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Research Article

Contraceptive practices among reproductive age group of women in Justice K. S. Hegde Medical College Hospital, Mangalore

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ABSTRACT

Background: India's population as per 2011 census was 1.21 billion second only to china in the world, and is estimated to overtake china by 2050. India was the first country to launch National Family Planning Program in 1952. Even though various measures have been taken to encourage the usage of contraception but, the achievement in this field was not to the extent expected due to various social and cultural factors.

Methods: It was a cross sectional study conducted in out patients and inpatients of department of obstetrics and gynecology, Justice K. S. Hegde medical college hospital, Mangalore. The study constituted 705 subjects. It was an interview based study. The study was aimed to know the awareness, acceptance and prevalence of temporary and permanent contraceptive methods among the study group and various factors affecting the contraceptive usage.

Results: A total of 705 women in the age group between 18-45 years were studied. 671 (95.2%) were aware of one or multiple methods of contraception, 615 (87.2 %) accepted the contraceptive practices, and 495 (71.2%) followed or are following contraception at the time of study. Of 705 women, 366 (51.9%) followed or used temporary methods, 227 (32.2%) followed permanent methods of contraception.

Conclusions: Awareness about the contraception is not sufficient enough to use contraception in the community, also shows that more programs are required to combat the influence of various factors on contraception usage, and emphasizing on the positive effects of the use of contraception.

Keywords: Contraception, Temporary and permanent, Awareness, Practices, Population

INTRODUCTION

India accounts for 2.4% of the world's surface area yet it supports more than 17.5 % of the world's population. India's population as per 2011 census was 1.21 billion second only to china in the world, 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 "to stabilize the population at a level consistent with the requirement of national economy".²

The national population policy (NPP) 2000 aims stabilizing the population by 2045 that is by bringing down the total fertility rate (TFR) to 2.1 by 2010 but, the

TFR still continues to be 2.6 and 3 in some states¹. The London summit on Family planning that took place on 11 July 2012, organized by British department for international development with united nations population fund and other organizations marked the recognition of the key role F.P plays in the development and global health, and the objective being increasing the demand and support for F.P methods and improving supply chains and innovative approach to F.P challenges, with a slogan "Every woman Every child".⁶ Even though many programs are planned and implemented by Government of India and International organizations in the field of F.P with an idea of introducing various family planning methods to the couples in order to avoid unwanted pregnancies, 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 various 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, as the acceptance of contraceptives and fertility pattern differs in the societies and the factors responsible for varied picture operate at individual, family and community level (Kansal et al., 2005).⁶ Keeping all these facts in view, this study is planned to know the awareness, acceptance and practices of contraceptive methods in attendees of Obstetrics and Gynecology out-patient department and inpatients of Justice K. S. Hegde Medical College Hospital, Mangalore.

METHODS

It was a cross sectional study conducted in out-patients and inpatients of department of Obstetrics and Gynecology, Justice K. S. Hegde medical college hospital, Mangalore. Women who were parous in the age group between 18-45 years, constituted the study sample. The study was conducted from February 2012 to august 2012 i.e. for a period of 6 months constituting 705 subjects. An informed consent was taken from the women that were enrolled in the study. It was an interview based study. All the women consented for the study were interviewed based up on a predesigned and pre coded proforma. Women who were infertile and not consented were excluded from the study. Ethical clearance was obtained from institutional committee of the medical college. The study was aimed to know the awareness, acceptance and prevalence of temporary and permanent contraceptive methods among the study group and various factors affecting the contraceptive usage like age, literacy, occupation, socio-economic status, religion and parity were assessed.

Acceptors were those who were willing to follow contraception after explaining and counseling about F.P methods or who have followed or following the contraception. Awareness was those who know about one or multiple methods of contraception. Users of contraception were those who ever used contraception and non users were those who never used contraception till date.

Data analysis was done by SPSS version 20 software. Statistical analysis was done using Pearson chi- square tests, Fisher's exact test and frequency distribution for prevalence analysis.

RESULTS

A total of 705 women in the age group between 18-45 years were studied. Table 1 shows that 671 (95.2%) were aware of one or multiple methods of contraception, 615 (87.2 %) accepted the contraceptive practices, and 495

(71.2%) followed or are following contraception at the time of study (Table 1).

Table 1: Awareness, acceptance and practices of contraceptive methods.

	Yes No. %	No No. 9%)
Awareness	671 (95.2)	34 (4.8)
Acceptance	615 (87.2)	90 (12.8)
Followed	495 (71.2)	210 (29.8)

Table 2 shows the usage of temporary and permanent methods of contraception. In our study of 705 women, 366 (51.9%) followed or used temporary methods, of which 130 (18.4%) used Intra Uterine Contraceptive Device (IUCD), 110 (15.6%) used condom, 94 (13.3%) used rhythm method, 35 (05.0%) used Oral Contraceptive Pills (OCPs), only 1 (0.1%) used inject able methods, and 1 (0.1%) followed emergency contraception. So in our study, the most commonly followed temporary methods were IUCD and condoms. Of 705 women, 227 (32.2%) followed permanent methods of contraception, of which 224 (31.8%) followed tubectomy and 3 (0.4 %) followed vasectomy, so most commonly followed permanent method was female sterilization (Table 2).

Table 2: Users and nonusers of various methods of contraception.

Temporary Method	Users No. (%)	Nonusers No. (%)
Rhythm	94 (13.3)	611 (86.7)
Condom	110 (15.6)	595 (84.4)
OCP	35 (5.0)	670 (95.0)
IUCD	130 (18.4)	575 (81.6)
Injectables	01 (0.1)	704 (99.9)
Emergency	01 (0.1)	704 (99.9)
Total	366 (51.9)	339 (48.1)
Permanent Method		
Tubectomy	224 (31.8)	481 (68.2)
Vasectomy	03 (0.4)	702 (99.6)

Table 3 shows the demographic profile and contraceptive usage of the 705 women who were studied. A total of 705 women in the age group of 18-45 years were studied, of which majority 391 (55.5%) women were in the 26-35 years age group, which is the most crucial period in the

reproductive span, out of which 262 (67.0%) followed contraception. 223 (31.6%) were in 36-45 years age group, of which 188 (84.3 %) followed contraception and 91 (12.9%) were in 18-25 years age group, of which 44 (48.4%) followed contraception. The contraceptive usage increased as the age increased and this difference was found to be statistically significant. The next parameter studied was women's education status and contraceptive usage, in our study majority of them had primary education that is 297 (42.1%) of which 182 (61.3%) followed contraception. 193 (27.4%) women were metric qualified, of which 142 (73.6%) followed contraception. 91 (12.9%) were intermediate qualified, of which 74 (81.3%) followed contraception. 77 (10.9%) were graduates, of which 64 (83.1%) followed contraception. 5 (0.7%) were postgraduates, of which all 5 (100.0%) followed contraception. 42 (6.0%) were illiterates of which 27 (64.3%) followed contraception.

The next studied was husband's education and contraceptive usage, in our study majority of them 313 (44.4%) had primary education, of which 200 (63.9%) followed contraception. 232 (32.9%) were metric qualified, of which 170 (73.3%) followed contraception. 65 (9.2%) were intermediate qualified, of which 45 (69.2%) followed contraception. 49 (7.0%) were graduates, of which 43 (87.8%) followed contraception. 15 (2.1%) were postgraduates, of which 13 (86.7%) followed contraception. 31 (4.4%) were illiterates, of which 23 (74.2%) followed contraception. As the couple's education increased the contraceptive usage increased which was found to be statistically significant (Table 3).

The next parameter studied was couple's occupation and contraceptive usage. We did not find any influence of occupation on contraception followed.

The next parameter studied was socio economic status and contraceptive usage. In our study the majority 327 (46.4%) were in Rupees 5001-10,000 income group, of which 227 (69.4%) followed contraception. 235 (33.3%) were in Rupees < 5000 income group, of which 150 (63.8%) followed contraception. 84 (11.9%) were in Rupees 10,000-20,000 income group, of which 69 (82.1%) followed contraception. 59 (8.4%) were in Rupees > 20,000 income group of which 59 (81.4%) followed contraception. In our study we found that as the income increased the use of contraception increased and was found to be statistically significant.

The next parameter was Religion and contraceptive usage. In our study, majority 447 (63.4%) were Hindus, of which 341 (76.3%) followed contraception. 210 (29.8%) were Muslims, of which 113 (53.8%) followed contraception. 48 (6.8%) were Christians, of which 40 (83.3%) followed contraception. In our study Christians followed contraception the most followed by Hindus and then by Muslims which was statistically significant.

The next parameter was number of living children and contraceptive usage. In our study population, 313 (44.4%) women had 2 living children, of which 246 (78.6%) followed contraception. 278 (39.4%) had 1 child, of which 164 (59.0%) followed contraception. 73 (10.4%) had 3 children, of which 59 (80.0%) followed contraception. 19 (2.7%) had 4 children, of which 13 (68.4%) followed contraception. 19 (2.7%), of which 12 (63.2%) followed contraception. 3 (0.4%) had no living children, of which none followed contraception. Higher the number of living children, higher was the usage of contraception which was found to be statistically significant.

Table 4 shows the usage of temporary and permanent methods of contraception and various demographic parameters. In our study of 705 women, in 18-25 years age group 42 (46.2%) followed temporary methods and 5 (5.5%) followed permanent methods. In 26-35 years age group, 235 (60.1%) followed temporary methods and 77 (19.7%) followed permanent methods. In 36-45 years age group, 89 (39.9%) followed temporary methods and 145 (65.0%) followed permanent methods. In our study, older the patient higher was the usage of permanent contraception (Table 4).

The next parameter was women's education status, in the category of primary education, 128 (43.1%) followed temporary contraception, and 88 (29.6%) followed permanent methods. When the women were metric qualified, 107 (55.4%) followed temporary methods and 71 (36.8%) followed permanent methods. When the women were intermediate qualified, 60 (65.9%) followed temporary methods and 29 (31.9%) followed permanent methods. In the category of graduates, 56 (72.7%) followed temporary methods and 19 (24.7%) followed permanent methods. In the category of post graduates, 5 (100.0%) followed temporary methods and none followed permanent methods. In the category of illiterates, 10 (23.8%) followed temporary and 20 (47.6%) followed permanent methods.

In our study, as the wife's education increased, the usage of temporary methods increased the usage of permanent contraception decreased which was found to be statistically significant.

In the category of husband's education, in our study when the husband had primary education, 133 (42.5%) followed temporary and 105 (33.5%) followed permanent methods. When they were metric qualified, 139 (59.9%) followed temporary and 65 (28.0%) followed permanent methods. When they were intermediate educated, 37 (56.9%) followed temporary and 20 (30.8%) followed permanent methods. In the category of graduates, 39 (79.6%) followed temporary and 15 (30.6%) followed permanent methods. In the category of postgraduates, 13 (86.7%) followed temporary and 1 (6.7%) followed permanent methods.

When they were illiterates, 5 (16.1%) followed temporary and 21 (67.7%) followed permanent methods. In our study, there was no significance between husband's

education and usage of temporary and permanent methods.

Table 3: Demographic parameter in relation to contraceptive use.

Parameters	N	Users No (%)	Non Users No (%)	Chi Square	p Value
Age (Years)					
18-25	91	44 (48.4)	47 (51.6)	43.763	< 0.001
26-35	391	262 (67.0)	129 (33.0)		
36-45	223	188 (84.3)	35 (15.7)		
Wife's Education					
Primary	297	182 (61.3)	115 (38.7)	26.620	0.001
Matric	193	142 (73.6)	51 (26.4)		
Intermediate	91	74 (81.3)	17 (18.7)		
Graduate	77	64 (83.1)	13 (16.9)		
Postgraduate	05	05 (100)	00 (0.0)		
Illiterate	42	27 (64.3)	15 (35.7)		
Husband's Education					
Primary	313	200 (63.9)	113 (36.1)	16.374	< 0.006
Matric	232	170 (73.3)	62 (26.7)		
Intermediate	65	45 (69.2)	20 (30.8)		
Graduate	49	43 (87.8)	06 (12.2)		
Postgraduate	15	13 (86.7)	02 (13.3)		
Illiterate	31	23 (74.2)	08 (25.8)		
Wife's Occupation					
Professional	13	12 (92.3)	01 (07.7)	3.13	0.209
Non-Professional	226	158 (69.9)	68 (30.1)		
Housewife	466	324 (69.5)	142 (30.5)		
Husband's Occupation					
Professional	10	09 (90.0)	01 (10.0)	2.199	0.333
Non-Professional	686	478 (69.7)	208 (30.3)		
Unemployed	09	07 (77.8)	02 (22.2)		
Socio-Economic Status					
< 5000	235	150 (63.8)	85 (36.2)	13.851	0.003
5001-10000	327	227 (69.4)	100 (30.6)		
10001-20000	84	69 (82.1)	15 (17.9)		
> 20000	59	48 (81.4)	11 (18.6)		
Religion					
Hindu	447	341 (76.3)	106 (23.7)	38.739	< 0.001
Muslim	210	113 (53.8)	97 (46.2)		
Christian	48	40 (83.3)	08 (16.7)		
No. of Living Children					

0	03	00 (0.0)	03 (100.0)	38.616	0.000
1	278	164 (59.0)	114 (41.0)		
2	313	246 (78.6)	67 (21.4)		
3	73	59 (80.0)	14 (19.2)		
4	19	13 (68.4)	06 (31.6)		
5 & More	19	12 (63.2)	07 (36.8)		
N= Number of study women					

Table 4: Demographic parameters in relation to temporary & permanent contraceptive use.

Parameters	Temporary		Chi Square	p Value	Permanent		Chi Square	p Value
	Users No. (%)	Non Users No. (%)			Users No. (%)	Non Users No. (%)		
Age (Years)								
18-25	42 (46.2)	49 (53.8)	24.583	<0.001	05 (5.5)	86 (94.5)	167.789	<0.001
26-35	235 (60.1)	156 (39.9)			77 (19.7)	314 (80.3)		
36-45	89 (39.9)	134 (60.1)			145 (65.0)	78 (35.0)		
Wife's Education								
Primary	128 (43.1)	169 (56.9)	48.657	<0.001	88 (29.6)	209 (70.4)	11.710	0.039
Matric	107 (55.4)	86 (44.9)			71 (36.8)	122 (63.2)		
Intermediate	60 (65.9)	31 (34.1)			29 (31.9)	62 (68.1)		
Graduate	56 (72.7)	21 (27.3)			19 (24.7)	58 (75.3)		
Post -Graduate	05 (100.0)	00 (0.0)			00 (0.0)	05 (100.0)		
Illiterate	10 (23.8)	32 (76.2)			20 (47.6)	22 (52.4)		
Husband's Education								
Primary	133 (42.5)	180 (57.5)	55.928	<0.001	105 (33.5)	208 (66.5)	24.654	<0.001
Matric	139 (59.9)	93 (40.1)			65 (28.0)	167 (72.0)		
Intermediate	37 (56.9)	28 (43.1)			20 (30.8)	45 (69.2)		
Graduate	39 (79.6)	10 (20.4)			15 (30.6)	34 (69.4)		
Post- Graduate	13 (86.7)	02 (13.3)			01 (6.7)	14 (93.3)		
Illiterate	05 (16.1)	26 (83.9)			21 (67.7)	10 (32.3)		
Wife's Occupation								
Professional	10 (76.9)	03 (23.1)	4.893	0.087	03 (23.1)	10 (76.9)	3.609	0.165
Non Professional	124 (54.9)	102 (45.1)			63 (27.9)	163 (72.1)		
Housewife	232 (49.8)	234 (50.2)			161 (34.5)	305 (65.5)		
Husband's Occupation								
Professional	07 (70.0)	03 (30.0)	1.385	0.500	02 (20.0)	08 (80.0)	1.300	0.522
Non Professional	354 (51.6)	332 (48.4)			221 (32.2)	465 (67.8)		
Unemployed	05 (55.6)	04 (44.4)			04 (44.4)	05 (55.6)		
Socio Economic Status								

< 5000	94 (40.0)	141 (60.0)	25.141	<0.001	82 (34.9)	153 (65.1)	6.714	0.082
5001-10,000	178 (54.4)	149 (45.6)			94 (28.7)	233 (71.3)		
10,001-20,000	55 (65.5)	29 (34.5)			35 (41.7)	49 (58.3)		
>20,000	39 (66.1)	20 (33.9)			16 (27.1)	43 (72.9)		
Religion								
Hindus	251 (56.2)	196 (43.8)	12.006	0.002	164 (36.7)	283 (63.3)	23.670	< 0.001
Muslims	88 (41.9)	122 (58.1)			41 (19.5)	169 (80.5)		
Christians	27 (56.2)	21 (43.8)			22 (45.8)	26 (54.2)		
Number Of Living Children								
0	00 (0.0)	3 (100.0)	20.595	0.001	00 (0.0)	03 (100.0)	203.262	< 0.001
1	163 (58.6)	115 (41.4)			05 (1.8)	273 (98.2)		
2	162 (51.8)	151 (48.2)			158 (50.5)	155 (49.5)		
3	29 (39.7)	44 (60.3)			46 (63.0)	27 (37.0)		
4	04 (21.1)	15 (78.9)			10 (52.6)	09 (47.4)		
5	08 (42.1)	11 (57.9)			08 (42.1)	11 (57.9)		

The next parameter assessed was couple's occupation. No statistical significance was found between couple's occupation and temporary and permanent methods usage. The next parameter studied was socioeconomic status, in our study in Rupees <5000 category, 94 (40.0%) followed temporary and 82 (34.9%) followed permanent methods. In category of Rupees 5001-10,000 category, 178 (54.4%) followed temporary and 94 (28.7%) followed permanent. In Rupees 10,001-20,000 category, 55 (65.5%) followed temporary and 35 (41.7%) followed permanent methods. In Rupees >20,000 category, 39 (66.1%) followed temporary and 16 (27.1%) followed permanent methods. In our study, as the income increased the usage of temporary contraception increased which was statistically significant but no significant change is seen in the usage of permanent methods.

The next parameter assessed was religion, in our study, in Hindus 251 (56.2%) followed temporary and 164 (36.7%) followed permanent methods. In Muslims, 88 (41.9%) followed temporary and 41 (19.5%) followed permanent methods. In Christians, 27 (56.2%) followed temporary and 22 (45.8%) followed permanent methods. In our study, we found that Muslims followed the temporary methods the least. Permanent methods were followed mainly by Christians, which was found to be statistically significant.

The next parameter assessed was number of living children and contraception usage, in our study, none followed the contraception if women had no living children. When they had 1 living child, 163 (58.6%) followed temporary and 5 (1.8%) followed permanent methods. When they had 2 living children, 162 (51.8%) followed temporary and 158 (50.5%) followed permanent methods. When they had 3 living children, 29 (39.7%) followed temporary and 46 (63.0%) followed permanent methods. When they had 4 living children, 4 (21.1%) followed temporary and 10 (52.6%) followed permanent

methods. When they had 5 or more children, 8 (42.1%) followed temporary and 8 (42.1%) followed permanent methods. In our study, we found that temporary methods were followed highest by women with 1 living child and permanent methods were followed highest when women had 2 living children which was statistically significant.

The pie diagram depicts the various reasons for not using contraception (Figure 1). Out of 210 women who have not followed any sort of contraception, the reasons given were, majority 58 (27.61%) wanted more children, 34 (16.1%) for fear of complications, 43 (20.47%) were staying apart, 29 (13.80%) for religious beliefs, 17 (8.09%) for husband's/family opposition, 13 (6.19%) for ignorance of practices, 10 (4.76%) for infrequent sex and 8 (3.80%) for not having sex.

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.¹⁸ In the present study, 95.2 % were aware of one or multiple methods of contraception, which is almost similar to prevalence of knowledge 97.7% reported by National family health survey (NFHS)-3³, slightly less than Takkar et al where they reported 100 % in their study²⁰ more than the incidence reported by Sajid A et al¹⁹ study done in Pakistan where awareness was 60%. The acceptance of contraception was 87.2% following counseling. 71.2% followed or are following one or multiple methods of contraception higher than NFHS-3 (2005-06) where overall contraceptive usage in Karnataka was 63.6%, and 61.8%¹⁹ as per DLHS (District level health survey) Karnataka ,68.4%, 59.92% , 59.2% ,34.92%, as reported by Kiran G. Makade et al¹⁶, Padmaja Ravindra Walvekar et al⁷, Neelu Saluja et al¹² DR Gaur et al.⁹

In our study, it was observed that majority of the study women 51.9% followed temporary methods and 32.2% followed permanent methods which correlates to the study done by DR Gaur et al⁹ S. Giridhar et al where they observed 61% and 39% and 49.5% and 37.6% temporary and permanent respectively. In contrast the study done by Neelu Saluja et al², Kumari C¹⁴, the majority of them 46.0% followed permanent methods which is higher when compared to our study. Of temporary methods followed IUCD being commonest temporary method which correlates to the study done by Chopra S Dhaliwal

et al¹¹, DR Gaur et al⁹ and female sterilization being the most common permanent method followed which corresponds to study done by DR Gaur et al.⁹ Women in the younger age group of 18-25 years, followed temporary methods and women in later age group of 36-45 years preferred permanent method; the reason was obvious as they would have completed the family. Similar findings were reported by S. Giridhar et al in her study in rural areas of Punjab⁸ and by DR Gaur et al in a study in rural area of Mewat.⁹

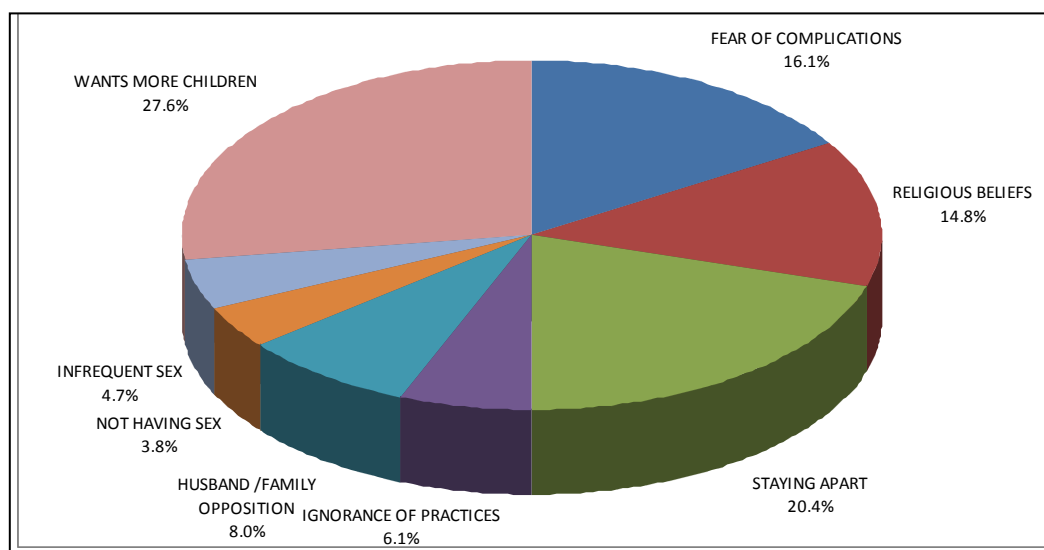


Figure 1: Reasons for not using contraception.

In this study, it was observed that literacy influenced the contraceptive usage, higher the education status of the couple, higher was the contraceptive usage, and similar findings were reported by S. Giridhar et al in their study.⁸ Contrary to our findings, study done by Padmaja Ravindra Walvekar in Belgaum, Karnataka did not find any influence of literacy on contraceptive usage.⁷

Couple's occupation had no influence in following contraception. Study done by Pushpa et al reported that acceptance was high in employed group.¹⁰

In our study higher the socio economic status, higher was the usage of temporary methods which was statistically significant ($p < 0.001$) but no significant change was observed in the usage of permanent methods, Bhattacharya M¹³ in his study found that higher income women were more likely to use permanent methods.

In our study, we found an association between religion and contraceptive usage. In our study Christians followed the most then the Hindus and Muslims followed the least which was statistically significant ($p < 0.002$). Permanent methods were opted majority by the Christians (45.8%), then Hindus (36.7%) and Muslims (19.5%) followed the least which was found to be statistically significant

($p < 0.001$), similar findings were reported in a study done by DR Gaur et al Rural area of Mewat, Rohtak, India⁹, Mohanan P et al¹⁵ in their study done in Asaigoli 20 km from Mangalore found that muslims followed permanent methods the least. SP Puspha et al in her study did not find any influence of religion on contraceptive usage.¹⁰

In our study, more the number of living children, higher was the usage of contraception. Women with 2 and 3 children opted for permanent methods when compared to women with 1 child, who followed temporary methods the reason being obvious and was found to be statistically significant ($p < 0.001$) which is similar to study reported by SP Pushpa et al¹⁰ and S Giridhar et al⁸ Mohanan P et al.¹⁵

In our study 29.8% were non users. Reasons for not using contraception, the most common were, the couple wants to have more children, staying apart, religious beliefs, husband's or family opposition etc, which correlates to the study reported by Neelu Saluja et al¹² Sajid A et al.¹⁸

CONCLUSIONS

These results clearly indicate that awareness about the contraception is not sufficient enough to use contraception in the community, extended efforts are required to make them understand the importance and to follow the contraception.¹⁶ The present study shows that more programs are required to combat the influence of various factors on contraception usage, and emphasizing on the positive effects of the use of contraception and misconceptions regarding the ill effects of the family planning methods.

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