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Research Article

An assessment of sociodemographic factors and family planning practices in Jamnagar, Gujarat, India: a cross sectional study

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ABSTRACT

Background: India was the first country in the world to launch a National Family Planning Programme in 1952. It was purely a demographic programme with the sole objective of reducing the birth rate to stabilize the population. As per 2011 census population increased with the growth rate of 17.7%. Thus even after 63 years of programme & many more new advances & updates in programme, India could not reach its target of at least 60% of couple protection rate. So there would be some definite factors prohibiting its use.
Methods: A cross section study of 450 reproductive age group women was conducted to find out the factors of unmet need of contraception & socio demographic profile.
Results: In present study couple protection rate was 57.11%, majority being permanent sterilization. The selection of contraception was influenced by her husband in 43.24% & by mother-in-law in 62.16%.
Conclusions: The study revealed that almost half of the couple population was using the contraception that included temporary as well as permanent methods of contraception.

Keywords: Reproductive age group, CPR, Family planning practice

INTRODUCTION

India, with 1.21 billion people is the second most populous country in the world. According to the Census of 2001- 2011, India's population has grown at 17.7 per cent, an increase of 181.96 million since 2001. India represents almost 17.31% of the world's population, which means one out of six people on this planet live in India. Currently, there are about 51 births in India in a minute.[1]

Deep-rooted customs, traditions and socio-cultural beliefs favour large family size in many parts of the country and impede the process of change which would accelerate the willing adoption of the small family norm. Socio-economic factors such as female literacy, age at marriage of girls, status of women, strong son preference and status of employment of women have a crucial bearing on the fertility behaviour of the people.[2]

This will definitely put an enormous pressure on the natural resources of the country and also cause unlimited urbanization, unemployment, overcrowding, ill health,

environmental pollution etc. The solution of this rapidly increasing population is Family planning in order to achieve economic and social development.[3] Sociologists and economists have shown that it will be difficult to raise the living standards of the people while population growth continues unchecked.[4]

The world conference of the International Women's Year in 1975 also declared "the right of women to decide freely and responsibly on the number and spacing of their children and to have access to the information and means to enable them to exercise that right".[4]

India was the first country in the world to launch a National Family Planning Programme in 1952. It was purely a demographic programme with the sole objective of reducing the birth rate to stabilize the population.[5]

Uses of contraception have been increased significantly in India due to government effort and program interventions. It has increased from 13 percent in 1970 to 40.7 percent in 1992-93(NFHS-1), 48.2 percent in 1998-99 (NFHS-2) and 56 percent in 2005-06 (NFHS-3) among currently married women by any methods. NFHS-3 shows that 48.5 percent of currently married women of 15-49 years are using any modern method and 7.8 percent are using traditional method.[6] The couple protection rate for the Gujarat state is 56.5%.[2]

The year 2010-11 ended with 34.9 million total family planning acceptors at national level comprising of 5.0 million Sterilizations, 5.6 million IUD insertions, 16.0 million condom users and 8.3 million O.P. users as against 35.6 million total family planning acceptors in 2009-10.[2]

Today even though increased facilities are being provided for family planning program in all sections of the society, there are other factors such as age at marriage, education, economic status, religion, number of living children etc. that play an important role in adopting it.

Keeping in view the above stated problems, there is a need of conducting studies which can assess the overall health of reproductive women.

Objectives:

The primary objective of the present study was to assess the utilization of family planning practices and various possible reasons of obstacles for its practice. A secondary objective was to study socio-demographic profile of women in reproductive age group in rural areas of study district.

METHODS

Study area and population:

The present assessment employed quantitative research methodology in rural areas of study district.

Type of study:

The study was a cross sectional study.

Duration of study:

The study lasted for 1 year (July 2013- June 2014)

Sample size:

Sample size of this study was decided on the basis of NFHS III data of couple protection rate. According to NFHS III, 56.5% women of 15-49 years use any family planning method in Gujarat state.

$N = Z\alpha\ PQ/l2$
Where,
$Z\alpha$ =1.96 at 5% significance level
N= required sample size
P=proportion or prevalence of interest
Q=100-p
L=allowable error, absolute error 5%

As per WHO practical manual on sample size determination in health studies by Lwanga and Lemeshow.[7]

P is taken as 56.5%, so as q=43.5%. If l=10%,
Then, sample size would be,
N = (1.96)2 *56.5*43.5/5x5 = 377.66

Non-response rate/loss of sample = 20% of sample size, total sample size comes out to be 450 study subjects.

Study population:

The study group comprised of 450 women of reproductive age group of rural areas of study district.

Ethical clearance: The study protocol was reviewed and approved by the institutional ethical committee of the institution. Prior written informed consent was taken after fully explaining the purpose of the study.

Inclusion criteria:

- Ever Married, Reproductive age group women (15-49 years),
- Willing to participate
- Not Pregnant Presently

Exclusion criteria:

- Unmarried women
- Not willing to participate

Sampling technique:

Study subjects were selected by multistage sampling. Out of the total 7 blocks in the district, 3 blocks were selected randomly. Five Primary Health Centres were selected from each of the blocks by simple random sampling. From each PHC three sub centres were selected by simple random sampling method. So total 45 sub centres were selected from 3 blocks. Sub centre was taken as natural cluster. Thus total 45 clusters were selected. From the one geographically identified point, one direction was chosen randomly and from each cluster 10 women were selected and interviewed till the desired number was achieved in each cluster. So total 450 women were recruited from rural area.

Method of study:

Data were collected in a pre-designed and pre-tested Proforma by interviewing woman. The study was carried out by undertaking house to house visits of the area of each cluster. Proforma consisted sociodemographic profile, family planning profile. The deficiency & the misbelieves were corrected by means of one to one health education.

Statsitical analysis:

The data entry was done in Microsoft Office Excel 2007. Analysis was done using Epi info and Microsoft office Excel 2007 & SPSS.

RESULTS

Among 450 study women, 57.11% women were using any method of contraceptives where as 42.88% women were not using any method of contraceptives, thus in present study the unmet need of contraceptive was 42.88%. Thus couple protection rate was 57.11% in present study. Out of 257 women who were using any method of contraceptives, 58.37% women had permanent sterilization, 17.5% were using barrier method, 20.23% had CuT380A insertion, and 3.89% were using Oral contraceptive pills. Couple protection rate is based on the observation that 50 to 60% of births in a year are of birth order 3 or more. Thus attaining a 60% CPR will be equivalent to cutting off almost all third or higher order births, leaving 2 or less surviving children per couple.[8]

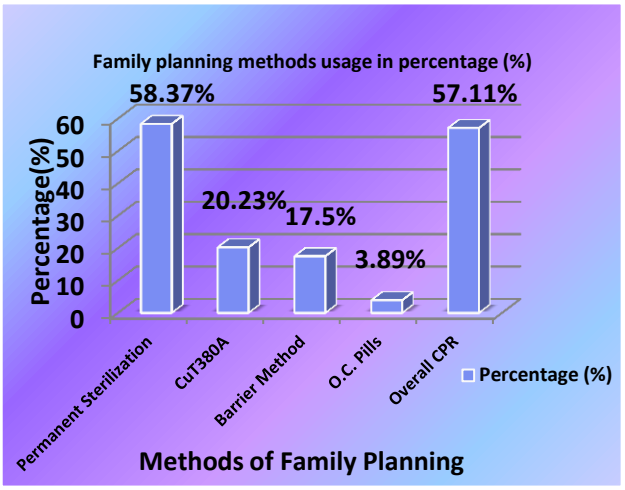

Figure 1: Distribution of women based on usage of various methods of family planning.

Demographers are of the view that the demographic goal of NRR=1 can be achieved only if the CPR exceeds 60 per cent. National Population policy was to attain CPR of 42 per cent by 1990 end of seventh Five year plan and 60% by the year 2000. In short CPR is a dominant factor in the reduction of net reproduction rate. Sterilization accounts for over 60% of effectively protected couples.[9]

Prevalence of contraceptive use depends on the various factors like age, religion, social class, educational status, no. Of living children, age at marriage, age at conception & many more.

Here when these factors were analysed in terms of contraceptive users & non-users, there was association between usage of any method of family planning & various age group, religion, social class. Education of women & their husbands, age at marriage & age at first conception, & it was statistically significant as shown in Table 1.

Higher age group were using family planning more frequently than lower age groups, which was after having ≥3children, thus younger women should be encouraged to use spacing methods to limit family size as well as to delay the age at first conception.

Table 1: Distribution of women according to their contraceptive usage & various demographic variables

Variable	Contraceptive Usage		Statistics
	Yes	No	
Age Group			P =0.000, Chi=101.086 df=6
15-19 Years	0 (0%)	09(4.7%)	
20-24 Years	45 (17.5%)	61(31.6%)	
25-29 Years	35 (13.6%)	39(20.2%)	
30-34 Years	25 (9.7%)	47(24.4%)	
35-39 Years	68 (26.5%)	4(2.1%)	
40-44 Years	34 (13.2%)	2(1%)	
45-49 Years	50 (19.5%)	31 (16.1%)	
Religion			P =0.000, Chi =13.458, df=1
Hindu	230 (60.85%)	148 (39.15%)	
Muslim	27 (37.5%)	45 (62.5%)	
Social Class			P =0.000, Chi= 21.774 df=4
I	26 (10.1%)	37 (19.2%)	
II	53 (20.6%)	28 (14.5%)	
III	86 (33.5%)	51 (26.4%)	
IV	51 (19.8%)	61 (31.6%)	
V	41 (16%)	16 (8.3%)	
Educational Status of women			P =0.009, Chi= 9.411 df=2
Illiterate	128(49.8%)	70 (36.3%)	
Primary	78(30.4%)	66 (34.2%)	
Secondary & Higher Secondary	51(19.8%)	57 (29.5%)	
Educational Status of Husband			P =0.000, Chi =37.012, df=3
Illiterate	88(34.24%)	38 (19.69%)	
Primary	85(33.07%)	59(30.57%)	
Secondary & Higher secondary	76(29.57%)	59 (30.57%)	
Graduate & above	8 (3.11%)	37 (19.17%)	
Age at Marriage			P =0.000 Chi =45.953 df=10
<18 Years	191(59.50%)	130(40.50%)	
≥18 Years	66(51.16%)	63(48.84%)	
Age at Conception			
<18 Years	18(52.94%)	16(47.06%)	P =0.000 Chi =95.953 df=11
18-20 Years	77(60.16%)	51(39.84%)	
≥21 Years	126(58.33%)	90(41.67%)	

60.85% women from Hindu religion & 37.5% women from Muslim religion were using any method of contraceptives, the difference was statistically significant.

Utilization of family planning services among lower social class was 35.8%, among middle class women 54.1% & among upper class women 10.1%. In present study it could be due to few numbers of women belonged to upper socio economical class. Most common method of contraceptive usage was permanent sterilization, as per present study findings. Thus it could be the reason for higher prevalence of usage of contraceptive methods among lower classes, because cash incentives are being provided for permanent sterilization. The same could be for the educational status of women & husbands.

Utilization of contraceptive was higher among those who married before ideal age, but the same was not correct for age at conception. The difference between legal age at marriage & illegal age at marriage & contraceptive prevalence was statistically significant. Ideal age for the conception is after completion of twenty years. Thus usage of contraceptive methods in younger women should be encouraged.

Mean age for the usage of any method of contraceptives was 34.07 years, which usually coincides with completion of the family size. For non usage group mean age was 29.49 years. To achieve small family norm, contraceptive practices should be encouraged among younger age group women. There was statistical significant difference between mean age of contraceptive users & non users as shown in Table 2.

Table 2: Mean ages of women based on contraceptive usage

	Contraceptive Usage	
	Yes	**No**
Mean age in years	34.07	29.49

t value = 5.468, p value=0.000, Mean difference=4.574, 95% CI= 2.930-6.218

Table: 3 Mean ages of women based on methods of contraceptive usage.

	Methods of Contraceptive Usage	
	Permanent	**Temporary**
Mean age in years	39.04	27.09

t value = 14.522, p value=0.000, Mean difference=11.947, 95% CI= 10.327-13.567

Table 3 shows that, when mean age of contraceptive usage was further evaluated in terms of the usage of temporary or permanent method of contraceptives, mean age of usage of permanent method was 39.04 years & for temporary methods it was 27.09 years. Thus it is necessary to encourage all young eligible couples to use suitable temporary methods of contraceptives.

The mean difference of 11.947 among these two groups was statistically significant.

Table 4: Distribution of women according to their willingness to adopt the family planning methods in future (n=193)

Willing to adopt Family Planning	No. (Frequency)	Percentage (%)
Yes	76	39.37%
No	117	60.62%
Total	193	100%

Out of 193 participants who were not using any method of contraceptives, when enquired about their willingness to adopt family planning methods in future, only 39.37% subjects replied in favour of adoption of any family planning method, whereas 60.62% subjects were still not willing to adopt any of the family planning method.

Table 5: Distribution of women according to ever used any F.P method (n=117)

Ever used F.P. Method	No. (Frequency)	Percentage (%)
Yes	72	61.54%
No	45	38.46%
Total	117	100%

When enquired about the past profile of contraceptive usage, of 117 61.54% had used any method of contraceptives where as 38.46% had not used any method of contraceptives ever. It suggests that it require constant motivation in the form health education during any contact of women with health facility or peripheral health worker.

When Contraceptives non-users were enquired about the reasons for non-adoption of the family planning, 46.15% subjects had desire for more children, 22.22% subjects found the methods of contraceptives were inconvenient, 16.23% had lactational amenorrhea, and they believe that there was no need of any contraceptive method during that period.

Only about 26% women could take decision on their own for contraceptive usage. Out of 333 study subjects, who had to take permission from the other family members, 62.16% women had to take permission from their respective husbands & 43.24% had to take permission from mother in law.

Women should feel free to choose any method of contraceptives which are suitable to her. Husbands & mother in law should guide & encourage her in decision making.

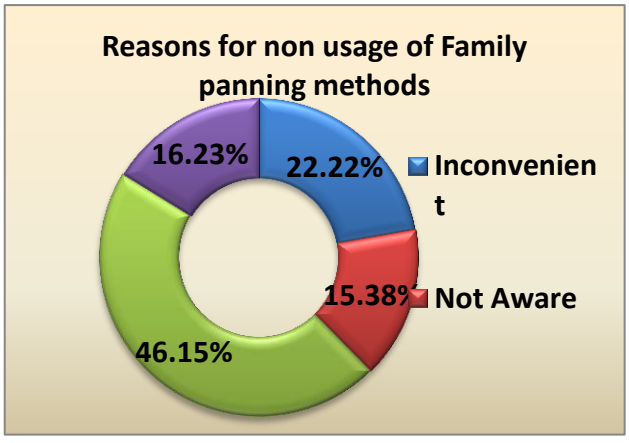

Figure 2: Distribution of women according to the various reasons for non usage of any methods of Family planning.

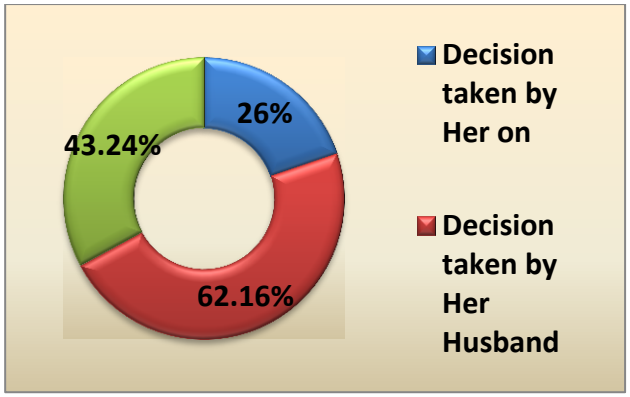

Figure 3: Decision making power of women & her family members.

CONCLUSIONS

Couple protection rate was found 57.11%. Of which 58.37% contributed by permanent sterilization & only the remaining portion was covered by the temporary method of family planning. Mean age of the contraceptive usage was 34.07 years. It is usually after finished their family size which is inconsistent with two child norm. Mean age of the temporary method of contraceptive usage was 27.09 years and for permanent method it is 39.04 years. There was statistical significant difference in usage of any method of contraceptives with different age group, religion, and social class, educational status of women & husband, age at marriage, age at first conception. Most common reason for the non usage was, need for more children in 46.15%. 22.22% found the use of any method of contraceptives inconvenient. Surprisingly 22.22% were not aware about such methods. Of non users, 61.54% had used any method of contraceptives in past but due to various reasons, now not using any method. Only 26% women had decision making power for the usage of contraceptive method, whereas 62.16% had to ask husbands & 43.24% had to ask their mother in law.

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Conflict of interest: None declared
Ethical approval: The study protocol was reviewed and approved by the institutional ethical committee of the institution. Prior written informed consent was taken after fully explaining the purpose of the study.

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