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Contraceptive Practices among the Eligible Couples from a Rural and an Urban Area of Karnataka

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ABSTRACT

Background: Every fifth birth in the world is an Indian, and 50% of the Indian population are of reproductive age. Contraceptive use in India is very poor. There is still a large unmet need for contraception and hence the present study was planned.

Objective: To assess the couple protection rate (CPR) among the eligible couples.

Methodology: A cross-sectional study was conducted among the 600 eligible couples in the urban and a rural area of Karnataka using a semi structured questionnaire during October 2017 to March 2018.

Results: The couple protection rate was 59.33% among the eligible couples and 40.67% did not use any family planning methods. The major family planning method used was tubectomy (42.63%), and very few used OCPs (4.5%). CPR was highest among the couples who completed greater than 2 years of married life (60.76%) and who had 2 or more children (67.64%). All (100%) professional graduates used contraceptive methods while it was least (31.2%) among illiterates.

Conclusion: The number of eligible couples still not using the family planning methods was 40.67%. Hence there is a need to educate and motivate the eligible couples to improve family planning services, highlighting the importance of small family.

Keywords: Eligible couples, contraceptive usage, couple protection rate.

INTRODUCTION

Population explosion is a big issue in developing country including India. This has led to an increase in the poverty and unemployment. The population has grown from 350 million at the time of independence to 1,210 million by 2011. An increase of 181 million over the last decade.[2] Census 2011 data shows a decadal population growth rate of 17.64% for India and 15.6% for Karnataka[3], with a crude birth rate 21.6 and total fertility rate (TFR) 2.68 (NFHS-3).[2,4]

The couple protection rate is the main factor to reduce the net reproduction rate. The current CPR is 54.8% among the eligible couples in the age group of 15-44 yrs. To bring about a NRR of 1, CPR has to exceed 60%.[2] The usage of contraceptives in our country depends on the knowledge and availability of the contraceptives. Couple have the fear of side effects of contraceptives and above all women need to get consent of their partners too.[5,6] Efforts to control population growth in India has started as early as 1952 when Family Planning Programme was launched and National Population Policy was passed.[1] Various initiatives have been taken by government of India periodically with some positive results but not as significant to reach the set targets and goals. Though there are many studies available which gives us coverage and utilization of various contraptive measures, situation in each

area differs. Hence to know the current pattern of usage of contraceptive methods locally is necessary in order to plan appropriate interventions to improve the utilization of the services and finally achieve higher CPR. This study was planned with the objective to assess the couple protection rate among the eligible couples in our rural and urban field practice area.

METHOD

This is a cross sectional study conducted in a rural and an urban area. Urban and rural field practice area of our medical college was chosen purposively because of convenience. The information required was obtained in the form of response from the eligible couples with the help of a semi structured questionnaire. Ethical clearance was obtained from the Institutional Ethics Committee. Written informed consent was taken and confidentiality was ensured. The study was conducted from Oct 2017 to March 2018.

Sample size estimation: Based on a couple protection rate of 54% [3], an allowable error of 10% and at 95% confidence interval, a sample of 600 eligible couples was arrived at. Consequently 300 eligible couples were selected from rural and 300 from the urban field practice areas.

Sampling: Simple random sampling was followed. A list of all villages which comes under our rural field practice area and all wards under urban field practice area was taken. A village / a ward were selected randomly from the lists and all houses in the selected area were included in the study. The process was continued till the required sample size was achieved.

Statistical Analysis: All information thus obtained was entered in excel spreadsheet and coded accordingly. The data was analysed using open Epi info V6.0 and expressed in proportions and percentages. P – value of < / = 0.05 was considered significant. Associations of contraceptive use with religion, area of residence, occupation, education, year of married life and number of children was done.

RESULTS

Majority of the study population (31.2%) had finished high school, 3.5% had done professional courses and 26% were illiterates. Coming to the occupation, 2% were professionals, 1.3% was semi professionals, 5% were skilled, 13.8% were unskilled and 71.5% were unemployed. 82.7% belonged to the Hindu religion, Muslims were 66% and Christians were 34%. Among the contraceptive users, significantly more than half of them 53.5% had completed 2-4 years of married life. Majority of them 56.7% had 2 children (Table 1).

42.67% of the eligible couples were using permanent method, 16.67% were using temporary contraceptives, and 40.67% were not using any. Among the temporary contraceptives, condoms were used by 6.67%, oral pills by 4.5%, and IUDs by 5.5%. (Table 2)

Present study shows that the couple protection rate was 59.33%, while 40.67% of the study population did not use any family planning methods at all.

Table: 1 Distribution of the study population according to socio demographic variables.

Particulars	Eligible couples (n=600) (%)
Area	
Rural	300 (50)
Urban	300 (50)
Age (yrs)	
15yrs -19yrs	8 (1.3)
20yrs -24yrs	71 (11.8)
25yrs -29yrs	164 (27.3)
30yrs -34yrs	113 (18.8)
>= 35yrs	244 (40.7)
Education	
Professional	21 (3.5)
Graduation	69 (11.5)
Inter / Diploma / ITI	95 (15.8)
High School	187 (31.2)
Middle School	65 (10.8)
Primary School	7 (1.2)
Illiterate	156 (26)
Occupation	
Professional	13 (2.2)
Semi Professional	8 (1.3)
Skilled	36 (6)
Clerical/Shop Owner/ Farmer/ Business	31 (5.2)
Un Skilled	83 (13.8)
Un Employed	429 (71.5)
Religion	
Hindu	496 (82.7)
Muslim	66 (11)
Christian	34 (5.7)
Others	4 (0.7)
Years of married life (yrs)	
<1 Year	86 (14.3)
2-4 Years	321 (53.5)
5-7 Years	169 (28.2)
>7 Years	24 (4)
No. of children	
Nil	47 (7.8)
One	134 (22.3)
Two	340 (56.7)
Three	67 (11.2)
Four	11 (1.8)
Five	1 (0.2)

Table 2: Family planning practices followed by the study population

Method followed	Couples (%)
Condom	40 (6.67)
IUD	33 (5.5)
Oral Pills	27 (4.5)
Tubectomy	256 (42.67)
Nil	244 (40.67)
Total	600 (100)

The contraceptive usage among the Hindus was 57.66%, Muslims- 77.2%, Christians – 16% and this difference was found to be significant. Usage was significantly higher among those eligible couples with 2 or more years of married life compared to less than 2years (OR - 0.121(CI: 0.035-0.420); CPR was higher among couples living in urban area compared to the rural area; and was high among couples with 1 or more children compared with those couples with no children. The CPR was significantly higher among eligible couples wherein the female partner had higher levels of education. Also the CPR was higher among the eligible couples with the female partner being employed compared to being unemployed. (Table 3)

There was a significantly high usage of oral pills (74.07%), condoms (62.50%) and tubectomy (55.85%) as methods of contraception among the eligible couples residing in urban areas. Contraceptive usage in general was higher among eligible couples residing in urban areas (67.00%) when compared to the rural area (51.66%). On the whole among the eligible couples from both the areas , the usage of condom was 6.66%, IUD – 5.50%, Oral pills – 4.50%, Tubectomy –42.66%, and those who did not use any family planning methods was 40.66%. Sushma Gore 2016[16] also showed the usage of contraceptives in the urban was (63%) and in the rural area was (53%), (Table 4)

Table 3: Association of the contraceptive practices of the study population* with different variables

Population Variables	Contraceptive Use			Unadjusted
	No (%)	Yes (%)	Total	OR(95% CI)
Religion				
Hindu	210(42.34)	286(57.66)	496	1
Muslim**	15(22.73)	51(77.27)	66	0.392(0.215-0.714)
Christian	18(52.94)	16(47.06)	34	1.692(0.845-3.388)
Others	1(25.00)	3(75.00)	4	0.484(0.050-4.683)
Year of Married Life				
< 2 yrs	16(84.21)	3(15.79)	19	1
>= 2 yrs***	228(39.24)	353(60.76)	581	0.121(0.035-0.420)
Area				
Rural	145(48.33)	155(51.67)	300	1
Urban***	99(33.00)	201(67.00)	300	1.899(1.365-2.643)
Education				
Educated	137(30.86)	307(69.14)	444	1
Uneducated***	107(68.59)	49(31.41)	156	0.204(0.138-0.303)
Occupation				
Employed	65(38.01)	106(61.99)	171	1
Unemployed	179(41.72)	250(58.28)	429	0.856(0.595-1.232)
No. of children				
< 2	123(67.96)	58(32.04)	181	1
>= 2***	121(28.88)	298(71.12)	419	5.223(3.583-7.614)

P value<0.01,*P value<0.001

Table 4: Distribution of the study population based on use of contraceptives

Use of contraceptives	Area		Total (%)	Unadjusted OR(95% CI)	P Value
	Rural (%)	Urban (%)			
Condom	15(37.55)	25(62.50)	40(6.66)	1(reference)	**<0.001**
IUD	20(60.60)	13(39.40)	33(5.5)	1.577(0.770-3.321)	
Oral pills*	7(25.92)	20(74.07)	27(4.5)	0.334(.139-0.803)	
Tubectomy*	113(44.14)	143(55.85)	256(42.66)	0.663(0.479-0.919)	
Nil**	145(59.42)	99(40.57)	244(40.66)	1.899(1.365-2.463)	

*P value<0.05,**P value<0.01

DISCUSSION

The **CPR** in our study is **59.32%** and that of India is 40.4%.[2] CPR was 67.5% among the eligible couple of urban slum in west Bengal[6]; 43.9% in the urban slum area of Tripura[6]; S. Sultana et al. 2007[7] found it to be 26%; Raumi Deb, 2010[8] found it to be 52.7% in Meghalaya; DC Jain , 2009[9] found it to be 31.2% among the Gond in Madhya Pradesh. Lower literacy rate among the Gond may be the reason for low prevalence of contraceptive use among them.

42.67% of the study population had undergone **sterilization operations**, **(Table-2);** Sushma Gore 2016 [10] found it to be (58%) in Urban and Rural area in Maharashtra; West Bengal figures (32.3%) and National figure is (37.3%) according to NFHS-3[11]. Not a single vasectomy was detected within the study population. According to NFHS-3[11], acceptance of vasectomy in the country is 1%. Ignorance is reflected in widespread misconceptions about vasectomy. These include the belief that it causes impotence, ejaculatory failure, weight gain, and its equation with castration.

In our study the usage of **condoms was 6.66%, IUD was 5.5% and OCP was 4.5% (Table-2)** and that of our National figure gives usage of condoms 7%, IUDs 6%, OCPs 5% - NFHS-3[11]. Anjana Vaidhynathan 2014 [12] found that condom usage was 4.6%, OCP was 1.3%, IUD was 4%; Himadri Bhattacharjya 2015[13] found that usage of OCPs 44.30% and condoms was 2.53% .

The usage of contraceptives in our study population by Hindus was 57.66%, Muslims was 51% and by Christians was 16% **(Table-3).** Himadri Bhattacharjya 2014 [13] and Uruj Jahan 2017 [14] showed that the usage of contraceptives was high among Hindus followed by the Muslims.

Usage of contraceptives was maximum 100% by those who did professional courses and minimum 31% among the illiterates **(Table-3).** A similar study by Priyanka R. 2017[15] also shows that maximum use of family planning methods was among the professionals (87.5%) and least among the couples with primary education (27.8%).

Use of family planning methods was highest (100%) among the professionals and least (58.27%) among the unemployed among our study subjects. Similar results were got by Uruj Jahan 2017[14] where it was highest (87%) among the professionals and least (64.9%) among the unemployed.

The CPR according to the number of married life after one year was 34.88%, 2-4yrs was 54.51%, 5-7yrs was 76.92% and greater than 7 years was 70.85% **(Table-3).** According to Uruj Jahan 2017[14], it was 62.9% for >1year, 41.4% for 2-4yrs, 12.4% for 5-7yrs and 14.3% for >7years. In both the studies it was maximum after 5-7 years of married life. This may be because this could be the time the couples would have realised it was time to complete the family and felt the need for the contraception.

In our study the CPR among eligible couples with no children was 12.7%, 1 child was 38.8%, 2 children was 67.64%, greater than 3 children was 0.01% **(Table-1).** Priyanka.R 2017[15] also shows that the least use of contraceptives was by nulliparous women (9.3%) and the maximum use of family planning methods was by the couples with 2 children (53%). This was because most of these couples had decided to complete the family and went in for family planning methods.

The usage of contraceptives was 67% in the urban area and 51.66% in the rural area in our study population **(Table-4).** Anjana Vaithyanathan 2014[12] and Aalok Ranjan Chaurasaia 2014[16] in their studies also found that the usage of contraceptives was higher in the urban areas compared to the rural areas. This could be due to the awareness, availability and accessibility of the contraceptives which are better in the urban areas than in the rural areas.

CONCLUSION

CPR was high in our study population, though different factors like area, religion, literacy and number of living children significantly affected contraceptive behaviour of the study population. Hence there is an urgent need to fill this gap between the contraceptive need and the contraceptive practices of the eligible couples.

Efforts should be made to educate the public about the safety and convenience of modern, long-term, reversible methods of contraception among both healthcare professionals and the public. Family planning counselling needs to be universally included into routine antenatal clinic activities. Besides, improving formal female education is certain to raise the existing knowledge and also to dispel the prevailing misinformation and misperceptions about family planning methods. Hence health education should start from the grass root levels at our rural and urban health centres.

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