



A STUDY OF FACTOR AFFECTING THE USE OF TEMPORARY AND PERMANENT METHODS OF CONTRACEPTION AMONG MARRIED WOMEN

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ABSTRACT **Introduction:** According to World Health Organization (WHO), 'Family planning allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility'. This study provides the relationship between sociodemographic factors and use of temporary contraceptive methods and permanent contraceptive methods. **Objectives:** 1. To determine the factor affecting utilization of temporary and permanent contraceptives among married women. 2. To determine the relationship between socio demographic factors and use of modern contraceptive method among married women. **Material & methods:** This study was community based descriptive cross sectional study, conducted in urban area of Bilaspur (C.G.). Total 600 married women were interviewed by predesigned and pretested questionnaire. Data were analyzed using SPSS software. Chi-square test and logistic regression was applied to know the association among the various socioeconomic factors and contraceptive practices. **Result:** In this study 600 married women were studied. Out of all 600 respondent (172)28.7% were using sterilization and rest were using temporary method of contraception. Only 8.6% and 32.8% illiterate women were using temporary method and permanent method of contraception and only 42.9% and 21.4% women of lower socio economic class were using permanent method and spacing method of contraception respectively. Significant association was found between various factors like age, education, parity, socio economic class, and number of living children. **Conclusion:** In this study choice of method of contraception (temporary and permanent methods) was associated with education, occupation, socioeconomic class, number of living children and parity. It was found that the female sterilization (permanent method) was more popular than temporary method. Education and mass media show significant association in use of temporary methods.

KEYWORDS : temporary methods, permanent methods, contraception, logistic regression.

INTRODUCTION

According to World Health Organization (WHO), 'Family planning allows individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their births. It is achieved through use of contraceptive methods and the treatment of involuntary infertility'. Thus the use of contraceptives for birth spacing and limiting is a universally known fact, but, all over the world, health issues related to lack of contraceptive use falls completely upon women.¹

As early as 1952, India had introduced the family planning program and the Department of family planning was created in the Ministry of Health in 1961. Still the country's birth rate continues to be as high as 21.6/1000 population.² As of 2011 only 40% of the eligible couples practiced some method of family planning.² According to the national family health survey (NFHS) done in 2015 - 2016, a quarter of the women are married before 18 years of age, which is the legal age of marriage in India. Nearly 8% of the women aged 15-19 years of age are already mothers or pregnant. In the country only 53.5% women aged 15-49 years practiced some method of contraception.³ The most popular method of family planning practiced was female sterilisation for both the state and the country.^{3,4}

Several types of modern contraceptive methods have been practiced by the females in the society. Modern contraceptive method is again classified into permanent methods (female and male sterilization) and temporary methods (pill, IUD, injectables, male and female condoms, and emergency contraception). Also some females are using traditional methods which are generally rhythm and withdrawal method.

Socioeconomic factors, however, have been shown to be of greater importance in determining health service utilization than demographic factors.⁵ India is a very vast country and has cultural diversity. This study provides socio demographical, economical factors which interfere the use of temporary contraceptive methods and permanent contraceptive methods in married women. Further, the study also provides the relationship between sociodemographic factors and use of temporary contraceptive methods and permanent contraceptive methods.

OBJECTIVES

1. To determine the factor affecting utilization of temporary and permanent contraceptives among married women.
2. To determine the relationship between socio demographic factors and use of modern contraceptive method among married women.

MATERIAL AND METHOD

This is a community based descriptive cross sectional study, conducted in (UHTC)Yadunandan Nagar Bilaspur district (Chhatisgarh). This is a community based cross sectional study done among the married women of the urban population. This is urban field practice area of department of community medicine, health care services are provided to this urban community by the department. Married women in the age group 15 to 45 years were selected by random sampling. The exclusion criteria was if they were divorced or separated or widowed or having primary infertility participants.

Sample size was estimated by following formula $n = 4pq/d^2$. Eligible couple were 168 per 1000 population in study area so got $n = 559$ sample size but taken 600 in round figure.

Predesigned and pretested questionnaire was used to collect information regarding use of contraception and various factors affecting its utilization. Total 600 married women were interviewed by house to house survey.

The proforma entails the information about the age of women, education level, occupation, socio economic status, awareness about temporary and permanent methods of contraception and their practices etc.

Statistical analysis was done in SPSS for Windows. Descriptive statistics was calculated including proportions for categorical variables and means (SD) for continuous variables. Chi-square test was used to know the association among the various factor and utilization of various methods of contraceptives. Logistic regression has been applied to find out the factors significantly affecting the use of different types of modern contraceptive methods like permanent or temporary. $p < 0.05$ was considered statistically significant.

Ethical clearance was obtained by college ethical committee. Informed written consents were taken from all study subjects in proforma prescribed by ICMR as per guidelines of "Bio-medical research involving human subjects".

OBSERVATION AND RESULT

This was a community based cross sectional study done among the 600 married women age between 15 to 45 years of the urban population of Bilaspur (C.G.). The socio-demographic description and reproductive of the study participants was given in Table 1. About a half of the women were of the ages 20 to 29. The mean (SD) age of the women was 31.5 (6.3), with a median of 31 and age ranging from 19 to 45 years. They were mostly belonging to the Hindu religion and the lower upper socio-economic status of kuppuswamy classification. About three fourth (78.3%) of respondent were housewife. About one fourth of them had high school education and nearly a quarter of the women had middle school education. 9.7% of study population was illiterate. Two thirds of the women had two or lesser number of children.

Currently 341 (56.8%) participants used method of contraception. (28.6%) women have had female sterilization and only five (28.1%) women were using temporary methods of contraception.

Women aged above 30 years (p <0.00001), education above the high school (p<.00001), socioeconomic class (p<.00001), married for more than 10 years (p<0.001), having more than two living children (p<0.00001) and decision of contraceptive adoption (<.01) had a significantly higher contraceptive use with temporary and permanent method of contraception. There was no significant association of contraceptive use with religion and caste of the women (Table 2).

TABLES AND GRAPH

Table 1 sociodemographic distribution of study participants

characteristics	Frequency (n=600)	%
Age in years		
15-19	6	1
20-24	140	23.3
25-29	160	26.7
30-34	122	20.3
35-39	93	15.5
40-45	79	13.2
Education		
PROFESSIONAL	2	.3
GRADUATE OR PG	94	15.7
INTERMEDIATE	49	8.2
HSC	154	25.7
MIDDLE SCHOOL	159	26.5
PRIMARY SCHOOL	84	14.0
ILLITERATE	58	9.7
Occupation		
PROFESSIONAL	13	2.2
SEMI-PROFESSIONAL	7	1.2
CLERC/SHOPKEEPER/FARMER	18	3.0
SKILLED WORKER	19	3.2
SEMI-SKILLED WORKER	11	1.8
UNSKILLED WORKER	62	10.3
UNEMPLOYED	470	78.3
Socioeconomic class		
UPPER	15	2.5
UPPER MIDDLE	82	13.7
LOWER MIDDLE	117	19.5
UPPER LOWER	372	62.0
LOWER	14	2.3
Religion		
HINDU	540	90.0
MUSLIM	47	7.8
OTHERS	13	2.2
Caste		
GENERAL	239	39.8
OBC	277	46.2
SC	52	8.7
ST	32	5.3
Duration of marriage in years		
<3	85	14.2
3-5	125	20.8
6-10	147	24.5
11-15	88	14.7
>15	155	25.8
Age at marriage in years		
< 18	101	16.8
> (=)18	499	83.2

Table 2 factor affecting the temporary and permanent contraceptive use among study population

characteristics	Temporary contraceptive N=169	Permanent contraceptive N=172	Non user N=259	Chi square	P value
Age in years					
15-29	103 (30.2%)	32(9.3%)	306	63.90	<.00001
30-45	66(19.3%)	140 (41%)	214		
Education					
Illiterate	5	19	34	17.49	<.00001
Up to middle school	61(17.8%)	101(29.6%)	105		
High school & above	108(31.67%)	71(20.8%)	49		
Occupation					
Home maker	119(34.8%)	140(41.05%)	211	5.6	<.01
Others	50(14.6%)	32(9.3%)	48		
SEC					
Lower class	93 (27.2%)	105(30.7%)	386	23.93	<.00001
middle class	148(43.40%)	61(17.8%)	214		
Duration of marriage in years					
<10	121(35.48)	44(12.9%)	357	72.27	<.00001
>10	48(14%)	128(37.5%)	294		
Number of living children					
<2	145(42.5%)	83(24.3%)	440	54.22	<.00001
>2	24	89	160		
Desire of more children					
yes	70 (20.5%)	0	154		<.01
no	99 (29%)	172 ()	376		
Source of information of contraceptive's					
HCW	90	86	91		<.01
Mass media (TV, newspaper)	64	68	111		
Not Aware	20	0	42		
Decision of contraceptive use					
Self	9	9	0	10.78	<.01
Husband	22	6	3		
Family Member (mother in law)	136	153	11		
HCW	2	4	0		

There were 341 (56.8%) participants who had currently used a method of contraception. Out of this 172 (28.7%) used permanent method, namely female sterilization and 169 (28.1%) of them used temporary method of contraception such as condoms (14.3%) , intra uterine contraceptive device (IUCD) (7.3%) and OCP (6.3%) (Figure 1 & Figure 2)

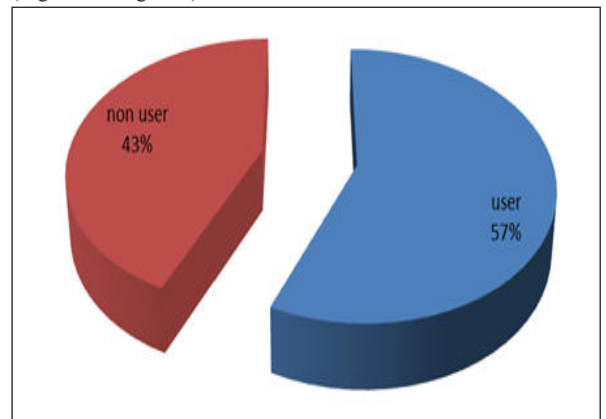


Figure 1 –distribution Of Contraceptive Practices Among Study Population

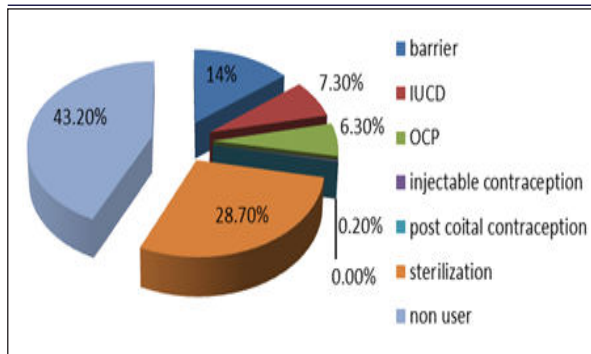


Figure 2–distribution Of Temporary And Permanent Contraception Among Study Population

Table 3 explains the results of logistic regression analysis which influence socio-cultural and demographic factors on the different type of contraceptives. Education level plays an important and significant role in the use of temporary methods of contraception. A positive relationship has been observed between the use of temporary method of contraception and the education of the female. This result clearly shows that education levels do not influence the use of permanent method of contraception. Mass media exposure also plays an important and significant role in the use of contraception by females. Decision of family planning has been taken by husband and family member especially mother in law are play an important and significant role in use of both type of contraception. A positive and highly significant association has been found between the use of permanent contraception and occupation of participants in this study (78%) mother were home maker they influenced toward permanent contraception.

Table 3 Multiple Linear Regression Analysis Of Temporary And Permanent Method Of Contraception With Variables

characteristics	Temporary methods		Permanent methods	
	Exp (B)	P Value	Exp (B)	P Value
(Constant)	.159	.702	-1.977	.408
Age of participant at marriage	-.029	.543	.058	.818
Age of participant	-.011	.610	.166	.091
Source of Information	.048	.005	.100	.309
Decision of Family planning	.231	.000	1.344	.000
Awareness of method of contraception	-.059	.172	-.374	.116
Already has Son	.001	.992	-.062	.904
Desire of More Children	.049	.785	.672	.515
Desire of Son	-.028	.444	.062	.790
Age at First Pregnancy in Years	.027	.257	.177	.206
Duration of Marital Life	.011	.613	.105	.377
Socio Economic Class	.002	.923	-.189	.124
Occupation of participant	-.012	.316	.055	.022
Education of participant	-.041	.001	-.055	.069

a. Dependent Variable: temporary method of contraception

DISCUSSION

The present study is a community based cross sectional study conducted at urban area among 15-45 years of married women. 600 married women were studied during study period from November 2013 to October 2014.

This study has attempted to understand various determinants for using different methods of contraception. Various factors that has taken in to account includes age, education, parity, socio economic class, and number of living children.

It was observed that about half (56.8%) of the married women were using some form of contraceptive.

In this study 8.6% and 32.8% illiterate used temporary method and permanent method of contraception respectively. However up to PG and professional educated 48.9% and 50% used temporary method respectively and 21.3% and 50% used permanent method of

contraception respectively. Significant association was found between education of respondent and type of contraception.

Bhattacharya S.K, et al (6) has found that with increase in literacy level, the prevalence of spacers significantly increased and that of limiter decreased. This was similar to present study.

Baveja R et al (7) have found in their study that illiterate women more often accepted sterilization (25%) than the literate women (15%). About 30% of illiterate women had 3 or more children as opposed to 16.2% of literate women. However, literacy status did not influence the choice of any temporary method. But it was contradictory to present study that as the level of education increases respondent were using mostly temporary method as a choice of contraception. Thus we can say that literacy is the influencing factor for the acceptance of contraception as well as permanent method of contraception.

In present study it was observed that among the lower socio economic class about half (42.9%) used permanent method and 21.4% used temporary method of contraception. In upper socio economic class about half were used spacing method and 33.3% used permanent method as a contraceptive.

Highly significant (p<.01) association was found between socio economic class and method of contraceptives. As the socio economic class increases temporary method of contraception more accepted than permanent method of contraception.

Similar finding was also revealed in study done by **Rajindersingh Balgir et al (8)** **Amardeep Thind et (9)** have found that the standard of living was the only significant determinant. Households with a higher standard of living were less likely to use female sterilisation as a contraceptive method (10,11). This may reflect the lack of wherewithal for the poorer households to obtain other contraceptive methods, or it may reflect the impact of monetary incentives for sterilisation, which will have a bigger effect on poorer households.

Ramachandrappa S et (12) conducted a study among schedule cast women and found that higher acceptance of sterilization is due to their poor economic condition and the financial incentives associated with sterilization. Unsystematic ways of motivation for spacing methods by health work Scheduled Castes women could be contributing factors for their heavy reliance on sterilization.

In present study it has been observed that among respondent having 1 child 38.56% and 2.61% used temporary method and permanent method of contraception respectively. However among respondent having three children 54.38% and 18.42% used temporary and permanent method of contraception respectively.

Mohan P et al (7) conducted a study in the district of Dakshina Kannada it was found that, seventy one percent of women with three or more children were acceptors of permanent methods of contraception. Similar finding were found in present study.

B.K. Patro et al (13) observed that almost three-fourth (74.4%) of the women had two children when they first used a contraceptive method. Use of contraception for the first time after having one live birth was found to be 21.7 per cent. Only less than 2 per cent of the women used contraceptive methods prior to childbirth.

The females having mass media exposure have 3.8 times higher chance of use of temporary methods and 76 percent higher chance of use of permanent method of contraception than the females who have no mass media exposure. Definitely the females who have mass media exposure are using significantly more temporary method of contraception.

CONCLUSION

In this study usage of temporary and permanent method of contraception significantly associated with education, occupation, socioeconomic class, number of living children and parity.

Use of permanent method of contraception is not much affected by the education of the females. The females who have already completed their family size have higher chances of using both type of contraception. The female having minimum one male child positively affects the use of contraception. The females who already have one male child have higher chance to use temporary method of contraception.

The females having mass media exposure have higher chance of use of temporary methods. Socio economic class and occupation of women also affects choice of contraception.

Also concluded that decision of family planning taken by family member, so motivate women to should take her own decision.

Intensive efforts are needed to popularize temporary methods among younger couples being more fertile group.

About half of total contraceptive users in this study area used sterilization and rest of them used other modern temporary methods. Although sterilization is safe and most effective technique, but it cannot serve the needs of all couples indifferent stages of the reproductive life cycle. Thus, a large proportion of couples remained unprotected mainly because of lack of sufficient motivation.

Many studies shows that very often people do not utilize the family planning facilities available to them. Many women also face family opposition to use of temporary contraceptives.

In a country such as India with high infant and child mortality rates, women who already have children may wish to keep the option open to have more until they feel confident that the children they already have will survive.

In such situation, temporary contraceptive methods can play an important role in helping women achieve their goals for completed family size. Thus family welfare programme need to do more to

promote knowledge of modern temporary methods through education campaigns and IEC programme.

Motivation to utilize family planning services was found to be an important bottle neck.

There is a need for vigorous promotion for delaying the first child and limiting the number of children to two, irrespective of the sex of children.

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