

# Factors determining use of oral contraceptive

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## Abstract

To evaluate the factors determining use of oral contraceptives in reproductive age group women attending family planning clinic at New Civil Hospital, Surat, present study was conducted during October to December, 2007. After taking informed consent, 235 women were interviewed using pretested questionnaire and information was collected in historically prospective manner. Various factors like religion, spouse education, socio-economic status, wife occupation, age at menarche, marriage age, previous use of contraceptive type, decision making for use of oral contraceptive, current use of oral contraceptive, number of living children, parity and age at first use of oral contraceptive were analyzed using bivariate and multivariate analysis. Study results show that use of oral contraceptive is influenced by husband education, his decision making to use type of contraceptive and also parity status.

## INTRODUCTION

Gauging the potential demand for contraceptive services is an important component of family planning programme management. By using measures of women's childbearing intentions, programme administrators can estimate unmet need and hence demand for contraception; by looking at women's intention to use contraceptives, they may be able to forecast contraceptive demand more directly (1). The National Family Welfare Programme was started in 1952 in India (2) and since then family planning is promoted in India. As per the projections by UN, India will become the most populous country by year 2045 (3). The couple protection rate (CPR) is still not achieved as desired (60%) to attain small family norm. In India, though 56% women practicing some contraceptive methods, only 3% women of reproductive age group at present, use oral contraceptives as family planning method (4). Prevention of unplanned pregnancy requires provision of freely available, accessible and effective methods of contraception which are acceptable to women in terms of method of use and minimal side effects. The most commonly used method of reversible contraception is the oral contraceptive pill. Surveys show that few of the major reasons for unplanned pregnancies are women's failure to use a contraceptive method correctly (5), their poor knowledge of sources and methods of emergency contraception (6). Decision making in use of contraceptive is influenced by number of factors that include a woman's personal health behavior, perceived risks and benefits, convenience, socio-economic factors and a provider's

willingness to prescribe a method. This study sought to determine whether the choice of oral contraception correlates with various sociodemographic and reproductive characteristics in Surat city, India.

## MATERIAL & METHOD

The present study was conducted at New Civil Hospital, Surat, which is located in Gujarat state in western part of India. Women in reproductive age group (15-45 years of age) attending family planning clinic at New Civil Hospital, Surat were recruited as subjects for the study. The study was conducted from October to December, 2007 and 235 such women could be interviewed. As this is historically prospective study, descriptive data were collected. So, by asking questions regarding ever use of oral contraceptives in retrospective manner, it introduces the recall bias and this is the limitation of this study. The sample size calculated was 232 using systematic sampling, considering 5% allowable error and 3% population practicing oral contraceptives (4). So, every 6th woman of reproductive age group attending family planning clinic of New Civil Hospital, Surat was recruited for the study. An informed consent was taken from these women and interview was conducted by trained personnel. Around 12% of the women could not be interviewed. Women recruited for study were coming from homogenous group and sociodemographic characteristics were apparently similar for those who could be interviewed and those who could not be interviewed.

The questionnaire included information regarding demographic profile and socio-economic status of women and her family, her reproductive health history and contraceptive practices. EPI 6 and Epi Info version 3.4 were used for data analysis, adhering to the hierarchical model created previously, with variables related to demography and socio-economic factors (religion, wife education, husband education, social class, wife occupation) at first level and reproductive health characteristics and contraceptive practices (age at marriage, wife's marriage age, type of contraceptive method used, advocated for OC pills, currently using OC pills, living children, parity, age at first use of OC pills) at second level. The frequencies of variables were calculated and bivariate analysis was performed between individual exposure factors and the outcome, between exposure factors and other variables and between the outcome and other variables. For all data analysis, cutoff for statistical significance was set at  $p \leq 0.05$ . For multivariate analysis all variables whose associations with outcome had the  $p$  value  $\leq 0.20$  were selected in order to study possible confounding factors.

## RESULTS

Among 235 women registered for the study, 92% women belonged to Hindu religion, 29% were illiterate while 36% had education upto primary level only (table 1). Modified Prasad's socio-economic classification was used to classify the women as per socio-economic status and 77% women belonged to lower class. Eighty nine percent women were housewives and almost half (51%) of the women got married by the age of 19 years. Husband advocated use of oral contraceptive in 57% cases and almost half of the study women used it for less than one year. Majority (87%) women were multipara and 71% women reported oral contraceptives use between first half of second decade of life.

**Figure 1**

Table I Characteristics of oral contraceptive users

Characteristics	No.	%
Religion		
Hindu	217	92.3
Muslim	18	7.7
Wife Education		
Higher Secondary & Above	23	9.8
Secondary	61	26.0
Primary	84	35.7
Illiterate	67	28.5
Husband Education		
Higher Secondary & Above	49	20.9
Secondary	94	40.0
Primary	38	16.2
Illiterate	54	23.0
Social Class		
Lower	181	77.0
Middle	50	21.3
Upper	4	1.7
Wife Occupation		
Housewife	209	88.9
Working	26	11.1
Age at Menarche in years		
11	29	12.3
12	77	32.8
13	107	45.5
$\geq 14$	22	9.4
Age at marriage in years		
< 19	120	51.1
19-25	108	46.0
> 25	7	3.0
OC pills use advocated by		
Own	50	21.3
Husband	134	57.0
Doctor/Health Worker	51	21.7
Using OC pills currently		
Yes	34	14.5
No	201	85.5
Duration of using OC pills		
Never	97	41.3
< 1 year	114	48.5
1-2 year	12	5.1
> 2 year	12	5.1
Living Children		
0-1	34	14.5
1	105	44.7
> 1	96	40.9
Parity		
Primi	34	14.5
Multi	201	85.5
Age at first use of OC pills		
< 20	59	25.1
20-25	167	71.1
> 25	9	3.8

Table 2 shows bivariate analysis of various factors of demographic, socio-economic, reproductive health characteristics and family planning practices. On testing use

of oral contraceptives with various above mentioned factors it showed statistically significant association with religion, education of spouse, socio-economic class, number of living children and parity.

**Figure 2**

Table II Bivariate Analysis of factors associated with use of oral contraceptives

Variable	Ever Used Oral Contraceptives				X <sup>2</sup> (P value)
	Yes		No		
	No. (n=138)	%	No. (n=97)	%	
Religion					
Hindu	127	92.0	90	92.8	0.05 (P > 0.05)
Muslim	11	8.0	7	7.2	
Wife Education					
Higher Secondary & More	12	8.7	11	11.3	14.89 (P < 0.05)
Secondary	25	18.1	36	37.1	
Primary	60	43.5	24	24.7	
Illiterate	41	29.7	26	26.8	
Husband's Education					
Higher Secondary & Above	20	14.5	29	29.9	18.25 (P < 0.05)
Secondary	51	37.0	43	44.3	
Primary	24	17.4	14	14.4	
Illiterate	43	31.2	11	11.3	
Social Class					
Lower	115	83.3	66	68.0	7.62 (P < 0.05)
Middle	21	15.2	29	29.9	
Upper	2	1.4	2	2.1	
Wife's Occupation					
Housewife	124	89.9	85	87.6	0.29 (P > 0.05)
Working	14	10.1	12	12.4	
Age at Menarche					
11 years	16	11.6	13	13.4	1.04 (P > 0.05)
12 years	44	31.9	33	34.0	
13 years	63	45.7	44	45.4	
≥14 years	15	10.9	7	7.2	
Wife's age at marriage					
< 19 years	76	55.1	44	45.4	2.53 (P > 0.05)
19-25 years	59	42.8	49	50.5	
> 25 years	3	2.2	4	4.1	
Advised use of OC pills					
Own	23	16.7	27	27.8	4.3 (P > 0.05)
Husband	84	60.9	50	51.5	
Doctor/Health Worker	31	22.5	20	20.6	
Currently using OC pills					
Yes	33	23.9	1	1.0	24.1 (P < 0.05)
No	105	76.1	96	99.0	
Living Children					
0-1	8	5.8	26	26.8	28.39 (P < 0.05)
1	58	42.0	47	48.5	
>1	72	52.2	24	24.7	
Parity					
Primi	8	5.8	26	26.8	20.3 (P < 0.05)
Multi	130	94.2	71	73.2	
Age at first use of OC pills					
<20	39	28.3	20	20.6	2.31 (P > 0.05)
20-25	95	68.8	72	74.2	
>25	4	2.9	5	5.2	

For multivariate analysis all variables whose associations with outcome had the p value  $\leq 0.20$  were selected in order to study possible confounding factors. Table 3 shows multivariate analysis of variables related with use of oral contraceptives. Husband's were found determinant in use of oral contraceptives and their education level, number of living children and parity were analyzed and found statistically significant. Other factors like wife's education and socio-economic status were not associated with use of oral contraceptives.

**Figure 3**

Table III Multivariate analysis of factors associated with use of oral contraceptives

Variables	Odds Ratio	95% CI
Wife Education		
Higher Secondary & More	1.00	
Secondary	0.63	0.24-1.66
Primary	2.29	0.89-5.89
Illiterate	1.44	0.55-3.75
Husband Education		
Higher Secondary & More	1.00	
Secondary	1.71	0.85-3.46
Primary	2.48	1.04-5.94
Illiterate	5.66	2.36-13.57
Social Class		
Lower	1.00	
Middle	0.41	0.21-0.78
Upper	0.57	0.07-4.17
Advised use of OC pills		
Own	1.00	
Husband	1.97	1.02-3.84
Doctor/Health Worker	1.81	0.82-4.01
Currently using OC pills		
Yes	1.00	
No	0.03	0.00-0.24
Living Children		
0-1	1.00	
1	4.01	1.66-9.67
>1	9.75	3.89-24.39
Parity		
Primi	1.00	
Multi	5.95	2.56-13.82

## DISCUSSION

Though the family planning programme was not much successful in reducing the birth rate since its inception, it has succeeded in generating universal knowledge about family planning methods among the population. The study was historically prospective study that enabled authors to evaluate and determine various factors associated with use of oral contraceptives. Present study showed a statistically significant association between use of oral contraceptives and various demographic and a few factors like spouse

education, and socio-economic status, current use of oral contraceptive, number of living children and parity. No association was found between use of oral contraceptives and factors like religion, wife occupation, age at menarche, marriage age, who advised use of oral contraceptive and age at first use of oral contraceptive.

Present study showed significant association between wife's education and use of oral contraceptives. Higher education of women promotes the use of oral contraceptives. Several authors have already highlighted that women's education, as a variable, favors more in controlling fertility in couples as compared to other variables (7, 8). While comparing literacy status of husbands with their attitude towards use of oral contraceptives, it was seen that when literacy status was high, there was also a significant increase in use of oral contraceptives. Husband's education was found significant in deciding use of oral contraceptive even with multivariate analysis. Pathi S et al (9) observed similar findings in their study of male involvement in family planning practices. In contrast, Shah NJ et al (10) reported no association between husbands' education and use of oral contraceptive. Socio-economic status is a composite variable, which has an association with the adoption of family planning. Kumari Y D (11) reported that socio-economic status has positive relationship with adoption of family planning method. Present study has also observed positive association of use of oral contraceptives and socio-economic status. No association was found between occupational status of women and use of oral contraceptive. Similarly, age at menarche and women's marriage age showed no association with use of oral contraceptive.

Previously use of different contraceptives showed positive association with use of oral contraceptive. Patro BK et al (12) observed similar findings in their study of contraceptive practices among married women in a resettlement colony of Delhi. Use of oral contraceptive decided by own, husband or doctor/health worker showed no association with bivariate analysis but on multivariate analysis it showed significant association. It shows role of husband in deciding use of oral contraceptive. Pathi S et al (9) reported that husband plays a major role in such decision making. Number of living children showed positive association with use of oral contraceptive in present study; while in contrast Rasania SK et al (13) reported that number of children do not affect the use of oral contraceptive. Primiparity showed positive association with use of oral contraceptive on both bivariate and multivariate analysis. It suggests that use of oral

contraceptive is more with primiparous women. Bhasin SK et al (14) reported similar findings in their study.

There were several limitations in this study. As a historically prospective study data collected is based on recall of women and hence introduction of recall bias is there. The study collected data from a hospital and not from the community to determine association with variables more strongly. Main clientele come from low socioeconomic strata and hence it may represent only similar group of people.

### CONCLUSION

Present study reveals that a variety of socio-demographic and reproductive health characteristics affects use of oral contraceptive. Study shows role of husband, in determining the type of role of men i.e. motivation of husband in popularizing the oral contraceptive pill should be explored in detail taking into account other characteristics of a husband.

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