

Original Research Article

A cross sectional study of contraceptive prevalence and factors responsible for usage of different contraceptive methods in an urban slum area

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ABSTRACT

Background: According to WHO; contraceptive prevalence is the percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of method used. It is usually reported for married women aged 15-49. According NFHS-4 (2015-16) current use of any family planning method is 53.5%. The objectives of the study were to find out contraceptive prevalence and usage of different contraceptive methods among married women of reproductive age group and to study factors affecting contraception use among married women of reproductive age group.

Methods: A community based cross sectional study was carried out in urban slum area catered under Urban Health Training Center of medical college. Sample size of 390 married women of reproductive age residing in urban slum area taken. By using systematic random sampling method data collected by house to house visits. Data was analyzed by using SPSS software version 24. Chi-square test used for showing association.

Results: Contraceptive prevalence was found to be 53.84%. Use of tubal ligation was found maximum (12.05%) followed by condom, O.C.P. Contraceptive use was found to be significantly associated with age, number of living son, and number of living children of women.

Conclusions: Counselling of women should be done for appropriate use of contraceptive method. Awareness regarding female education, birth spacing, advantage of small family, etc. should be done by I.E.C. activity.

Keywords: Contraceptive use, O.C.P., Tubal ligation, Urban slum

INTRODUCTION

World health organization defined family planning as “A way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of the family group and thus contribute effectively to the social development of the country”.¹

The National Family Planning Programme was formulated first time in the world by India in the year 1952 with keeping the objective of “Reducing the birth rate of the extent necessary to stabilize the population at a level consistent with requirement of National economy”.²

National population policy 2000 envisaged universal access to various methods of contraception and fertility regulation. It was assumed that if this policy is fully implemented, India's population in 2010 would be 1,107 million instead of 1,162 million.³

WHO defined contraception prevalence as “The percentage of women who are currently using, or whose sexual partner is currently using, at least one method of contraception, regardless of method used and it is usually reported for married women aged 15-49 years”.⁴

The variation in extent of acceptance of contraceptive methods was observed within societies, castes and religious groups. The factors responsible for such varied picture was found to operate at the individual, family and community level with their root in the socioeconomic and cultural milieu of Indian society.³ According NFHS-4 (2015-16) current use of any family planning method is 53.5%.⁵

The use of family planning methods was being influenced by a variety of interrelated factors such as age at marriage, education, economic status, religion, number of living children etc.⁶

So, the need of conducting present study was to find out the factors responsible for usage of different contraceptive methods.

METHODS

Study design

A community based cross sectional study.

Study place

Urban slum of Harshnagar under field practice area of Urban Health Training Center,

Government Medical College and Hospital, Aurangabad, Maharashtra.

Study period

1 November 2017 to 31 January 2018 (3 months).

Selection criteria of the patients

Married women of reproductive age group (15-49 yrs) residing in urban slum area and those who were willing to participate in study were included. Exclusion criteria was pregnant women, permanent locked houses, unusual residents i.e. those living in household for less than 6 months, not willing to participate.

Study procedure

The present study was conducted in the field practice area of Urban Health Training Centre attached to the teaching hospital and medical college. Urban Health Training Centre is situated in the slums about 3 km from the teaching institute. The field practice area of Urban Health Training Centre consists of mainly urban slum areas and has population of 11450 (2011 census). Total 390

married women of reproductive age group were considered by using systematic random sampling method.

Urban Health Training Centre provides curative, preventive and promotive health services to the urban slum population in the surrounding area and conducts daily out-patient services viz General OPD, pediatrics OPD, Chronic and specialist OPDs, antenatal health checkups and follow up services are provided to ANC and PNC mothers. National Health Programmes like immunization, RNTCP and AIDS control programmes are also implemented.

Sample size

Considering prevalence of contraception usage 49.86% in previous studies.² Sample size was calculated in Open Epi software with urban slum population 11450 (2011 census). At 95% confidence interval sample size was found to be 372. Considering non-response of participants investigator considered total sample as 390.

Data was collected from November 2017 to January 2018 by doing house to house visits till sample size achieved. Data was collected with semi-structured questionnaire in their local language after taking consent of study subjects.

Statistical analysis

Data entry and statistical analysis was done using SPSS version 24. The data collected using the above mentioned measures were analyzed using frequencies and percentages. Chi square test was used for testing the significance of association at p value of 0.05.

Ethical approval

Institutional ethical committee's approval was taken before conducting study.

RESULTS

Table 1 shows baseline characteristics of women of reproductive age group 15-49 years. Out of total 390 study subjects 90 (23.07%) was found to be in age group 25-29 years, followed by 84 (21.53%) and 83 (21.28%) women in age group 30-34 years and 20-24 years respectively. It was found that women completed maximum education up to high school was 159 (40.76%) & up to middle school was 84 (21.53%). We found maximum study subjects belong to Muslim religion i. e. 235 (60.25%). 181 (46.41%) women was from nuclear family and 169 (43.33%) women was from joint family.

Figure 1 shows contraceptive prevalence was found to be 53.84% whereas 46.15% women used no contraceptives. Use of tubal ligation was found maximum (12.05%), followed by condom (11.02%) and O.C.P (9.74%).

Table 1: Baseline socio-demographic factors of study subjects (n=390).

Sociodemographic factors	No. of women (n=390)	%
Age (in years)		
15-19	17	4.35
20-24	83	21.28
25-29	90	23.07
30-34	84	21.53
35-39	45	11.53
40-44	54	13.84
45-49	17	4.35
Education of wife		
Professional degree/PhD	0	0.00
Graduate/PG	38	9.74
Intermediate	48	12.30
High school completion	159	40.76
Middle school completion	84	21.53
Primary school completion	10	2.56
Illiterate	51	13.07
Religion		
Hindu	67	17.18
Muslim	235	60.25
Buddhist	88	22.56
Type of family		
Nuclear	181	46.41
Joint	169	43.33
Three generation	40	10.25

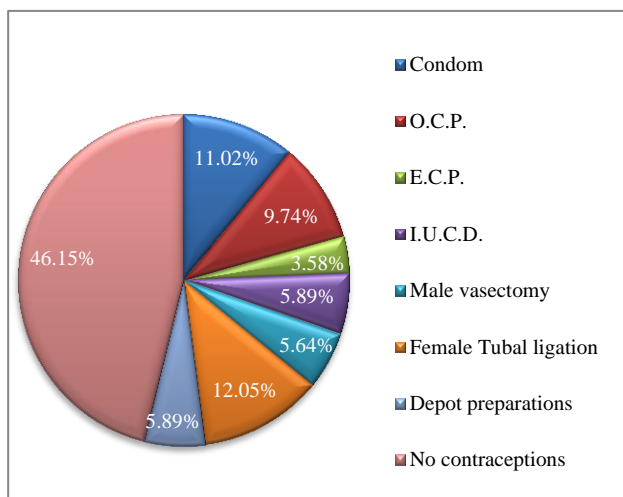
**Figure 1: Use of different contraceptive methods by study subjects (n=390).**

Table 2 shows the relation between age and use of contraceptive methods. Contraceptive use was maximum in the age group of 30-34 years (63.10%). This was followed by high contraceptive use in age group 25-29 years (53.33%) and 20-24 years (43.37%). The difference was found to be highly significant ($p < 0.00038$).

Table 2: Distribution of study subjects according to age and contraception use (n=390).

Age (completed years)	Contraception use (%)		Total
	Yes	No	
15-19*	3 (17.65)	14 (82.35)	17 (4.35)
20-24*	36 (43.37)	47 (56.63)	83 (21.28)
25-29	48 (53.33)	42 (46.67)	90 (23.07)
30-34	53 (63.10)	31 (36.90)	84 (21.53)
35-39	34 (75.56)	11 (24.44)	45 (11.53)
40-44	30 (55.56)	24 (44.44)	54 (13.84)
45-49	6 (35.29)	11 (64.71)	17 (4.35)
Total	210 (53.84)	180 (46.15)	390 (100)

$\chi^2 = 22.72$, d.f.=5, $p < 0.00038$, highly significant; *=clubbed together for χ^2 purpose.

Table 3: Distribution of study subjects according to education and contraception use (n=390).

Education	Contraception use (%)		Total
	Yes	No	
Professional degree/PhD*	0 (0.00)	0 (0.00)	0 (0.00)
Graduate/PG*	23 (60.53)	15 (39.47)	38 (9.74)
Intermediate*	26 (54.17)	22 (45.83)	48 (12.30)
High school Completion*	87 (54.72)	72 (45.28)	159 (40.76)
Middle school completion*	43 (51.19)	41 (48.81)	84 (21.53)
Primary school completion*	6 (60.00)	4 (40.00)	10 (2.56)
Illiterate	25 (49.02)	26 (50.98)	51 (13.07)
Total	210 (53.84)	180 (46.15)	390

$\chi^2 = 0.55$ (with yates correction), d.f.=1, $p < 0.45$, not significant
*=clubbed together for χ^2 purpose.

Table 3 shows education of wife influenced contraceptive use. Contraceptive use rate was 49.02% among women who were illiterate, while it was 54.72% among those who were educated up to high school and 51.19% among those educated up to middle school. This difference was not significant.

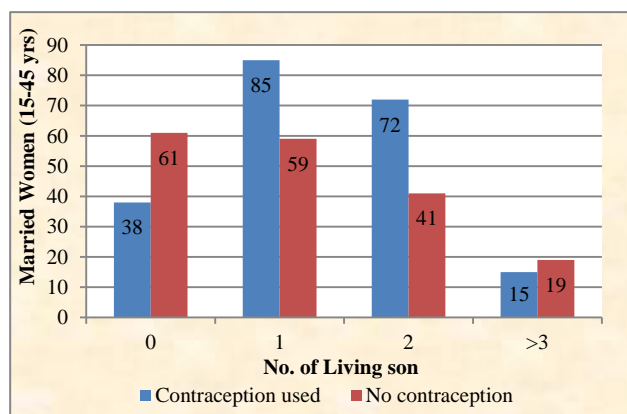
Table 4 shows contraceptive use was higher among females in nuclear family. 102 (56.35%) whereas it was 85 (50.29%) in females with joint family. The difference was not significant.

Figure 2 shows that use of contraception was significantly higher in those having at least one male child (son) i.e. 85 (59.02%) than those had no male child 38 (38.38%). 72 women was having two male child and was also having higher (63.72%) contraception use. The difference was found to be highly significant ($p < 0.0007$).

Table 4: Distribution of study subjects according to type of family and contraception use (n =390).

Type of family	Contraception use (%)		Total
	Yes	No	
Nuclear	102 (56.35)	79 (43.65)	181 (46.41)
Joint	85 (50.29)	84 (49.70)	169 (43.33)
Three generation	23 (57.50)	17 (42.50)	40 (10.25)
Total	210 (53.84)	180 (46.15)	390

$\chi^2=1.53$, d.f.=2, $p<0.46$, not significant.

**Figure 2: Distribution of study subjects according to number of living son and contraception use (n=390).**
 $\chi^2=16.8$, d.f.=3, $p<0.0007$, significant.**Table 5: Distribution of study subjects according to number of living children and contraception use (n=390).**

No. of living children	Contraception use (%)		Total
	Yes	No	
<1	33 (32.67)	68 (67.32)	101
2	60 (58.82)	42 (41.18)	102
>3	117 (62.57)	70 (37.43)	187
Total	210 (53.84)	180 (46.15)	390

$\chi^2=24.96$, d.f.=2, $p<0.0000$, significant.

Table 5 shows the use of contraception among study subjects with ≤ 1 living children and study subjects ≥ 3 living children was 33 (32.67%) and 117 (62.57%) respectively. This showed that usage of family planning was higher in those having 2 or more children. This difference was statistically highly significant ($p<0.0000$).

DISCUSSION

The present study was conducted among women of 15 to 45 years of age group in the field practice area of Urban Health Training Center to find out the factors responsible for usage of different types of contraceptive methods. Total 390 married women of reproductive age group considered by using systematic random sampling method.

Out of total 390 study subjects 23.07% was found to be in age group 25-29 years, followed by 21.53% and 21.28% women in age group 30-34 years & 20-24 years respectively. It was found that most of the women completed maximum education up to high school (40.76%) and middle school (21.53%). Most of the study participants belong to Muslim religion.

Contraceptive prevalence was found to be 53.84% in our study. Use of tubal ligation was the most commonly used practice of contraception (12.05%) followed by Condom and OC pills. Similar findings were observed in Taklikar et al study, among the different methods of contraception used, tubectomy was the most common method (75.9%) of contraception, followed by male condoms (11.15%), OC pills (9.4%), IUDs (1.43%), and vasectomy only among 0.35%.⁷ In another study by Makade et al, the practice was maximum for OCP (28.07%), followed by condoms (18.42%), female sterilization (11.98%) and IUDs used by only (9.94%) women in the study group.⁸

The contraceptive use by study participants was found maximum in the age group of 30-34 years (63.10%) followed by 25-29 years (53.33%) and 20-24 years (43.37%). In a study by Kaware et al, contraceptive use was maximum in the age group of 30-34 years (14.57%).⁹

It was found that education of participants influenced contraceptive use. In our study contraceptive use rate was 49.02% among women who were illiterate, while it was 54.72% among those who were educated up to high school and 51.19% among those educated up to middle school. In a study by Kaware et al, contraceptive use rate was 8% among illiterate women, while it was 30% among women educated up to higher secondary school.⁹ Contraceptive use was found to be higher among females in nuclear family 102 (56.35%) and 85 (50.29%) in study subjects with joint family in our study. In similar study by Bendhari et al use of contraception was found 74.85% in nuclear family and 42.42% in joint family.²

The contraceptive use observed among present study subjects with ≤ 1 living children and study subjects ≥ 3 living children was 32.67% and 62.57% respectively which shows usage of family planning is higher in those having 2 or more children. This difference is statistically highly significant ($p<0.0000$). Similar findings were observed in study by Kaware et al, Contraceptive use was higher among the women having 3 or more children (24.85%), followed by women having less than 2 living children (23.71%).⁹ In similar study Bendhari et al contraception use was higher in women with >3 children i.e. 87.97%.² In present study it was observed that use of contraception is significantly higher in those having at least one male child (son) i.e. 59.02% than those having no male child (38.38%).

CONCLUSION

The prevalence of contraceptive usage in our study was found to be 53.84% which is lower than national prevalence (57.2%) in urban area (NFHS-4) but similar with total national prevalence i.e. Urban and Rural (53.5%).⁵ In present study 46.15% women use no contraceptives which clearly indicate that awareness about contraceptives is not sufficient for its actual use in this community and extended efforts will be needed. Use of tubal ligation was found maximum, followed by Condom, OCP.

Contraceptive use was found to be significantly associated with age, family type, number of living son, and number of living children of women.

Recommendations

A study observation indicates that women of reproductive age group should be educated about importance of family size, intervals of births, use of contraceptives.

They need to be convinced about the benefits of contraception. Motivation of couples through media and health personnel can help to achieve positive attitude for effective use of contraceptives.

Women in reproductive age group should be identified and mobilized to the family planning clinic in nearby health facility by field health workers.

Further scope for studying the reasons for using different methods of contraception and for not using any method of contraception is provided by this study. Also study provides scope to search unmet need of family planning.

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Conflict of interest: None declared

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

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