and 18.70% were illiterate, 47.90% had primary education. It is evident that 76% of the respondents were from rural area; 88% were Muslims, 29.41% from lower middle class followed by upper middle class (25.42%) and poorest comprised only 7.56%. The result explored that 73.91% of the respondents were from age group 41-45 got married before 16 years of age followed by 36-40 years (68.24%), 46-49 years (66%), 20-25 and 26-30 years age groups 52.38% and 52.75% respectively; 73.33% of respondents from rural area got married at <16 years of age, 68.42% of the Muslim at <16 years. The study explored that 96.39% from poorer section and 83.33% from poorest section got married at <16 years of age. Current study revealed that 82.91% of the respondents having secondary education got married before 16 years of age followed by illiterate (82.02%). It is explored that the age at marriage is statistically associated with residence, education, wealth index and religion (p= 0.001, 0.03, 0.001, 0.001 respectively). We conclude that the socio-demographic condition contributes mostly to fertility differentials in Bangladesh.

Key words: Factors affecting fertility, religion, residence, wealth index, education.

Introduction:

Bangladesh is one of the most cited countries which achieved remarkable progress in fertility decline in the last three and a half decades. Despite pervasive poverty and underdevelopment, Bangladesh has achieved a considerable decline in fertility. Indeed, Bangladesh represents an apparent anomaly for its decline in fertility, despite the absence of the conditions believed to be necessary for such reproductive changes.[1] As a social institution, marriage is identified by some studies as near universal. Generally, any variation relates to the age at which marriage takes place, rather than whether it happens at all.[2]

Women also tend to marry younger than men. For example, about 90% of women aged 15–49 years were married by ages 25–29 years in Bangladesh, India, and Nepal compared with 80% of men; marriage is nearly universal among women aged 30 and above and men aged 45 and above.[3]

Two out of three girls in Bangladesh are married before the legal age of 18. Most become mothers while they themselves are still children. Child marriage forces girls into sexual relationships for which they are not physically or emotionally prepared.[4] It can cause them to drop out of school and it limits their opportunities for community participation, including employment. A delayed marriage greatly improves a girl's chances for a healthy, happy, productive life. And the benefits of a later marriage go beyond the girl: her children, family, community, and country experience better health, economic, and social outcomes.[5]

Cultural and economic factors do not affect fertility directly; they influence another set of variables that determine the rate and the level of childbearing. These are exposure to sexual intercourse, marriage, postpartum infecundity, breast feeding, contraception, and induced abortion. One of the major demographic advances of the last 15 years has been the development of a crude but simple method to express the fertility reducing impact of the major direct determinants of fertility.[6]

Material and methods:

This is a cross sectional study conducted among Currently Married Women of Reproductive Age (CMWRA) with a sample size of 476 using a semi-structured interviewer

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administered questionnaire from July-December 2018 in Moulvibazar Sadar Upazilla to explore the factors affecting fertility employing purposive sampling technique. The sample data collection method was face to face interview at the household level. The respondents were informed verbally the nature, aim and purpose of the study. After collection, the data were cleaned and edited for any inconsistencies and were analyzed with the help of HPSS version 16.

Result:

This cross sectional study conducted to reveal the factors affecting fertility of Bangladeshi women shows the following characteristics.

Table No. 1: Distribution of the respondents according to age group (n=476)

Current age group (in years)	Frequency	Percentage (%)
20-25	95	19.96
26-30	88	18.49
31-35	80	16.81
36-40	75	15.76
41-45	70	15.71
46-49	68	4.28
Mean ± SD = 34.30 ± 8.5		

Table No. 1 shows that more than half of the respondents (55.26%) were within 35 years age whereas only 4.28% from age group 46-49 years age group.

Table No. 2: Distribution respondents according to age at first marriage (n=476)

Age at first marriage (in years)	Frequency	Percentage (%)
<14	133	27.94
14-16	157	33.0
16-18	96	20.16
≥ 18	90	18.90
Mean ± SD = 16.4 ± 2.8		

Table No. 2 shows that one third (33%) of the respondents got married below the age of 16 years whereas only 18.90% got married after 18 years of marriage which is the legitimate age of marriage in Bangladesh.

Table No. 3: Distribution respondents according to Education (n=476)

Level of education	Frequency	Percentage (%)
Illiterate	89	18.70
Primary	228	47.90
Secondary	117	24.58
Higher secondary and above	42	8.82

Table No. 3 shows that almost one fifth of the respondents (18.70%) were illiterate; about half of the respondents (47.90%) had primary level of education and only 8.82% of the respondents had education higher secondary or above.

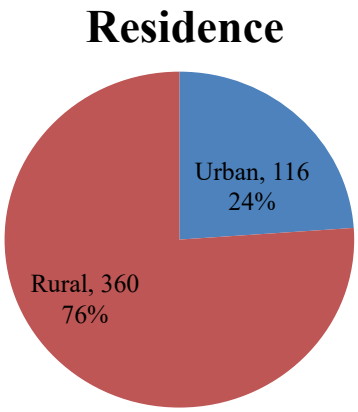

Fig. No. 1: Distribution respondents according to Residence (n=476)

Figure No. 1 shows that 76% of the respondents were from rural area.

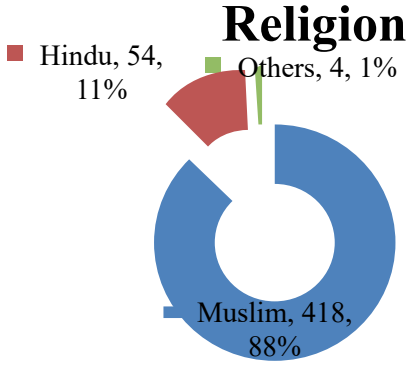

Fig. No. 2: Distribution respondents according to Religion (n=476)

Figure No. 2 shows that 88% of the respondents were Muslim, 11% Hindu and only 1% had other religious belief.

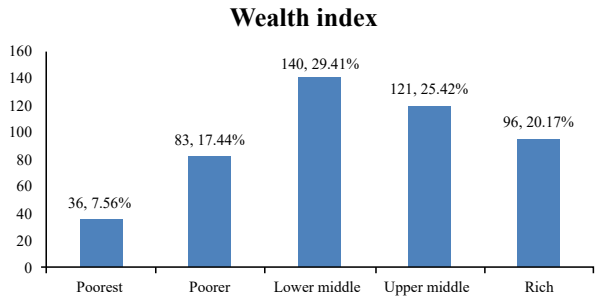

Fig. No. 3: Distribution respondents according to Wealth index (n=476)

Figure No. 3 shows that about one third of the respondents were from lower middle class followed by upper middle class (25.42%). One fifth (20.17%) of the respondents were rich and only 7.56% of the respondents were belonging to the poorest section of the society.

Table No. 4: Distribution respondents according to prevalence of marriage at age

< 16 years and age > 16 years by age group (n=476)

Current age group (in years)	Age at marriage < 16 years (%)	Age at marriage > 16 years (%)	Total
20-25	55 (52.38)	50 (47.62)	105
26-30	48 (52.75)	43 (47.25)	91
31-35	45 (59.21)	31 (40.79)	76
36-40	58 (68.24)	27 (21.76)	85
41-45	51 (73.91)	18 (26.09)	69
46-49	33 (66.0)	17 (34.0)	50
Total	290	186	476

Table No. 4 shows that 73.91% of the respondents from age group 41-45 got married before they reached 16 years of age followed by 36-40 years (68.24%), 46-49 years (66%). 20-25 and 26-30 years age groups 52.38% and 52.75% respectively

Table No. 5: Distribution respondents according to prevalence of marriage at age < 16 years and age > 16 years by residence (n=476)

Residence	Age at marriage < 16 years (%)	Age at marriage > 16 years (%)	Total
Urban	26 (22..41)	90 (77.59)	116
Rural	264 (73.33)	96 (26.67)	360
Total	290	186	476

Table No. 5 reveals that 73.33% of respondents from rural area got married before they reach 16 years of age, while only 22.41% of the respondents from urban area got married before the age of 16 years.

Table No. 6: Distribution respondents according to prevalence marriage at age < 16 years and age > 16 years by religion (n=476)

Religion	Age at marriage < 16 years (%)	Age at marriage > 16 years (%)	Total
Muslim	286 (68.42)	132 (31.58)	418
Hindu	4 (7.41)	50 (92.59)	54
Others	0	04 (100)	04
Total	290	186	476

Table No. 6 shows that 68.42% of the Muslim respondents got married before their 16th birthday while 92.59% Hindu respondents got married after 16 years of age.

Table No. 7: Distribution respondents according to prevalence marriage at age < 16 years and age > 16 years by wealth index (n=476)

Wealth index	Age at marriage < 16 years (%)	Age at marriage > 16 years (%)	Total
Poorest	30 (83.33)	6 (16.67)	36
Poorer	80 (96.39)	3 (3.61)	83
Lower Middle	92 (65.71)	48 (34.29)	140
Upper Middle	51 (42.15)	70 (57.85)	121
Rich	37 (38.54)	59 (61.46)	96
Total	290	186	476

Table No. 7 explored that 96.39% of the respondents from poorer section and 83.33% from poorest section of the community got married before they reach 16 years of their life.

Table No. 8: Distribution respondents according to prevalence marriage at age < 16 years and age > 16 years by wealth index (n=476)

Education	Age at marriage < 16 years (%)	Age at marriage > 16 years (%)	Total
Illiterate	73 (82.02)	16 (17.98)	89
Primary	109 (47.81)	119 (52.19)	228
Secondary	97 (82.91)	20 (17.09)	117
Higher secondary and above	11 (26.19)	31 (73.81)	42
Total	290	186	476

Table No. 8 revealed that 82.91% of the respondents having secondary level education got married before 16 years of age followed by illiterate (82.02%).

Table No. 9: Association between prevalence marriage at age < 16 years and age > 16 years with socio-demographic characteristics (n=476)

Characteristics	Age at first marriage		P value
	< 16 years	> 16 years	
Residence: Urban	26	90	0.001
Residence: Rural	264	96	
Education:			
Illiterate	73	16	0.03
Primary	109	119	
Secondary	97	20	
Higher secondary and above	11	31	

Wealth index			
Poorest	30	6	
Poorer	80	3	0.001
Lower Middle	92	48	
Upper Middle	51	70	
Religion			
Muslim	286	132	0.001
Hindu	4	50	
Others	0	04	

Discussion and Conclusion:

The religion in Bangladesh has a significant association with age at first marriage of women in the rural area. The current study shows that non-Muslim respondents married at a later age than Muslim respondents. 92.59 percent Hindu respondents married after 16 years while 68.42 percent Muslim respondents married before they completed their 16th years of life. Women in the rural part of the study were married early (73.33%), i.e., before or at the age of 16 years. The finding is consistent with the finding of study conducted by Roy S and Hossain S M I in 2014.[7]

The socio-economic status of the respondents in rural Bangladesh has a significant effect on age at first marriage, i.e., the poorest 83.33%, poorer 96.39%, lower middle 65.71%, whereas richer respondents married after 16 years (upper middle 57.85%, and rich 61.46%). Women from 15 to 49 years who had higher education had the lowest fertility compared with women with only secondary, primary and no education, which means that fertility was delayed as educational level increased in Bangladesh; respondents who had education higher secondary and above, of whom 73.81% had their first child after the age of 16 years. These data is supported by the findings of Mosharaf Hossain and Md. Rafiqul Islam, where they found that age at first marriage is an important factor in demographic transition as it affects fertility tremendously and mortality and migration to a lesser extent. Marriage is nearly universal everywhere in Bangladesh. Age at first marriage has a strong influence on a variety of demographic, social and economic factors. Early marriage is more common among the poorest women in Bangladesh than women from wealthy families is borne out in this study.[8]

Present study shows that there is significant association between age at first marriage and residence ($p< 0001$), Education ($p< 0.03$), wealth index ($p< 0.001$) and religion< 0.001). This finding is supported by the findings of the study conducted by Chowdhury AHMY, Rumana AS, Arif M and Faisal AM in Bangladesh in 2017.[9]

Fertility is affected by factors like educational attainment, religion and residence as per data of this study. The median age at marriage is higher in case of women with higher education and is lower for women with less education. The finding is supported by findings where it was evident that Education may affect the timing of marriage in various ways. The highly educated spend many years in school and college receiving instruction and knowledge.[10] Also, fertility rates are higher in rural women than urban women with no education. Overall, women in rural areas and those with less advanced levels of education had more children, and women with higher education had less children per women. Similar finding was observed in a study in China in 2018.[11] It is explored that age at marriage is statistically associated with residence, education, wealth index and religion ($p= 0.001, 0.03, 0.001, 0.001$ respectively). Similar observations were published in a report from USA in 2016.[12] We conclude from this study that the education level contributes mostly to fertility differentials in Bangladesh.

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