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Original Research Article

Study of contraceptive use in married women of reproductive age group in urban slum area of Solapur city

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ABSTRACT

Background: According to the national family health survey (NFHS)-3 and 4, the prevalence of modern methods of contraceptive use is 48.5% and 47.8% and by all methods 56%, which is still below the expected rate of 60% to have a stable population. To determine the extent of contraceptive use. To study association of contraceptive use with various socio–demographic factors. To study the sources of information, place of availability and awareness of contraceptives. To study the reasons behind non-use of contraceptives.
Methods: A community-based cross-sectional study was conducted in slum area catered by urban health training centre under department of community medicine of Solapur city, Maharashtra, India, with a sample of 420 married women aged between 15 and 45 years considering a prevalence of modern contraceptive use in India 49%. Information was collected on a comprehensive, pre-design, pretested proforma by interviewing the study subjects.
Results: In our study 52.14% of women uses the contraception. The limiting method is the preferred method for contraception. 77.14% women were aware of at least one method of contraception. The major source of information were health workers. 63.01% number of users obtained contraceptive services from government health centres.
Conclusions: The contraception use was higher than the findings of NFHS-4 among the slum dwellers. Use of spacing methods was low, which needs to be addressed. There is huge knowledge application gap between awareness and use of contraception. Health worker should be suitably equipped to address the challenges in contraceptive use by women in slum area.

Keywords: Contraceptive use, Slums, Married women

INTRODUCTION

"The millennium development goals, particularly the eradication of extreme poverty and hunger, cannot be achieved if questions of population and reproductive health are not squarely addressed. And that means stronger efforts to promote women's rights, and greater investment in education and health, including reproductive health and family planning."

The population of the world is growing at the rate of about 200 births per minute or 10,000 per hour or 2.5 lakhs per day or 10 crores per year. Three most populous countries in the world today are China, India and United States of America (USA).[1] According to census 2011, Indian population stood at 1210.2 million. It contributes 17.31% of world's population showing growth rate of 18.1%.[2] India is second most populous country in the world next to China, whereas seventh in land area. With only 2.4% the worlds' land area. India is supporting about 17.5%.

However the provisional population in 2011 is higher by about 110 million compared to the target set for the year 2010.[3] It crossed 1 billion mark on 11 May 2000, and is projected to reach 1.53 billion by the year 2050. This will then make India most populous country in the world, surpassing China.[4] This alarming increase in population growth is slowing down the socioeconomic development, lowering quality of life, degrading our environment and putting a further strain on our already overloaded resources.

India is the first country to start family planning programme at national level, in 1951.[5] National family planning programme was started way back in 1952 and in spite of political commitment for central government funded national family programme, birth rate has not come down as desired.[6] There will be at least 150 to 180 eligible couples per 1000 population in India. During the year 2011, 40% of eligible couples in the reproductive age group 15-44 years were protected against conception and 60% of eligible couples were still unprotected against conception.[4]

The problem of underutilization of contraception is complicated by deep rooted religious and other beliefs and attitude and practices favouring larger families. To achieve small family norm the net reproduction rate should be 1 and it can be achieved if the couple protection rate exceeds 60%.

The urbanization of different parts of the world constitutes a major demographic issue of the twenty-first century. Maharashtra has the highest urban population of 50.83 million i.e. 13.48% of the country's urban population.[4] In urban field, most of population (60%) resides in urban slum area. Urban slum is having deprived and vulnerable population as poverty, illiteracy and ignorance is more common.[1]

The extent of acceptance of the family planning methods still varies within societies and also among different castes and religious groups. So the study in urban slum area is aimed to know the – contraceptive use and to find the factors for non-acceptance of family planning methods.

Aim

The study is aimed at providing feedback to improve contraceptive services.

Objectives

Objectives of the study were: to determine the extent of contraceptive use; to study association of contraceptive use with various socio–demographic factors; to study the sources of information, place of availability and awareness of contraceptives; and to find out reasons for not using contraceptives in married woman of reproductive age group.

METHODS

The community based descriptive study with cross sectional design was carried out in the slum area, catered by urban health training centre of the department of community medicine, Solapur, Maharashtra from August 2016 to July 2017. The study was carried out on a married woman of reproductive age group (15–45 years). The study was carried out by an informed consent obtained from the study participants prior to data collection. A complete list of married women in reproductive age group 15-45 years was obtained from family survey register maintained in Anganwadi where the complete data collected by survey from Anganwadi worker in urban slum area was available. A team of ten internee doctors was extensively trained for the data collection. Information was collected on a comprehensive, pre-design and pretested proforma by interviewing married women aged between 15 and 45 years.

The total population under the field practice of urban health centre is, approximately, 30,000 of which 16,600 is residing in slum area. A total 2906 married women of reproductive age group (15–45 years) which constitute 17.50% of the total population resides in the slum area. According to NFHS-3 data, prevalence of modern contraceptive use in India is 49%.[7] With precision level of 10% and level of significance set at 5% with 95% confidence interval, a sample of 420 women was selected by simple random sampling method.

Statistical analysis

The data were entered into excel sheets and analysed by using statistical package for the social sciences (SPSS) software, version 17. Percentages were calculated, and Chi square (χ^2) test was used to find any significant association between qualitative variables. A value of $p<0.05$ was considered as significant.

RESULTS

A total of 420 married women between 15-45 years of age were interviewed. From Table 1, The 58.57% women were between the age group of 20 and 29 years, 63.09% belonged to the Hindu religion, 72.35% were educated up to secondary school, 73.81% women were housewife, and 49.53% belonged to joint family, 77.14% women were from class IV and V socio economic group as per modified B. G. Prasad classification. For calculation of χ^2 test the temporary contraceptives were clubbed together and 2 group i.e. temporary and permanent method of contraception was used.

From Table 2, out of 420 married 52.14% of women are currently using some method of contraception. Of the total 219 users, 152 (36.19%) women using limiting method and 67 (15.95%) spacing method. The most preferred spacing method was condom (5.47%) followed by oral contraceptive (OC) pills (5.24%), intrauterine device

(IUD) (2.86%) and injectable (2.38%) method of contraception. There were no single male partner adopted the method of sterilisation.

Table 1: Socio–demographic characteristic of married women of reproductive age group.

Characteristics	Number	Percentage
Age group in years		
15-19	12	2.87
20-24	136	32.38
25-29	110	26.19
30-34	80	19.04
35-39	38	9.05
40-44	44	10.47
Education		
Illiterate	76	18.09
Primary	64	15.24
Secondary	202	48.09
Higher secondary	52	12.4
Graduation and above	26	6.18
Religion		
Hindu	265	63.09
Muslim	141	33.57
Christian	14	3.34
Occupation		
House work	310	73.81
Work productively	110	26.19
Type of family		
Joint	208	49.53
Nuclear	162	38.57
Three generation	60	11.90

Table 2: Distribution of married women of reproductive age according to current contraceptive use.

Type of contraceptive method	Total (%)
Spacing method	
Condom	23 (5.47)
OC pills	22 (5.24)
Cu–T	12 (2.86)
Injectable	10 (2.38)
Total spacing method	67 (15.95)
Limiting method	
Male sterilisation	0
Female sterilisation	152 (36.19)
Total contraceptive method	219 (52.14)

Table 3 shows that use of contraception was maximum (29.68%) in women age 25–29 years, in women educated up to secondary education (46.58%), spacing method most commonly used in women educated up to graduation and above (66.66%), maximum women using contraception were Hindu (64.38%), women doing household work (69.86%), women from nuclear family (45.66%), women from class IV socio economic status (48.86%). In our study the women from upper socio economic class (class I) were only 3 and all were using some method of contraception, women who had 3 or more children had maximum use (46.58%), women married at age group of 18–24 years showed maximum use (57.07%), women from 1–10 years of marriage showed maximum use (54.35%) and spacing was the choice of contraception, women with 1 male child had shown maximum use of contraception. The observed difference among the women using contraceptives according to their age group, education, religion, type of family, socio-economic status, number of children, age at time of marriage, duration of marriage, and number of male child was statistically significant ($p<0.0001$).

Figure 1 shows the awareness regarding contraceptive, maximum women aware about OC pills (74.69%) and least aware about IUD (31.48%) and injectables contraceptives (10.49%). In our study out of 420 women 324 (77.14%) women were aware of at least one method of contraception.

Figure 2 shows the source of information of contraceptive method, among the users, the major source of information was doctors i.e. (46.29%), followed by Anganwadi worker (37.35%), relatives (14.81%), visiting nurse (0.93%) and pharmacist (0.62%).

Figure 3 showed reason for non-use of contraception, out of 201 women, 96(47.76%) felt that they were not at risk of pregnancy, 37 (18.41%) women want to became pregnant, 21 (10.45%) didn't have any information, 13 (6.47%) had difficulty in access and availability of contraceptives, 12 (5.97%) had opposition from husband and family members, 12 (5.97%) had fear about side effects of contraception, 10 (4.97%) had other reasons (care about little child, don't trust on contraceptives, infrequent sex). Figure 4 showed availability of contraceptives among users, maximum (63.01%) number of users obtained contraceptive services from government health centres followed by private doctors (29.68%) and pharmacist (7.31%).

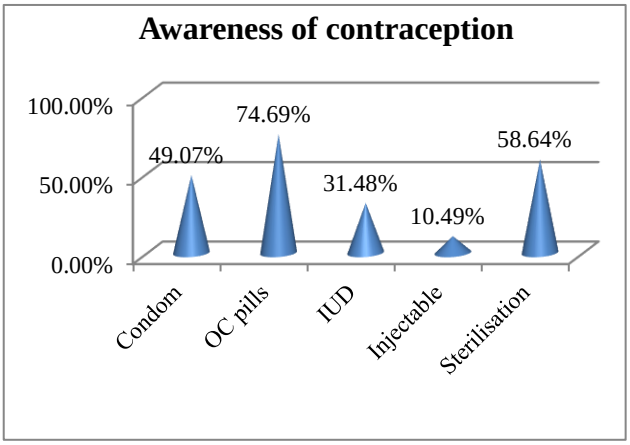

Figure 1: Distribution of married women of reproductive age group according to awareness of contraception.

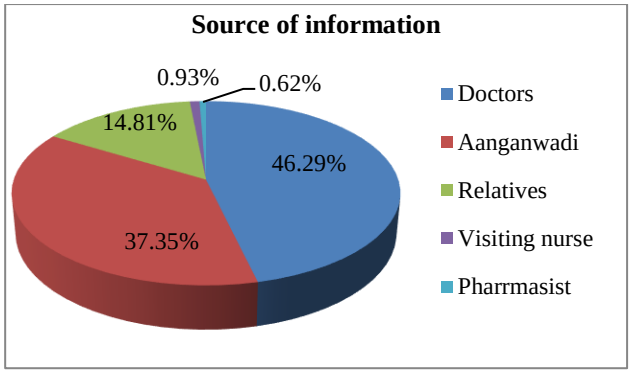

Figure 2: Distribution of method of contraception used among contraceptive users according to source of information.

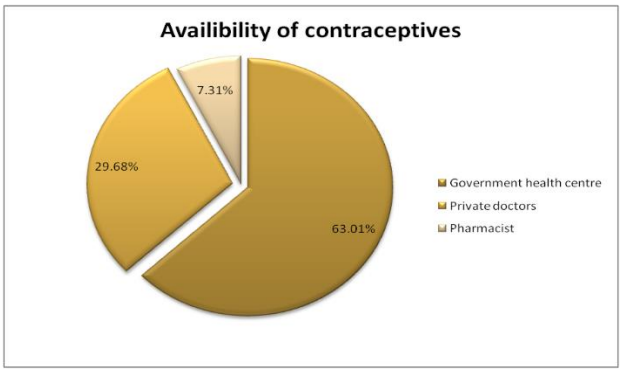

Figure 3: Distribution of method of contraception used among contraceptive users according to place of availability of contraceptives.

Table 3: Association of contraceptive use and socio-demographic factors.

Characteristics	Contraceptives used					Total	DF		P value
	Spacing				Limiting				
	Condoms	OC pills	IUD	Injecta-bles	Sterilisa-tion				
Age group in years									
20-24	9 (4.11)	11 (5.02)	8 (3.65)	6 (2.74)	22 (10.05)	56 (25.57)			
25-29	12 (5.48)	8 (3.20)	4 (1.82)	4 (1.82)	38 (17.35)	65 (29.68)			
30-34	0	2 (0.91)	0	0	46(21)	48 (21.92)	4	56.4	P<0.001
35-39	2 (0.91)	2 (0.91)	0	0	26 (11.87)	30 (13.70)			
40-44	0	0	0	0	20 (9.13)	20 (9.13)			
Educational status									
Illiterate	0	2 (0.91)	0	0	44 (20.09)	46 (21)			
Primary school	3 (1.37)	0	0	0	26 (11.87)	29 (13.24)			
Secondary	10 (4.57)	12 (5.48)	6 (2.74)	10 (4.57)	64 (29.22)	102 (46.58)			
Higher secondary *	6 (2.74)	4 (1.82)	6 (2.74)	0	14 (6.39)	30 (13.70)	3	37.3	P<0.001
Graduation and above*	4 (1.82)	4 (1.82)	0	0	4 (1.82)	12 (5.48)			
Religion									
Hindu	11 (5.02)	16 (7.31)	6 (2.74)	0	108 (49.31)	141 (64.38)	1	9.72	P<0.008
Muslim*	12 (5.48)	6 (2.74)	4 (1.82)	10 (4.57)	42 (19.17)	74 (33.8)			
Christian*	0	0	2 (0.91)	0	2 (0.91)	4 (1.82)			
Occupation									
House work	19 (8.68)	16 (7.31)	12 (5.48)	10 (4.57)	96 (43.83)	153 (69.86)	1	10.6	P<0.001
Working productively	4 (1.82)	6 (2.74)	0	0	56 (25.57)	66 (30.14)			
Type of family									
Nuclear	5 (2.28)	11 (5.02)	2 (0.91)	0	82 (37.44)	100 (45.66)	2	14.8	P<0.001
Joint	10 (4.57)	9 (4.11)	10 (4.57)	8 (3.65)	58 (26.48)	95 (43.38)			
Three generation	8 (3.65)	2 (0.91)	0	2 (0.91)	12 (5.48)	24 (10.96)			
Socio–economic status									
Class I*	0	2 (0.91)	0	0	1 (0.45)	3 (1.37)	2	22.6	P<0.001
Class II*	2 (0.91)	0	0	0	1 (0.45)	3 (1.37)			
Class III*	6 (2.74)	12 (5.48)	4 (1.82)	0	19 (8.67)	41 (18.72)			
Class IV	12 (5.48)	8 (3.65)	6 (2.74)	6 (2.74)	75 (34.25)	107 (48.86)			
Class V	3 (1.37)	0	2 (0.91)	4 (1.82)	56 (25.57)	65 (29.68)			

Continued.

Characteristics	Contraceptives used					Total	DF		P value
	Spacing				Limiting				
	Condoms	OC pills	IUD	Injecta-bles	Sterilisa-tion				
Number of living children									
1	10 (4.57)	8 (3.65)	0	4 (1.82)	6 (2.74)	28 (12.78)	2	56.3	P<0.001
2	10 (4.57)	12 (5.48)	10 (4.57)	4 (1.82)	53 (24.2)	89 (40.64)			
3 or more	3 (1.37)	2 (0.91)	2 (0.91)	2 (0.91)	93 (42.46)	102 (46.58)			
Age at time of marriage									
<18	1 (0.45)	8 (3.65)	5 (2.28)	1 (0.45)	69 (31.50)	84 (38.36)	1	12.2	P<0.01
18-24*	22 (10.04)	12 (5.47)	7 (3.19)	9 (4.10)	75 (34.25)	125 (57.07)			
>24*	0	2 (0.91)	0	0	8 (3.65)	10 (4.57)			
Duration of marriage in years									
1-10	21 (9.59)	16 (7.30)	12 (5.47)	10 (4.57)	60 (27.39)	119 (54.35)	2	45	P<0.001
11-20	2 (0.91)	6 (2.74)	0	0	71 (32.42)	79 (36.06)			
21-30	0	0	0	0	21 (9.59)	21 (9.59)			
Number of male children									
0	10 (4.57)	8 (3.65)	0	4 (1.82)	10 (4.57)	32 (14.61)	3	34.8	P<0.001
1	10 (4.57)	8 (3.65)	10 (4.57)	6 (2.74)	74 (33.79)	108 (49.31)			
2	3 (1.37)	6 (2.74)	2 (0.91)	0	48 (21.92)	59 (26.94)			
3	0	0	0	0	20 (9.13)	20 (9.14)			

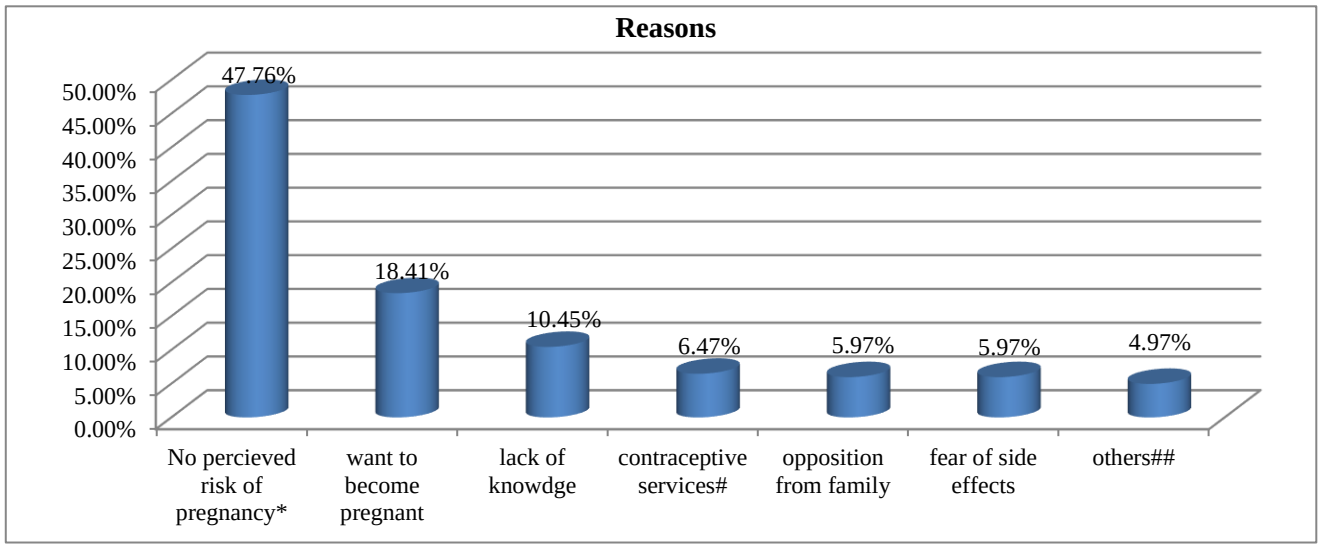

Figure 4: Reasons for not using contraception in married woman of reproductive age group.

DISCUSSION

Out of 420 married women of reproductive age group, the study showed that 52.14% of married women are currently using any method of contraception. Of the total 219 users, 152 women were using limiting method and 67 women using spacing method of contraception. Among sterilisation female sterilisation was preferred method for permanent contraception, there were not a single male partner adopted the method of sterilisation. In this study, the contraceptive use in urban slum was 52.14 which is higher than NFHS-4 study which was 47.8% (8), this may be due to implementation of Anganwadi centre in slum area. Similar findings seen by Gayatri Bandhi et al, that prevalence of contraception 53.02% (among those 49.23% were used permanent and 3.8% used temporary methods) in urban slums of Raipur city, Chhattisgarh.[9] Similar findings seen by Balgir et al and Gupta et al.[10,11] According to age group, use of contraception shown that it was maximum (29.68%) in women age 25–29 years, minimum use of contraception was seen in age group of 40–44 years (9.13%) which is statistically highly significant (p<0.000). Similar findings was seen by Bandhi et al that majority women between 25-34 years use contraception.[9] In contrary Balgir et al seen that among couples contraceptive use were maximum by couple aged between 30–34 years i.e. 71.79%.[10] In our study education profile of women shown that use of contraception was maximum (46.58%) in women educated up to secondary education. Similar findings were seen in a study by Ram et al in slum of Nagpur, that among literate women 73.4% women were using contraceptive method compared to 48.8% in illiterate

and it is significant.[12] Contrast findings seen in study by Bandhi et al that contraceptive usage by illiterate women was significantly better than literate.[9] Use of contraception in women by religion shown that maximum (64.38%) number of women using contraception were Hindu, the difference was statistically significant. Similar results shown by Mohanan et al in rural area of Kannada that majority (37.4%) acceptors of family planning were from Hindu religion and by Prateek et al, majority of women using contraceptive was higher in Hindu.[13,14] In our study women doing household work (69.86%) had more use of contraception than women working productively (30.14%) and the difference was found to be statistically significant ($p<0.001$). Similar findings were seen by Dey et al in urban slums of Shillong city, Meghalaya and Banergee et al showed that the overall contraceptive prevalence rate was higher among the nonworking women than working.[15,16] According to type of family, maximum users were from nuclear family (45.66%) and difference was found to be statistically significant. Similar distribution seen in Gupta et al conducted study among urban slum in Bankura district, that women of nuclear families have 70% use of contraception.[11] According to socioeconomic status, the maximum women using contraceptive were from class IV socio economic status (48.86%) and difference was statistically significant. Similar findings were seen by Dey et al.[15] In contrast to our finding Gupta et al showed that 80% from socioeconomic status of class II as compared to 33% with socioeconomic status class V.[11] According to number of living children, maximum number of women using contraceptives having 3 or more children (46.58%) and difference was significant. Similar results seen by Singh et al in rural area of Patiala district that majority (88.3%) of the women with 3 or more living sons were using contraception.[17] Use of contraception according to age at time of marriage showed that majority of women using contraceptives were married at age group of 18–24 years (57.07%), difference was statistically significant. Similar findings seen by Gupta et al, age at marriage of 64% of contraceptive users belonged to 20–24 years.[11] Use of contraception by duration of marriage showed that maximum use of contraceptives done by women having 1–10 years of marriage (54.35%) and spacing method as choice of contraception. According to number of male child, maximum use of contraceptives done by women having one male child (49.31%) similar finding seen by Kansal et al in rural population of Dehradun district, contraceptive use by women having at least one male child was significantly higher (53.25%).[18] According to awareness of contraception maximum women (77.14%) were aware of at least one method of contraception. Similar findings was seen by Mitali and Girija et al and Makade et al that majority of the participants were aware about at least one method of contraceptive (73.5% and 87.7% respectively).[19,20] According to source of information the major source of information was doctors (46.29%). Similar finding was found by Giri et al and Basu et al that main source of information about contraception were health workers.[21,22] Maximum number of contraceptive users in our study obtained contraceptive services from government health centres (63.01%). Similar finding was found by Sarmad et al in urban slums of Jauharabad city.[23] The most common reason for not using contraception was not at risk of pregnancy, want to became pregnant, lack of information, difficulty in access and availability, opposition from husband and family, fear of side effects and other reasons. Sarmad et al found that nonusers were desire to have son lack of awareness about contraception, religious reasons, opposition by husbands and fear of harmful effects.[23]

CONCLUSION

The contraceptive use was higher than the findings of NFHS–3 and NFHS–4 among the slum dwellers. In the study the preferred method of contraception is limiting method. Use of spacing methods was low, which needs to be addressed, as it has a direct impact on the fertility. The government centres is major source of availability of contraceptives. There is huge knowledge application gap between awareness and use of contraception. Health worker should be suitably equipped to address the challenges in contraceptive use by women in slum area.

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