Are the clinical methods for the poor in Bangladesh? Evidence from Demographic and Health Survey

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Abstract

This study investigates the differential in uptake of clinical methods and explores the experience of side effects among the clinical method users, with special reference to their economic status, using Bangladesh Demographic and Health Survey 2004. A binary logistic regression was fitted to understand the impact of the economic status of the respondents along with other socio-economic and demographic variables on clinical method use. About 17% of the respondents were using clinical methods. Clinical method use was high among the poorest clients and these clients were facing more side effects and receiving less family planning (FP) visits. Regression analysis revealed that respondents who belonged to the poorest quintile, had no education, had access to FP TV messages, never discussed FP within marital union and were from urban areas were significantly more likely to use clinical methods. This study recommends that FP program should ensure informed choices for method options.

Introduction

Bangladesh has a successful family planning (FP) program with the current contraceptive prevalence rate (CPR) as 58.1% and total fertility rate (TFR) as 3.[1] However, the CPR needs to further increase to achieve the replacement level fertility by 2010.[1] With this view programme attracts clients towards modern methods, especially clinical methods, to reduce method failure. Clinical methods are free in most of the cases (mainly for the poor and in rural and slum areas) and some times incentives are provided for sterilization clients[2], which mostly attract the poor. Some of the clinical methods have specific health problems[3-5], which may be acute among the poor. The lack of access to removal services for IUD and Implants[6], especially among the poor[7], further increases the health risk of the clinical method users. This study aims to understand the differential in uptake of clinical methods and to explore the experience of side effects and service received among the clinical method users with special reference to their economic status, using Bangladesh Demographic and Health Survey 2004.

Data

This study uses the women data set of the Bangladesh Demographic and Health Survey (BDHS) 2004 which covered all the six administrative divisions.[1] BDHS 2004 is a stratified, a multistage cluster sample consisting of 361 primary sampling units (PSUs); 122 in the urban area and 239 in the rural area. A systematic sample of 10,811 households was then selected from the lists. All ever-married women aged 10-49 years in the selected households were considered for the interview. From the women data set only the currently married women (N=10553) were selected for analyses.

Methods

This study used the Wealth Index constructed by BDHS 2004 to represent the economic status of the respondents in the analysis. The Wealth Index has five levels. These are: i) poorest, ii) poorer, iii) middle, iv) richer and v) richest.[1] A binary logistic regression will be fitted to understand the impact of the economic status of the respondents (Wealth Index) along with other socio-economic and demographic variables on clinical method use (using clinical method=1, using non-clinical method=0).

Only the significant variables will be considered in the final model. Multicolinearity problem will be considered during the analysis.

Results

Current use of contraceptives

About 58% of the currently married women (respondents) were currently using any contraceptives. Pill was the dominant contraceptive method. More than one quarter (25.4%) of the respondents reported using it. Another 9.7% of the respondents were using Injections, which was followed by periodic abstinence (6.7%), female sterilization (5%), condom (4.8%), withdrawal (3.7%), Norplant (0.7%), male sterilization (0.6%), IUD (0.6%) and other (0.6%) (not shown in table). Clinical method use was reported by only 16.6% of the respondents.

Bi-variate analysis

Clinical method use was positively associated with the age of the respondents (Table 1). Use of clinical methods among the respondents aged 25-34 years was almost double (18.3%) compared to respondents aged less than 25 years (9.3%). Clinical method use was found the highest among the respondents with 3-4 children (24.1%), while clinical method use was almost negligible (0.9%) among the respondents with no children. Islam followers reported to use clinical methods more (16.8%) than their counter parts (15.7%). Use of clinical method was the lowest among the respondents from Sylhet division (11%), and was the highest among the respondents from Rajshahi division (20.8%). Urban respondents were found to use clinical methods more (17.2%) than their rural counterparts (16.4%). Education seemed to have negative relation with clinical method use. About 23% of the respondents with no education reported using clinical methods, while only 7.3% of the higher educated respondents reported using clinical methods. Employed respondents were using clinical methods more (22%) than unemployed respondents (15.3%). Economic status of the respondents was negatively associated with clinical method use. More than one fifth (20.6%) of the respondents belonging to poorest quintile were using clinical methods at the time of survey, while only 13% of the respondents belonging to the richest quintile were using any clinical method. Clinical method use was less among

the respondents who discussed FP with their partners (15.3%), compared to the respondents who never discussed FP with their partners (17.6%). Respondents having access to FP radio, TV and newspaper messages were using clinical methods less than their counterparts.

Experience of side effects and service received

Among the clinical method users who belonged to the poorest quintile 44.5% reported to experience problems with their methods. The percentages for poorer, middle, richer and richest quintiles were 45.7%, 43.8%, 39.8% and 33% respectively (not shown in table). Further analysis suggested that among the clinical method users belonging to poorest quintile and experiencing any problem 4.3% reported to suffer from too much bleeding, which was followed by respondents belonging to poorer (3.7%), middle (3%), richer (2.5%) and richest (2.5%) quintiles. Again, the clinical method users who belonged to the poorest quintile and reported having problem were experiencing weight loss (5%) more compared to their counterparts belonging to poorer (2.7%), middle (3%), richer (2.2%) and richest (2%) quintiles. Only 2.5% of the clinical method users belonging to poorest quintile and having problem with the method reported to receive FP visit during the last six months, which was much higher among their counterparts belonging to other quintiles (Figure 1). Figure 1 further revealed that FP visit among clinical method users in general (and when no problem was reported) was higher among respondents in the richer/richest quintiles. However, when any problem with the clinical method was experienced respondents from the poorest quintile was found to visit temporary health clinics more (50%) than their counterparts belonging to poorer (43.2%), middle (40%), richer (39.4%) and richest (44%) quintiles (not shown in table).

Regression analysis

Binary logistic regression estimates suggested that the odds of the use of clinical methods were significantly lower if the respondent was from higher economic status (Wealth Index) than the respondents from the lowest economic status (poorest) (Table 2). The higher the economic status was the lower the odds of using clinical methods. Respondents aged 35 years and above were 1.6416 times significantly more likely to use clinical methods than the respondents aged less than 25 years.

Respondents having 3-4 children were 6.4416 times significantly more likely to use clinical methods than respondents having no children. The odds of using clinical methods were 5.9414 and 4.5024 times significantly higher for the respondents having 1-2 children and 5 and more children respectively than respondents having no children. Respondents who had no education were significantly more likely to use clinical methods than their counterparts. Islam followers were significantly more likely to use clinical methods compared to respondents belonging to other religious beliefs. Respondents having access to FP TV messages were significantly more likely to use clinical methods than their counterparts when adjusted for other variables. Respondents discussing FP with their partner were 0.5164 times significantly less likely to use clinical methods than respondents who never discussed FP. Respondents from Sylhet division were significantly more likely to use clinical methods than the respondents from Dhaka division. Urban respondents were significantly more likely to use clinical methods than the respondents from rural areas.

Discussion

Clinical methods are the more efficient methods to delay or postpone any unwanted pregnancy. Worldwide the demand for reversible clinical methods is increasing among the eligible clients as well as the FP providers.[3-5] This study examined the differential in uptake of clinical methods, especially by the economic status, among the respondents. Analysis of data suggested that clinical method use is higher among the poor clients and poor clients are facing more health problems with their clinical methods in use. Furthermore, poor clients are getting less FP visit when suffering from problems associated with their clinical method in use. About half of the poorest clients experiencing problems with clinical methods do not visit temporary health clinics. Binary logistic regression analysis revealed that respondents who belonged to the poorest quintile, aged 35 years and above, had one or more children, had no education, were Islam followers, had access to FP TV messages and were from urban areas were significantly more likely to use clinical methods than their counterparts. Respondents discussing FP within marital union were significantly less likely to use clinical methods, which is an obstacle for FP program success and needs to be addressed properly. This study recommends that FP program should ensure informed choices for method options.[3-5,8] Program should try motivating the

educated clients more. Home visits by FP workers should not ignore poor clients. More attention should be given to clients of clinical methods helping them overcome any problem they are facing with, hence minimizing any unnecessary method switching/discontinuation. Visit to temporary health clinics should be encouraged. Service options and quality in the clinics should be improved to attract more clients. Mass media can be used alongside counselling to disseminate information related to side effects of clinical methods enabling the clients making informed decision.

References

1   National Institute of Population Research and Training (NIPORT), Mitra and Associates, and ORC Macro. Bangladesh Demographic and Health Survey 2004. Dhaka, Bangladesh and Calverton, Maryland [USA]: National Institute of Population Research and Training, Mitra and Associates, and ORC Macro. 2005.

2   Cleland J, and Mauldin WP. The Promotion of family planning by financial payments: The case of Bangladesh. *Stud Fam Plann* 1991; **22**: 1-18.

3   Salem R. New Attention to the IUD: Expanding women's contraceptive options to meet their needs. Population Reports, Series B, No. 7. Baltimore, Johns Hopkins Bloomberg School of Public Health,The INFO Project, February 2006.

4   Lande R, Richey C. Expanding services for Injectables. Population Reports, Series K, No. 6. Baltimore, INFO Project, Johns Hopkins Bloomberg School of Public Health, December 2006.

5   Ramchandran D, Upadhyay UD. Implants: The next generation. Population Reports, Series K, No. 7. Baltimore, INFO Project, Johns Hopkins Bloomberg School of Public Health, October 2007.

6   Hardee K, Barket-e-Khuda, Kamal GM, Rahman APMS, McMahan J. Contraceptive implant users and their access to removal services in Bangladesh. *Int Fam Plan Perspect* 1994; **20**: 59-65.

7   United States Department of State. Country reports on human rights practices: Ghana. 2003.

8   Upadhyay UD. Informed choice in family planning: Helping people decide. Population Reports, Series J, No.50. Baltimore, The Johns Hopkins University Bloomberg School of Public Health, Population Information Program, Spring 2001.

Table 1 Current use of contraceptives by background characteristics of currently married women (%)

Background characteristics	N	Non-use	Non-clinical	Clinical
Age (*p*=.0001)				
Less than 25	3746	52.2	38.5	9.3
25-34	3602	35.4	46.3	18.3
35 and above	3205	37.9	38.7	23.4
No. of children (*p*=.0001)				
0	1251	77.0	22.1	0.9
1-2	4584	39.5	45.6	14.9
3-4	3223	32.4	43.5	24.1
5+	1495	42.1	38.8	19.1
Religion (*p*=.0001)				
Islam	9389	43.0	40.3	16.8
Others	1164	35.4	48.9	15.7
Division (*p*=.0001)				
Barisal	1271	43.8	37.8	18.4
Chittagong	1898	51.0	35.7	13.3
Dhaka	2399	40.1	43.8	16.2
Khulna	1587	35.2	47.3	17.5
Rajshahi	2376	31.1	48.0	20.8
Sylhet	1022	64.6	24.5	11.0
Area of residence (*p*=.0001)				
Urban	3578	36.1	46.7	17.2
Rural	6975	45.2	38.4	16.4
Education (*p*=.0001)				
No education	3896	42.6	34.3	23.1
Primary	3148	42.8	40.6	16.8
Secondary	2838	42.5	47.6	9.9
Higher	671	34.3	58.4	7.3
Employment (*p*=.0001)				
Unemployed	8487	44.0	40.7	15.3
Employed	2066	34.5	43.5	22.0
Wealth Index (*p*=.0001)				
Poorest	1828	47.3	32.1	20.6
Poorer	1883	43.4	36.8	19.8
Middle	1992	43.6	39.8	16.6
Richer	2133	42.1	42.7	15.2
Richest	2717	36.7	50.3	13.0
Discussion of FP (*p*=.0001)				
Yes	4388	24.5	60.2	15.3
No	6165	54.7	27.7	17.6
Access to FP radio messages (*p*=.001)				
No	7824	42.5	40.3	17.2
Yes	2729	41.2	43.8	15.0
Access to FP TV messages (*p*=.0001)				
No	6611	44.7	38.0	17.3
Yes	3942	37.8	46.7	15.5
Access to FP newspaper messages (*p*=.0001)				
No	9912	42.6	40.4	17.0
Yes	641	35.4	53.7	10.9
Total	10553	42.2	41.2	16.6

Note: Rows sum to 100%. *p* values are based on chi-square tests.

Table 2 Odds ratios from the effects of socio-economic and demographic variables on current use of clinical methods among currently married women

	Odds ratio	Lower limit	Upper limit
Wealth Index (*r*=poorest)			
Poorer	0.9038	0.8201	0.9959
Middle	0.7055***	0.6387	0.7793
Richer	0.6482***	0.5840	0.7195
Richest	0.5564***	0.4948	0.6258
Age (*r*=less than 25)			
25-34	1.1365	1.0410	1.2408
35 and above	1.6416***	1.4866	1.8128
No. of children (*r*=no children)			
1-2	5.9414***	4.3271	8.1579
3-4	6.4416***	4.6636	8.8976
5+	4.5024***	3.2310	6.2742
Education (*r*=no education)			
Primary	0.7244***	0.6734	0.7793
Secondary	0.4623***	0.4207	0.5081
Higher	0.2939***	0.2461	0.3510
Religion (*r*=others)			
Islam	1.3860***	1.2583	1.5266
Access to FP TV messages (*r*=no)			
Yes	1.2198***	1.1362	1.3094
Discussion of FP (*r*=no)			
Yes	0.4836***	0.4547	0.5144
Division (*r*=Sylhet)			
Barisal	1.2457	1.0726	1.4468
Chittagong	0.8815	0.7639	1.0173
Dhaka	0.7736*	0.6750	0.8865
Khulna	0.9508	0.8247	1.0962
Rajshahi	0.8989	0.7849	1.0294
Area of residence (*r*=rural)			
Urban	1.1467*	1.0683	1.2308
Constant	0.1145***	0.0804	0.1632

Note: Level of Significance: *p<.10, ** p<.05, *** p<.01. Analysis was restricted to current users of contraceptives. *r* denotes reference category.

Figure 1 Visit by FP workers during the last six months among clinical method users by experience of problems by economic status