

## Original Research Article

# High birth order pregnancy and unmet need of contraception in semi-urban population in India: a comparison of two cross sectional surveys performed 10 years apart

Shikha Chadha, Shweta Mittal, Parwati Sharma\*

Department of Obstetrics and Gynaecology, Dr. Baba Saheb Ambedkar Medical College and Hospital, Delhi, India

**Received:** 07 February 2020

**Revised:** 18 March 2020

**Accepted:** 19 March 2020

### \*Correspondence:

Dr. Parwati Sharma,

E-mail: [dr.sharmaparwati@gmail.com](mailto:dr.sharmaparwati@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## ABSTRACT

**Background:** Rising population is the greatest problem facing the country. The current study was done to find out reasons behind the failure of two child norm policy and to find out the changes in last 10 years in this regard.

**Methods:** A cross sectional survey was done at a referral hospital involving the pregnant women with two or more live children. The Performa used for survey was same as that used 10 years back for a similar study. A comparative analysis was done.

**Results:** A large number of high birth order pregnancies remains unintended (47.47% versus 46.06%). Intended pregnancies still reflect a preference for male child (58.78% versus 54.62%). Unintended pregnancies involves a large population with unmet need of contraception.

**Conclusions:** The prevalence of unmet need for family planning remains high in our society. There is a dire need of better client friendly family planning services especially in antenatal clinics along with educating men and women regarding the importance of planning ones family.

**Keywords:** Contraception, Family planning, Unintended pregnancies

## INTRODUCTION

Family planning is a principal strategy in controlling population growth, promoting maternal and child health and in emancipation, education and developing autonomy through adequate spacing of births and avoiding unwanted pregnancy. Contraceptive use has increased markedly in the recent years, however, millions of women still have not given a thought or are not provided with the means, or are told contraception is bad or dangerous to delay or avoid pregnancy and thus are not using any contraception and thus have unmet need of contraception.<sup>1</sup>

Unintended pregnancies related to unmet need is a worldwide problem, leading to either population growth

or sometimes unsafe abortions that affect women, their families and the society at large. In countries with a large population base high birth order pregnancy is not desirable for countries development. It is extremely important to identify and reach such women and provide proper counselling, services and motivation to them to avoid unintended pregnancies because this poses a huge economic and health burden on the society. These women are also likely to be easily prepared to use contraception. If we can bring these women under the umbrella of protected couples, then this would be a great boost to the country's family welfare programme and will help the economic growth of the country.

We conducted this survey to explore in depth the various reasons of conception of high birth order pregnancies and

compare them with a similar survey done 10 years back, so as to find out the difference in the public opinion regarding high birth order pregnancies and the use of contraception. This can be helpful in planning strategies for the betterment of family welfare programmes.

## METHODS

This cross sectional survey was done at a referral hospital in Delhi catering to a semi-urban population. Sample size of 1200 women was chosen for convenience as in a similar survey done 10 years back. The performa used for both the surveys was same. Hospital ethical committee approval was taken.

### Inclusion criteria

Pregnant women with two or more live children, attending the antenatal outpatient department.

### Exclusion criteria

Pregnant women with one child.

### Procedure

Both the survey were performed in the pregnant women with two and more live children, attending the antenatal outpatient department after taking written informed consent.

All the pregnant women enrolled in the survey were interviewed using a structured questionnaire. The data collected included socio-demographic characteristics, reason for conceiving a high birth order pregnancy, contraception practices, the desire for medical termination of pregnancy (MTP) in unintended pregnancy, the reasons for not getting it done.

The data was tabulated and analyzed and compared with the data obtained 10 years back. The earlier data was presented at an Annual conference of obstetricians and gynecologists in November 2006.

Statistical analysis was done appropriately.

## RESULTS

A total of 1200 women with birth order three or more of pregnancy were surveyed in each group.

The number of high birth order pregnancies was 1382 in 2017 compared with 1524 in 2006. The number of women with live children of 2, 3, 4 and 5 were 814, 204, 40 and 10 respectively in 2017 survey. The corresponding figures in 2006 were 954, 183, 48 and 15 respectively. Of the women surveyed in 2017, 748 (62.33%) women had used some method of contraception in their lives while 452 (37.67%) had never done so while in 2006, 632

(52.7%) women had used some method of contraception in their lives while 568 (47.3%) had never done so.

**Table 1: Reasons behind intended pregnancies of  $\geq 3$  child.**

Reasons	2017 (n=726) N (%)	2006 (n=822) N (%)
To increase family size	155 (21.35)	238 (28.96)
Desire for male child	427 (58.78)	449 (54.62)
Desire for female child	144 (19.87)	135 (16.42)

Of the high birth order pregnancies, 726 and 822 were intended in year 2017 and 2006 respectively. The reasons behind intending a child beyond a family size of two are depicted in Table 1. Maximum number of intended pregnancies in 2017 as well as 2006 were due to the desire for male child which was 58.78% and 54.62% respectively. Other reasons were to increase family size and the desire for female child. In the year 2017, 236 (32.5%) pregnancies were desired by self and family and 490 (67.5%) were desired by family only whereas in 2006 survey, 203 (24.7%) were desired by self and family and 619 (85.3%) were desired by family only.

The number of unintended pregnancies was 656 and 702 in year 2017 and 2006 respectively. The reasons behind conception of unintended pregnancies were explored and it was found that 60.37% and 74.36% women in 2017 and 2006 respectively did not use any contraception method. The reasons for not using contraception by these women are summarized in Table 2.

**Table 2: Reasons for not using contraception for those not wanting to become pregnant.**

Reasons	2017 (n=396)		2006 (n=522)	
	N	(%)	N	(%)
Irregular cycles	33	8.33	94	18
Poor awareness	44	11.11	73	14
Unwilling to make efforts	49	12.37	69	13.22
Myths	52	13.13	65	12.45
Thought would not conceive	22	5.56	55	10.54
Husband uncooperative	67	16.92	48	9.20
Poor availability	29	7.32	45	8.62
Used once not suited (side effects)	82	20.71	40	7.65
Never thought about it	18	4.55	33	6.32

The most common explanation given in 2017 was fear of side effects (mostly due to hearsay) and uncooperative husband. In 2006 it was irregular cycles and poor awareness. Contraception failure also resulted in unintended pregnancies which occurred in 39.63%

women in 2017 compared with 25.64% women in 2006. The most common cause for contraception failure was improper use. Of the women who reported contraception failure maximum number of couples were using barrier methods (Table 3).

**Table 3: Contraception failure.**

	2017 (n=260) N (%)	2006 (n=180) N (%)
<b>Condoms</b>	134 (51.53)	89 (49.45)
<b>COCP*</b>	93 (35.77)	56 (31.11)
<b>Natural</b>	30 (11.54)	15 (8.33)
<b>Ligation</b>	1 (0.39)	13 (7.22)
<b>IUCD** failure</b>	2 (0.77)	7 (3.89)

\*Combined oral contraceptive pill, \*\*Intra uterine contraceptive device.

**Table 4: Reasons for not getting MTP# done.**

Reason	2017 (n=386) N (%)	2006 (n=381) N (%)
<b>Refusal by family/husband</b>	118 (30.57)	158 (41.47)
<b>Late gestation</b>	226 (58.55)	197 (51.71)
<b>Failed MTP#</b>	42 (10.88)	26 (6.82)

#Medical termination of pregnancy.

**Table 5: Socio-demographic characteristics of women with unintended pregnancies.**

Variable	2017 (n=656) in percentage	2006 (n=702) in percentage
<b>Age (in years)</b>		
≤25	20.24	21.3
26-30	57.56	63.6
31-35	13.68	4.8
≥36	8.52	10.3
<b>Religion</b>		
Hindu	49.37	50.98
Muslim	40.8	32.65
Sikh	6.6.0	10.17
Christian	3.23	6.20
<b>Type of family</b>		
Joint	43	46
Nuclear	57	54
<b>Educational status of wife</b>		
<b>Illiterate</b>	28.34	43.66
<b>Primary</b>	35.46	41.5
<b>High school</b>	21.0	2.08
Graduate	15.20	12.76
<b>Educational status of wife</b>		
Illiterate	23.45	20.66
Primary	3.34	28.25
High school	26.48	44.33
Graduate	13.73	6.76

Of the women with unintended pregnancies, 386 (58.84%) women in 2017 and 381 (54.27%) in 2006 desired MTP but did not manage it for various reasons. The reasons behind not terminating the pregnancies were probed and are shown in Table 4. In both surveys it was found that women were not able to take the decision in first trimester and reported late for abortion. This was followed by refusal by family.

Socio-demographic characteristics of women with unintended pregnancies were studied. Maximum number of women with unintended pregnancies were in the age group of 26-30 years in both the surveys. The educational status of females was better in the current survey (Table 5).

The differences in religions were studied and are shown in Table 5. In both the surveys about 50% high birth order pregnancies were in Hindus whereas in Muslims the percentage of unintended pregnancies has gone up by about 11%. Number of women in joint families in 2017 and 2006 was 57% and 54 % respectively.

Future plans regarding the adoption of contraceptive methods have been depicted in Table 6. The major difference found was that in 2017 more women desired reversible contraception as compared to 2006 although permanent method remained the most chosen one.

**Table 6: plans for Future contraception.**

Method	2017 (n=1200)	2006 (n=1200)
<b>Ligation</b>	773 (64.42%)	1010 (84.17 %)
<b>Condom</b>	149 (12.42%)	None
<b>IUCD^</b>	124 (10.33%)	15 (1.25 %)
<b>COCP^^</b>	70 (5.83%)	21 (1.75 %)
<b>No plans</b>	84 (7%)	154 (12.83 %)

^Combined oral contraceptive pill, ^^intra uterine contraceptive device.

## DISCUSSION

The present survey was done to see how the semi-urban society attending the government hospitals of India has changed over the past 10 years. It is important not only to reduce the number of unintended pregnancies but also to bring down the number of intended high birth order pregnancies to reduce the unmet need for family planning in our society. In the present survey, the number of high birth order pregnancies showed a slight decrease of about 12% and contraception usage at some point of time in life increased by about 10%.

According to NFHS-3, total unmet need was 13.9% which has been decreased to 12.9% according to NFHS-4.<sup>2</sup> In a survey in 2014, 39% women had unmet need for family planning.<sup>3</sup> The number of intended high birth order pregnancies decreased by 96 only (726 in 2017 and 822 in 2006). This shows that couples still have a desire to produce more than two children. The reasons behind this

desire were explored and it was observed that more than half the couples reproduced to have a male child. The gender bias is still causing many harms to the society, most important being the population explosion. Education and woman empowerment is much needed especially in the lower income group to change the general perception about girl child in the society and thus, help in controlling this intended population growth.

The next major reason for intending more children was the general perception that two is too less. Most of the people in the survey had the perception that three to four children should be there in the family because of thinking that more the number of children more is the chance that they will be better cared off during their old age, and also because of the thought that at least some will survive, despite the improvement in health services. These reasons would need multiple sessions using adult teachings methodologies to change the ideas and use modern management skills at the family level.

The number of unintended pregnancies decreased by a meagre 46 (656 in 2017 and 702 in 2006). Although the usage of contraception by the couples showed an increase of about 10%, it did not reflect in decreasing the number of unintended pregnancies as the couples not using any contraception remained very high. Various reasons for not using any contraception method included fear of side effects (20.71%), opposition from husband/ family (16.92%), myths (13.13%), unwilling to make efforts (12.37%), poor awareness (11.11%). Malini et al noted major reason for not using any contraceptive method was low perceived risk of pregnancy (18%), other reasons being similar to our survey.<sup>3</sup> Various other studies have noted similar reasons.<sup>4,5</sup> It was observed that most couples gave no importance to planning a family and hence, did not approach health services for counselling and information to get rid of the fear of side effects. Husband has a key role in decision making but they did not seem forthcoming for this aspect of their lives. Girum et al noted the critical role of the husband on decision making relating to the use of contraception.<sup>6</sup> As compared to 2006 survey, awareness was found to be improved but the myths were still quite prevalent in the society. The government has introduced PPIUCD (postpartum intrauterine contraceptive device) programme in the country to counter the poor efforts by the public but we feel that the importance of planning a family should be introduced in the school itself at the high school level.

Contraception failure was another problem which is persisting, and we feel proper counselling is lacking at the family planning clinics. We should learn from the VCTC (Voluntary Counselling Formatted: Highlight and Testing Centre) programme where the counsellors have done a good job. Thus, trained counsellors can go a long way in reducing the failure rate.

As far as MTP for an unintended pregnancy was concerned, the society was found to be more accepting

and willing of the procedure. The major problem was the timely decision which was generally delayed or postponed. This could be explained by the poor awareness about the fact that decision should be taken in the first trimester itself. People have no knowledge regarding the consequences of second trimester abortion. Surprisingly, the failure of MTP had increased. The reason could be over the counter use of MTP pills indiscriminately, and then fail to follow up health services. They are not aware about the complications that can happen in the babies.

It was no surprise that most unintended pregnancies (57.56% in 2017 and 63.6% in 2006) were in the age group 26-30 years as that is the age of peak reproduction in India. When religion was studied, Hindus had a high number of unintended pregnancies. Muslims showed a small increase in unintended pregnancies, but the total number was less than in Hindus indicating that they are more open towards family planning methods. Family structure whether joint or nuclear did not have much impact on the family size.

Education status of both husband and wife is important in family planning. In this survey, it has been observed that education status of the couple has improved in last 10 years. Couple with higher education approve of family planning methods more easily. Ling et al showed association between men's age, monthly income, education level and years of marriage with their roles in family planning. Older men, men with higher level of education, above average monthly income and shorter duration of marriage participated more in family planning.<sup>7</sup> Future desire of contraception did not show much change, with majority of the people having desire for permanent method. However, there was an increase in the desire for reversible method of contraception including condoms, IUCDs (intrauterine contraceptive device) and COCs (combined oral contraceptives). Also, it has been observed that in 2017, more couples attempted to plan reproduction possibly because of counselling by health workers. This shows improved awareness and attitude but still more motivation is required to get into practice as the contraception usage increased by only 10%. Upadhye et al noted that awareness about contraceptive methods is quite high but acceptance is quite low.<sup>8</sup> Renjhen et al noted in their survey that knowledge and awareness do not always lead to a positive attitude towards the use of contraceptives.<sup>9</sup>

## CONCLUSION

In conclusion, the present survey has revealed a high prevalence of unmet need for family planning which is reflected by unintended pregnancies as well as by intended high birth order pregnancies. Efforts should be made to counsel women to use more of spacing methods such as IUCDs and COCPs. Health care provider should provide proper counselling to the women to receive health care services in case of side effects to reduce the

discontinuation of contraceptive method. Couple counselling should be promoted. Male's participation in family planning programmes should be encouraged. Gender bias needs to be reduced from the society.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

## REFERENCES

1. Sedgh G, Hussain R, Bankole A, Singh S. Unmet need for contraception in developing countries: levels and reasons for not using a method. Guttmacher Institute. 2007. Available at: <https://www.guttmacher.org/sites/default/files/pdfs/pubs/2007/07/09/or37.pdf>. Accessed on 15 April 2019.
2. NFHS 4 Report 2015-16. Govt. of India and International Institute of Population Sciences. Available at: <http://rchiips.org/NFHS/NFHS-4Reports/India.pdf>. Accessed on 15 April 2019.
3. Bhattathiry MM, Ethirajan N. Unmet need for family planning among married women of reproductive age group in urban Tamil Nadu. J Fam Community Med. 2014;21(1):53-7.
4. Begum S, Nair S, Donta B, Prakasam C. Prevalence of unmet need for contraception in urban slum communities, Mumbai. Int J Reprod Contracept Obstet Gynecol. 2014;3(3):627-30.
5. Patil SS, Rashid AK, Narayan KA. Unmet needs for contraception in married women in a tribal area of India. Malaysian J Publ Health Med. 2010;10(2):44-51.
6. Girum T, Shegaze M, Tariku Y. The Role of currently married men in family planning and its associated factors in Agaro Town, South West Ethiopia. Ann Med Health Sci Res. 2017;7:119- 24.
7. Ling JES, Tong SF. The roles of men in family planning- a study of married men at the UKM primary care clinic. Malays Fam Phys. 2017;12(1):2-13.
8. Upadhye JJ, Upadhye JV. Contraceptive awareness and practices in women of urban India. Int J Reprod Contracept Obstet Gynecol. 2017;6(4):1279-82.
9. Renjhen P, Kumar A, Pattanshetty S, Sagir A, Samarasinghe CM. A survey on knowledge, attitude and practice of contraception among college students in Sikkim, India. J Turk Ger Gynecol Assoc. 2010;11(2):78-81.

**Cite this article as:** Chadha S, Mittal S, Sharma P. High birth order pregnancy and unmet need of contraception in semi-urban population in India: a comparison of two cross sectional surveys performed 10 years apart. Int J Community Med Public Health 2020;7:1774-8.