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**Original Research Article**

# Identify determinant of contraceptive use in rural set up of Surat district, Gujarat

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## ABSTRACT

**Background:** In spite of significant growth and expansion of family planning programme, pregnancy continues to be unplanned. This study has been conducted to identify determinant responsible for use of contraception. The aim of the study was to determine the factors affecting the use of the contraceptives. The objectives were to study Socio – demographic, fertility profile of eligible couples and its relation to use of contraception
**Methods:** This is a cross sectional study conducted during period of 20th September 2014 to 15th January 2015. Three PHCs were selected purposively from Olpad taluka of the Surat District. Two Sub Centers were selected randomly from each PHC. Data regarding eligible couples were collected from Sub Center register. From each Sub Center, 47 eligible women were selected randomly. Total sample size was 280 (CPR: 60%, DLHS-3).
**Results:** Mean age of study participants were 29.14±6.7 years. Out of total women, 18.6% women were married before attaining the age of 18 years. More than 50% women were 20-24 years of age group at the time of birth of first child where as 25.4% women gave birth to first child before the age of 20 years. There was significant association between use of Contraceptive methods with factors like age of women, caste, religion, education of women, education of husband and number of children ($p<0.05$). At the time of sterilization, number of children and gender of last child plaed a significant role.
**Conclusions:** Women should be empowered with education regarding use of contraception. Child marriage act should be strictly followed.

**Keywords:** Contraceptive methods, Rural set up

## INTRODUCTION

India is vast country with population of 1.21 billion and among them 75% of population live in rural area.[1] Most of the population growth occurs in developing countries, where family size exceeds the minimum replacement level requirement. A future zero population growth level is the only hope. Fertility rate of the India is around 2.5 to 2.7 since last ten years. Fertility rate of Gujarat is almost similar to India.[2] The family planning programme has experience significant growth and expansion over the past half century. In spite of that pregnancy continue to be unplanned. Despite the fact that contraceptive usage has increased over a period of time, there exists a gap between knowledge, attitude and practice (KAP) regarding contraception particularly in rural set up.[3] It is a challenge to meet the contraceptive need in rural areas, where most of the women live.

There are many study regarding KAP analysis of contraception were done. But, very lack of the study,

regarding determinant responsible to these KAP gaps of contraception. This study has been conducted to identify determinant like social, economic, demographic and others which are responsible to take decision regarding use of contraception.

### *Aims*

Determine the factors affecting the use of the contraceptives.

### *Objectives*

To study socio demographic and fertility profile of eligible couples and its relation to use of contraception.

## METHODS

### *Type of study*

This is community based cross sectional observational study of eligible couples in rural set up of Surat district.

### *Inclusion criteria*

Females between 15 to 49 years were included in the study.

### *Sample size*

As per DLHS-3 data, contraceptive prevalence rate is 60%. So, sample size was calculating by open-epi software, it was 280 (Allowable error: 10%).

### *Study period*

Study was conducted during the period of 20th September 2014 to 15th January 2015.

### *Study methodology*

There are nine Taluka in Surat District. Among them, Olpad Taluka was selected purposively for this study. Initially a visit was done to Olpad Taluka Health Office to get an idea of demography of the Taluka. Three PHCs were selected purposively from Olpad taluka of the Surat District. Two Sub Centers were selected randomly from each PHC. Data regarding eligible couple was collected from the sub center`s eligible couple register. Total 46 eligible couples were selected randomly from each Sub Center. Information regarding the study and written consent of all participants were taken before collecting data from them.

A pretested proforma was used for the interview of the study participants. All the records and data were cross matched by ASHA`s registers to avoid discrepancy or any misunderstanding.

### *Pretesting*

Pretesting was done. Certain questions were modified, some rearranged and some added or removed to elicit required information.

### *Data entry and analysis*

Data was entered in Microsoft Excel sheet & was analysed by using Open epi and SPSS Software.

### *Ethical clearance*

The study protocol was reviewed and approved by the Human Research Ethics Committee, Government Medical College and New Civil Hospital, Surat and District Health Authority, Surat. Written consent was obtained from participant. Confidentiality and the right of respondents were respected.

## RESULTS

A total 280 women were involved from six Sub centers. Mean age of study participants was 29.14±6.7 years. Out of total women, 18.6% women were married before attaining the age of 18 years. More than 50% women were 20-24 years of age group at the time of birth of first child where as 25.4% women gave birth to first child before the age of 20 years. In this study, 69.6% women had ever used any methods of contraception. Women who had history of contraception use, majority of them (60.5%) underwent permanent method of contraception (tubectomy) where as 39.5% women used temporary method (80%: condom, 46.8%: oral contraceptive pills and 45.5% : Cu-T)**.** It was observed that no male partner underwent sterilization. It was also observed that 93.2% the women got sterilized before the age of 30 years.

It was the observed that following 2 child norm, 70% females sterilized when their last child was male while only 30.7% female sterilized after female child. In females with more than 2 children, 76% sterilized when they have last male child while 24% operated when they have last child as female. At the time of sterilization number of children and gender of last child play an important role.

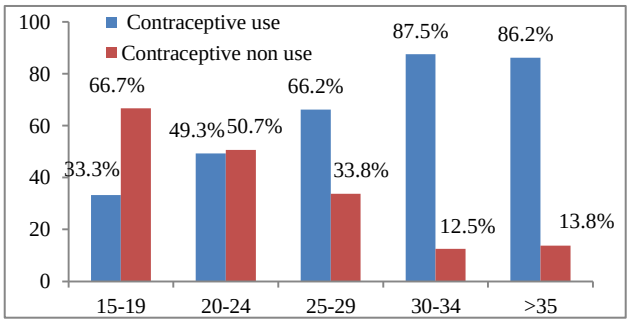


**Figure 1: Relation between use of contraceptive methods and age of women.**

There was significant association between uses of Contraceptive methods with age of women (p<0.001).

There was significant association between decision regarding sterilization operation with number of children and gender of child and (p<0.05).

**Table 1: Relation between use of contraceptive methods and factors affecting it.**

| Sr no | Variable | Types | Contraceptive methods (n=280) | | Chi square | P value |
|---|---|---|---|---|---|---|
| | | | Use | Non- use | | |
| **1.** | Types of the family | Nuclear | 75 | 29 | 0.08265 | 0.3869 |
| | | Joint | 71 | 30 | | |
| **2.** | Caste | SC & ST | 16 | 15 | 15.11 | 0.0005 |
| | | SEBC | 65 | 41 | | |
| | | General | 114 | 29 | | |
| **3.** | Religion | Hindu | 168 | 61 | 8.228 | 0.002 |
| | | Muslim | 27 | 24 | | |
| **4.** | Education of women | Illiterate | 12 | 15 | 8.974 | 0.001 |
| | | Literate | 183 | 70 | | |
| **5.** | Education of husband | Illiterate | 11 | 10 | 3.2 | 0.03 |
| | | Literate | 184 | 75 | | |
| **6.** | Socio- economic classifications | Upper* | 167 | 71 | 0.207 | 0.3246 |
| | | Lower# | 28 | 14 | | |
| **7.** | Knowledge of contraceptive | Yes | 164 | 67 | 1.143 | 0.14 |
| | | No | 31 | 18 | | |
| **8.** | Source of availability | Knowing | 181 | 75 | 1.58 | 0.1 |
| | | Not knowing | 14 | 10 | | |

*Upper class (I, II, III class) & # Lower class (IV & V) of modified Prasad classification.

There was significant association between use of contraceptive methods with factors like caste, religion, education of women and education of husband (p<0.05).

## DISCUSSION

There were 280 women of eligible couple included in the study from six sub centers of three PHCs in Olpad Taluka of Surat city**.** In India, as per Prohibition of Child Marriage Act, 2006 minimum age at the time of marriage is 18 years for girls.[4] Marriage below the 18 years is a punishable offence. But in our study 19% women were married below the age of 18 years. So there is lack of awareness and knowledge persists now in some rural part of India.

In the present study, 69.6% women were ever user of contraception. According to NFHS-3 data, Contraceptive Prevalence in rural India is 53% which is lower than this study. NFHS-3 data for rural Gujarat is 65.6% which is comparable to this study.[5] Women who had history of contraception use, majority of them (60.5%) underwent permanent method of contraception (tubectomy). Among temporary methods maximum (39.5%) were condom users followed by 18.5% used oral Contraceptive pills and 18% used Cu-T (IUD) and 0.5% had used emergency contraceptive pills while no male partner underwent sterilization. Study done by Pandey et al and Chandhick et al showed that contraception prevalence rate in rural India is 45%.[6,7] Gaur et al study found that prevalence of contraceptive usage was 34.9% in rural Muslim area of North India due to socio-religious constraints.[8] So in our study contraceptive prevalence is higher than these studies. Reena et al in their study showed that the most common method ever used by the couples was condom (34.5%), followed by the natural methods (26.2%) and OCP (18.9%). 45.3% of the women had not practiced any form of contraception previously. None had ever used emergency contraception (EC).[9] In present study and reference from different study indicate that there is no male sterilization. Instead of safe and effective method, male sterilization practice is nil in India due lack of education, awareness and male dominant society.

In this study, there was significant association between use of Contraceptive methods with factors like age of women, caste, religion, education of women, education of husband and number of children (p<0.05). Pandey et al in their study revealed that the prevalence of contraceptive practice was 45.55% which is significantly associated with the age (p=0.026), increase in the level of education (p<0.01), number of living children, (p=0.003), in the nuclear family was higher as compared to joint family (p=0.000).[6] Banerjee et al regards determinant of acceptance of permanent method of contraception reveal that religion, employment status of women, socio-economic condition and number of living children are significant determinant of permanent methods of contraception.[10] Kansal et al in their study found that a significant association was found between contraceptive acceptance and literacy status, occupation, type of family, socioeconomic status and age at marriage.[12] Similar results were obtained from Girdhar et al and Shah et al in their study.[11,13] From present study and similar other

studies, all of these studies indicate that factors like religion, caste, education, employment, type of the family and number of the living children are significantly effect on acceptance of contraception. All these factors can be solving by increased the emphasis on government strategy like information, education, communication and behavior change communication. Gross root workers can play an important role in all these strategy particularly in rural area.

## CONCLUSION

Child marriage act should be strictly followed. More emphasis given on male sterilization. Use of contraception is associated with factors like age of women, caste, religion, education of women, education of husband and number of children. All these factors can be solved by give the right education for contraception methods among society and increase the level of education among male and female.

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