https://doi.org/10.3329/cbmj.v14i1.79266

Adoption of Contraceptive Methods among Eligible Couples in a Rural Area of Mymensingh District, Bangladesh

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Abstract

Contraceptive prevalence influences fertility which in turn influences socioeconomic growth, health care especially maternal and child health (MCH) care and quality of life. This cross-sectional, descriptive study was conducted in Churkhai village under Mymensingh district, Bangladesh, between December 2021 and April 2022, to estimate the prevalence of adoption of different contraceptive methods among eligible couples. Study population was eligible couples of a rural area. Purposively selected sample size was 180. Data were collected on a predesigned questionnaire by direct interviewing women of reproductive age group. Data entry was done in an MS-Excel sheet and analysis was done by SPSS version 20.0. Age of respondents ranged from 17 years to 49 years. The mean age was 28.90±7.70 years. The majority of respondents (96.67%) were housewives and 21.11% respondents were illiterate. We found that contraceptive prevalence among eligible couples was 85%, while total fertility rate (TFR) was 2.2. Contraceptive prevalence was more (63.33%) among female respondents in comparison to male (21.67%). Contraceptive prevalence was influenced by participants' age (highest between 25 and 34 years), religion and caste (100 percent among Hindus), occupation (100 percent among service holders and business professionals), socioeconomic condition and female literacy. Adoption of different methods included oral contraceptive pill (OCP) (50%), hormone injection (8.89%), intrauterine contraceptive device (IUCD) (1.11%), hormonal implant (1.11%), tubal ligation (2.22%), male condom (21.11%) and non-scalpel vasectomy (NSV) (0.56%). Temporary methods (82.22%) were much more accepted than that of permanent methods (2.78%). Our data suggests that using contraceptives for spacing method is much more popular than that of long acting and permanent methods among eligible couples. Contraceptive and reproductive education and better socio-economic condition can play an important role in use of contraceptive methods.

CBMJ 2025 January: Vol. 14 No. 01 P: 28-33

Keywords: Prevalence, contraceptive methods, eligible couples, rural area, Bangladesh

Introduction

Bangladesh has surface area of 147,570 square kilometer with estimated population of 164.6 million. The majority (54.6%) are in the age group of reproduction (from 15 to 49 years). Population growth rate is 1.37 percent. The density of population is 1,116 per square kilometer.[1] Death rate declined by improved health care. Birth rate needs to be reduced at the same pace so that population growth can be controlled. 63% population resides in rural areas.[2] Contraceptive methods used by the couple help them to avoid unwanted pregnancies, bring wanted births,

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determine the number of children in the family, and regulate the time space in between the pregnancies.[3] Practice of contraceptive methods by the couple has a significant contribution to reducing the population growth and also contribute to achieving SDGs.[4] Use of contraceptive methods reduce the unsafe abortion and also reduce the vertically transmitted sexual diseases like HIV, syphilis etc.[3] Prevalence of contraceptive methods influences fertility which in turn contributes socioeconomic growth, health care especially maternal and child health care which has a great influence in quality of life of people.[4] It has also important health aspects such as women's health: maternal mortality, morbidity, and nutritional status, prevent complications of pregnancy and abortion, fetal mortality, infant and child health. In recent years, high prevalence of contraceptive use has a great contribution to reduce the over population growth rate in Bangladesh (1.08%, in 2021)[5] and TFR (1.98 birth per woman).[6] It is assumed that rural people have lack of access to and lower rate of contraception than that of urban people. Hence, we proposed this study to estimate the prevalence of use of contraceptive methods rural people in a district level of the country.

Methods

This cross-sectional, descriptive study was conducted in between December 2021 and April 2022 to explore prevalence of contraceptive methods used by the eligible couples of Churkhai village, a rural area under Mymensingh district of Bangladesh. Study population were all of the eligible couples. Purposively selected sample size was 180. Study area was also selected purposively. Data were collected on a predesigned questionnaire by direct interviewing women of reproductive age group. Data analysis was done by Statistical Package for the Social Sciences (SPSS) version 20.0. The study was approved by the Ethical Review Committee of Community Based Medical College, Bangladesh (CBMC,B), Mymensingh, Bangladesh.

Results

Among 180 participants, age ranged from 17 to 49 years; the mean age was 28.90±7.70 years. The majority (38.33%) belonged to 25-34 years age group. Most of the respondents were from Muslim community (97.22%) and housewives (96.67%) in occupation. 75% had monthly income between 10,000 to 25,000 BD taka. Female literacy rate was 78.89% and total illiteracy rate was 21.11%. More than 51% respondents had 1 to 2 offsprings, while 41.67% respondent had >2 children. Average number of offspring per family was 2.22. Prevalence of target couples was 41.67% (Table-I). The prevalence of high risk mothers was (87/168) 51.79 percent. Among them teenage women were (48/168) 28.57, (33/122) 27.05 percent, did not maintained birth spacing and (6/180) 3.33 percent had more than 4 offspring (Table-II). 85% eligible couple adopted contraceptive method. A higher contraceptive prevalence (63.33%) found among the female respondents in this study. In male, it was 21.67%. Use of contraceptive was more (89.86%) among the age group of 35 to 44 years in comparison (80.70%) to age group of 15 to 24 years.84.57% prevalence of contraceptive use found among the Muslims whereas it was 100% among the Hindus. Prevalence of use of contraceptive high (84.48%) among the

housewife and 100% among service holders. contraceptive prevalence almost similar among the rich (88.89%), middle class 85.19%) and in poor 83.33%. high prevalence (85.92%) also found among the literate and 81.58% in illiterate mothers. Use of contraceptives are more prevalent among females having children (86%) (Table-III).

Table-I: Distribution of socio-demographic variables of female respondents (N=180)

Variables	Frequency	Percentage
Age group		
15-24 years	57	31.67
25-34 years	69	38.33
35-44 years	48	26.67
≥45 years	6	3.33
Religion		
Islam	175	97.22
Hindu	5	2.78
Total	180	100.00
Occupation		
Housewife	174	96.67
Service holder	5	2.78
Business	1	0.56
Monthly family income		
Less than 10,000 BD taka	36	20.00
10,000 to 24,999 BD taka	135	75.00
25,000 BD taka and more	9	5.00
Female literacy		
Illiterate	38	21.11
Literate	142	78.89
Number of children		
Nil	12	6.67
1 to 2 children	93	51.67
More than 2 children	75	41.67

Table-II: Distribution of risk assessment of female respondents

Variables	Frequency	Sample population	Percentage
Teen age mothers	48	168	28.57
No birth spacing	33	122	27.05
≥4 offspring	6	180	3.33
Total	87	168	51.79

Table-III: Factors influencing contraceptive practice

Influencing factors	Contraceptive use	Sample population	Percentage
Eligible couples	153	180	85.00
Female	114	180	63.33
Husbands	39	180	21.67
15 to 24 years	46	57	80.70
25 to 34 years.	62	69	89.86
35 to 44 years.	40	48	83.33
≥45 years	5	6	83.33
Muslim	148	175	84.57
Hindus	5	5	100.00
Housewife	147	174	84.48
Service holder	5	5	100.00
Business	1	1	100.00
Poor	30	36	83.33
Middle class	115	135	85.19
Rich	8	9	88.89
Illiterate mothers	31	38	81.58
Literate mothers	122	142	85.92
No children	8	12	66.67
1 to 2 children	80	93	86.02
More than 2 children	65	75	86.67

The majority (50.33%) of the couples jointly took decision to use contraceptives. About 34% of women decided to use contraceptives alone. Men's role in decision making is only 11.76%. About 36% of couples used contraceptives for 5 years. More than half of the couples used contraceptives for the duration of 1 year to 4 years. 50.33% of couples collected contraceptives from shop and 40.52% received from family planning care provider (Table-IV). Contraceptive prevalence among eligible couples was found 85% percent of 82% temporary and only 3% permanent methods. Contraceptive

prevalence was more among female respondents (63.33%) in comparison to their husbands (21.67%). Contraceptives used by eligible couple were oral contraceptive pill (OCP) 50%, hormone injection 8.89%, intrauterine contraceptive device (IUCD) 1.11%, hormonal implant 1.11%, tubal ligation 2.22%, male condom 21.11% and non-scalpel vasectomy (NSV) 0.56% (Fig. 1).

Table-IV: Decision, collection and duration of use of contraceptive methods (N=153)

Variables	Frequency	Percentage
Decision taken by		
Male	18	11.76
Female	52	33.99
Both the partners	77	50.33
Family planning care provider	6	3.92
Duration of contraceptive method		
Less than 1 year	21	13.72
1 year to 4 years.	77	50.33
5 years and above	55	35.95
Supply of contraceptive method/ collection		
Family planning care provider	62	40.52
Health personnel	14	9.15
Shop	77	50.33

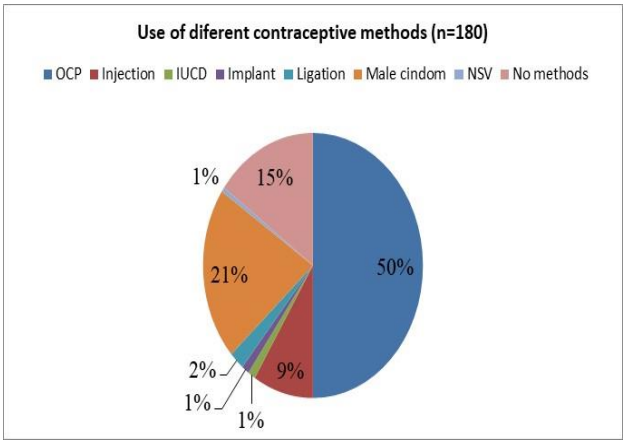

Fig. 1: Adoption of different contraceptive methods by eligible couple

Discussion

In the present study, the age of the participants ranged from 17 to 49 years. The mean age was 28.90±7.70 years, which is comparable to the study conducted by Khan *et al.*.[7] We found that 96.67% were housewives, which is much higher than the study results (84.5%) of Khan *et al.*[7], as they found 84.5% housewives in the study. Being a Muslim majority country, Bangladesh always has more Muslim dominant survey results, which correlates the findings of the present study as well as study done by Khan *et al.*.[7] Literacy rate was observed 78.89%, which is higher than the statistics of national health authority, DGHS.[1] 75% of the families had monthly income of Bangladeshi Taka ranged between 10000 and 25000, which is higher than the study results of Khan *et al.*.[7] More than 51% of couples had 1-2 offspring, which is the national norm (1/2 child norm) of Bangladesh; this finding is slightly lower than the finding (62.63%) of study conducted by Khan *et al.*.[7] Contraceptive prevalence rate (CPR) was 85% revealed in this study, which is much better than the global prevalence (48.53%)[4] as well as previous national prevalence in our country (62%)[5]; it is also higher than that of prevalence in Bhutan (42.7%), DPR Korea(60.1%), Indonesia (44.4%), Maldives (31.9%), Myanmar (32.3%), Nepal (40.5), Sri Lanka (46.3%), Thailand (47.9%), and Pakistan (23.6%)4. This CPR is also higher than the result of study conducted in Bangladesh[7,8], as well as higher than that of some of the Indian studies[9-17] and a study done in Nepal.[8] This better CPR observed by us may be due to increased reproductive health education to the grassroot levels and better family planning services providing by the government of Bangladesh.

CPR is more (63.33%) among the female population than male (21.67%) revealed in this study; influenced by a variety of factors like age of the respondents, religion, occupation, economic status, female literacy, number of children in family. Contraceptive use is relatively high among women aged 25 to 34 years. It was also high among the middle class and rich family[10] in comparison to poor family. Contraceptives prevalence also high among the literate female and those who had more than two children which correlates with the study findings as conducted in Bangladesh, India and Nepal.[7-18]

A variety of spacing methods – OCP (50%), hormone Injection (8.89%), male condom (21.11%), IUCD/ Implant (2.22%) used by the respondents which are higher than the Northern Africa, Western Asia (OCP 10.5%)[4] and National Data of Bangladesh[5] and permanent methods – tubal ligation (2.22%), NSV (0.56%) which are relatively less than the national data of Bangladesh.[5] A total of 82.22% spacing method and 2.78% permanent Method used by the respondents which are very satisfactory and higher than the national and global data.[4,5] 15-28% of female users had complaint of headache, leg cramps, nausea, vomiting, abdominal pain, dizziness, irregular period, excessive per vaginal bleeding, low back pain which are mostly usual phenomena of contraceptives. Smililar observations were found in other studies.[7,10,12,17]

Conclusion

This Contraceptive prevalence study revealed better than the findings of other national and international studies; however long-acting methods and permanent methods are not satisfactory. Reproductive health education and upliftment of socio-economic status can further improve the situation.

References

1. *Directorate General of Health Services (DGHS). Health Bulletin. Management Information System, DGHS, Mohakhali, Dhaka, Chapter 1, Country profile with health indicators, Dhaka: DGHS; 2019.*
2. *The World Bank. Data. Rural Population (% of total population) – Bangladesh. Retrieved from: https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=BD (Accessed May 16, 2021).*
3. *Gupta MC, Mahajan BK. Family planning and population policy. In: Textbook of Preventive and Social Medicine. 3rd ed. New Delhi: Jaypee Brothers, 2003.*
4. *United Nations. Department of Economic and Social Affairs. Contraceptive use by Method 2019. Data Booklet. New York: United Nations; 2020.*
5. *Bangladesh Bureau of Statistics (BBS). Community Report, Mymensingh Zila. Population and Housing Census 2011. Statistics and Informatics Division, Ministry of Planning, Government of the People's Republic of Bangladesh. Dhaka: Ministry of Planning, GOB; 2012.*
6. *Ferdousi S, Jabbar M, Hoque S, Karim S, Mahmood A, Ara R, et al. Unmet need of family planning among rural women in Bangladesh. J Dhaka Med Coll. 2010;19(1):11-5.*
7. *Khan NR, Jerifa S. Prevalence of contraceptive use among married women of reproductive age groups in a rural area of Bangladesh. J Dhaka Med Coll. 2014;23(1):7-13.*
8. *Sultana S, Jahan MS, Islam MM. Contraceptive acceptance among eligible couples residing in*

Rajshahi City Corporation. Teachers' Assoc J (TAJ). 2007;20(1):11-6.

9. *Haldar A, Baur B, Das P, Misra R, Pal R, Roy PR. Contraceptive practices and associated social covariates: an experience from two districts of West Bengal, India. Nepal J Epidemiol. 2012;2(4):219-25*
10. *Bhattacharya H, Reang T. Family planning: its practice and determinants among eligible couples in an urban slum of Tripura. Int J Res Med Sci. 2014;2(1):75-9.*
11. *Deb R. Knowledge, attitude and practices related to family planning methods among the Khasi Tribes of East Khasi hills Meghalaya. Anthropologist 2010;12(1):41-55.*
12. *Gupta A, Roy TK, Sarker G, Banerjee B, Ghosh S, Pal R. Determinants of contraceptive practices among eligible couples of urban slum in Bankura district, West Bengal. J Family Med Prim Care. 2014;3(4):388-92.*
13. *Patel SV, Patel DN, Pandit NB, Patel MV. A cross-sectional study of contraceptive uses and unmet need for family planning among rural population of Vadodara. Int J Biomed Advance Res. 2015;6(11):765-7.*
14. *Nair RV, Ashok VG, Solanke PV. A study on contraceptive use among married women of reproductive age group in a rural area of Tamilnadu, India. Int J Reprod Contracept Obstet Gynecol. 2016;5(9):3147-52.*
15. *Priyanka R. Epidemiological determinants of contraceptive practices among eligible couples in a rural area of Thrissur, Kerala. Natl J Res Community Med. 2016;5(4):217-22.*
16. *Jahan U, Verma K, Gupta S, Gupta R, Mahour S, Kirti N, et al. Awareness, attitude and practice of family planning methods in a tertiary care hospital, Uttar Pradesh, India. Int J Reprod Contracept Obstet Gynecol. 2017;6(2):500-6.*
17. *Gummaraj NV, Menzil M, Kurre B, Deepa LN, Meundi AD. Contraceptive practices among the eligible couples from a rural and urban area of Karnataka. Natl J Community Med. 2018;9(7):524-8.*
18. *Bhandari N, Shrestha GK, Thakuri PC. Study of factors affecting contraceptive use among married women of reproductive age. J Coll Med Sci Nepal. 2013;9(4):24-9.*