



Contents lists available at BioMedSciDirect Publications

International Journal of Biological & Medical Research

Journal homepage: www.biomedscidirect.com

Original Article

Contraceptive prevalence and usage of different contraceptive methods and its correlates in an urban slum area of western maharashtra - a cross sectional study

Bendhari Manisha Laxman, Haralkar Santosh J

Assistant Professor, Department of Community Medicine, RCSM Govt. Medical College, Kolhapur. (Maharashtra) 416003

ARTICLE INFO

Keywords:

Contraceptive prevalence,
age, education,
type of family,
no of living children,
no of living son.

ABSTRACT

Background: Acceptance of family planning methods are influenced by a variety of interrelated factors such as age, education, number of living son, type of family, etc. **Objectives:** 1. To find out contraceptive prevalence and usage of different contraceptive methods among ever married women aged 15 to 49 years in an urban slum area. 2. To study the different variables affecting the contraceptive prevalence among married women aged 15 to 49 years. **Design:** A community based cross sectional study. **Setting:** 400 married women of age group 15 to 49 residing in the urban slum area, catered by U.H.C. of the Department of Community Medicine, Dr. V.M.G.M.C Solapur, Maharashtra. **Methods:** By using systematic random sampling method, every 7th household was selected and data was collected by house to house visits and interview of study population with a pre-designed pre-tested proforma. Chi- square test used to analyze data. **Results:** Contraceptive prevalence was 70.25%. Acceptors of terminal method of contraception were more (80.07%) than spacing methods (19.93%) amongst contraceptive users. Contraceptive use was found to be significantly associated with age, education, number of living son, type of family and number of living children of women. **Conclusion:** Counselling of women should be done especially in urban slum areas by health worker for appropriate use of contraceptive like spacing methods. Male child syndrome should be removed from peoples by I.E.C activity.

© Copyright 2010 BioMedSciDirect Publications IJBM - ISSN: 0976:6685. All rights reserved.

1. Introduction

According to Census 2011, Indian population stood at 1210 million. The last decade has seen India's population grow by 17.64% which means 181 million persons were added to the population¹. India was the first country in the world to formulate the National Family Planning Programme in the year 1952 with the objective of "reducing the birth rate of the extent necessary to stabilize the population at a level consistent with requirement of National economy". National Population Policy 2000 envisages universal access to various methods of contraception and fertility regulation. It is anticipated that if this policy is fully implemented, India's population in 2010 will be 1,107 million instead of 1,162 million². The extent of acceptance of contraceptive methods still varies within societies and also among different castes and religious groups. The factors responsible for such varied picture operate at the individual, family and community level with their roots in the socio-economic and cultural milieu of Indian Society³. India is undergoing a fertility transition and an important feature of this transition is the fact that contraceptive use has spread to uneducated women also⁴. Keeping in view the above points, the present study was designed with the OBJECTIVES

1. To find out contraceptive prevalence and usage of different contraceptive methods among ever married women aged 15 to 49 years in an urban slum area.

2. To study the different variables affecting the contraceptive prevalence among married women aged 15 to 49 years.

Materials & Methods:

The present study was carried out in the slum area, catered by Urban Health Centre of the Department of Community Medicine. Population in this slum area was approximately 14,353 populations. The study was community based Cross Sectional study. The period of study was from January 2012 to June 2012 i.e 6 months. Sampling frame consisted of total inhabited households (2860) in the slum area catered by Urban Health Center, of the Department of Community Medicine with its married women of age group 15 to 49 are 3157 i.e. 22% of total population of 14,353.2 So in each house, there will be $3157/2860 = 1.1$ married women of age group 15 to 49. Sampling unit was the household having married women of age group 15 to 49.

The sample size was estimated by using formula $n = (1.96)^2 \times p \times q / L^2$ at 95% Confidence interval, Where p = contraceptive prevalence = 49.86%⁵, q = 100 - p = 50.14, L= allowable error; 10% of p = 4.99. Sample size calculated was 385. To round up the figure, 400 married women of age group 15 to 49 were taken.

* Corresponding Author : **Dr. Bendhari M L.**

*Assistant Professor,
Department of Community Medicine,
RCSM Govt. Medical College,
Kolhapur. (Maharashtra) 416003
Email id: drmanishabendhari@gmail.com

Inclusion criteria

- Married women of age group 15 to 49
- Willing to participate in study procedure.

Exclusion criteria

- Pregnant women
- Non availability in spite of three successive visits to their homes.
- Unusual residents i.e those living in household for less than 6 months.
- Permanently locked houses.

A house to house survey was carried out by systematic random sampling method. Total 400 married women of age group 15 to 49 from 400 houses (considering 1 married women of age group 15 to 49 in each selected house) were planned to interview. Every 7th household (total houses in slum area divided by selected number of houses. i.e 2860 / 400) was selected in study sample. After identifying each lane, first of all the households were enlisted serially with chalk piece, then the first household i.e. (No.3) was selected randomly from the first five households. Then subsequently by adding 7 to the previously selected household number i.e. 3+7=10, then 10+7=17, 17+7=24 similarly the further households were selected. Data was collected by house to house visits and interview of study population with a pre-designed pre-tested proforma

Results: Figure 1-Use of different contraceptive Methods

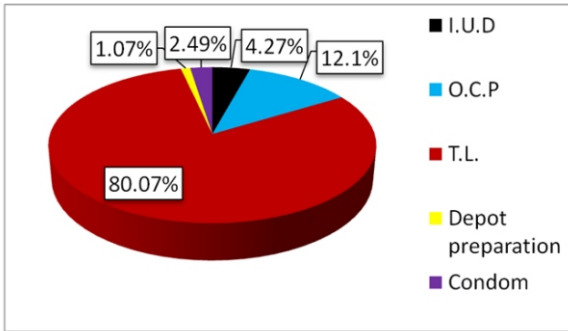


Table no. 1- shows an association between age and contraceptive use

Age (yrs)	Contraceptive use (%)		Total
	Yes	No	
15-19*	0 (0.00%)	15 (100%)	15 (3.75%)
20-24*	30 (38.46%)	48 (61.54%)	78 (19.50%)
25-29	54 (61.36%)	34 (38.64%)	88 (22.00%)
30-34	63 (91.30%)	6 (8.70%)	69 (17.25%)
35-39	45 (88.24%)	6 (11.76%)	51 (12.75%)
40-44	61 (92.42%)	5 (7.58%)	66 (16.5%)
45-49	28 (84.85%)	5 (15.15%)	33 (8.25%)
Total	281(70.25)	119(29.75)	400

$\chi^2 = 109.1$, d.f. = 5, $P < 0.001$ (Statistically significant)
 * = clubbed together for χ^2 purpose

Table no.1 and figure no. 1 shows that contraceptive prevalence was 70.25% and acceptors of terminal method of contraception were more (80.07%) than spacing methods (19.93%) amongst contraceptive users. O.C. pills, IUD, Condom and depot preparation were ever used by 12.1%, 4.27%, 2.49% and 1.07% married women in 15-49 years of age respectively. 30 (38.46%) married women of age group 20-24 and 61 (92.42%) married women of age group 40-44 are using any one method of contraception. Married women of age group 15-19 do not use contraceptive methods. Contraceptive prevalence was found to be increased gradually with increasing age. The difference was found to be highly significant ($P < 0.001$).

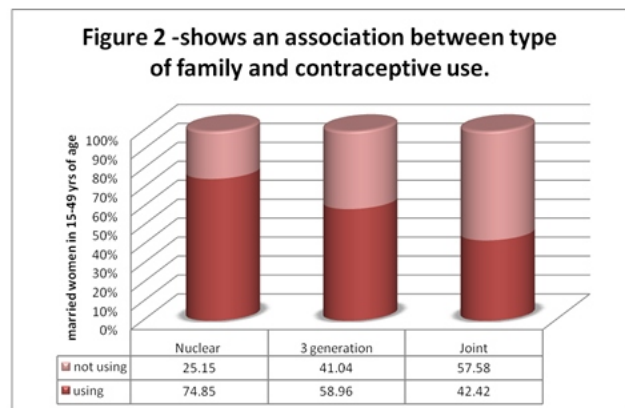
Table No. 2- shows an association between education of women and contraceptive use.

Education	Contraceptive use (%)		Total
	Yes	No	
Illiterate	74 (61.67%)	46 (38.33%)	120 (30.00%)
Primary	110 (66.67%)	55 (33.33%)	165 (41.25%)
Secondary	48 (84.21%)	9 (15.79%)	57 (14.25%)
Higher Secondary	41 (85.42%)	7 (14.58%)	48 (12.00%)
Graduate	8 (80%)	2 (20%)	10 (2.50%)
Total	281(70.25)	119(29.75)	400

$\chi^2 = 16.3$, d.f. = 4, $P < 0.005$, Statistically significant

Table no.2 shows that 74 (61.67%) illiterate married women of age group 15 to 49 and 49 (84.48%) married women of age group 15 to 49 who were educated upto higher secondary and above, were ever used contraception. Contraceptive prevalence was found to be increased gradually with increasing education. The difference was found to be highly significant ($P < 0.001$).

Figure 2 -shows an association between type of family and contraceptive use.



$\chi^2 = 28.2$, d.f. = 2, $P < 0.0001$. Statistically significant

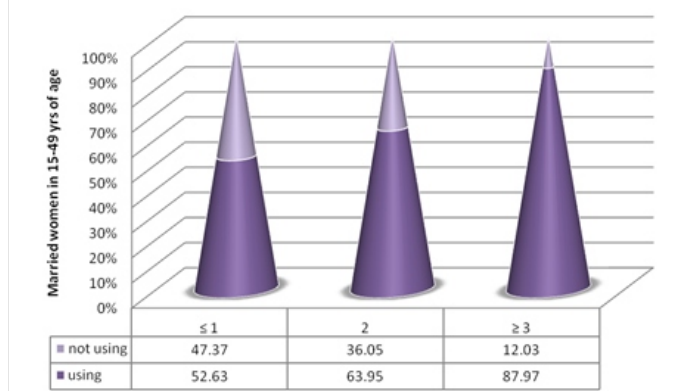
Figure no. 2 shows that contraceptive use was higher among females in Nuclear family. 125 (74.85%) study subjects with nuclear family and 42 (42.42) study subjects with joint family were ever used contraception. This difference was statistically highly significant.

Table No. 3 - shows an association between No. of living son and contraceptive use.

No. of living Son	Contraceptive use (%)		Total
	Yes	No	
0	6 (8.70%)	63 (91.30%)	69 (17.25%)
1	144 (77.01%)	43 (22.99%)	187 (46.75%)
2	96 (93.20%)	7 (6.80%)	103 (25.75%)
≥3	35 (85.37%)	6 (14.63%)	41 (10.25%)
Total	281 (70.25%)	119 (29.75%)	400

$\chi^2 = 159.65$, d.f. = 3, $P < 0.001$ Statistically highly significant

Table no. 3 shows that acceptance of family planning method in married women of age group 15 to 49 after delivery of at least one male child was significantly higher (77.01%) than those with no male child (8.70%). 96 (93.20%) females with 2 male children were ever used contraception. The difference was found to be highly significant ($P < 0.001$).

Figure 3 – shows an association between No. of Living Children and contraceptive use.

$\chi^2 = 41.0$, d.f. = 2, $P < 0.0001$. Statistically highly significant

Figure no. 3 shows that contraceptive prevalence among study subjects with ≤ 1 living children and study subjects ≥ 3 living children was 50 (52.63%) and 139 (87.97%) respectively. This difference is statistically highly significant. 12.03% of married women in 15-49 years of age group still not using any contraceptive method.

Discussion:

Contraceptive prevalence was 70.25%, which is more than that found by Murarkar SK. et al6 (48.63%) and Rajinder Singh Balgir et al7 (53.84%) but less than that found by Girdhar S. et al8. In the study done by Girdhar S et al8. 87.1% married women were users and only 12.9% non users.

Acceptors of terminal method of contraception (tubectomy) were more (80.07%) than spacing methods (19.93%) amongst contraceptive users. Studies done by Kansal A. et al5 found that 61.89 % contraceptive users were acceptors of terminal method of

contraception (both vasectomy and tubectomy). 24.3 % of the women were sterilized in the study done by Arjit Kumar et al9. In present study it was found that O.C. pills, IUD, Condom and depot preparation were ever used by 12.1%, 4.27%, 2.49% and 1.07% married women in 15-49 years of age respectively. Girdhar S. et al8 reported that 32.3%, 14.1%, 3.1% and 37.6% married women were ever used condom, Cu-T, O.C. pills and Tubectomy/Vasectomy as method of contraception respectively.

30 (38.46%) married women of age group 20-24 and 61 (92.42%) married women of age group 40-44 were ever used contraception. Contraceptive prevalence was found to be increased gradually with increasing age in the present study. These results were consistent with the findings of Nirmalya Manna et al10. They found that 9 (26.32%) of women ≤ 20 years of age were ever used contraception while 11 (78.57%) of women > 40 years of age were ever used contraception.

49 (84.48%) married women of age group 15 to 49 who were educated upto higher secondary and above, were ever used contraception. Acceptance of contraception increased significantly with increase in education of women. Education of women played crucial role in their utilization of family planning methods in the study done by Sharma V. et al11. Among those who were educated upto high school and above, 82.8% ever used family planning methods.

Contraceptive use was higher among females in Nuclear family (74.85%) than the females with joint family (42.42) and three generation family (58.96%). Significant association was found between type of family and contraceptive use. Similar findings were reported by Halder A. et al12. They found that 65.1 % women from nuclear family and 59.0 % women from joint family were the acceptors of family planning methods. Difference was significant ($p < 0.05$).

Acceptance of family planning method in married women of age group 15 to 49 after delivery of at least one male child was significantly higher (77.01%) than those with no male child (8.70%). 96 (93.20%) females with 2 male child were ever used contraception. This difference in contraceptive use between females with no male child and females with 2 male children was highly significant. Nirmalya Manna¹⁰ also found that contraceptive acceptance was increased among couples who had 2 or more male children. They reported that no female with male child were ever used contraception while 47 (69.12) females with 2 male children were ever used contraception. Choudhari SG. et al13 also shown in their study that for non acceptors, the reason for not using any contraceptive, the commonest reason came out to be 'Desire for male children by 47(30.32%).'.

In this study it was found that 87.97% females with ≥ 3 living children and 52.63% females with ≤ 1 living child were using contraceptive method. This difference was found to be significant. Chaurasia A. R14 have shown in his study that contraceptive use ranged from just about 8 percent among women having no surviving child to more than 68 percent among women with at least two surviving children. Benny PV et al15 also shown in study that the all (100%) of the women who have ≥ 3 children were ever used contraception and 66.67% of women with ≤ 1 child were ever used contraception and there is a significant difference between those used and those not used in terms of number of children (P value 0.0001)

Conclusions:

Contraceptive prevalence was 70.25% in present study. But methods like vasectomy & other methods of contraception

(withdraw method, safe period etc.) were not preferred as contraceptive. Use of Contraceptive method was dependent on age. As age increases contraceptive use increases. Education of women influenced contraceptive use. Contraceptive use was shown to be increased as education of women is higher. Contraceptive use was higher among females in Nuclear family than those in three generation and Joint families. It may be because in nuclear families, couple can decide about contraceptive use without interference from in-laws. Contraceptive use is dependent of type of family and number of living children. Male child syndrome or male child preference was still a widely prevalent concept. 12.03% of married women in 15-49 years of age group still not using any contraceptive method.

Recommendations:

Health workers should inform & motivate peoples to adopt small family norm. Advantages of small family, female education, avoiding early marriages and pregnancies should be emphasized. Identification of women using inappropriate methods & counseling should be done for appropriate use of contraceptive like spacing methods. Male child syndrome should be removed from peoples by I.E.C activity & motivating them for small family norm. Focus on Men- as men decides family size, intervals of births, use/non-use of contraceptives & marriage of girl child in family in India, they need to be convinced about the facts and motivated to adapt method of contraception.

References

1. Census of India. Provisional population totals, India: census, 2011. Available at: <http://censusindia.gov.in/2011-prov-results/indiaatglance.html>.
2. National Population Policy, 2000. National commission of on Population. Ministry of Health and Family Welfare, Government of India. Available at: http://populationcommission.nic.in/Publication/11_1.aspx.
3. Rao A P, Somayajulu VV. Factors responsible for Family Planning acceptance with single child-findings from a study in Karnataka. *Demography India* 1999;28(1) 65-73.
4. McNay K, Arokiasamy P, Cassen R. Why are uneducated women in India using contraception? A multilevel analysis. *Popul. Stud. (Camb.)* 2003;57(1): 21-40.
5. Kansal A., Chandra R., Kandpal S.D., Negi K.S. Epidemiological Correlates of Contraceptive Prevalence in Rural Population of Dehradun District. *Indian Journal of Community Medicine* 2005 April-June; 30(2):60-62.
6. Murarkar SK, Soundale SG. Epidemiological correlates of contraceptive prevalence in married women of reproductive age group in rural area. *National journal of community medicine* 2011; 2(1): 78-81
7. Rajinder Singh Balgir, Singh S, Paramjeet Kaur, Verma G, Supreet Kaur. Contraceptive practices adopted by women attending an urban health centre in Punjab, India. *Int J Res Dev Health*. August 2013; Vol 1(3): 115-9.
8. Girdhar S, Chaudhary A, Gill p, Soni R, Sachar R. Contraceptive practices and related factors among married women in a rural area of Ludhiana. *The Internet Journal of Health*; 12 (1):1-4 Available from: <https://ispub.com/IJH/12/1/5428#>.
9. Arjit Kumar, Bhardwaj P, Srivastava JP, Gupta P. A study on family planning practices and methods among women of urban slums of Lucknow city. *Indian Journal of Community Health* 2011 July-Dec; 23(2): 75-77.
10. Nirmalya Manna, Gandhari Basu. Contraceptive methods in a rural area of West Bengal, India. *Sudanese journal of public health* 2011 October; 6(4): 164-9
11. Vasundhara Sharma, Uday Mohan, Vinita Das, Shally Awasthi. Socio demographic determinants and knowledge, attitude, practice: Survey of family planning. *J Fam Med Primary Care* [serial online] 2012 [cited 2014 Oct 15]; 1: 43-7. Available from: <http://www.jfmpc.com/text.asp?2012/1/1/43/94451>.
12. Haldar A, Baur B, Das P, Misra R, Pal R, Roy PR. Contraceptive practices and associated social covariates: an experience from two districts of West Bengal, India. *Nepal Journal of Epidemiology* 2012;2(4): 219-225.
13. Choudhari SG, Kadu AV, Raut Y. Desire for Children and Fear of Side Effects – A Basic Barrier for Acceptance of Contraceptive Services in Rural Area of Central India. *Online Journal of Health and Allied Sciences* 2013 Apr-Jun; 12 (2): 1-4.
14. Chaurasia A. R. Contraceptive Use in India: A Data Mining Approach. *International Journal of Population Research*. 2014 August; 1-11 Available from: <http://www.hindawi.com/journals/ijpr/2014/821436/>.
15. Benny PV, Regi Jose, Anil Bindu S, Jeesha C Haran. Pattern of contraceptive use among married women of reproductive age group in a rural panchayat in Kerala. *International journal of medical and applied sciences* 2012; 2(3): 287-292.