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Determinants of Male Involvement in Family Planning and Reproductive Health in Bangladesh

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This study examined the factors that influence male participation in family planning and reproductive health in Bangladesh. Male involvement in family planning and reproductive health was measured by a simple composite index. This study revealed that male involvement in family planning is high about 63.2 percent in this area. Chi-squared tests and binary logistic regression analysis were applied to determine the relationship between various kinds of variables and the probability of male involvement in family planning and reproductive health. The findings from the bivariate analysis suggested that age of husband, age of women, number of living children, women's education, women's occupation, husband's education, husband occupation, knowledge on contraceptive methods and STDs, social network and inter-spouse communication had significantly associated with male involvement in family planning and reproductive health. The result of logistic regression analysis showed that males were more likely to participate in family planning and reproductive health whose wives were educated , ,engaged in skilled works, acquainted with high knowledge on contraception, soundly interconnected with social network and get message about family planning and reproductive health from it, favorable spousal communication, husbands and wives had high age. Family planning programme should emphasis on male involvement in the action of family planning and reproductive health procedures in Bangladesh.

Keywords: Reproductive health, family planning, education, occupation, spousal communication, contraception

Introduction

Reproductive health program and services are commonly targeted to women's reproductive health and offered their services exclusively to women, especially conduct with family planning, prevention of unwanted pregnancy, maternal care during the pregnancy period, risky abortion and the improvement of safe motherhood. But the role of men in reproductive health and family planning has been always ignored by the family planning programs and most contraceptive methods are designed for women only (Dewi, 2009). Reproductive health of couples largely depends on the attitude of men; i.e. husband, towards family planning program and their knowledge on reproductive health. The family planning program in Bangladesh could not be utilized properly because of all kinds of activities and policies are being focused mainly for women (Clark et al, 2008).).Most of the family planning field service delivery system is female based and field workers are also females. They only cover their area mainly targeting the women because of convenience. So there is a little opportunity for male to receive service from family planning providers (Hossain, 2003).

Moreover, this is traditional practice that men always want to avoid to take the equal responsibility in their conjugal life on fertility related issues, especially on contraceptive usage though they support to their wife on contraception (Mosiur et al., 2008). Most of men's have little knowledge on reproductive health especially they have no proper knowledge of symptoms, transmutations and prevention of reproductive tract infection (RTIs) and sexually transmitted diseases (STDs) (Hossain, 2004). So there are huge numbers of male suffering from reproductive health problem (Dunn et al, 2006). Recently, there is increasing evidence that male plays fundamental role to avoid risky sexual behaviors and influences the couple's contraceptive decision-making process (Hossain.2004) Men can keep important roles by giving support during the pregnancy period of women (Dewi,2009). The declaration of the International Conference on Population and Development (ICPD), can be considered as a major step to raise the male's responsibility about reproductive health and family planning. The ICPD held in Cairo 1994 emphasis on

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men's involvement in this area "Special efforts should be made to emphasize men's shared responsibility and promote their active involvement in responsible parenthood, sexual and reproductive behavior, including family planning; prenatal, maternal and child health; prevention of sexually transmitted diseases, including HIV; prevention of unwanted and high-risk pregnancies; shared control and contribution to family income, children's education, health and nutrition; and recognition and promotion of the equal value of children of both sexes. Male responsibilities in family life must be included in the education of children from the earliest ages"(UNFA,1994:5).The world health organization (WHO) gives a clear outline of the reproductive health, it declared that reproductive health means as a state of total physical, psychological and social well-being, and just not the absence of disease or illness (UNFA, 1995). Reproductive health includes reproductive processes, functions and system at all stages of life (UNFA,1995). This organization considers the all aspects of reproductive life such as "people are able to have a responsible, satisfying and safe sexual life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so" (UNFA,1995:6). They emphasis on that men and women have equal right to get information about reproductive health and access to safe and satisfactory methods of fertility control and the ability to access to appropriate health care services (UNFA, 1995). It is clear that male's involvement in family planning and reproductive health may improve equality in gender relation, promoting better relationship between men and women through which they can take decision regarding family planning jointly and equal responsibility of sexual behavior (Hossain, 2003). Male involvement in family planning and reproductive health is an umbrella term which includes three aspects such as reproductive health problems and programmes, reproductive rights and reproductive behavior (UNFA, 1995).

Male involvement in reproductive health has two major sides, as men give sufficient support in needs, choices and rights to their partners in reproductive health and fertility control, on the other hand, men's owns reproductive health related to knowledge, contraceptive use and safe sexual behaviors (UNFA, 1995). So, Male involvement in family planning and reproductive health regards men's knowledge of reproductive health and family planning, attitudes about the use of contraception, communication with partners about family planning, choices about appropriate contraceptive methods, gives emotional and behavioral support to their partners' contraceptive use (Clark et al., 2008).

Some previous studies tried to explore a few of reasons of not participation of male spontaneously in family planning actions as well as unwillingness to use contraception especially which are related to males' initiative. Those studies provided a little attention to investigate the factors or determinants that influence male involvement in family planning and reproductive health systems. So this study is designed to identify the factors influencing male involvement in reproductive health and family planning procedures in Bangladesh. The involvement of men not only improves the health of both male and female but also pick up their health and nutritional status and in such a way it affects positively women's reproductive health along with the esurient of sound psychological capital.

Literature Review

Male involvement in family planning and reproductive health is most important for maternal and neonatal care in Bangladesh. Nasreen et al (2012) showed that male were involved with BRAC health pogramme named 'Improving Maternal, Neonatal and Child Survival' (IMNCS) were more likely to take care maternal health, more knowledge on Neonatal danger signs, newborn care and birth responsiveness compared with not involved in this project. So, male involvement in family planning enables them to take care of reproductive issues. But the rate of male involvement in family planning is low in Bangladesh.

On the other hand, the adolescent have no proper knowledge on their reproductive health. Due to religious and cultural norms, in the time of adolescent, they are not getting the proper knowledge on their reproductive health. Even parents and other older persons are feeling shy to discuss about the reproductive matters among the adolescents (Ahmed et al., 2008). Nahar et al (1990) explored the adolescents' reproductive health related knowledge, attitude and behavior in both rural and urban areas of Bangladesh. They found that the adolescents had no clear idea about the symptoms, transmission and prevention of Gonorrhea, Syphilis and HIV. They had general idea that the reproductive health care center provides only facility for married people not for them. Ahmed et al (2008) found in university student in Bangladesh that about 48% percent adolescent were not concern about puberty. Majority number of the adolescents felt shy, shrunken, worried and were not aware of their own adolescence. Most of the adolescents can realize that sex education is necessary for better reproductive health and it should included in text book of secondary level and higher level. (Ahmed et al., 2008)

There is a misconception that the family planning adoption among the Muslim countries is low because of their religious opposition to contraceptive use (Bernhart & Mosleh, 1990). Bernhat and Mosleh (1990) showed that men were highly inclined for using contraceptive though their wives were in opposition to use contraceptive because of religious beliefs and attitudes. They found that 26% husband currently using contraceptive and 50% had positive favor of family planning those wives opposed to use before. This study reveals that Islamic religious beliefs are not against of the contraceptive use of male.

Donahoe (1996) showed that men wanted to keep small in size of family and wanted no more than two children in Bangladesh. Men have positive attitude towards modern contraceptive and at least modern contraceptive knowledge is universal in Bangladesh. Both men and women approval of family planning is large (84.2%). This study also showed that the male method contraceptive use was decreasing over time in Bangladesh, for example condom use was decreasing 14.6%to 8.21% and vasectomy use was decreasing10.4 %to 3% from 1975 to 1993. Men feel embarrassment to buy condom. They also faced problem their storage because they wanted to keep this hidden place where other members or children couldn't find. Man complains that condom smell is uncomfortable and burst out .Moreover, men reported that condom might reduce pleasure of sexual intercourse.

Men's fertility intention is closely related to adopt couples contraceptive method in Bangladesh. Hossain et al (2007) found that husband's preference for more additional children were decreasing the probability to use family planning method. In Bangladesh, couples contraceptive behavior mostly dependent on men's approval of family planning. By using data from Bangladesh Demography and Health Survey 1996-97,Parven(2000) found that female adolescent were 7.8052 times more likely to use family planning method those husband approved family planning. Oyediran et al (2002) found that male's age ,education, number of living children, receive message from family planning provider were the main determinants of men ever using contraceptive. Although men have high knowledge on contraceptive, but the actual practice of male method contraceptive is low (23%) (Balaiah et al., 2005). Male income is an important factor to use of contraceptive. Balaiah et al (2005) found that man's had high income (Rs5000+) were 1.256 times more likely to use contraceptive. Men's social environment is also influenced to male participation in family planning and reproductive health. Among the social factors, men's social network is important to spousal approval of family planning. Male involvement in reproductive health is mostly dependent on availability of information and services. Receiving information about reproductive health is also important for reproductive health service use, prevention and treatment. Avogo and Agadjanian (2008) found that men receive encourage and inspirit to use contraception from their social network partner that were 4.75 times more likely to approve family planning. Dew (2009) explored the three factors as the predisposing, enabling, and reinforcing factors on male involvement in family planning and reproductive health. Various factors such as couples lower children (OR=1.252), men's secondary education (OR=1.417), women's knowledge where contraceptive available (OR=1.169) male knowledge where contraceptive available (OR=1.318), women knowledge about STDs (OR=1.167), men knowledge on STD (OR=0.886), field workers visited (OR=1.398), women discussion with relatives and friends (OR=1.393) were significantly associated with male involvement in family planning and reproductive health So it is clear that various factors are related to male involvement in family planning actions. But these previous studies do not give the clear idea that influences the male participation in family planning and reproductive health. So this study explores the factors that are determining the male participation in family planning and reproductive health.

Objective of the Study

The main objective of the study is to explore the specific information about the factors that influence male participation in family planning and reproductive health in Bangladesh. Along with main objectives, there are some specific objectives

-To measure the male's current status on participation in family planning and reproductive health.

-To determine the factors that influence to male participation in family planning and reproductive health.

Data and Methods

This study was a cross sectional study and mainly analyzing quantitative data collection Methods. Narsingdi municipality was purposively selected as our study area. This municipality is located 50 km north-east of the Dhaka, capital of Bangladesh. Total literates rate is 51.6% and density of population is2847/km. This town is famous for textile and jute industry.

All married men aged 20-49 years in Narsingdi municipality in Narsingdi district, Bangladesh were

considered as the population study. This age group was selected because they are highly sexually active and prior time to participation in reproductive health.

A two stage cluster sampling procedures' were applied to select the sample. At first stage ten Mahallas were randomly selected from 33 Mahallas. In order to create sampling frame, a total household list was created from those Mahallas. At the second, stage 430 married male were selected randomly from the enlisted households.

Social survey method was applied to collect the primary data through face to face interview. A questioner was developed that were appropriate for the household survey. The questioner had designed to two sections. The first section was designed for collection of the respondents' socio-demographics variables as age, educations, and occupations, number of living children, media exposure and income. The second section was designed to collect the information relating to family planning and reproductive health. This section includes male's reproductive history, family planning method use, knowledge on HIV and sexual transmitted diseases, men's social network, mental and physical support to partners in reproductive issues.

Cronbach's alpha (α) coefficient was applied to measure the internal consistency reliability of the male involvement in family planning and the reproductive health. Cronbach's alpha reliability of this index was 0.73 which is acceptable.

Data were analyzed by using SPSS 20 program. Bivariate analyses such as cross tabulation were used to present the data and Chi-square tests were measured to check the association between independent variables and dependent variable. The variables that found significant in the bivariate analysis were only included in the logistic regression analysis .The variable knowledge on HIV were not include in logistic regression analysis because this variable were not found significantly associated with male involvement in family planning and reproductive health at the bivariate analysis.

Logistic Regression Model

Logistic regression model appropriate when the dependent variable is nominal dichotomous (Sufain, 2009).The dependent variable is dichotomous whether male involvement in family planning and reproductive health is high or low. So the logit transformation of the model is:

$$\text{Logit}(P)=\ln(P/(1-P))=\beta_0+ \beta_1X_1 + \beta_2X_2+ \beta_3X_3\ldots+\beta_kX_{k+} e$$

here the p is the probability of male involvement in family planning and reproductive health is high, X_1; X_2; $X_3\ldots.X_k$, are the explanatory variable,$\beta_0$the intercept and *e* is an error term. The regression cofficients β_i shows the change in log odds for one unit change in $x_{i.}$

Variable of the Study

Dependent variable

Here the dependent variable is male involvement in family planning and reproductive health. This variable is measured by five question ((*yes*=1, *no*=0) related to reproductive health and family planning adoption. Those indicators are below

-Men currently use any contraceptives (condom, safe period/periodic abstinence and withdrawal, male sterilization and other male method)

-Husband goes with wife to visit reproductive health services (Dewi, 2009)

-Men's want no or fewer children (Dewi, 2009).)

-Husband's approve about contraceptive use by their wives (Dewi, 2009)

-Husband have positive attitude toward modern contraceptives use (Dewi, 2009)

The questions used to construct Scores for each question were summed and dichotomized (*low involvement* =0-2, *high involvement*=3-5)

Independent variable

There are thirteen independent variables such as age of husband, age of women, spousal communication, talked with social network, husband occupation, and knowledge on contraception and STDs, knowledge on HIV, media exposure, current living children, couples income, women's occupation and education of husband.

Bivariate Analysis

Table1. Relationships between socio-economic factors and male involvement in family planning and reproductive health.

Variable	Low		High		Total
	n	*%*	*n*	%	*n*
Age of Husband					
20-29	103	62.4	62	37.6	165
30-39	43	25.3	127	74.7	170
40-49	20	17.2	96	82.8	116
Total	166	36.8	285	63.2	451
x^2=75.332, df=2,p value<.000					
Age of Women					
Less Than 25	115	60.2	76	39.8	191
25-35	36	20.2	142	79.8	178
35+	15	18.3	67	81.7	82
Total	166	36.8	285	63.2	451
x^2=78.101,df=2, p value<.000					
Education of Husband					
No	64	69.6	28	30.4	92
Primary	42	46.2	49	53.8	91
Secondary	21	25.0	63	75.0	84
Higher secondary	22	23.7	71	76.3	93
Graduation and above	17	18.7	74	81.3	91
Total	166	36.8	285	63.2	451
x^2=70.667, df=4, p value<.000					
Women Education					
No	81	66.4	41	33.6	122
Primary	55	34.8	103	65.2	158
Secondary	16	16.8	79	83.2	95
Higher secondary and above	14	18.4	62	81.6	76
Total	166	36.8	285	63.2	451
x^2=73.511, df=3, p value<.000					
Husband Occupation					
Unskilled	115	50.7	112	49.3	227
Skilled	43	24.7	131	75.3	174
Professional	8	16.0	42	84.0	50
Total	166	36.8	285	63.2	451
x^2=38.980, df=2, p value<.000					
Women's Occupation					
Not Working	118	36.8	203	63.2	321
Unskilled	42	58.3	30	41.7	72
Skilled	6	10.3	52	89.7	58
Total	166	36.8	285	63.2	451
x^2=31.806. df=2 p value<.000					
Couples Income					
Less than10000	71	54.6	59	45.4	130
1000-20000	69	34.7	130	65.3	199
Above 20000	26	21.3	96	78.7	122
Total	166	36.8	285	63.2	451
x^2=30.709, df=2, p value<.000					
Current Living Children					
0	37	63.8	21	36.2	58
1	30	37.0	51	63.0	81
2	50	34.5	95	65.5	145
3+	49	29.3	118	70.7	167
Total	166	36.8	285	63.2	451
x^2=22.500, df=3, p value<.000					
Knowledge on Contraception and STDs					
Low	109	60.2	72	39.8	181
High	57	21.1	213	78.9	270
Total	166	36.8	285	63.2	451
x^2=71.259, df=1,p value<.000					

Table 1 (continued).

Media Exposure					
No	72	57.6	53	42.4	125
Yes	94	28.8	232	71.2	326
Total	166	36.8	285	63.2	451
x^2=32.144, df=1, p value<.000					
Talked With Social Network					
No	53	59.6	36	40.4	89
Yes	113	31.2	249	68.8	362
Total	166	36.8	285	63.2	451
x^2=24.659, df=1, p value<.000					
Spousal Communication					
No	101	57.7	74	42.3	175
Yes	65	23.6	211	76.4	276
Total	166	36.8	285	63.2	451
x^2=53.740 ,df=1, p value<.000					
Knowledge On HIV					
Low	51	42.9	68	57.1	119
High	115	34.6	217	65.4	332
x^2=2.544,df=1,p value=.111					

Age of husband: Age of husband is associated with male involvement in family planning and reproductive health. About 37.6% male participate in family planning whose age group is 20-29 years and the proportion is 82.8% whose age group belongs to 40-49 years. This indicates that male involvement in family planning and reproductive health increases when the age of male increases. The Chi-square test also shows the association between age of husband and male involvement in family planning and reproductive health is strongly significant.

Age of women: Age of women is also associated with male involvement in family planning and reproductive health. About 39.8% male participate in family planning whose wives age group is less than 25 and 82.8% whose wives age group is above 35 years. This indicates that male involvement in family planning and reproductive health is increase when the age of women increases. The Chi-square test also shows there is a strong association between the age of women and male involvement in family planning and reproductive health is significant.

Education of husband: Husband's education is positively associated with the male involvement in family planning and reproductive health. The table shows that male involvement in family planning and reproductive health is only 30.4 percent among males with no education while this rate is 53.8 percent and 75.0 percent among males who have primary and secondary education respectively. Male involvement in family planning and reproductive health increases when husband receives higher education such as higher secondary (76.3%), graduation and above graduation (81.3%).The study reveals that male involvement in family planning and reproductive health increases among couples where the level of education of husband increases. The Chi-square test also shows the association between men's education and male involvement in family planning and reproductive health is significant.

Education of women: Education of women plays very crucial roles for male involvement in family planning and reproductive health. The male involvement in family planning and reproductive health rate is low (33.6%) among women who do not have any education. The rate of male involvement in family planning use are 65.2 percent, 83.2 percent and 81.6 percent among couples those women got primary education, secondary education and tertiary education respectively. So, male involvement in family planning and reproductive health increases as educational status of women increases. The Chi-square test also shows the association between education of women and male involvement in family planning and reproductive health is strongly significant.

Husband's occupation: The result shows that male involvement in family planning and reproductive health is higher among the skilled workers (75.3 percent) and among the professionals (84.0 percent).Male involvement in family planning and reproductive health is low (49.3 percent) among unskilled workers. The result indicates that working status of husband has significant influence on the male involvement in family planning and reproductive health. The Chi-square test also shows the association between husband occupation and

male involvement in family planning and reproductive health is significant.

Women's occupation: Women's occupation is another important indicator of male involvement in family planning and reproductive health in Bangladesh. Women's occupation status is also associated with the male involvement in family planning and reproductive health. Male involvement in family planning and reproductive health is 63.2 whose wives are not engaged in any financial activities outside their family and 89.7 percent whose wives are involved with skilled worker. The study reveals that the male involvement in family planning and reproductive health rate is higher among couples where wives are skilled workers compared with those who is housewife. The Chi-square test also shows the association between women's occupation and male involve in family planning and reproductive health is significant.

Couples income: Couples income is also associated with male involvement in family planning and reproductive health. About 45.4% of males whose income is less than10, 000 taka, 65.3% with an income between10, 000 to 20,000 and 78.7% with an income of more than 20,000 taka per month are involved in family planning and reproductive health. It is observed that male involvement in family planning and reproductive health is proportionally higher among with higher income of couple compared with whose had lower income. The Chi-square test also shows the association between couples income and male involvement in family planning and reproductive health is strongly significant.

Current living children: Current living children are an important factor for male involvement in family planning and reproductive health. Male participation in family planning and reproductive health rate is very low (36.2%) among the couples who have no living children. The male involvement in family planning rate among couples who have two, three or more children are 63.0 percent, 65.5percent and 70.7 percent, respectively. The chi-square test also shows the association between current living children and male involvement in family planning and reproductive health is significant.

Knowledge on contraception and STDs: Knowledge on contraception and STDs is another important indicator of male involvement in family planning and reproductive health. The result shows that the male involve in family planning and reproductive health is higher (78.8 percent) among the respondents who have high knowledge on contraception and STDs while male involve in family planning and reproductive health is lower (39.8 percent) among those do not have adequate knowledge on contraception and STDs. This indicates that the rate of male involvement in family planning and reproductive health increases with the increases of knowledge on contraception and STDs. The Chi-square test also shows the association between knowledge of contraception and STDs and male involvement in family planning and reproductive health is significant.

Media exposure: Receiving information about family planning methods and reproductive health from media plays an important role for male involvement in family planning and reproductive health. The study shows that male involvement in family planning and reproductive health is proportionally higher among couples (63.2% percent) who have media exposure. Whereas male involvement in family planning and reproductive health use is lower among couples (42.4 percent) who have no media exposure. The Chi-square test also shows the association between media exposure and male involvement in family planning and reproductive health is statistically significant.

Talked with social network: Male involvement in family planning and reproductive health is considerable higher among couples (68.8 percent) those got information about family planning and reproductive health issues from their social network. Similarly, male involvement in family planning and reproductive health is lower among couples (40.4 percent) who did not discuss with their social network. The Chi-square test also shows the association between receive advice from social network and male involvement in family planning and reproductive health is significant.

Spousal communication: The result shows that male involvement in family planning and reproductive health rate is higher among couples (76.4 percent) who have favorable spousal communication compared to those (42.3 percent) have unfavorable spousal communication. The proportion of male involves in family planning and reproductive health users increase as the spousal communication increases. The Chi-square test also shows the association between spousal communication and male involvement in family planning and reproductive health is statistically significant.

Knowledge on HIV: The result shows that male involvement in family planning and reproductive health is higher (65.4 percent) among the respondents who have high knowledge on HIV while male involve in family planning and reproductive health is lower (57.1 percent) among those male do not have adequate knowledge HIV. But the Chi-square test shows that the there is no association between Knowledge on HIV and male involvements in family planning and reproductive health.

Multivariate Analysis

Table2. Logistic regression coefficients of male involvement in family planning and reproductive health.

	B	S.E.	Exp(B)	95% C.I.for EXP(B)	
				Lower	Upper
Age of husband					
20-29(ref)					
30-39	.824	.393	2.281**	1.055	4.393
40-49	.886	.507	2.425*	.898	6.549
Age of women					
less than 25(ref)					
25-35	1.315	.381	3.724**	1.764	7.863
35+	1.294	.493	3.649**	1.387	9.596
Education level of husband					
No(ref)					
Primary	.375	.411	1.455	.650	3.259
Secondary	572	.518	1.772	.642	4.894
Higher secondary	.130	.613	1.138	.342	3.787
Graduation and above	.640	.746	1.897	.439	8.185
Women education					
No(ref)					
primary	.680	.347	1.974**	1.000	3.899
secondary	1.251	.489	3.493**	1.340	9.103
Higher secondary and above	1.090	.608	2.975*	.904	9.789
Husband occupation					
unskilled workers(ref)					
Skilled	-.119	.421	.888	.389	2.025
Professional	-.606	.734	.545	.129	2.301
Women occupation					
Not working(ref)					
Unskilled labor	-.800	.373	.449**	.216	.933
Skilled	.949	.563	2.584*	.857	7.791
Couples income					
less than10000(ref)					
1000-20000	.532	.337	1.702	.879	3.296
above 20000	.511	.449	1.667	.692	4.016
Current living children					
0(ref)					
1	.926	.482	2.525*	.983	6.490
2	.979	.466	2.661**	1.067	6.632
3+	1.102	.491	3.011**	1.150	7.886
Spousal communication					
No(ref)					
Yes	.647	.291	1.910**	1.080	3.378
Media exposure					
No(ref)					
Yes	.063	.334	1.065*	.553	2.051
Knowledge on contraception and STDs diseases.					
Low knowledge(ref)					
High knowledge	1.138	.337	3.119**	1.612	6.036
Talked with social network					
No(ref)					
Yes	700	.342	2.013**	1.029	3.938

Ref=reference category; ***p<0.01;* *p<0.05; p<0.10
Hosmer and Lemeshow goodness-of-fit test: x^2=4.2132; df=8; p=0·837

Age of husband: The couples, whose husband's age group is between 30 - 39 years, are 2.281times more likely to male participation in family planning and reproductive health than those ages between 20 - 29 years while other independent remain fixed. Similarly, when husband's age group is between 40 - 49 years old, the likelihood of male participation in family planning and reproductive health is 6.811 times higher than those have age group between 20 - 29 years old while other independent variables remain fixed.

Age of wife: The odds ratio implies that age of women is significantly associated with male participation in family planning and reproductive health. Men whose wives age between 25 - 35years are 3.724 times more likely to participation in family planning and reproductive health than those ages less than 25 years while other independent variables remain fixed. Similarly, when women hold more than 35 years, the likelihood of contraceptive use is 3.649 times higher than those have age less than 25 years.

Women's education: Men's are 2.975 times more likely to participate in family planning and reproductive health when women have higher secondary and above level of education than those men's wives are illiterate adjusted with other variables remain constant. The likelihood of participation in family planning and reproductive is 3.493 times higher among men's where women got secondary level of education and 1.974 times higher among couples where women received primary level education compared to those couples where women are illiterate while other independent variables remain constant.

Women's occupation: The couples, whose wives are skilled workers, are 2.584 times more likely to participate in family planning and reproductive health than those wives are not involved in any economical activities. However, men whose wives are unskilled labor .449 times less likely to participation in family planning and reproductive health than those wives are not involved in any economics activities.

Social network: The odds ratio implies that men's are 2.013 times more likely to participation in family planning and reproductive health that social network is high compare to who have low social network.

Spousal communication: The odds ratio indicates that men's are 1.910 times more likely to participate in family planning and reproductive health among the couples who have inter-spousal spousal communications about family planning and reproductive issues than who have no inter-spousal communication.

Knowledge on contraceptive and STDs: Men's are 3.119 times more likely to participate in family planning and reproductive health among the couples who have high knowledge on contraceptive compared with the reference group who have low knowledge on contraceptive and STDs diseases.

Discussion and Conclusion

In our research, we examine the factors that are being considered as the determinants of male involvement in family planning and reproductive health in Bangladesh. We found that women education and women occupation have strong effects on male participations in family planning and reproductive health in this area. Educated couples are also wanted to take share responsibility with equal contribution about their reproductive health and family planning. This study reveals that those couples with sound educational background keep an alive discussion about family planning and reproductive health with each other, i.e. their husband's are more likely to involve in family planning and reproductive health. Spousal communication can be considered as an important factor that influences male involvement in reproductive health. Through the spousal communication, husband and wife discuss with one another about reproductive health related issues such as what types of family planning method they will choose, faced problems with related to reproductive health and sexual life and the right decision from where they will take the appropriate reproductive health services. Male are eagerly inclined to participate in family planning and reproductive health through successful spousal communication. Spousal communication is playing an effective role to promote share responsibility about reproductive health. Educated men have proper knowledge about on modern contraceptive as well as sexually transmitted diseases. So they are willing to involve in family planning and reproductive health. Proper knowledge on family planning and STDs makes them to safer sexual activity and enable themselves to prevent from STDs. Uneducated men have false knowledge about side effects or modern contraceptive, sexually transmitted diseases. So, the low knowledge on modern contraceptive and STDs is the one of the reasons of for male not to participate in family planning and reproductive health in Bangladesh. Men, who have proper knowledge about reproductive health, are more likely to use contraceptive thereby they can release women from various kinds of fatal illness before or after their pregnancy period or reproductive complexities .Women occupational statuses are very important factor for male involvement in family planning and reproductive health. In Bangladesh, professional working women sometimes enjoy autonomy in taking decision of their reproductive health and family planning and most of the time they take jointly

decision with their husband about reproductive health. So the probability to their husband involvement in family planning and reproductive health is being increased. Men who have three and more current living children, they have large probability to not only use of contraceptive by themselves but also give suitable support to their partner's contraceptive choice and reproductive health. Mass media can play strong motivational role and providing effective family planning information that increase knowledge about family planning method their sources, sexually transmitted diseases and intention to involvement in reproductive health. Male are more likely to participate in family planning and reproductive health. Discussion with social networks partners about family planning and reproductive issues may encourage male to participate in family planning and reproduced health. Women occupation statuses are largely influence to their husband to use contraceptive and participate in reproductive health.

Our study also reveals that males are more likely to involve in family planning and reproductive health when their age is being increased as well as their wife's age too. So this study reveals that age of husband, age of wife, women education, women occupation, social network, spousal communication, knowledge on contraceptive and STDs are significantly associated with male involvement in family planning and reproductive health. In our study it is clear that men's are willing to support their life partners in reproductive issues. But the appropriate reasoning of not participation of man in family planning and reproductive health is not explicit in this present study. Another thing is that males' willingness to use contraception relating to males such as usage of condoms rather that birth control peel or copper T, taken by women is fully ambiguous too. Wives roles are also important for male involvement in family planning and reproductive health. Therefore it is needed to pursue further research to understand how does power relations is related to male involvement in family planning and reproductive health in Bangladesh. Moreover, reproductive health care seeking behavior of male is also important for understanding the factors that influences male involvement in family planning and reproductive health.

Men and women should take equal responsibility for their reproduction health and decision of using appropriate contraceptive method. Family planning programme should include men in a great extent along with women in the target group and health care facilities should be opened for an extra hour to give advice for men about their reproductive health (Dewi, 2009). The government should take necessary steps to increase men's involvement in family planning and reproductive Health in Bangladesh because men's involvement in the reproductive health is give more positive outcomes than that of women. Public health facilities should be emphasized to encourage men to come and get information and services related to family planning and reproductive health. Mass media also should play role to raise awareness about the importance of male participations in family planning and reproductive health and favorable social and cultural climate should be improved by media campaign and increasing community based awareness.

References

Ahmed, F., Kabir, A. K. L., Islam, Md. S., Rouf , A .S .S. (2008). Adolescent male reproductivehealthknowledge and practices in Bangladesh. *Dhaka Univ. J. Pharm. Sci, 7* (2), 149-154.doi: 10.332/dujps.v7i2.2171.

Avogo, W & Agadjanian, V. (2008). Men's social networks and contraception in Ghana.*J.biosoc.Sci, 40* (9), 413–42.doi: 10.1017/S0021932007002507.

Balaiah, D., Naik, D.D.,Ghule, M & M.,Tapase, P. (2005). Determinants of spacingcontraceptive use among couples in Mumbai: A male perspective. *J.biosoc. Sci,2005(39)*, 698-704.doi:*10.1017/S0021932005007145.*

Bernhart, M & Mosleh, M.U. (1990). Islam and family planning acceptance in Bangladesh.*Studies in Family Planning, 21* (5), 287-292.

Clark ,J,.Yount , K. M & Roger, R. (2008). Men's involvement in family planning in rural Banglaedsh. *J.Biosoc.Sci,2008(40)*, 815–840.

Dewi, V. (2009). Factors that influence male participation in family planning and reproductive health in Indonesia (master's thesis). *The Flinders University of South Australia* .

Donahoe, D. (1996). Men and family planning in Bangladesh: A review of literature. *The population council.* retrieved from: //www.popcouncil.org/pdfs/fronters/or_ta/asia/ba ngla_men .pdf.

Dunn, K, M; Das, S & Das, R. (2004). Male reproductive health: A village based study of camp attenders in rural India. *Reproductive Health, 1* (7).doi:10.1186/1742-4755-1-7.

Hossain, K. J. (2003). Male involvement in family planning in Bangladesh: factors constraining low use and the potential for augmenting the . Centre for Policy DialogueCPR. Paper27.

Hossain,S .M.I; Rob. U; Khan, M.E & Sabir,A. A. (2004). Integration of male and female reproductive health services in Bangladesh with an emphasis on increasing male participation and Awareness. *Population Review*, 43 (2), 88-100.

Hossain, M. B., Phillips, J. F., & Mozumder, A. B. M. K. A. (2007). The effect of husband's fertility preferences on

Khan, M.A., Rahman, M., Khanam, P.A., Barkat-e-Khuda, Kane, T.T. & Ashraf, A. (1997). Awareness of sexually transmitted disease among women and service providers in rural Bangladesh. *STD and AIDS, 6* (8), 688-696.

Khan.Md.M., Hossain,M.E & Hoq,M.N. (2012). Determinants of Contraception Use among Female adolescents in Banglades. *Asian Social Science, 8* (12), 181-191.

Mosiur ,R., Rafiqul ,I & Matin ,A. (2008). Male contraceptive behavior in Rajshahi district of Bangladesh. *The International Medical Journal,7*(2),15-19.

Nahar,Q., Tuñón T., Houvras I., Gazi R., Reza,M., Huq, N .L., Khuda,B. (1999). Reproductive health needs of adolescents in Bangladesh: A study report. ICDDR, B. Working Paper No. 130

Nasreen, H. E., Leppard.M., Mamun,M.A., Billah,M., Mistry,S.K.,Rahman,M & Nicholls,P. (2012). Men's knowledge and awareness of maternal, neonatal and child

health care in rural Bangladesh: A comparative cross sectional study. *Reproductive Health, 9*(18).

Nawaz,Y; Maann,A.A; Zafar,M.I &Ali,T. (2012). Factors affecting male's reproductive health behavior in Punjab, Pakistan, Pakistan. *Journal of Nutrition, 11*(5),444-455.

Onyango,M.A.,Owoko,S. & Oguttu,M. (2010). Factors that influence male involvement in sexual and reproductive health in Western Kenya:A qualitative study. *Afr J Reprod Health, 14* (4), 33-43.

Oyediran, K .A., Ishola,G. P & Feyisetan, B. J (2012). Factors effecting ever-married men's contraceptive knowledge and use in Nigeria. *J. Biosoc. Sci.2012(34),* 497–510.

Sufian, A .B. M. (2009). Methods and techniques of social research. Dhaka: The University Press Limited.

United Nations Population Fund. (1995).Male involvement in reproductive health ,including family planning and sexual health. *Technical report 28.*