Unintended Pregnancy in Bangladesh

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Abstract

Unintended pregnancy is a serious concern in reproductive health which needs to be addressed. Analyzing 717 pregnant women extracted from the Bangladesh Demographic and Health Survey 1999–2000, this study identified that unwanted pregnancy is significantly associated with higher numbers of living sons (P<0.001), longer marital duration (P<0.05), exceeding desired family size (P<0.001), use of contraception (P<0.01), and breastfeeding practice (P<0.05). For mistimed pregnancy, higher age (P<0.05), breastfeeding practice (P<0.01), exceeding desired family size (P<0.01), pregnancy termination (P<0.05), and having last birth during last three years (P<0.001) were significant. Since unintended pregnancy is strongly associated with exceeding desired family size, a multidimensional approach may be needed through the family planning, health and educational sectors in Bangladesh to maintain desirable family sizes.

Introduction

Almost all women are at risk for unintended pregnancy throughout the reproductive years (Forrest 1994), which occurs in all socioeconomic strata of the society (Moos 2003; Brown and Eisenberg 1995). About half (48%) of all women aged 15–44 have experienced at least one unintended pregnancy sometime in their reproductive life (Moos 2003; Henshaw 1998). The incidence of unintended pregnancy, which includes both unwanted and mistimed pregnancies (Santelli et al. 2003; Brown and Eisenberg 1995), has long been used as a primary indicator of the state of reproductive health (Trussell et al. 1999). Unwanted pregnancies are those which occurred when the women did not want to have any further pregnancies at all (Brown and Eisenberg 1995). Reasons for unwanted pregnancies are: (1) people's growing desire to have smaller families; (2) the unmet need for family planning; (3) ineffectiveness of contraceptive methods; and (4) unwanted sexual relations (Langer 2002). Women who experience unwanted pregnancy are at a greater risk of complicated pregnancy outcomes, and their children are more likely to experience physical or psychological problems in infancy than those women with wanted pregnancies (Kroelinger and Oths 2000).

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In contrast, mistimed pregnancies are those that were wanted by the women at some time, but which occurred sooner than they were wanted. This may happen if (1) women who were hoping to space their births a certain distance apart conceived sooner than was hoped for due to contraceptive failure, and (2) women had intercourse without a contraceptive method despite the fact they did not hope to become pregnant (Brown and Eisenberg 1995).

Each year, globally 40–60 million women seek termination of an unwanted pregnancy under unsafe conditions (Rai and Dali, 2002). The consequences of unintended pregnancy are serious, imposing appreciable burdens on children, women, men, families (Brown and Eisenberg 1995) and their societies (Klima 1998). Both unwanted and mistimed pregnancies are known to be associated with numerous harmful behaviours and outcomes. For example, more than 50% of the unwanted and mistimed pregnancies ended in abortion (Henshaw 1998; Brown and Eisenberg 1995; Forest 1994), which is responsible for at least one in eight maternal deaths worldwide (Rai and Dali 2002). Some of the factors which are known to be associated with unintended pregnancies may include age, being unmarried, low income/economic status/poverty (Henshaw 1998; PRAMS GRAM 1996), maternal education, higher parity, (Gadow et al. 1998), nonuse of contraception at the time becoming pregnant, partner's feeling about the pregnancy, level of dependability and support from partner (Kroelinger and Oths 2000), barriers to accessing contraception, fears about using it, errors in use, lack of backup plans when errors in use occur, elective abortions, late entry to prenatal care, low birth weight, child abuse and neglect, behavioural problems in the offspring (Moos 2003), contraceptive failure, and rape (Klima 1998), among others.

Although unintended pregnancy is a worldwide problem (Klima 1998) and women carrying unintended pregnancies are considered vulnerable to various risk factors leading to poor obstetric and perinatal outcomes (Gadow et al. 1998), the issues of both unwanted and mistimed pregnancies receive little attention in the print and electronic media as compared to teenage pregnancy, nonmarital childbearing and abortion (PRAMS GRAM 1996; Brown and Eisenberg 1995). It is particularly true for Bangladesh, which is one of the most populous countries in the world, and where maternal mortality and morbidity are very high as compared to many other Southeast Asian countries like Bhutan, Indonesia, India, Sri Lanka and Thailand (Sein and Rafei 2002). However, this country has been trying relentlessly to achieve the replacement level of fertility mainly through the family planning programs. As a result the contraceptive prevalence rate has increased significantly, from about 8% in 1975 to about 54% in 1999–2000. The rising trend of contraceptive prevalence rate (CPR) is also associated with the fall in fertility, which declined markedly, from 6.3 births per woman in 1975 to 3.3 births per woman in 1999–2000. Despite such improvements, unplanned pregnancies are still common in Bangladesh. It is reported that if all unwanted births were avoided (which is about 1.1 per woman), the fertility rate in Bangladesh would fall from 3.3 to 2.2 children per woman (Nipport et al. 2001). Therefore, reduction in the rate of unintended pregnancy may be an important strategy to achieve the replacement level (2.1 children per woman) of fertility in Bangladesh. It is also noted that replacement level of fertility can be achieved if the current use of contraception is increased from 54 % to over 70% (Khuda et al. 1999).

Keeping the above-mentioned factors in mind, this article investigated some of the sociodemographic factors that might have some influence over both unwanted and mistimed pregnancies among ever-married women.

Methods

A total of 717 pregnant women, extracted from 10,544 currently married women of reproductive age of the Bangladesh Demographic and Health Survey (BDHS) 1999–2000, were identified as eligible for this study. The eligibility criterion was based on the pregnancy status during the survey. The response rate was 97% for women in the survey. The detailed methodology of sampling and data collection is given in the 1999–2000 BDHS report (Nipport et al. 2001).

The pregnant women were extracted using the question: (1) Are you pregnant now? The answer was coded as either *yes, no* or *not sure*. If she answered *yes*, she was considered as pregnant. (2)

Further, she was asked to respond the question, "At the time of becoming pregnant, did you want this pregnancy *then*, did you want to wait until *later*, or did you *not want* to have any (more) children at all?" The women who wanted the pregnancy *then* were considered under the *wanted group*, who desired pregnancy, but *later*, were considered under the *mistimed group*, and who did *not want* to have any (more) children were considered under the *unwanted group*.

Since unwanted and mistimed pregnancies should not be grouped into a single unintended category (Pulley et al. 2002), the cases of mistimed (unwanted) pregnancy are excluded to the logistic regression for unwanted (mistimed) pregnancy. The following variables have been used in the logistic regression model.

Dependent variable:
Whether pregnancy wanted or unwanted (if wanted = 0, unwanted = 1)
Whether pregnancy wanted or mistimed (if wanted = 0, mistimed = 1)
Independent variables (categorical):
Age of the women (10-24 years = 0, 25-34 years =1 , 35-49 years = 2)
Level of education (no education = 0, primary education = 1, secondary and above = 1)
Place of residence (urban = 0, rural = 1)
Region of residence (Barisal = 0, Chittagong = 1, Dhaka = 2, Khulna = 3,
Rajshahi = 4, Sylhet = 5)
Religion (non-Muslim = 0, Muslim = 1)
Own television (no = 0, yes = 1)
Marital duration in years (0-9 years = 0, 10-19 years = 1, 20 years and above = 2)
Number of living sons (no son = 0, 1 son = 1, 2 sons or more = 2)
Whether currently breastfeeding (no = 0, yes = 1)
Whether exceeded desire family size with present pregnancy (no = 0, yes = 1)
Whether ever used any contraception (no = 0, yes = 1)
Whether ever had terminated pregnancy (no = 0, yes = 1)
Whether discussed about family planning method with partner in the last year (no = 0, yes = 1)
Whether had given birth in the last 3 years (no = 0, yes = 1)

Results

Basic Characteristics of Pregnant Women
From Table 1 it is revealed that 62.9% pregnant women belonged to the age category 10–24. Among the respondents 40% had no education, while 31% had primary level of education. Three-fourths of the respondents were from rural areas and 90% were Muslim. Only 19% owned a television (TV). The marital duration was 0–9 years for 69.3% of the women. About one-third of the pregnant women experienced birth during last three years; one-fourth of the respondents exceeded their family size with that pregnancy. Use of contraception was 59.4% among the total women, with 19.3% experiencing terminated pregnancy. About 16% of the women reported breastfeeding.

Differential of Unwanted Pregnancy Rates and χ^2 Test
The rate of mistimed and unwanted pregnancy was 27.3% and 14.6% respectively (Table 1). The rate of unwanted pregnancy was highest in the highest age group (55.3% for 35–49), and lowest in the lowest age group (5.1% for 10–24). Education was negatively related with unwanted pregnancy. Marital duration indicated that 62.9% of pregnancy was unwanted when the marital duration was more than 20 years, whereas it was only 4.4% when marital duration was less than or equal to 9 years. Unwanted pregnancy was positively associated with number of living sons. The rate was extraordinarily high (53.0%) when the women had two or more sons as compared to women having one living son (15.9%) only. About 50.0% of the pregnancies were unwanted from those

who exceeded the reported number of ideal children. This rate was 20 times higher than those who did not exceed the ideal number of children. About one-fifth of the pregnancies were unwanted for the women who had ever used contraception. Unwanted pregnancy was also positively associated with number of births in the last three years from the date of the survey.

Table 1: Rates of Unwanted and Mistimed Pregnancies by Selected Socioeconomic and Demographic Characteristics of the Women

Characteristics	N	Unwanted (%)	Mistimed (%)	Characteristics	N	Unwanted (%)	Mistimed (%)
Overall	717	14.6	27.3				
Age:				**Education:**			
10-24	451	5.1	31.9	No education	284	23.2	23.9
25-34	228	26.8	21.5	Primary education	219	12.8	30.1
35-49	38	55.3	7.9	Secondary and above	214	5.1	29.0
χ^2=111.7,df=2,P<0.001				χ^2=33.7,df=4,P<0.001			
Place of residence:				**Region of residence:**			
Urban	167	13.2	30.5	Barisal	56	1.8	42.9
Rural	550	15.1	26.4	Chittagong	143	15.4	25.9
χ^2=1.3,df=2,P=0.535				Dhaka	202	15.8	25.7
				Khulna	93	11.8	33.3
				Rajshahi	125	18.4	26.4
				Sylhet	98	14.6	19.4
				χ^2=18.3,df=10,P=0.050			
Religion:				**Own television:**			
Non-Muslim	61	6.6	24.6	No	578	16.6	26.3
Muslim	656	15.4	27.6	Yes	138	6.5	31.9
χ^2=4.5,df =2,P=0.105				χ^2=9.4,df=2,P=0.009			
Marital duration in years:				**No. of living children:**			
0-9 years	497	4.4	30.6	Up to 2 children	573	5.2	29.1
10-19 years	185	33.0	21.1	3-4 children	102	45.1	26.5
20 years and above	35	62.9	14.3	5 and above children	42	69.0	4.8
χ^2=156.4,df=4,P<0.001				χ^2=221.1,df=4,P<0.001			
Number of ideal children:				**Number of son alive:**			
1-2 children	452	12.8	29.7	0	411	3.2	26.8
3-4 children	222	19.8	27.0	1 son	189	15.9	32.8
5 and above	16	6.3	6.3	2 sons and above	117	53.0	20.5
χ^2=12.1,df=4,P=0.017				χ^2=190.6,df=4,P<0.001			
Exceeded ideal number of children with this pregnancy:				**Ever had terminated pregnancy:**			
No	511	2.54	29.5	No	578	13.5	29.2
Yes	179	50.3	24.6	Yes	139	19.4	19.4
χ^2=246.2,df=2,P<0.001				χ^2=6.9,df =2,P=0.031			
Ever used contraception:				**Births in the last three years:**			
No	291	8.2	22.0	No	489	11.9	21.3
Yes	426	19.0	31.0	Yes	228	20.6	40.4
χ^2=30.4,df = 2,P<0.001				χ^2=49.6,df =2,P<0.001			
Currently breastfeeding:				**Have you discussed about FPM with partners in the last year:**			
No	601	12.5	24.3	No	455	14.1	25.5
Yes	116	25.9	43.1	Yes	261	15.7	30.7
χ^2=41.8,df = 2,P<0.001				χ^2=3.2,df=2,P=0.198			

Note: P = 2-sided significance level using χ^2 test statistic. Total frequency is not always 717 due to missing values and non-numeric answers.

The proportion of unwanted pregnancy was 25.9% for the women who reported breastfeeding at the time of survey, which was double those who were not breastfeeding then. Almost all the variables except place of residence, religion, and husband-wife discussion about family planning matters were significantly associated with pregnancy status by χ^2 test.

The results of the logistic regression analysis are presented in Table 2. Only six variables (education of women, marital duration, number of living sons, whether exceeded the number of ideal children, use of contraception, and currently breastfeeding) were significantly related with unwanted pregnancies. Odds ratios for marital duration indicated that the rate of unwanted pregnancies were 2.7 and 12.0 times higher for the women with marital duration 10–19 years and 20 years and above, as compared to women with marital duration less than or equal to 9 years. The odds ratio was 21 times higher for those who exceeded ideal number of children compared with those who did not exceed the ideal number of children. The ratio was 4.7 times and 2.3 times higher for women with two sons and more and one son respectively than those women without sons. The ratio of unwanted pregnancy was 3.8 times higher for women who had ever used contraception as compared to the reference category. Women who reported breastfeeding had 3.7 times higher odds ratio of unwanted pregnancies than the reference category.

Table 3 presents the percentage of women who exceeded the reported number of ideal children by some sociodemographic variables. The rate was significantly higher (P<0.001) for women who had no education (35.5%) than the women having education (20.0%). Similarly the rate is significantly higher (P<0.001) for those women who reported current breastfeeding (41.0%), ever used of contraception (32.70%), married for 20 years or more (82.9%), having two sons or more (75.7%) as compared to other categories of each variable.

Table 4 presents information about the last contraception method used by those who ever used contraception, causes of discontinuation of use in the last five years, and preferred contraceptive method for the future. Though there were 426 (59.4%) "ever" users among the total sample, only 396 responded about last method. The women were classified according to the last contraceptive methods. The Pill was the most common method among the pregnant women for all groups. Condom, injection, periodic abstinence and withdrawal were also reported.

Why did they discontinue contraception use in the last five years? The most frequent answer was that they wanted to become pregnant at that time. Among the unwanted and mistimed groups, important reasons were as follows: became pregnant (which means method failure), side effects, accessibility to methods, and husband disapproval.

Next each pregnant woman was asked to mention the preferable method of contraception which they intended to use in future. In response, 667 women responded; according to their responses, the Pill was the most frequently cited method over others. The answer "don't know" was the second highest, followed by injection and female sterilization respectively.

Finally an attempt has been made to examine which particular methods were responsible for method failure, side effects and so on (Table 5). The highest rate of method failure was found among periodic abstinence users, followed by withdrawal, condom and pill users respectively. Side effects were found highest among injection users, followed by pill users. All others reasons, such as husband disapproval, health concerns, limited accessibility, and pill users reported so on.

Discussion

The unwanted pregnancy rate was 15% in Bangladesh among the pregnant women in the survey. Unwanted pregnancy is not unique to Bangladesh, but is common all over the world. For example, unwanted pregnancies were 25% in India (Saha and Chatterjee 1998), 12.5% in Sri Lanka, 14.2% in Thailand, 6.5% in Indonesia (Sein and Rafei 2002), 9% in Zimbabwe (Mbizvo et al. 1997), 20% in Nigeria (Okonofua et al. 1999), 12.5% (PRAMS GRAM 1996) and 4% in USA (Hellerstedt et al. 1998), 37% in South America (Gadow et al. 1998) and 16.5% in Nova Scotia, Canada (Denton and Scot 1994). The substantial variation in unwanted fertility among countries may be caused by the variation in the degree of implementation of preferences, the effectiveness of contraceptive use,

Table 2: Multivariate Logistic Regression for Unwanted (Excluding Mistimed Pregnancy) and Mistimed (Excluding Unwanted Pregnancy) Pregnancies Using Some Selected Socioeconomic and Demographic Variables

Variable	Unwanted pregnancy OR (95% CI)[a]	Mistimed pregnancy OR (95% CI)[b]
Age:		
10-24 (RC)		
25-34	0.57 (0.17-1.88)	0.48 (0.24-0.97)*
35+	0.36 (0.04-2.97)	0.15 (0.02-0.95)*
Education:		
No education (RC)		
Primary education	0.61 (0.27-1.39)	1.32 (0.80-2.17)
Secondary and above	0.38 (0.12-1.21)	1.05 (0.59-1.86)
Place of residence:		
Urban (RC)		
Rural	0.47 (0.17-1.31)	0.91 (0.57-1.46)
Region of residence:		
Barisal (RC)		
Chittagong	2.13 (0.16-28.22)	0.59 (0.27-1.25)
Dhaka	2.30 (0.18-29.68)	0.60 (0.29-1.22)
Khulna	2.03 (0.14-30.27)	0.85 (0.39-1.87)
Rajshahi	2.59 (0.20-33.99)	0.67 (0.31-1.44)
Sylhet	2.06 (0.15-28.21)	0.58 (0.24-1.39)
Religion:		
Non-Muslim (RC)		
Muslim	1.29 (0.33-5.04)	1.45 (0.72-2.92)
Owned television:		
No (RC)		
Yes	0.92 (0.26-3.22)	1.60 (0.92-2.79)
Marital duration:		
0-9 years (RC)		
10-19 years	2.68 (0.88-8.11)	0.96 (0.45-2.07)
20 years and above	11.94 (1.45-98.08)*	3.56 (0.68-18.62)
Number of living sons:		
0 (RC)		
1 son	2.32 (0.92-5.89)	1.39 (0.86-2.24)
2 sons and more	4.67 (1.61-13.57)**	1.68 (0.76-3.74)
Breastfeeding at the time of survey:		
No (RC)		
Yes	3.68 (1.28-10.58)*	2.42 (1.31-4.49)**
Exceeded no. of ideal children with this pregnancy:		
No (RC)		
Yes	21.00 (8.83-49.95)***	2.71 (1.39-5.29)**
Ever used contraception method:		
No (RC)		
Yes	3.81 (1.65-8.81)**	1.70 (1.11-2.61)*
Ever had terminated pregnancy:		
No (RC)		
Yes	0.54 (0.22-1.32)	0.67 (0.39-1.15)
Ever had discussion about family planning method with husband:		
No		
Yes	0.98 (0.46-2.08)	1.15 (0.77-1.72)
Recode of last birth during last three years:		
No (RC)		
Yes	2.34 (0.97-5.04)	3.27 (2.05-5.21)***

Note: CI: Confidence interval, RC: Reference category. Simple contrast among different categories and Enter method were used.

aModel summary for unwanted pregnancy: -2LL: 219.2; Cox and Snell R square: 0.44; Nagelkerke R square: 0.69; Omnibus tests of model coefficients: 286.1, df=22, P<0.001. Overall 90.3% of the valid 493 cases were correctly classified.

aModel summary for unwanted pregnancy: -2LL: 638.6;; Cox and Snell R square: 0.17; Nagelkerke R square: 0.23; Omnibus tests of model coefficients: 106.1, df=22, P<0.001. Overall 73.53% of the valid 585 cases were correctly classified.

* P<0.05, ** P<0.01, *** P<0.001

Table 3: Percent of Women Exceeded Number of Ideal (Desired) Number of Children by Some Selected Variables

Characteristics	N (690)	Rate (%)
Education:		
No education	265	35.47
Having education	425	20.00
$\chi^2 = 20.34$, df = 1, P=0.000		
Currently breastfeeding:		
No	585	23.25
Yes	105	40.95
$\chi^2 = 14.52$, df = 1, P=0.000		
Ever use any contraception:		
Never used	271	15.50
Ever used	419	32.70
$\chi^2 = 25.34$, df = 1, P=0.000		
Marital duration:		
0-9 years	482	8.71
10-19 years	173	62.43
20 years and above	35	82.86
$\chi^2 = 253.35$, df = 2, P=0.000		
Number of alive sons:		
0	397	8.82
1	182	32.97
2 and more	111	75.68
$\chi^2 = 208.19$, df = 2, P = 0.000		

the rate of induced abortion, age at marriage, duration of breastfeeding, and frequency of sexual relations (Bongaarts 1997).

Although the χ^2 statistic showed many significant associations (Table 1) between pregnancy status and sociodemographic variables, most of them disappeared when logistic regression was applied (Table 2). Only a few of them were significantly associated with unwanted pregnancy. This study confirmed that (i) marital duration, (ii) number of sons, (iii) exceeding desired (ideal) number of children, (iv) ever terminated pregnancy, (v) ever used contraception, and (vi) currently breastfeeding were the significant determinants of unwanted pregnancies in Bangladesh.

The data (not shown) indicated that longer marital duration, higher age and lower educational level of women are represented by higher number of living children or higher number of sons. Since the women with a higher number of living children or number of sons are more likely to exceed the desired number of children, further pregnancy would be more likely to be unintended. Positive association between unintended pregnancy and number of children are also reported by other studies (PRAMS GRAM 1996; Denton and Scott 1994). Higher parity or close pregnancies were positively associated pregnancy termination (Thapa and Padhye 2001) and other abnormal outcome, including maternal death.

Women of low socioeconomic status are at greater risk of contraceptive nonuse and for contraceptive failure; thus they are also at greater risk of unintended conceptions (Forrest 1994). Denton and Scott (1994) reported that contraceptive failure was responsible for 13.5% of unintended pregnancies. However, effective use contraception depends on many factors. Education is one of the most important factors. A woman with higher education is more likely to use contraceptive methods, and is more health-conscious. Education increases the empowerment of women and increases the decision-making power in the family, which is the key to the rest of a woman's development and future (Rao 2001). It also increases the interrelationship between husband and wife, which ultimately helps them to make joint decisions regarding family size, contraceptive use and so on. Educated women have more opportunities (such as access to radio, TV, newspaper) to learn

Table 4: Distribution of Women by Last Method of Used Contraception, Causes of Discontinuation as Well as by Preferred Future Method of Contraception by Pregnancy Status

	Unwanted group	Mistimed group	Wanted group
Last method of contraception used by the ever users by pregnancy status of women (n = 396):			
Pill	45	71	114
Condom	2	18	28
Injection	12	15	19
IUD	0	0	3
Periodic abstinence	10	12	17
Withdrawal	2	9	13
Others	4	1	1
Total	75	126	195
Reasons for discontinuations of contraceptive methods in the last five years by pregnancy status of women (n = 381):			
Became pregnant	31	50	10
Wanted to become pregnant	2	18	136
Husband disapproved	3	4	9
Side effects	22	27	20
Health concerns	2	3	4
Accessibility	1	9	0
Inconvenient to use	2	3	0
Infrequent sex, husband away	2	1	2
Cost	1	2	0
Others	5	6	6
Total	71	123	187
Preferred future methods of contraception by pregnancy status of women (n = 667):			
Pill	27	76	167
Injection	21	36	51
Condom	0	3	12
Female sterilization	13	8	5
IUD	0	1	3
Norplant	4	2	3
Withdrawal	0	0	5
Don't know	32	58	125
Other	5	4	6
Total	102	188	377

about various contraception, including their advantages and disadvantages. They are also aware of the consequences of large family size. All factors together act to control the family size according to desire level.

Although Taylor and Cabral (2002) and Dye et al. (1997) found an inverse association between unwanted pregnancies and breastfeeding practice, this study failed to support their findings. Surprisingly, the data (Table 1) showed a higher rate of unwanted pregnancy among the women who were breastfeeding their children during the survey. Furthermore, this study showed that women who had ever used contraception were not necessarily less likely to have an unwanted pregnancy. This may be explained by the following reasons: (i) perhaps breastfeeding practice and "ever" use of contraception were not effective in reducing unwanted pregnancy in case of Bangladesh, or (ii) the rate of exceeding the ideal number of children (desire family size) was significantly higher for those women who had ever used contraception and who had been currently breastfeeding

(Table 3). Whether women exceeded the ideal number of children may be crucial because it showed the greatest impact on unwanted pregnancy by odds ratio (Table 2). Since a large portion of the women who reported the breastfeeding practice and ever use of contraception had exceeded ideal number of children, perhaps the effectiveness of breastfeeding and ever use of contraception disappeared, and therefore the main factor behind the associations of unwanted pregnancy with breastfeeding and ever use of contraception may be exceeding the ideal number of children, or (iii) these findings could also be the result of confounding factors.

In the case of ever use of contraception, method failure may also contribute in cases of unwanted pregnancy. The failure rate was substantial (18%) among the Pill users, the most common method of contraception in Bangladesh. Many women were practicing periodic abstinence and withdrawal as a contraception method, which showed high rate of method failure (Table 5). It is reported that among the women who became pregnant due to contraceptive failure that 68% defined the pregnancy as unintended (Santelli et al., 2003).

Table 5: Reasons of Discontinuation of Contraceptive Methods by Method of Contraception

Reasons	Pill	Condom	Injection	IUD	PA	Withdrawal	others
Wanted to become pregnant	93	25	9	3	14	11	1
Method failure	40	15	4	0	19	9	4
Side effects	46	1	21	0	0	0	1
Husband disapproved	9	2	2	0	2	1	0
Health concerns	8	0	1	0	0	0	0
Accessibility	7	2	1	0	0	0	0
Inconvenient	5	0	0	0	0	0	0
Infrequent sex/husband away	3	0	0	0	1	1	0
Cost	3	0	0	0	0	0	0
Other	9	2	6	0	0	0	0
Total	223	47	44	0	36	22	6

What kind of strategies to reduce the incidence of unwanted pregnancy should be implemented in Bangladesh? First, since strongest association (P<0.001) was found for those women who exceeded desired family size, synergistic efforts of family planning, health and educational programs are an extreme need in Bangladesh to motivate the women for using contraception effectively so that they can limit the number of children according to their desire. As the average number of desired children was around 2.5, which is close to replacement level of fertility, it is not important to counsel all the women to limit their children at 2, but it is very much important to help and motivate women empathetically so that they can not exceed their desired family size.

Second, since shortcomings of contraceptives and family planning delivery systems are major reasons for unwanted pregnancy and unsafe abortion in Third World countries (Kabir 1989), and since family planning services are acknowledged as one of the most cost-effective programs to prevent unwanted pregnancy in all socioeconomic groups (PRAMS GRAM 1996), family planning and health programs should ensure increasing access to the contraception with minimum barriers for all women and should provide all other services to fulfill their multiple reproductive health needs. Higher parity women should be motivated to adopt a permanent method. Special emphasis also should given to the Pill (as a most preferable method) users and others for which failure rate is high.

Third, creating more facilities for women's education may be another contributing factor in reducing unwanted pregnancy. Increasing education of women will help delay their age at first marriage, through which marital duration can be reduced and effective contraceptive use can be increased (method failure can be reduced), and as a result women will have lower parity.

We should remember that in limiting the number of unintended pregnancies, three vital things

could be achieved, at least partially: (i) number of children could be limited according to desire, (ii) the gap between actual fertility rate and replacement level of fertility could be minimized, and (iii) the number of hazardous terminated pregnancies or abortions could be reduced. In short, such activities are needed through which women can complete their reproductive age with their desired number of children. Moreover, because of the serious consequences of unwanted pregnancy, every society should adopt a new social norm under which all pregnancies would be intended; i.e., they should be consciously and clearly desired at the time of conception (Brown and Eisenberg 1995).

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