

Unintended Pregnancy Among Low Income Urban Married Women in India

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Received: 27 May 2008 / Accepted: 15 February 2012 / Published online: 20 April 2012
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Abstract

Introduction The most common reason for demand for abortion in India is unintended pregnancy.

Aim To obtain information from low income urban married women regarding incidence and cause of unintended pregnancy.

Methods All pregnant married women belonging to low income group were selected for study. The incidence and cause of unintended pregnancy among low income group was noted. Comparison was done between education of the women and parity at which they came with unintended pregnancy also the reasons women gave for nonuse of contraception were compared with their education. Statistical analysis was done using EPI Info ver-5.0. Chi square test was used to test the significance of data.

Results The total 7,146 women comprised the study group. The incidence of unintended pregnancy was 15.5 %. Educated women came with unintended pregnancy at lesser parity than illiterate women. The most common reason

given by women for not using contraception was that they did not think they could become pregnant (42.6 %).

Conclusion The incidence of unintended pregnancy in low income urban population is low because there are fewer pregnancies which were wanted. There is need to create awareness regarding use of contraception. Education plays a major role in improving the acceptance of contraception.

Introduction

Family planning in India is based on efforts largely sponsored by the Indian government. In the 1965–2009 period, contraceptive usage has more than tripled (from 13 % of married women in 1970 to 48 % in 2009) and the fertility rate has more than halved (from 5.7 in 1966 to 2.7 in 2009), but the national fertility rate is still high enough to cause long-term population growth [1, 2]. Low female literacy levels and the lack of widespread availability of birth-control methods is hampering the use of contraception in India. Awareness of contraception is near-universal among married women in India [2]. However, the vast majority of married Indians (76 % in a 2009 study) reported significant problems in accessing a choice of contraceptive methods [2]. The increase in contraceptive practices decreases the level of unintended pregnancy and subsequently decreases the abortion rate. The most common reason for demand for abortion in India is unintended pregnancy [3, 4].

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Although abortion has been legal in India for more than three decades, access to safe services remains limited for most women. It has been estimated that 90 % of abortions in India are performed under potentially unsafe conditions and unapproved facilities [5]. The level of unintended pregnancy serves as indicator of women's ability to control fertility and the state of women's health.

In the study done in low income urban population showed that Contraceptive use among these women was 52 % [6]; the most common method was tubal ligation. Women had adequate awareness regarding type of contraceptives available but had no idea about the timing of starting contraception after delivery and about emergency contraception [6]. The women of same population group who came for antenatal check up were generally having pregnancy that was unplanned and unintended, most of the women were not using any contraception at all and very few cases were having true contraceptive failure. The rate of unintended pregnancy gives an insight into the prevalence of contraceptive use and therefore helps us to know the effectiveness of family planning programme. Therefore the study was planned to find out the demographic profile of women having unintended pregnancy in low income urban population and also the reasons for their unintended pregnancy. We also tried to find out the cause of going for third pregnancy in couples who had 2 previous living children.

Material and Methods

The study was carried out in Balak Ram Hospital from Jan 2005 to Dec 2007. All pregnant women attending the outpatient department were given a questionnaire after informed consent. The questionnaire included their age, education whether illiterate, had primary, secondary or intermediate education, monthly income of the family and family size. The attending doctor filled the questionnaire, as most women were illiterate; all answers were given voluntarily by the women.

The per capita income of the family was calculated. The families with income less than 20,000/year (currency in Indian Rupees) were classified as low income group and comprised our study group. The women were asked whether they desired to have the baby in the present time or later, or they did not want to have them at all. If the women stated that the pregnancy was not desired either in the present time or later, it was categorized as unintended pregnancy [7].

These women were further asked the reason why they did not use any contraception. Four choices of reasons were given; the reasons were —they did not think they would become pregnant; fear of side effects of contraceptives;

spouse/relative did not want failure of contraception or other causes. They were asked to state any one of the probable reasons for not using contraception or site any other reason if present. Comparison was done regarding the influence of education on the parity at which the women had unintended pregnancy. The relationship of women's education with the reasons they gave for non use of contraception were also compared.

The women with previous 2 or more living children were regrouped separately again. Among those who said they desired the present pregnancy were asked the reason why they wanted the present child.

Statistical Analysis

The analysis was done in EPI INFO version 5.0. The χ^2 test was used to test the significance of different variables.

Results

The total number of pregnant women who were registered during the 2 years period was 8,450. Among them 7,146 belonging to low income group gave consent for answering the questionnaire and comprised the study group. The number of women with unintended pregnancy in the study group was 1,216 (15.5 %). The epidemiological profile of pregnant women belonging to low income group and that of unintended pregnancy group has been compared in (Table 1). The average age in unintended pregnancy group (27.1 years) was more than the average age in pregnant population (23.3 years). Similarly the mean parity in unintended pregnancy group was more than pregnant population. The Illiterate formed the largest group in our study population; they were the largest among the unintended pregnancy group also. The average literacy of unintended pregnancy group (38.5 %) was less than that of total pregnant population (43.4 %). The incidence of unintended pregnancy was marginally higher among secondary education group (18.3 %) compared to primary education group (16.0 %).

Among the women with unintended pregnancy when education status of women and their parity was compared it was found that while the illiterate women came with unintended pregnancy at higher parity, the women with secondary and intermediate education groups came at parity zero to two (Table 2).

When the women were asked the reason for non use of contraception, the most common reason given by them was that they did not think they would become pregnant (42 %) as most of them were either breast feeding or were having lactational amenorrhea and they assumed they would not be pregnant. This reason can be further substantiated by the fact that in the women with unintended pregnancy the age

Table 1 Distribution of age, parity, literacy among pregnant population and those with unintended pregnancy in the study group

	Total pregnant population (7,146)	%	Unintended pregnancy (1,216)	%
Age				
18–22	3,568	49.9	260	21.4
23–27	2,650	37.1	285	23.4
28–32	792	11.1	567	46.6
33–37	136	1.9	104	8.6
Parity				
Primipara	2,537	35.5	23	1.9
Para 1	2,065	28.9	145	11.9
Para 2	1,573	22.0	561	46.1
Para 3	801	11.2	356	29.3
Para 4	118	1.7	94	7.8
Para >4	52	0.7	37	3.0
Education				
Illiterate	3,744	52.4	748	61.5
Primary	1,858	26	194	15.9
Secondary	1,172	16.4	223	18.4
Intermediate and above	372	5.2	51	4.2

of last child was 1.8 years on an average. Fear of side effects was the second most common (32.2 %) cause followed by inadequate or inappropriate use of contraception in 19.7 %, partner/in laws wanted MTP in 4.4 % of the cause. In 1.1 % of women there were other causes such as religious beliefs and true failure of contraception.

When we compared the education status of low income unintended pregnancy group women with the reasons that they gave for not using contraception it was observed that most of the women who were illiterate and those with primary education did not think they could become pregnant. Fear of side effects of contraceptives was the second most common cause in this group. Inadequate or inconsistent contraceptive use was observed mainly in secondary

intermediate and highly educated women. In 1.1 % of women there were other causes such as religious beliefs and true failure of contraception (Table 3).

1,437 Pregnant women in the study group with previous two or more living children when asked why they went for present pregnancy stated herein 68.8 % said it was not intended in 68.8 %. Among those who had intended or planned pregnancy the largest number (20.2 %) said they wanted a son and 18 women chose not to give the reason for the same (Table 4).

None of the women who came with unintended pregnancy in the study group had the correct knowledge of emergency contraception.

Discussion

The implications of unintended pregnancy are substantial, effective contraception can contribute to better maternal health in two ways. First, as unintended pregnancies carry a greater risk than those that are intended, high-risk pregnancies which often occurs in extremes of age can be avoided. Moreover, there are benefits for the child. Spacing pregnancies by at least 2 years increases the chance of child survival [8]. Second, there are some indications that women whose pregnancy is wanted take more care of their pregnancy than others: they are more likely to receive antenatal care early in pregnancy, to give birth under medical supervision, or to have their children fully vaccinated [9]. Finally, a major contribution of contraception to reducing maternal death and disability is through its potential to decrease unsafe abortions.

Our hospital is situated in the north of Delhi, the areas it caters generally belongs to the lower class and lower middle class population, mostly consisting of laborers who are the migrant population coming from other northern states in search of work and employment. Earlier studies have proved that the retrospective account of unintended of birth may lead to underestimation of true levels of unwanted child bearing [10].

Table 2 Relationship of parity and education in women with unintended pregnancy

Parity	Education								Total	%
	Illiterate	%	Primary	%	Secondary	%	Intermediate and above	%		
0	7	0.6	3	0.2	7	0.6	6	0.5	23	1.9
1	21	1.7	29	2.4	58	4.8	37	3.0	145	11.9
2	332	27.3	93	7.6	129	10.6	7	0.6	561	46.1
3	268	22.0	58	4.8	29	2.4	1	0.1	356	29.3
4	89	7.3	5	0.4	0	0	0	0	94	7.7
>4	31	2.6	6	0.5	0	0	0	0	37	3.1
Total	748	61.5	194	15.9	223	18.4	51	4.2	1216	100

Table 3 The relationship of reason for not using contraception with education of women

Reasons	Illiterate (%)	Primary (%)	Secondary (%)	Intermediate and above (%)	Total (%)
Did not think could become pregnant	348 (28.6)	67 (5.5)	84 (6.9)	19 (1.6)	518 (42.6)
Fear of side effects	92 (24.0)	52 (4.3)	43 (3.5)	5 (0.4)	392 (32.2)
Inadequate Contraceptive use	72 (5.9)	59 (4.8)	83 (6.9)	26 (2.1)	240 (19.7)
Partner/in- laws wanted	30 (2.5)	14 (1.1)	9 (0.8)	0 (0)	53 (4.4)
Other causes	6 (0.5)	2 (0.2)	4 (0.3)	1 (0.1)	13 (1.1)
Total	748 (61.5)	194 (15.9)	223 (18.4)	51 (4.2)	12 16 (100)

Table 4 Reasons for women with >2 living children had 3rd pregnancy

Reason	No. of women	%
Unintended pregnancy	984	68.8
Wanted male child	288	20.2
Wanted female child	76	5.3
Other causes	81	5.7
Total	1429	100

Modern contraceptives have enabled many couples to plan their pregnancies but yet there are over 80 million unintended pregnancies each year worldwide. In our study the incidence of unintended pregnancy (15.5 %) was significantly less as compared to that of United States (49 %) [11]. The low incidence in our study group should be compared in the light of prevalence of contraceptive usage in study group (19.7 %) compared to that of United States (83–95 %) [12]. Therefore the women in our study group had pregnancies which though were unplanned but were acceptable. In the study done on women of rural Bangladesh the unintended pregnancy levels were found to be 30 % [13], the study from Ecuador found the incidence in their population to be 38 % [14], studies from Nepal, Guatemala and Philippines have also reported the incidence to be in the range of 30–40 % [15–17]. The incidence in our population may be low due to under reporting or may be low as our population was urban with relatively better contraceptive facilities.

The incidence of unintended pregnancy rate increased with increasing parity and age. Thus most women considered the pregnancy to be undesired only after completing their family. Permanent method of contraception such as tubal ligation is the most preferred method of contraception in India [18]. This signifies the need to increase awareness about the use different spacing methods of contraception. Study from Bangladesh also showed that pregnancy order was the single most important determinant of unplanned pregnancy [13].

Although Comparative studies have indicated that increased female literacy is correlated strongly with a decline in fertility [19], in our study unintended pregnancy

was significantly high in the illiterate group and in higher education group. The reasons for the increased incidence of unintended pregnancy among illiterate women and in women with secondary education and above were probably different; those who were illiterate had unintended pregnancy due to non use of contraception even after completing the family, whereas in those with secondary education the reason for increased incidence was that they wanted small family or they desired spacing of their children. This reasoning is further strengthened by the fact that women who were more educated came at lesser parity. Therefore education has role in making women realize the importance of small family and the need for spacing of children. Rising education among women may lead to increasing demand for abortion [4]. The study from Bangladesh, Nepal, also have also concluded that women's education had no significant affect on unintended pregnancy [13, 16].

Many of those unplanned pregnancies occurred among women not using any contraception; some resulted from incorrect and inconsistent use of contraception and very few were due to true failure of contraception. Most of the women who had unintended pregnancy were breast feeding and they assumed they would not be pregnant, this again emphasizes the need to educate women regarding when to start contraception. This is also stressed by the fact that average age of last child birth of these women was 1.8 years. The fear of side effects was more commonly sited reason than opposition to use of contraception by partner/in laws. So the women should be counseled about the side effects of contraception and assured about their treatment as and when they occur. The inadequate and inconsistent use of contraception was the most common cause of unintended pregnancy in women with secondary and intermediate education. This suggests that these women were practicing contraception and had the awareness to use it but they lacked proper knowledge and guidance. We need to find ways to improve the use of regular contraception.

Unintended pregnancy and not wanting a male child was the most common reason given by the women who had previous 2 living children. Similar finding has been observed in earlier study [3].

Emergency contraception is a safe and effective method of preventing unwanted pregnancy following unprotected sexual intercourse. In India awareness about emergency contraception in general population and paramedical workers is practically nonexistent [20], our study also had the same findings as none of the women had knowledge about emergency contraception.

Conclusion

The family planning services should aim to increase awareness among women regarding when to use contraception after delivery and to alleviate the fear of its side effects. Education of women plays a very important role in increasing acceptance of contraception and also the choice of contraception. The stress should be on use of not just the terminal methods but also increasing the use of spacing methods. The emphasis should be on regular and consistent use of contraceptive among contraceptive user. The goal should be to decrease intended as well as unintended pregnancy.

References

1. Arjun Adlakha (April 1997) Population trends: India, Washington: U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census; 1997. Retrieved 5 Dec 2009.
2. Ramesh BM, Gulati SC, Retherford RD. Contraceptive use in India 1992–1993, national family health survey subject reports, number 2. Mumbai: International Institute for Population Sciences; 1996. Retrieved 25 Nov 2009.
3. Pallikadavath S, Stones RW. Maternal and social factors associated with abortion in India: a population-based study. *Int Fam Plann Perspect*. 2006;32:120–5.
4. Nettleman MD, Chung H, Brewer J, et al. Reasons for unprotected intercourse: analysis of the PRAMS survey. *Contraception*. 2007;75:361–6.
5. Chhabra R, Nuna SC. Abortion in India: an overview. New Delhi: Veerendra Printers; 1994.
6. Kumar M, Meena J, Sharma S, et al. Contraceptive use among low-income urban married women in India. *J Sex Med*. 2011;8:376–82.
7. Koenig MA, Acharya R, Singh S, et al. Do current measurement approaches underestimate levels of unwanted childbearing? Evidence from rural India. *Popul Stud (Camb)*. 2006;60:243–56.
8. Setty-Venugopal V, Upadhyay UD. Birth spacing: three to five saves lives (population reports, series L, number 13). Baltimore: Johns Hopkins Bloomberg School of Public.
9. Marston C, Cleland JC. Do unintended pregnancies carried to term lead to adverse outcomes for mother and child? An assessment in five developing countries. *Popul Stud*. 2003;57:77–93.
10. Kramer MR, Hogue CJ, Gaydos LM. Non contracepting behavior in women at risk for unintended pregnancy: what's religion got to do with it? *Ann Epidemiol*. 2007;17:327–34.
11. Trussell J. The cost of unintended pregnancy in the United States. *Contraception*. 2007;75:168–70.
12. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect Sex Reprod Health*. 2006;38:90–6.
13. Kamal M, Islam A. Prevalence and socioeconomic correlates of unintended pregnancy among women in rural Bangladesh. *Salud Publica Mex*. 2011;53:108–15.
14. Eggleston E. Determinants of unintended pregnancy among women in Ecuador. *Int Fam Plann Perspect*. 1999;25:27–33.
15. Barden-O'Fallon JL, Speizer IS, White JS. Association between contraceptive discontinuation and pregnancy intentions in Guatemala. *Rev Panam Salud Publica*. 2008;23:410–7.
16. Adhikari R, Soonthorndhada K, Prasartkul P. Correlates of unintended pregnancy among currently pregnant married women in Nepal. *BMC Int Health Hum Rights*. 2009;9:17.
17. Singh S, Cavigon JV, Hossain A, et al. Estimating the level of abortion in the Philippines and Bangladesh. *Int Fam Plann Perspect* 1997; 23:100–7 & 144.
18. Chandhick N, Dhillon BS, Kambo I, et al. Contraceptive knowledge, practices and utilization of services in the rural areas of India (an ICMR task force study). *Indian J Med Sci*. 2003;57:303–10.
19. Glasier A, Gulmezoglu AM, Schmid GP, et al. Sexual and reproductive health: a matter of life and death. *Lancet*. 2006;368:1595–607.
20. Mittal S. Introduction of emergency contraception in India. *J Indian Med Assoc*. 2006;104:499–502.