Original Article

Demographic consequences and reasons for selecting sterilization among tubectomy clients in Bangladesh.

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Abstract

Objectives : To identify the demographic consequences, contraceptive practices and reasons for selecting sterilization among tubectomy clients.

Materials & Methods : This descriptive cross sectional study was conducted among 80 clients using pre-tested questionnaire.

Place & Period of study : The study was carried out during the period January 15 to July 31, 2009 in Model Family Planning clinic, DMCH, Mohammadpur Fertility Services & Training Center, Dhaka, Bangladesh; Association for Voluntary Services Maternity, Mirpur, Dhaka and Upazilla Health Complex, Savar, Dhaka

Results : The objective of the study was to find out the socio-demographic and fertility profile, history of previous practice of contraceptive methods and reasons for selecting tubectomy. Mean age of the respondents was 31.15 years. About 70% of the respondents were illiterate and most of them (94.4%) were housewives. Mean monthly family income of the respondents was Tk. 3603/. Mean age of the marriage of the respondents was 16.51 years and mean time interval between marriage & first pregnancy was 11.45 months. The mean number of conception was 4.06. About one third of the respondents (31.0%) never used any contraceptive method. Among the contraceptive acceptors (69%), oral pill was the most popular method but discontinuation rate was very high. About 74.7% sought for tubectomy as they wanted no more children because of family completion. Husband and wife jointly took the decision for tubectomy in 63.4% cases.

Conclusion : Low socio-economic group accepted tubectomy more. They showed minimum response in contraceptive acceptance prior to sterilization. These women marry very early and they were in need of a further 15-20 years or more of continuous protection against pregnancy. So they had no other alternative choice than the permanent method to get rid of the tough punch of poverty and burden of large family.

Key Words : Demographic consequence, Sterilization, tubectomy.

Introduction

Bangladesh National Family Planning Program offers a wide variety of contraceptive choice to couples of Bangladesh by making available a good number of modern methods that are acceptable, safe, and effective like oral pill, IUD, injectables, norplant, condom, sterilization, etc[1].

Acceptance of contraceptive is guided by numerous determinants like reproductive preferences, availability, beliefs, social bindings, etc. Increasing the contraceptive acceptance is the only way to limit the population size in Bangladesh. Overall, 54% of currently married women are using contraceptive methods.

Most widely used method is the oral pill-23%, followed by injectables-7.2%, female sterilization-6.8%, periodic abstinence-5%, condom-4% and withdrawal-4% in our country[1].

A 4-year prolonged study was conducted by ICDDR,B in Matlab on contraceptive use. It was found that failure in different methods was very high. It was 22% for condoms, 13.4% for foam, jelly & other traditional methods, 12.9% for oral pills, 2% for IUDs and 0.5% for injectables[2].

About 910000 women conceived in a day, 50% of these conceptions are unplanned and 25% are definitely unwanted[3]. Tubal sterilization is a permanent method of birth control in female. About 138 million women are protected from unwanted pregnancies by voluntary female sterilization. It is very effective in countries where women marry very early such as Bangladesh and India. It is the most widely used contraceptive method in at least 20 countries. Modern temporary methods are used by more than 80% users. As many women have completed their family, they have achieved their desired family size, which are currently 2.5 at an early age and thus in need of a further 15 years or more of continuous protection

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against pregnancy[4].

Voluntary sterilization deserves more publicity for increasing its acceptance. In most places, people learn about female sterilization services from other people, friends, neighbors, relatives, or family planning workers. Mass media has played a minor role. To assure that couples learn about sterilization in advance, information should come from a variety of sources. It should be included in providers formal and informal discussions of contraceptive methods with clients, individual counseling sessions with all new and continuing family planning clients, mass media promotion and discussion of contraceptive methods and training sessions for family planning clinic staff, counselors and community based distributors[5-6].

*According to Unified Management and Information (UMIS) unit, Family Planning Directorate, Ministry of Health and Family Welfare (MOHFW), Government of Bangladesh (GOB), 16.8% and 25.6% of the target has been achieved in permanent sterilization in the year 1997-98 and 1998-99 respectively[5]. A major priority for the Bangladesh Family Planning Program will be to strengthen permanent method acceptance over coming years.

With the expansion of the family planning program and the wide gap between the set target and actual achievement, there has been considerable interest in determining what factors influence couples decision to use contraception. The current use rate was found to be directly associated with the respondents age, number of living children and duration of marriage. The level of education of both the husband and the wife seems to have a positive effect on the current use of contraception. Urban residents surpass rural residents in use of contraception. The experience of child loss has a negative role on contraceptive use. Husband wife communication also has a positive effect, showing the highest use rates among those women who took a decision about family jointly with their husbands. With an increase in the frequency of visits by family planning workers, contraceptive use increases rather rapidly[7-8].

For female sterilization, health problems were the most cited misconceptions. Dizziness, weakness, weight-gain, weight-loss were the most common problems mentioned. Other misconceptions were difficulty in doing hard work, difficulty in carrying heavy things, death of the mother or children and inability to have children[9-10]. If younger people groups are brought under the umbrella of family planning then the population growth will not only be decreased, maternal and child mortality and morbidity can be reduced and the overall development of the country would be enhanced[11-12].

Contraception failure deserves serious attention of program managers and policy makers to make Bangladesh National Family Planning Program successful. Therefore, this study reveals the importance of permanent methods among couples having two children and the age of last child will be two years.

METHODOLOGY

This descriptive cross sectional study was conducted for a period of six months from January 15, 2008 to July, 2008 at

1) Model family planning clinic, DMCH
2) Mohammadpur Fertility Services and Training Center, Dhaka.
3) Bangladesh Association for Voluntary Services Maternity, Mirpur, Dhaka.
4) Upazilla Health Complex, Savar, Dhaka.

Eighty tubectomy clients were interviewed by using purposive non-probability sampling technique. Data were collected with the help of a structured pre-tested questionnaire and analysis done by using SPSS.

RESULTS

Table No. 1 : Distribution of the respondents by age group, level of education, occupation & monthly income

Age group (years)	Frequency	Percent
25- 29	26	32.4
30- 34	39	46.5
35	15	21.1
Total	80	100.0
Educational status		
Illiterate	25	31.0
Only can sign	30	39.4
Class one-five	16	16.9
Class six-ten	8	11.3
SSC	1	1.4
Total	80	100.0
Type of occupation		
Housewife	70	94.4
Day labor	3	1.4
Service	3	1.4
Others	4	2.8
Total	80	100.0

Mean age = 31.15 ± 3.34 years

The table shows that tubectomy is the method of choice of the women of 25-34 (46.5%) years age group. Most of the clients were illiterate and housewives. Only 5.6% were working group.

Table No. 2 : Distribution of the respondent's husbands by educational status & occupation

Level of education (in years)	Frequency	Percent
Illiterate	12	15.5
Only can sign	22	35.2
Class one-five	10	12.7
Class six-ten	19	26.8
SSC Passed	5	7.0
HSC & above	2	2.8
Total	80	100.0
Type of occupation		
Business	24	31.0
Farmer	18	23.9
Service	8	8.5
Day labor	6	7.0
Rickshaw puller	5	5.6
Driver	4	4.2
Others	15	19.7
Total	80	100.0

FIG.- 1 : Distribution of the respondents by total monthly family income

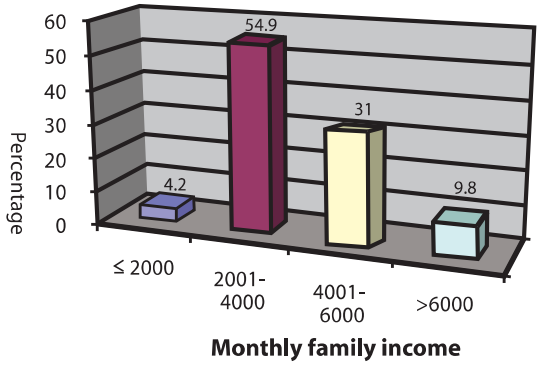

Table No. 3 : Distribution of the respondents by age at marriage & duration of marriage

Age at marriage (years)	Frequency	Percent
≤14	14	15.5
15 – 18	48	67.6
19 – 22	16	14.1
≥23	2	2.8
Total	80	100.0
Mean age at marriage = 16.51 ± 2.61 years		

Duration of marriage (years)	Frequency	Percent
≤11	15	18.3
12 to 15	35	43.7
16 to 19	20	28.2
≥20	10	9.9
Total	80	100.0

About 68% respondents married by the age of 15 - 18 years. 43.7% of the respondents were married for 12 - 15 years. 28.2% were married for 16- 19 years.

Table No. 4 : Distribution of the respondents according to parity

Parity	Frequency	Percent
2	6	5.6
3	29	38.0
4	23	28.2
5	13	15.5
≥6	9	12.7
Total	80	100
Mean number of conception = 4.06 ± 1.47		

Table No. 5 : Distribution of the respondents by
1) Interval between marriage & 1st pregnancy
2) Interval between marriage & 1st child birth

Interval between marriage and 1st pregnancy (in months)	Frequency	Percent
≤05	30	39.4
06 – 12	24	31.0
13 – 19	16	15.5
≥20	10	14.1
Total	80	100.0
Interval between marriage and 1st child birth (in months)		
≤12	20	23.9
13 – 24	40	54.9
≥25	20	21.1
Total	80	100.0

Table - 5 shows 70% of the respondents were pregnant within 12 months after their marriage. Mean time interval of 1st child birth = 21.99 months. Table also shows that more than half of the respondents (54.9%) delivered their 1st child within 13- 24 months of their marriage.

Table No. 6 : Distribution of the respondents according to total number of living male and female children

Number of total living children		Frequency of respondents having children		Percentage of Respondents having children	
Male	Female	Male	Female	Male	Female
0	0	1	10	1.4	14.1
1	1	33	23	46.5	32.4
2	2	26	22	36.6	31.0
3	3	11	14	15.5	19.7
4	4	0	2	0	2.8
Total		80	80	100.0	100.0

46.5% of the tubectomy clients had at least 1 male child and only 1.4% of the respondents had no male child. 14.1% had no female child.

TABLE-7

Distribution of the respondents by age of last child

Age of last child (in months)	Frequency	Percent
≤20	27	35.2
21 – 40	22	28.2
41 – 60	6	5.6
≥61	25	31.0
Total	80	100.0

Table- 7 shows that 35.2% had last child aged 20 months or less. 31% of the respondents had last child aged more than 61 months or above (5 years).

TABLE-8

Distribution of the respondents by outcome of previous pregnancies

Outcome of previous pregnancies	Frequency	Percent
Live birth	238	82.6
MR	25	8.7
Spontaneous abortion	15	5.2
Still birth	10	3.5
Induced abortion	0	0.0
Total	288	100.0

***Multiple responses**

Among 288 conceptions, in most of the cases (82.6%), outcome was live birth. MR was done in 8.7% of the cases and 8.7% had either spontaneous abortion or stillbirth.

Table-9

Distribution of respondents according to the use of family planning methods before tubectomy

Use of Family planning methods	Frequency	Percent
Never used	22	31.0
Oral pill	32	43.7
Injectables	16	19.7
Condom	4	2.8
Norplant	2	1.4
IUD	2	1.4
Total	80	100.0

Table-9 shows that 69.0% of the population used contraceptives and 31% never used any contraceptive method before tubectomy.

TABLE-10

Distribution of the respondents according to source of information about tubectomy

Source of information about tubectomy	Frequency	Percent
Family Planning Worker	58	76.1
Relative	10	12.7
Counselor	6	5.6
Neighbor	5	4.2
Physician	1	1.4
Total	80	100.0

Table-11

Distribution of the respondents according to the reasons for accepting tubectomy & decision making process

Reasons for accepting tubectomy	Frequency	Percent
Family complete	56	74.7
Husband wants	9	9.9
Poverty	9	9.9
Too many children	1	1.4
Others	5	4.2
Total	80	100.0
Decision of tubectomy		
Both husband & wife	47	63.4
Wife only	16	19.7
Husband only	11	12.7
Physician	6	4.2
Total	80	100.0

Table shows that, most of the respondents (74.7%) chose the method because their family was complete. 9.9% came for tubectomy for husband's choice and another 9.9% said poverty was the reason. 1.4% came for too many children and 4.2% for other problems (health problems- cystocoele, blood pressure). A significant percent of couple (63.4%) took decision for tubectomy. 19.7% took decision by herself. 12.7% came by their husband' decision and remaining 4.2% took decision by their doctor's advice.

Table-12
Relationship between total monthly income of the tubectomy clients and parity

Total monthly income	Parity of tubectomy Clients		Total
	< 3	>4	
≤4000	26(36.6%)	22(31.0%)	48(67.6%)
≥4001	05 (7.0%)	18(25.4%)	23(32.4%)
Total	31(43.7%)	40(56.3%)	71(100%)

X^2 = 6.647 df = 1 p value = 0.010

Relationship between total monthly income and total number of conception of the tubectomy clients were analyzed statistically, the test result is significant i.e. total monthly income has influence on parity.

DISCUSSION

In Bangladesh, sterilization is voluntary and a client is not accepted for sterilization unless s/he has a minimum of two living children and the age of the last child is more than 1 year[15-16] (now two years).

the mean age was 16.51 years. Ahad MSA[17] showed in his study that the mean age at marriage was 13.74 and 13.41 years in 1979 and 1985 respectively. The highest percentage of acceptors had passed 12-15 years of married life. More than half of the respondents conceived for 3- 4 times in their life. Mean parity was 4.06, In a study, Swenson et al[18] showed that mean parity was seven. The decrease in this study is because family planning works are intensive and innovative.

Most of the respondents had 3- 4 living children and only few had two living children. Nearly half of the respondents (46.5%) were found to have at least one male child. About 25% of the clients had their youngest child less than two years old. 33.8% of the respondents had last child aged 2-5 years. In a study McIntosh[19], it was found that 83.2% performed the operation within three years of their last delivery. Islam AIMM et al 20 showed in their study that most of the clients had last child upto 2- 3 years of age.

About previous contraceptive practice before tubectomy, majority (69%) used/ took any one method of contraceptive in their life. But the mean duration was not more than 4 years. So it was found that discontinuation rate of contraceptive use was more.

Above findings show that the contraceptive practice prior to sterilization was not remarkable. But this group directly approached for permanent method which may be due to poverty and poor knowledge about the concept of spacing between births. Khan MA et al[21] in his study explored that an intensive and innovative family planning program in rural Bangladesh can achieve success not only in terms of contraceptive prevalence, but can also attract users interested in child spacing and others wanting to limit their family size by offering the widest range of contraceptive methods.

In this study, family planning workers were the main source of information about tubectomy. This may be due to success of field workers motivational activities & better counseling of the service providers. This finding is consistent with the previous study[22] conducted in Bangladesh.

Male partner also has a great role for acceptance of contraceptive methods by his partner. The result of the study revealed that a large proportion of respondents (63.4%) communicated with their husbands regarding tubectomy. From this, it can be said that clients' husbands are being more aware about acceptance of family planning. In another study, Swenson et al[22] showed that 80% of tubectomy clients cited themselves, their husbands or close relatives as the most influential in their decision to have tubectomy. It also suggests that client satisfaction with tubectomy in Bangladesh can be attributed to the desire to terminate childbearing.

Main reasons for accepting sterilization in the present study were completion family, few of them did it for wants of their husband and poverty, 1.4% did it for too many children. These findings are consistent with the study done by Miah JA[23] where the major reasons for accepting sterilization were rearing up of children better, to have a happy family and to ensure better health of the couple. All these are due the fact that their families were complete. Women's contraceptive behavior is an important issue because the effective use of contraceptive can protect women from hazards of pregnancy. In our country relatively older women are more likely to use contraceptive than the younger women. They are getting pregnant while using any one of the method. Their use is often described as irregular and incorrect. Thus their unwanted pregnancy is a result of use failure rather than method failure. Most of them do not take pill regularly

because they are not convinced of importance of regular use and misinformation from people around them.

Conclusion

Through counseling, describing the simplicity is essential to increase the number of clients for tubectomy. Client satisfaction may contribute greatly to the acceptance of tubectomy by others. Well-informed tubectomized persons invariably serve as the most influential source of information in the community.

References

1. National Institute for Population Research and Training (NIPORT), Bangladesh. Demographic and Health Survey 2000; 1- 2.
2. ICDDR,B. Clinical Contraceptive Situation in Rural Bangladesh. J ICDDR,B 2000; Paper No. 160.
3. ICDDR,B. Contraceptive Use Dynamics in Bangladesh 2001; 12.
4. Sobhan F, Islam A, Quaium MA et al. A clinical Contraceptive Situation in Rural Bangladesh. J ICDDR,B 1999; 11: 28- 30.
5. Thomus TK, Barket-e-Kuda, James FP et al. Reproductive Health in Rural Bangladesh. J ICDDR,B Jul 1997; 1: 43-152.
6. Population Information Program, The Johns Hopkins University. Population Reports Series- c Nov.1990;10:2- 24.
7. MR Newsletter. Emergency Contraceptive & Reproductive Health in Bangladesh 1997; 10: 2.
8. The Alam Guttmacher Institute. International Family Planning Perspectives. Jan 1999; 25: 2- 9.
9. United Nations Population Fund (UNFPA). Reproductive Health in Bangladesh- A Sectoral Review. 1995; 30- 39.
10. Ullah S, Chakrabarty N. Factors affecting the use of contraception in Bangladesh: A Multivariate Analysis. UN Pop J Sep. 1993; 8 (s): 19- 25.
11. Barket A, Rahman MU, Bose ML. Family Planning Choice Behavior in Urban Slums of Bangladesh. UN Pop J Mar. 1997; 12 (1): 17- 32.
12. Akhter S. Knowledge of Newly Married Couples on Contraceptive Methods & Their Use. Dhaka, Bangladesh: NIPSOM, 2004; Dissertation.
13. Akter F. Acceptance of Laparoscopic Tubal Sterilization among the Clients of a Reproductive Health Center. Dhaka, Bangladesh: NIPSOM, 2003; Dissertation.
14. Layde PM, Fleming MDD, Greenspan JR at al. Demographic Trends of Tubal Sterilization in the United States 1970- 75. Am J Public Health 1980 Aug; 70 (8): 808- 812.
15. Ahmed MU, Begum S. Past Practice of Contraception Amongst the Female Sterilization Acceptors. JOPSOM 1991; 10 (2): 52- 57.
16. Chowdhury W, Islam H. Psychosexual Outcome of Female Permanent Sterilization. JBCPS 1990; 8(1): 29- 34.
17. Ahad MSA. Fertility Pattern of the Tubectomy Clients Attending BAVS Clinic. NIPSOM 1986. Dissertation.
18. Swenson I, Jahan FA, Khan AR. A Follow-up of Tubectomy Clients in Bangladesh. Int J Gynaecol Obstet 1979; 17 (1): 47- 50.
19. Khan MA, Smith C, Akbar J et al. Contraceptive Use Patterns in Matlab, Bangladesh: Insights from a 1984 Survey. J Biosoc Sci 1989 Jan; 21 (1): 47- 58.
20. McIntosh EN, Bergen BV, Dhakhwa DR et al. Recent Changes in the Socio-Demographic Profile of Sterilization Acceptors in Nepal. Int J Gynaecol Obstet Oct. 1985; 23 (5): 405- 411.
21. Islam AIMM, Begum A, Ali SMK et al. Psychosomatic Effects of Permanent Sterilization. Bangladesh Med Res Coun Bull June, 1991; 17 (1): 17- 22.
22. Swenson I, Khan AR. Demographic Consequences, Client Satisfaction, & Reasons for Selecting Sterilization among Vasectomy & Tubectomy Clients in Bangladesh. CONTRACEPTION 1982 Jun; 25 (6): 573- 590.
23. Miah JA. Assessment of Satisfaction of the Sterilization Acceptors. NIPORT 1988.