Original Article

ASSESSMENT OF CONTRACEPTIVE KNOWLEDGE AND PRACTICES AMONG REPRODUCTIVE AGE GROUP OF WOMEN IN URBAN SLUMS OF RAIPUR CITY, CHHATTISGARH, INDIA

Gayatri Bandhi[1], Dhiraj Bhawnani[2], Nirmal Verma[3], Gopal P Soni[4]

Financial Support: None declared
Conflict of interest: None declared

How to cite this article:
Bandhi G, Bhawnani D, Verma N, Soni GP. Assessment of Contraceptive Knowledge and Practices among Reproductive Age Group of Women in Urban Slums of Raipur City, Chhattisgarh, India. Natl J Community Med 2014: 5(4);349-54.

Author's Affiliation:
[1]District Surveillance Officer, CMHO Office, Bilaspur (C.G.); [2]Assistant Professor; [3]Professor, Department of Community Medicine Government Medical College, Rajnandgaon (C.G.); [4]Professor, Department of Community Medicine, Pt. JNM Medical College, Raipur (C.G.)

Correspondence:
Dr Dhiraj Bhawnani
Email: dhiraj.bhawnani@gmail.com

Date of Submission: 21-02-14

Date of Acceptance: 14-11-14

Date of Publication: 31-12-14

ABSTRACT

Background: India's population as per 2011 census was 1.21 billion. India was the first country to launch National Family Planning Program in 1952. There is development in the acceptance of family planning methods but not up to the level that is expected to stabilize the population. Therefore this study was conducted to assess the level of awareness and practices of contraception among eligible married women of urban slums of Raipur City.

Methodology: A cross sectional community based study was conducted using **cluster** sampling in urban slums of Raipur city from November 2011 to October 2012. During the study, 711 fecund married women, age group 15-49 years were included and predesigned and pretested proforma was used as a study tool. The obtained data were analyzed using appropriate statistical test.

Results: In the present study out of 711 women, 91.56 % women were aware of one or multiple methods of contraception and 53.02% used or are using contraception at the time of study. Among those 49.23% and 3.8% used permanent and temporary methods respectively. The proportion of current non-users was 32.9% in current study. The major reasons for their non-use are Anemia, weakness, lactational amenorrhea (47.01), fear of side effect (29.49%), Compulsion of non use by husband (13.67%).

Conclusion: There is wide gap between awareness and practice regarding contraception. Extended efforts are required to make them understand the importance and to follow the contraception.

Key words: Contraception, Knowledge, Practices, Raipur, Chhattisgarh.

INTRODUCTION

India's population as per 2011 census was 1.21 billion and is estimated to overtake china by 2050. [1] In 1952, India was the first country to launch family planning program through first five year plan emphasizing family planning (F.P) to the extent necessary for reducing birth rates. [2] Many programs are planned and implemented by Government of India and International organizations in the field of F.P. There is development in the acceptance of F.P methods but not to the extent that was targeted, and so the population continues to rise which is a major threat to India's health, political, social growth and development. The non acceptance may be due to vari-

ous reasons like illiteracy, fear of complications, religious beliefs etc. Various studies have been conducted in this field to know the determinants of contraceptive use and causes for non acceptance of contraception.[3] Studies during the past few decades have established a close and significant relation between the contraceptive use and fertility preferences. Das and Deka have considered the cultural factors in fertility as there is evidence that the fertility behavior changes with different cultural settings. [4] Narayan Das studied the socio-cultural determinants of fertility.[5] In several studies on modernity and fertility, education is found to be the prime influencing factor. Lactational amenorrhoea, which lasts for two to three years in some societies, gives scope for longer birth intervals, thus affecting the fertility among such women. [6] However, the national programme should have group specific and area specific interventions with regard to family planning. Keeping all these facts in view, this study was planned to assess the knowledge and practices of contraceptive methods and its determinants among eligible married women of urban slums of Raipur City. This study will be helpful for priority setting and resource allocation under family planning programme in Raipur city.

MATERIAL AND METHOD

A cross sectional community based study was conducted in the urban slums of Raipur City (C.G.), India from November 2011 to October 2012. The method utilized for data collection was 40 cluster sampling method. Each slum was considered as a cluster. The list of 279 slums & map of Raipur city was obtained from the municipal Corporation Raipur (C.G.). All these slums of 70 wards were arranged in alphabetic order along with their respective & cumulative population. Sampling interval was determined by using the formula (Total cumulative population divided by 40 clusters).Cluster interval was obtained. Then 1st cluster was identified by choosing random number. Subsequent cluster were identified by adding sample interval in random number. Thus 40 clusters (slums) were identified for data collection. The sample size was calculated using the formulas $N=4\ pq/L^2$. The sample size was fixed at 711. During the study all fecund married women, age group of 15-49 years & residing in study area were included. House to house visit was made to collect data through interview technique after inform consent. Subsequent houses were visited till minimum 17 subjects were interviewed. Data from 40 clusters was collected in same manner.

Data was compiled in MS Excel and checked for its completeness and correctness. Then it was analyzed with the help of medcalc online statistical calculator and chi square test were applied for the statistical significant. P value of < 0.05 was considered statistically significant for interpretation of finding.

RESULTS

A total of 711 women in the age group of 15-49 years were studied, of which majority 277 (38.96 %) women were in the 25-34 years age group, which is the most crucial period in the reproductive span. The practice of contraception was found 51.2% for the age group. The mean age of the women was 27.3 yrs. The contraceptive usage increased as the age increased but it decreased after 35 yr and this difference was found to be statistically significant ($p < 0.0001$).

Majority (57.1%) of the women was literate in the present study and contraception practices were found in 46.55 % among this group. Contraceptive usage by illiterate women was significantly better than literate. ($p< 0.0001$) Middle and primary school educated women were 21.8% and 20.7% respectively. As the women education increased the contraceptive usage decreased which was found to be statistically significant. ($p< 0.005$) Majority (75.1%) of the husbands were literate. There is no association between husband's education status and contraceptive usage in this study.

Majority of women (80.8%) were housewife followed by unskilled 18%. Majority of husband were unskilled (50.3%) followed by skilled (20.3%). We found association between women occupation and contraceptive usage ($p < 0.001$) but did not find any influence of husbands occupation on contraception followed. Almost 99.9% women's are belonging to lower Socio Economic Status (SES). There was no influence of socio economic status on contraception followed in the current study. More than half of the families (72.2%) were living in nuclear families. Women of nuclear families were following contraception significantly better than joint family. ($p< 0.0001$) Use of contraceptive methods was significantly associated with increasing no. of living children's. ($p <0.0001$) (Table 1 shows the demographic profile and contraceptive usage)

Table-1: Demographic parameters in relation to contraceptive use

Parameters	Population (n=711)		Contraceptive Users		χ2 test, degree of freedom , p value	Odds ratio (C.I. 95%)
	No.	(%)	No.	(%)		
Age of Eligible married Women(in years)						
15-19	14	(2.0%)	1	(7.14%)	χ2=31, d.f.=12,	290.3
20-24	171	(24.0%)	24	(14.03%)	p< 0.0001 Significant	136.7
25-29	149	(21.0%)	59	(39.6%)		34.07
30-34	128	(18.0%)	85	(66.41%)		11.3
35-39	105	(14.8%)	80	(76.19%)		7
40-44	74	(10.4%)	61	(82.43%)		4.8
45-49	70	(9.8%)	67	(95.71%)		1
Educational status						
Primary	147	(20.7%)	82	(55.78%)	χ2=25.03, d.f.=10,	1
Middle	155	(21.8%)	76	(49.03%)	p< 0.0053, Significant	1.31
Higher secondary	125	(17.6%)	52	(41.6%)		1.77
Graduate	14	(1.9%)	4	(28.57%)		43.21
Post graduate	1	(0.1%)	0	(0%)		0
No education	269	(37.9%)	163	(60.6%)		0.82
Literacy status						
Illiterate	305	(42.9%)	188	61.64%)	χ2=18.03, d.f.=2,	1
Literate	406	(57.1%)	189	46.55%)	p< 0.0001, Significant	1.84
Wife's Occupation						
House wife	573	(80.8%)	282	49.21%)	χ2=28.81, d.f.=10,	1.93
Skilled	1	(0.1%)	1	(100%)	p < 0.0013, Significant	0
Semiskilled	2	(0.3%)	2	(100%)		0
Un skilled	129	(18.0%)	86	(66.67%)		1
Clerical	5	(0.7%)	5	(100%)		0
Professional	1	(0.1%)	1	(100%)		0
Family type						
Joint	198	(27.8%)	90	(45.45%)	χ2=23.74, d.f.=2,	0.65
Nuclear	513	(72.2%)	287	(55.94%)	p< 0.0001, Significant	1
Socioeconomic status						
Upper lower (Class iv)	1	(0.1%)	0	(0%)	χ2=6.11, d.f.=2,	-
Lower(Class v)	710	(99.9%)	377	(53.1%)	p > 0.0469, Insignificant	-
No. of living children's						
0	66	(9.2%)	0	(0%)	χ2=388.71, d.f=12,	0
1	127	(17.9%)	13	(10.24%)	p<0.0001, Significant	39.46
2	177	(24.9%)	102	(57.63%)		3.31
3	187	(26.4%)	138	(73.8%)		1.6
4	115	(16.2%)	92	(80%)		1.125
5	25	(3.5%)	21	(84%)		0.86
6	11	(1.5%)	9	(81.82%)		1
7	2	(0.3%)	2	(100%)		0
8	1	(0.1%)	0	(0%)		0
Husband's education						
Primary	159	(22.4%)	82	(51.57%)	χ2=16.29, d.f.=10,	2.35
Middle	170	(23.9%)	86	(50.59%)	p> 0.0915, Insignificant	2.44
Higher secondary	196	(27.6%)	102	(52.04%)		2.3
Graduate	27	(3.8%)	9	(33.33%)		5
Post graduate	7	(0.9%)	5	(71.43%)		1
No education	152	(21.4%)	93	(61.18%)		1.59
Husband's Literacy						
Literate	534	(75.1%)	108	(61.02%)	χ2=10.52, d.f=2,	11.53
Illiterate	177	(24.9%)	269	(50.37%)	p < 0.0052, Significant	1
Husband's occupation						
Un employed	12	(1.7%)	7	(58.33%)	χ2=15.14, d.f=10,	1
Skilled	144	(20.3%)	79	(54.86%)	p> 0.1269, Insignificant	1.52
Semiskilled	77	(10.8%)	37	(48.05%)		1.513
Unskilled	358	(50.3%)	202	(56.42%)		0.04
Clerical	91	(12.8%)	42	(46.15%)		1.63
Professional	29	(4.1%)	10	(34.48%)		2.66

Table-2: Extend of Unmet and Met need

Need for family planning methods	Freq.	%e
Met need for spacing	27	3.8
Met need for limiting	350	49.23
Unmet need for spacing	103	14.5
Unmet need for limiting	131	18.4
No need	100	14.1
Total	711	100.0

Table-3: Knowledge of methods nd its sourcea

Women having knowledge of contraceptive methods	Freq.	%
Knowledge of different methods *		
Copper-T (IUCD)	539	75.81
Pills	531	74.68
Nirodh	460	64.7
Permanent Sterilization	622	87.48
Injection	60	8.44
Today	10	1.41
Emergency Method	14	1.97
No knowledge	60	8.44
Other method Jadibuti	10	1.44
Source of Knowledge *		
Media	323	45.43
Doctor	271	38.11
Peer	134	18.85
AWW (Anganwadi worker)	107	15.05
Husband	105	14.77
Know acceptor	488	68.64
Health worker	83	11.67
No knowledge	60	8.44

* multiple responses

Table-4: Detail of method use and reason for non use (n=711)

Parameters	Number	%
Currently user of any method	**377**	**53.02**
Knowledge of different method		
Permanent Sterilization	350	49.23
Oral Contraceptive Pills	12	1.69
Conventional Contraceptive	9	1.27
Copper T	1	0.14
Injection	2	0.28
Jadibuti	3	0.42
Number of current non user	**234**	**32.9**
Reasons for current non use of Contraceptive method (n=234)		
Opposition by relative	15	6.41
Want of male child	13	5.55
Want of child in future	13	5.55
Fear of side effect	69	29.49
Compulsion of non use by husband	32	13.67
Other reason (Lactational amenorrhea, anemia, weakness)	110	47.01
Ignorance (perceived lack of exposure to pregnancy)	22	9.40

Table 2, sub divides need for family planning methods in to different components.

Extent of Contraceptive Use: In the present study, 53.02% women have reported that they are using any contraceptive method at the time of survey. Met need for limiting and spacing were 49.23% and 3.8% respectively.

Knowledge of contraceptive methods: Among the 711 women, 91.56% are having the knowledge of different contraceptive methods.

Type of Methods Known and Source of Knowledge: Permanent sterilization is more popular among the women who reported awareness of the contraceptive methods. Awareness regarding Permanent sterilization is nearly 87.48%. However, knowledge of Copper T is found to be nearly 75.81 %, while 74.68 % are aware of pills & 64.7 % know about Nirodh (condom). Nearly 1.41% reported knowledge of a Jadibuti herbal medicine given by their traditional vaid as a contraceptive. 8.44% was not aware about any method. Nearly 68.64% reported they were known acceptors, media & doctor as a source of awareness was reported by about 45.43 % & 38.11 % of the women respectively. **(Table-3)**

Details of method used and Reasons for Non-Use: **Table No. 4** shows the usage of temporary and permanent methods of contraception. In this study of 711 women, 49.23% followed permanent methods of contraception, of which 48.38% followed tubectomy and 0.85% followed vasectomy, so most commonly followed permanent method was female sterilization.

Of 711 women only 3.8% followed or used temporary methods, of which 1.69% used Oral Contraceptive Pills (OCP), 1.27% used conventional contraceptive (CC) , 0.42% used Jadibuti , 0.28% used injectable methods, and Only 0.14% followed Intra Uterine Contraceptive Device (IUCD) . So in our study, the most commonly followed temporary methods were OCP and CC.

Only the permanent methods of sterilization seem to be more accepted among these respondents. 49.23 % using permanent sterilization. The proportion of current non-users was 32.9% in our study. The major reasons for their non-use are Anemia, weakness, lactational amenorrhea 110 (47.01), fear of side effect 69 (29.49%), Compulsion of non use by husband 32 (13.67%), ignorance 22 (9.4%), opposition by relative 15 (6.41%).

DISCUSSION

Family planning basically refers to the practices that help the individuals or couples to avoid unwanted births, to regulate the interval between pregnancies, controls the time at which birth occurs in relation to the age of parents and determines the number of children in the family.[7] In the present study, 91.56 % were aware of one or multiple methods of contraception, which is nearly similar to prevalence of knowledge 97.7% reported by National family health survey (NFHS)-3 [8] slightly less than Takkar et al where they reported 100 % in their study.[9] While more than the prevalence reported by Sajid A et al [10] study done in Pakistan where awareness was 60%. 53% couples followed or are following one or multiple methods of contraception almost similar to NFHS-3 (2005-06) where overall contraceptive usage in Chhattisgarh was 53.2%, and higher than 49.7% as per DLHS (District level health survey) Chhattisgarh [11,] 68.4%, 59.92%, 59.2%, 34.92%, as reported by Kiran G. Makade et al[12], Padmaja Ravindra Walvekar et al [13], Neelu Saluja et al [14], DR Gaur et al.[15]

In the present study, it was observed that majority of the study women 49.23% followed permanent methods and only 3.8% followed temporary methods which correlates to the study done by Neelu Saluja et al,[14] Kumari C [16] the majority of them 46.0% followed permanent methods which is nearly similar when compared to this study.

In contrast the study done by DR Gaur et al [15], S. Giridhar et al [17] where they observed 39% and 61% and 37.6% and 49.5% permanent and temporary respectively which is higher(permanent) and very low (temporary) when compared to this study.

It is observed in the current study that 68.64 % were known acceptors, media & doctor as a source of awareness was reported by about 45.43 % & 38.11 % of the women respectively. In contrast the study done by Rao P.D., Babu M.S. (2005)[18] where they observed that the main source of knowledge, about different contraceptive methods known is 'friends/ relatives' (63%) and their 'husbands' (58%) and 'Health Personnel' (40%).

Of temporary methods followed OCP being commonest temporary method in the present study. In contrast the study done by Chopra S Dhaliwal et al [19], DR Gaur et al [15] and Lakshmi MM, Neetha, Rai S. [20] Of temporary methods followed IUCD being commonest temporary method.

In this study, it was observed that higher the education status of the women, lower was the contraceptive usage. Non educated women were more likely to use contraceptive methods. ($\chi 2$=25.03, d.f. =10, P< 0.0053, Significant). Contrary to the findings of present study, S. Giridhar et al [17] and Lakshmi MM, Neetha, Rai S [20] found that higher the education status of the women, higher was the contraceptive usage.

There was no correlation found between socio economic status, husband education and husband occupation on contraception followed. Contrary to findings of present study, Bhattacharya M [21] found that higher income women were more likely to use permanent methods. Higher the socio economic status, higher was the usage of temporary methods (Statistically significant p<0.001) but no significant change was observed in the usage of permanent methods as reported by Lakshmi MM, Neetha, Rai S. [20.]

In this study, more the number of living children, higher was the usage of contraception.($\chi 2$=388.71, d.f=12, P <0.0001, Significant) which is similar to study reported by SP Pushpa et al [22], S Giridhar et al [17], Mohanan P et al. [23] and Lakshmi MM, Neetha, Rai S.[20]

As already mentioned, the proportion of current non-users is 32.9%. The major reasons for their non-use are Anemia, weakness, lactational amenorrhea 110 (47.01), fear of side effect 69 (29.49%), Compulsion of husband 32 (13.67%), ignorance 22 (9.4%), opposition by relative 15 (6.41%).Reasons for not using contraception, the most common were, the couple wants to have more children, staying apart, husband's or family opposition etc as reported by Lakshmi MM, Neetha, Rai S. [20], Neelu Saluja et al [14] and Sajid A et al.[10]

CONCLUSION

The result of present study clearly indicate that awareness about the contraception was good but use of contraception was not satisfactory, it means there was wide gap seen between knowledge and practice of contraception. So that extended efforts are required to make them understand the importance and to follow the con-

traception. The present study shows that various factors and misconceptions are influencing the contraception usage. So there is urgent need to ensure the same. Behavior change communication with close guidance and supervision should be done regularly. Female health worker and USHA (Urban social health activist) under National Urban health mission should be suitably equipped for addressing the challenges of non use of contraception among eligible couples residing in urban slums.

Acknowledgment: We are thankful to other faculties of department of community medicine, Pt. J.N.M. medical college, Raipur (C.G.), for their continued guidance during the study.

REFERENCES

1. Government of India. National population policy- 2000. Available at http://planningcomission.nic.in.
2. Population stabilization- The way ahead: World population day July 11 2011. Available at http://www.indiacsr.in.
3. Kansal RC, Kandapal SD, Negi KS. Epidemiological correlates of contraceptive prevalence in rural population of Dehradun district. IJCM 2005; 30:60-2
4. Das, B.M. and Deka, R.: Cultural factors in fertility regulation. Indian Anthropologist, **12(2):** 181-185 (1982).
5. Das, Narayan: Socio-cultural determinants of fertility – the case of India. In: Socio-cultural Determinants of Fertility. (Ed.). ICMR, New Delhi (1985)
6. Mc Neilly, A.S.: Effect of location on fertility. British Med. Bulletin, **35(2):** 151-154 (1979)
7. Deb R. Knowledge, Attitude and Practices related to Family planning methods among the khasi Tribes of East Khasi hills Meghalaya. Anthropologist 2010; 12:41-5
8. National family health survey (NFHS-3) 2005-2006. Available at http://www.rchips.org.
9. Takkar N, Goel P, Dua D. Contraceptive practices and awareness of emergency contraception in educated working women. Indian J Med Sci 2005; 59:143-9
10. Sajid A, Malik S. Knowledge Attitude and Practice of contraception among multiparous women at Lady Aitchison hospital, Lahore. Annals of KEMU. 2010; 16:266-8.
11. DLHS-3 2007-2008. Available at http://www.jskgov.in
12. Makade KG, Padhyagurjar M, Padhyegurjar SB, Kulkarni RN. Study of Contraceptive use among married women in a slum in Mumbai. Nat J Comm Med 2012; 3:40-3.
13. Walvekar PR. Determinants of contraceptive use among married women residing in rural areas of Belgaum. J Med Allied Sciences 2012; 2:7-11.
14. Saluja N, Sharma S, Choudhary S, Gaur DR. Contraceptive knowledge, Attitude and Practices Among Eligible Couples of Rural Haryana. Internet J Health 2011; 12: [1].
15. Gaur DR, Goel MK, Goel M. Contraceptive practices and related factors among females in predominantly Muslim area of North India. Internet J World Health Societal Politics. 2008; 5[1].
16. Kumari C. Contraceptive practices of women living in rural areas of Bihar. Br J Fam Plann 1998; 24:75-7.
17. Giridhar S, Chaudhary A, Gill P, Soni RK, Sachar R. Contraceptive practices and related factors among married women in a rural area of Ludhiana. Internet J Health 2010; 12[1].
18. 18.Rao P.D., Babu M.S.(2005); Knowledge and Use of Contraception Among Racha Koyas of Andhra Pradesh 2005 Department of Anthropology, Andhra University, Visakhapatnam 530 003,Andhra Pradesh, India E-Mail: Contraceptive Kamla-Raj Anthropologist, 7(2):115-119 durgarao1973@yahoo.com *Population Research Centre, Andhra India
19. Chopra S, Dhaliwal L Knowledge Attitude and Practices of contraception in urban population of North India. Arch Gynaecol Obstet 2010; 281:273-7.
20. Lakshmi MM, Neetha, Rai S. Contraceptive practices among reproductive age group of women in Justice K. S. Hegde Medical College Hospital, Mangalore. Int J Reprod Contracept Obstet Gynecol 2013; 2:39-46.
21. Bhattacharya M, Joshi PL, Raj B. Socio Economic correlates of fertility and contraceptive practices amongst target couples of a rural community. Indian J Public Health 1984; 28:139-46.
22. Pushpa SP, Venkatesh R, Shivaswamy MS. Study of fertility pattern and contraceptive practices in a rural area- a cross sectional study. Indian J Sci Technol 2011; 4:429-31.
23. Mohanan P, Asha K, Sajjan BS. Fertility pattern and Family Planning Practices in a rural area in Dakshina Kannada. IJCM 2003; 26:15-8.