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Research article

PSYCHOSOCIAL DETERMINANTS OF CONTRACEPTIVE USE AMONG WOMEN OF REPRODUCTIVE AGE IN A RURAL AREA OF MAHARASHTRA

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ABSTRACT

The World Health Organisation reports that an estimated 94 per cent of the population of the world lives in countries with policies that favour family planning. Despite this, five of every six couples of reproductive age do not use adequate measures of fertility regulation. Gender inequalities in patriarchal societies ensure that men play a critical role in the decisions on family matters. The present study was undertaken to study the nature of acceptance of contraceptive practices and the psychosocial determinants. **Methods:** This was a community based cross sectional descriptive study. The anticipated prevalence of contraceptive practices among the 206 women in the age group of 15-49 years was 50%. Considering a margin of error of 10%, with finite correction and 10% of non-response and 95% CI, the sample size was calculated. 90 married women in the reproductive age group of 15-49 years residing at the village were studied after drawing the sample with simple random sampling method. **Result**s: There were 55 (61.11%) women who practised contraception. In case of 03 (3.33%) couples, husbands used condoms, while in case of remaining 52 (57.78%), wife had undergone tubectomy. Conclusion: From the present study, it was concluded that the most common method of contraception practiced in the study population was tubectomy and a range of psychosocial factors played an important role in decision making.

Keywords: Women, Rural, Contraception, Psychosocial, Tubectomy.

INTRODUCTION

An expert Committee of the World Health Organisation (WHO) has defined family planning as "a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples to attain certain objectives".[1] Even though the technology was available, only nine per cent of women in the developing countries had access to contraceptive services in 1965. The use increased to 50 per cent by 1990. Nonetheless, wide geographical variations still persisted.[2] The world conference of the International Women's Year 1975 declared "the right of the women to decide freely and responsibly on the number and spacing of their children and to have access to information and means to enable them to exercise that right". The United Nations International Women's Decade (1976-1985) helped to increase awareness about many issues concerning women's health including excessive pregnancies, inappropriate timing and spacing of pregnancies and poor educational levels[2]. During the International Conference on Population Development programme of action, it was recognized that demographic goal-driven family planning programmes, may by their very nature violate basic human rights (ICPD 1994).[3] The WHO reports that an estimated 94 per cent of population of the world lives in countries with policies that favour family planning. Despite these policies five of every

six couples of reproductive age do not use adequate measures of fertility regulation.[4] Currently, over 97 percent of sterilisations are tubectomies.[5] It has been deduced by research that family planning is the first and most important step for rural development.[6] Family planning means better health for the mothers and their children and more opportunities for the family as a whole.[7] A majority of women in most developing countries are aware of the health risks posed by frequent pregnancies, and thus the importance of birth spacing, but this awareness has not satisfactorily translated into action.[2]A study conducted on eligible rural women revealed that most of them were concerned about child survival and also that they viewed children as an important source of their support in old age. The size of family was usually decided by in-laws and partner support played a predominant role in the decision. Pressure from the in-laws to have more number of children was found to be significantly higher in families where the women were less educated or illiterate.[8] Despite the decline in total fertility rate worldwide, there are still millions of women with unmet contraceptive needs in developing countries. There are more married women with an unmet contraceptive need (about 31 million) in India than any other country.[9] The National Family Health Survey III (NFHS III), carried out in 29 states during 2005-06, shows that nearly 45 per cent of women in India were married off before they turned 18. It also shows that over 71 per cent of women who got married under 18 years had received no education. Early marriage impacts a woman's health and education. It shows that women who are getting married early are giving birth also at an early age. While 52.5 per cent of the under 18 marriages were in rural areas, it was 28.1 per cent in urban areas.[10] But the Total Fertility Rate (TFR) has shown a decline over the years. In the state of Maharashtra itself, the TFR has shown a decline, from 2.9 (NFHS-I), to 2.5 (NFHS -II) and 2.1 (NFHS -III).[11] Many studies have been conducted till now on this issue but still there are gaps in the information on the sporadic nature of acceptance of contraceptive practices, especially in this rural area of the state.[12] In view of the same, this study was undertaken in a rural area of Maharashtra, India.

Aim: This study aimed at conducting an epidemiological survey among the married women in the age group of 15-49 years, residing a rural area of Maharashtra, India to find out the current contraceptive practices.

Objectives: 1. To determine the current contraceptive practices among married women in a village in Pune district of Mahrashtra. 2. To suggest promotional strategies for better utilisation of family planning services

MATERIAL AND METHODS

It was a community based cross sectional descriptive study. The reference population was women who were married and in the reproductive age group (aged 15-49 years) residing in the rural areas of Maharashtra. The exclusion criteria were all women who were divorced, separated, widowed, infertile, who had attained menopause, who had undergone hysterectomy and women who had migrated to the village but were not permanently residing there. The actual study population included all married women in the reproductive age group of 15 – 49 years residing in the village. Simple random sampling was done. The anticipated prevalence of contraceptive practices among the 206 married women, considering a margin of error of 10%, with finite correction and 10% of non-response and 95% CI, the sample size was calculated to be 90. For selection of subjects, a serial list of all the married women in the reproductive age group of 15 – 49 years was made. Using random number table generated random numbers and the women corresponding to these numbers from this population were included in the sample. House to house visits were carried out and the eligible women were interviewed using a pre-tested standardized questionnaire. Verbal consent of the respondents was taken before the questionnaire was administered. A pilot study was undertaken on 20 subjects (who were later excluded from the actual study) which helped to further standardize the questionnaire and make certain amendments in it. A brief introduction about the study was given by the principal worker to the subjects. The services of a medico-social worker were sought for interpretation and better communication with the subjects. Confidentiality of the identity of the respondent and the information provided was assured.

RESULTS

Out of the sample of 90, there were 55 (61.11%) who practiced contraception (table-1).

Table 1: Distribution of Respondents Based on Contraception Usage

Contraceptive users (%)		Non-users (%)	Total
Tubectomy	Condom		
52 (57.78)	03 (3.33)	35 (38.89)	90

In case of three (3.33%) couples, the husbands used condoms, while in the case of remaining 52 (57.78%), the wives had undergone tubectomy. No other mode of contraception was found in the subjects who were studied as a sample. For analysis purposes, the three (3.33%) couples using condoms were excluded. Subsequent analysis was done against tubectomy users and non-users of any contraceptive method. On studying the distribution of tubectomy status by age of respondent (table-2), a significant association was found between defined age groups and tubectomy status ($p<0.01$).

Table 2: Distribution of Tubectomy Status by Age of Respondent

Age (Years)	Tubectomy (%)		Total (%)
	User	Non-User	
<25	06 (11.54)	19 (54.29)	25 (28.73)
25-34	24 (46.15)	12 (34.29)	36 (41.38)
≥35	22 (42.31)	04 (11.43)	26 (29.89)
Total	52 (100.00)	35 (100.00)	87 (100.00)

Chi square Statistic: 20.689 df = 2 $p<0.01$

Mean (SD): Users: 33.23 (6.94) Non-users: 25.31 (6.03), 't' statistic=5.49, df=85, $p<0.01$

There was a significant difference in age of husbands between users and non-users ($p<0.01$) (table – 3).

Table 3: Distribution of Tubectomy Status by Age of Husband

Age (Years)	Tubectomy (%)		Total (%)
	User	Non-User	
<30	04 (07.69)	19 (54.29)	23 (26.44)
30-40	31 (59.62)	14 (40.00)	45 (51.72)
>40	17 (32.69)	02 (05.71)	19 (21.84)
Total	52 (100.00)	35 (100.00)	87 (100.00)

Chi square Statistic: 25.706 df = 2 $p<0.01$

Mean (SD): Users: 37.83 (6.75) Non-users: 29.23 (6.64), 't' statistic=5.86, df=85, $p<0.01$

Two-third of users i.e. 39 (75.00%) users got married before the age of 18 years and only 13 (25.00%) users did so at or after attaining the age of 18 years (table 4).

Table 4: Distribution of Tubectomy Status by Age of Respondent at Marriage

Age (Years)	Tubectomy (%)		Total (%)
	User	Non-User	
<18	39 (75.00)	14 (40.00)	53 (60.92)
≥18	13 (25.00)	21 (60.00)	34 (39.08)
Total	52 (100.00)	35 (100.00)	87 (100.00)

Chi square Statistic (Yates corrected): 9.344, p value: <0.01

Median age at marriage: Users:16, Non-users: 18

It was found that significantly higher percentage of users had age at marriage less than 18 years as compared to non-users ($p<0.01$). There were more users with three or more children than non-users (table-5).

Table 5: Distribution of Tubectomy Status by Total Number of Children

Number of Children	Tubectomy(%)		Total (%)
	User	Non-user	
1-2	18 (34.62)	24 (88.89)	42 (53.16)
≥3	34 (65.38)	03 (11.11)	37 (46.84)
Total	**52 (100.00)**	**27 (100.00)**	**79 (100.00)**

Note: Eight couples who do not have any children were excluded.

Chi square Statistic (Yates corrected): 18.90, p value<0.01

The highest level of education was found to be graduation while the lowest was illiterate in the case of husbands, while it was high school and illiterate in the case of the respondents (table -6,7).

Table 6: Distribution of Tubectomy Status by Educational Qualification of Husband

Educational Qualification	Tubectomy (%)		Total (%)
	User	Non-User	
<Middle	14 (26.92)	12 (34.29)	26 (29.89)
≥Middle	38 (73.08)	23 (65.71)	61 (70.11)
Total	52 100.00)	35 (100.00)	87 (100.0)

Chi square Statistic (Yates corrected): 0.246, p value = 0.6

Table 7: Distribution of Tubectomy Status by Educational Qualification of Respondent

Educational Qualification	Tubectomy (%)		Total (%)
	User	Non-User	
<Middle	22 (42.31)	17 (48.57)	39 (44.83)
≥Middle	30 (57.69)	18 (51.43)	48 (55.17)
Total	52	35	87

Chi square Statistic (Yates corrected): 0.126, p value = 0.7

Level of education of the husband did not have a significant association with tubectomy (p>0.05). It was also observed that greater is the income, the more is the acceptance for tubectomy (table – 8).

Table 8: Distribution of Tubectomy Status by Total Monthly Income

Income	Tubectomy (%)		Total (%)
	User	Non-User	
<2000	01 (01.92)	07 (20.00)	08 (09.19)
2000-2999	10 (19.23)	13 (37.14)	23 (26.44)
3000-3999	25 (48.08)	09 (25.71)	34 (27.59)
≥4000	16 (30.77)	06 (17.14)	22 (25.29)
Total	52 (100.00)	35 (100.00)	87 (100.0)

Chi square Statistic (Yates corrected): 10.30, p value <0.01

Logistic Regression

A model for Logistic Regression Analysis was prepared, taking those predictor variables which had shown a significance of p≤0.1 in the univariate analysis. The multivariate analysis was done to assess the effect or association or impact of age of respondents, age of husband, age of respondent at marriage, age of respondent at birth of first child, total number of children, occupation of respondents, combined income of respondents and husband, on tubectomy status. Women with no child were excluded from this analysis, since they will not have information regarding age at birth of the first child and a number of children will be zero. In this analysis, only the combined income was found to have a significant association with tubectomy status, with p value less than the conventional i.e. p<0.05, Odds Ratio = 15.29 with 95% Confidence Interval: 2.44 – 95.69. It was observed that the odds of acceptance of tubectomy among those couples who had a combined income of ≥3000 rupees per month were 15.29 times more than the couples who had a combined monthly income less than this figure.

DISCUSSION

In the present study, the figures for contraceptive prevalence as well as female sterilization, both are above the corresponding national figures. The current level of contraceptive use i.e. contraceptive prevalence rate defined as percentage of currently married women aged 15-49 years who are currently using a method or whose husbands are using a contraceptive method, is one of the principal determinants of fertility. It is also an indicator of the success of family planning programmes.[11] As per NFHS III, contraceptive prevalence rate for currently married women in India is 56 percent (four percent more than NFHS II). Female sterilization with a prevalence of 37 percent, accounts for 66 percent of all contraceptive use (NFHS II: 34.2 percent; NFHS I: 27.3 percent). In the state of Maharashtra, the prevalence of female sterilization is 44.2 percent.[11] Sterilisation has been a widely used method of contraception in India.

It has been found that unmet need decreases with age, from 27 percent for women aged 15-19 years, to two percent for women aged 45-49 years. The unmet need for family planning among currently married women is 13 percent, down from 16 percent in NFHS II.[11] In the present study, it was revealed that the age of users was significantly higher than non-users, which is similar to findings of previous studies.[13-15] A significant association was also found between tubectomy and the age of the respondent at marriage (p<0.01). The median age at marriage is 16 years and 18 years among users and non-users respectively. One in six women begins childbearing in the age group 15-19 years. The age at which women start bearing children is an important demographic determinant of fertility.[11] Similar results were observed in the present study i.e., 46 (58.22%) of the respondents had given birth to their first child before they turned 20 years of age. Delayed childbearing may reduce maternal and infant health risks but in addition, also provide increased opportunities for women to acquire education, skills and great aspiration for herself and her family.[15] The permanent method of contraception has been found to be accepted by 70.7% of the women with three or more children and only 29.3% accepted this method with one or two living children.[16] In the present study, a significant association was observed between tubectomy and the total number of children (p<0.01). The mean number of children for currently married women was found to be 2.96 and 1.37 in case of users and non-users respectively. There were six respondents who had only female children and all of them were non-users. It appears that the family is considered complete only if male children are there, whether they are in addition to the female children or not; only then is tubectomy resorted to. It shows that the gender of the children is a determining factor for

undergoing tubectomy. The extent to which the status of women is related to awareness, knowledge, and practice of family planning in India shows a definite statistical relationship between women's status and women's ability to control fertility. It was found that a higher percentage of couples who have two or more surviving children, particularly if they are boys, practiced family planning.[17, 18]

Education as such has not been found to have any significant association with tubectomy although better is the educational qualification, more likely is the decision to resort to it.[16,17,19-21] In NFHS III, overall, just over half i.e. 55 percent of women were found to be literate while 78 percent males were found to be so. In case of rural areas, 49.7 percent of women and 23.0 percent of men were found to be illiterate. In fact, besides income, the greatest difference in fertility was found to be due to education. The use of female sterilization is higher for females with less education.[11]

In a study conducted in a developed country, it was hypothesised that the current contraceptive use among the sexually active, fertile women was related to their attitude towards the different types of contraceptive methods available, social influences, the perceptions of ability to use a method correctly and also consistently, and communication with their respective partner. In the present study too, education has been observed to play an important role in partner support and the decision making process.[22]

Wealth has been found to have a positive effect on women's contraceptive use. In NFHS III, contraceptive use was found to be 42 percent among the lowest quintile, while it increased to 68 percent in the highest quintile. It was observed in the present study that in the case of those couples who had both members earning, acceptance of tubectomy was more. Income has been found to influence the acceptance of family planning methods and an increasing trend of acceptance has been observed with the increase in income.[16]

From the present study it is evident that sterilization is fairly well accepted, however more knowledge is needed on reversible methods. Since the findings of the current study are comparable to other similar studies and the NFHS III data, it highlights that the results of the current study can be used as a background to conduct more such studies so as to add on to the information that already exists. It would help to generate community specific data in order to benefit for research, development and planning purposes.

CONCLUSION

This study brings out that knowledge about contraceptive is nearly universal and that education enhances the ability of individuals to achieve desired demographic goals.[11] It reiterates the fact that education plays a major role in creating better awareness amongst people. The choice of contraceptive appears to be determined a lot more by a general like or dislike towards medical methods, rather than weighing merits of the individual available methods.[22] Effective contraceptive practices have the potential, not only to improve the lives of the women, men and children involved, but also to benefit couples, families and communities.[23]

RECOMMENDATIONS

Based on this study, it is recommended that what is required is the need to strengthen social marketing programmes for non-clinical family planning products and services in such areas. Greater effort needs to be made to involve men in the process of family planning and male sterilization requires to be given impetus. Awareness about methods other than female sterilization must be improved by village level campaigns. To help encourage adoption of family planning and reduce fertility, the government should emphasize education for women, enforce the legal minimum age at marriage, promote employment opportunities for women, improve women's role in decision making, and encourage inter-spousal communication in family affairs.

Conflicts of interest; None identified.

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