

# Assessing the Nature of Spousal Participation in Labor and Child Delivery Time and Exploring its association with Different Factors from the Urban Areas of Bangladesh

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**Abstract:** Men are the primary decision maker in the household and their participation plays crucial role in improving maternal health. Although Bangladesh has achieved MDGS's maternal mortality related goals already, still there's a lot to do to accomplish the adequate level of spousal participation especially during wife's labor and child birth time. The present study used secondary data from Bangladesh Urban Health Survey 2013 to investigate different factors associated with spousal participation in different parts of the urban Bangladesh. In City Corporation areas, respondent's education level and employment status were found to have some sort of association with spousal participation. Respondent's age, types of school attended, education level and media exposure had association with spousal participation in other urban areas.

**Key Words:** Spousal participation, Maternal health services, Demography, Pregnancy & childbirth related complications and Public health.

## 1. Introduction

Pregnancy and childbirth-related complications are one of the major causes of maternal mortality and morbidity in Bangladesh. Since the declaration of Millennium Development Goal in 1990, it is one of the concerning issues in developing countries. As a key indicator of Millennium Development Goal, MDG-5 was dedicated to the reduction of maternal mortality rate by 75% by 2015 and already fell by 45% worldwide. Still hundreds of women die every day during pregnancy or from child-birth related complications and only 56% of births in rural areas are attended by skilled professionals in developing regions [1]. Women with severe maternal complications also increase the risk of perinatal mortality. According to the MDG Progress Report, maternal mortality ratio (MMR) in Bangladesh was 574 per 100,000 live births in 1990 and The Maternal Mortality Estimation Inter-Agency Group (MMEIG)

found it 176 per 100,000 live births in 2015 [2]. There has been 30% reduction in deaths during child birth over only four years. Although Bangladesh has made historic achievements in reducing maternal mortality by improving maternal health care, still it ranks 4th position among South-Asian countries [3]. The Sustainable Development Goals address this fact seriously and make a bold commitment to achieve universal health coverage.

Issues related with maternal health including family planning, pregnancy and child-birth have often been regarded as women's affairs but the role of men is also very important as a determinant of the health status for mothers which has been neglected over the years. Men are the primary decision makers, considered as household head in most of the developing countries. So, their involvement in maternal health issues could promote a better relationship between couples and enhance maternal wellbeing [4]. Generally, South Asian men have little knowledge and experience regarding maternal health than other continents. This lack of knowledge significantly affects maternal health outcomes [5-7]. Bangladeshi men are not comfortable in discussing reproductive health related issues with their wives, accompany them in health care center and avoid dealing with reproductive health related complications with service providers [8]. The tendency of this attitude may vary in urban and rural areas; also in different parts of urban areas (city corporations and rest urban parts). On the other hand, women in Bangladesh are usually dependent on male partners for making decision for their own and children's healthcare, household purchase etc. Brunson's (2010) study shows that although men may not be knowledgeable about birth and maternal care; through their decision-making power, they can control the complicated situation of mother and child in emergencies [9].

Many studies have been conducted to compare the level of spousal participation between rural and urban areas, but this study will focus only on the

situation of urban areas (city corporations and rest urban parts) in Bangladesh. Thus, this study will identify the existing scenario of male participation in labor and delivery time and will explore the association of different factors which may influence their involvement.

## 2. Methods

### 2.1 Data Source

This study utilizes secondary data from Bangladesh Urban Health Survey 2013, which was conducted under the general coordination of National Institute for Population, Research and Training (NIPORT), Bangladesh and funded by United States Agency for International Development (USAID) and UK Department for International Development (DFID). The sample frame of BUHS-2013 was the complete list of urban Mohallas in the 9 City Corporations, District Municipalities and large towns with population over 45,000 from the 2011 Census. The survey used three-stage stratified sampling procedure and a total of 634 mohallas was randomly selected from City Corporations and other urban areas. Finally, 53,790 households were randomly selected and 51,124 eligible women and 11,127 eligible ever-married men were found to be interviewed. For our study, male respondents aged 15-54 years were taken who had direct or indirect involvement during labor and delivery time and whose last child was born preceding five years of the survey. Finally, a total of 1440 male were selected in this study who have complete information on the selected socioeconomic and demographic characteristics.

### 2.2 Variables

As we are focusing on the nature of spousal participation, a customized variable was created for this purpose named "Level of activeness of male involvement in labor and delivery time". Extent of male participation was measured based on answers to a composite scoring on three questions related with their usual caring attitude or practice towards pregnant mothers. Each positive answer was assigned score '1', and '0' for negative and total score ranged from '0' to '3'. Male involvement was dichotomized as active (individual's total score  $\geq$  sample mean score, and passive (individual's total score  $<$  sample mean score). Test questions for measuring spousal participation were about -

- a. Husband's decision about facility delivery
- b. Whether husband took his wife for facility delivery
- c. Husband's presence during delivery at facility

Considering the most proximal themes: demographic and socio-economic factors and media usage status

[10,11], the following items were selected from the dataset based on their availability. Respondent's age (15-24 years, 25-34 years, 35-44 years and 45-54 years), Wealth Index (poor, middle, rich), Type of school attended (school, madrasa), Level of education (no education, primary, secondary, higher), Employment status (employed, unemployed), Media exposure (yes, no) and Respondent's religion (Muslim, Hindu, Buddhist, Christian, Others).

### 2.3 Methodology

For measuring the nature of spousal participation, descriptive analysis was carried out for selective variables by using IBM SPSS (version 22). A series of Chi square ( $\chi^2$ ) test was used to determine if there is any sort of association between spousal participation and different factors in City Corporation and rest urban areas. These categorical variables were compared in terms of P values, where p value  $<$  0.05 was considered significant. If the null hypothesis is accepted there would be no relationship between two variables. The tests were done for two parts; one for City Corporation areas and later for rest urban parts.

## 3. Results

### 3.1 Univariate analysis

Among 1440 male respondents, 69.4% (999) were actively participate in maternal care especially labor and child delivery time and 30.6% (441) were less active in this case. Most of the respondents were Muslim (91.3%), others were Hindu (8.4%) and Buddhist (0.3%). Majority of them were completed secondary level education (34.9%) followed on higher (32%), and primary (23.6%). 9.5% (137) of the respondents have no education. All the respondents were from urban areas whereas 67.6% (974) were living in City Corporation areas and 32.4% (467) were living in rest urban areas. Highest data were collected from Dhaka division (56.5%), then from Chittagong (17.5%), Rajshahi (9.2%), Khulna (7.4%), Rangpur (4.1%), Sylhet (3.2%) and Barisal division (2.1%) respectively. Since the data came from BUHS 2013, seven divisions were specified in region variable; Mymensingh was not considered separate division in this study since it was declared as new division on 12 January 2015.

### 3.2 Factors associated with spousal participation in delivery and labor time

Null Hypothesis: There is no association between spousal participation level and certain socio-economic and demographic variable i.e., (age/ wealth

index/ type of school attended/ education level/ employment status/ media exposure/ religion/ region Table 3. shows the cross tabulations of different socio-economic and demographic variables along with media exposure status, with the level of spousal participation. Significance of association was measured by Chi square ( $\chi^2$ ) test.

In City Corporation areas, spousal participation level was associated only with respondent's education level and employment status. Male involvement had no association with respondent's age, wealth index,

of residence).

type of school attended, media exposure and respondent's religion. Highest number of respondents who completed secondary education had some sort of involvement in delivery and labor time. Percent for active participation (14.8%) of secondary completed respondents was higher than passive participation (8.3%). Similarly employed male persons (44.6%) more actively participate in caring their partners during labor and delivery time than unemployed persons (20.8%).

**Table 1. Pearson Chi Square test for measuring the association**

Characteristics	City Corporation areas			Rest urban areas		
	Active participation	Passive participation	p-value	Active participation	Passive participation	p-value
<i>Age of the respondents</i>						
15-24 years	43 (3.0%)	23 (1.6%)	0.832	20 (1.4%)	8 (0.6%)	0.049**
25-34 years	323 (22.4%)	165 (11.5%)		169 (11.7%)	66 (4.6%)	
35-44 years	240 (16.7%)	124 (8.6%)		137 (9.5%)	36 (2.5%)	
45-54 years	41 (2.8%)	16 (1.1%)		26 (1.8%)	4 (0.3%)	
<i>Wealth Index</i>						
Rich	272 (18.9%)	116 (8.1%)	0.062	154 (10.7%)	44 (3.1%)	0.606
Middle	144 (10.0%)	70 (4.9%)		73 (5.1%)	27 (1.9%)	
Poor	231 (16.0%)	141 (9.8%)		125 (8.7%)	43 (3.0%)	
<i>Type of school attended</i>						
School	556 (38.6%)	278 (19.3%)	0.715	328 (22.8%)	99 (6.9%)	0.020**
Madrasa	19 (1.3%)	8 (0.6%)		11 (0.8%)	4 (0.3%)	
None	71 (4.9%)	41 (2.8%)		13 (0.9%)	12 (0.8%)	
<i>Education level</i>						
Higher	203 (14.1%)	82 (5.7%)	0.020**	141 (9.8%)	35 (2.4%)	0.007**
Secondary	213 (14.8%)	120 (8.3%)		120 (8.3%)	48 (3.3%)	
Primary	159 (11.0%)	84 (5.8%)		77 (5.8%)	19 (1.3%)	
No education	71 (4.9%)	41 (2.8%)		13 (2.8%)	12 (0.8%)	
<i>Employment status</i>						
Employed	642 (44.6%)	300 (20.8%)	0.016**	349 (24.2%)	114 (7.9%)	0.679
Unemployed	5 (0.3%)	27 (1.9%)		3 (0.2%)	1 (0.1%)	
<i>Media Exposure</i>						
Yes	637 (44.2%)	319 (22.2%)	0.176	347 (24.1%)	110 (7.6%)	0.027**
No	9 (0.6%)	8 (0.6%)		5 (0.3%)	5 (0.3%)	
<i>Religion of respondents</i>						
Muslim	599 (41.6%)	303	0.788	307 (21.3%)	106 (7.4%)	0.189
Hindu	45 (3.1%)	24		44 (3.1%)	8 (0.6%)	
Buddhist	2 (0.1%)	0 (0.0%)		1 (0.1%)	1 (0.1%)	
Christian	0 (0.0%)	0 (0.0%)		0 (0.0%)	0 (0.0%)	
Others	0 (0.0%)	0 (0.0%)		0 (0.0%)	0 (0.0%)	

\*\* indicates the significance level of  $\chi^2$  statistic at the 0.05 level

percentage was calculated based on the total respondents in this survey, n=1440

Situation was a little bit different in other urban areas. In other urban areas, spousal participation level was associated with respondent's age, types of school attended, education level and media exposure; but not associated with employment status, wealth

index and respondent's religion. It has been seen in this study, comparatively younger and older respondents were less likely to participate in caring their partners during labor and delivery time.

Respondents aged between 25-44 years had active participation in this case. Similarly, school attended respondents (total 29.7%) had more involvement in partner's labor and delivery time than Madrasa attended respondents (total 1.1%). Percentage of actively involved respondents who had completed their higher education was higher than other respondents. Among secondary level completed respondents, only 3.3% (48) were actively participate and 2.4% (35) were passively participated in caring their partners. Media exposure had some sort of association with spousal participation level. Media using persons (24.1%, 347) had more participation during labor and delivery time than non-users (7.6%, 110).

#### 4. Discussion

Many studies have identified positive benefits of male involvement in maternal health especially in pregnancy and childbirth period in developing countries. A study conducted by Adenike et al. in Nigeria revealed that the level of male involvement in maternal health was poor and only about half of them had good attitude towards maternal health care [12]. Another study in Bangladesh by Bishwajit et al. showed in 2017, type of residency, literacy, learning about family planning from Newspaper and television and having been communicated about family planning by community health workers were significantly associated with active involvement of men in reproductive health issues [13]. This study also tried to assess different factors influencing spousal participation during partner's labor and child delivery time. Although 92.6% of the urban husband decided about facility delivery for their wives but 78.2% of the them took his wife for facility delivery. Some reasons for not being able to take their partners at facility delivery might include busy work schedule, not living together with their partners for job purpose and other health facility related factors. This study has been revealed for all urban areas that respondent's education level had meaningful relationship with spousal participation. Nanjala and Wamalwa (2012) and Tweheyo et al. (2010) found that education helps to discard negative cultural norms and attitudes from. Educated people may also have better access to information through different media (e.g. internet) regarding pregnancy and delivery complications outside the health facility pregnancy and childbirth period [14]. Respondent's age as well as media exposure had some association with level of spousal participation in urban areas except the City Corporation parts. The younger husbands aged 15-24 years and most senior respondents aged 45-54 years were found to be less involved during their partner's pregnancy and childbirth period. Similarly, unemployed male partners were less involved than employed partners.

Nanjala and Wamalwa found in their studies that fees charged at the health facilities to be one contributing factor to low male involvement in childbirth activities [15].

Various researches have been carried out to identify different factors for male participation in MNCH including labor and delivery issue, but none of the previous studies took an initiative to show the actual scenario in different parts of urban areas. Although existence of relationship between associative factors has been identified in this study, it did not measure the magnitude or degree of these associations. The study focus was only on partner's labor and child delivery time instead of considering overall reproductive health issues.

Since the factors can vary according to the demographic, economic and socio-cultural environment in which persons live and interact, several strategies can be taken to maintain adequate level spousal participation. For improving partner's knowledge and attitude towards maternal care, various enlightenment programs should be carried out by governmental agencies, non-governmental organizations and other voluntary groups. Policy makers should pay special attention to organize different awareness building campaigns for engaging unemployed and younger male partners in the slum areas as well as outside City Corporation areas. Such campaigns can also address negative sociocultural norms and attitudes.

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