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Knowledge, Attitude and Practice of Modern Contraceptives (especially Spacing Methods) in Acceptors and Non-acceptors of Tubectomy

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ABSTRACT

Context: From National Health Policy 1983 to NHP 2017, three demographic goals are constantly persuaded: to reduce CBR (Crude Birth Rate) to 21, NRR (Net Reproduction Rate) to 1 and raise the CPR (Couple Protection Rate) to at least 60%, which are not yet reached and could be achieved by promoting spacing contraceptive methods. NFHS-4 reveals that, the contribution of all five spacing methods to all modern contraceptives was only 11.5%.

Objectives: This study was intended to assess and compare the knowledge, attitude and practice of modern contraceptives, especially spacing methods, amongst acceptors and non acceptors of tubectomy.

Methodology: An observational, analytical, case-control study design was used. The data on acceptors and non-acceptors of tubectomy, 137 each, were collected by trained staff and analyzed by using 'epi-info', and 'WIN-PEPI' soft ware**.**

Results: The proportions of acceptors and non-acceptors with adequate knowledge of contraception were 77% and 81% respectively and that with favorable attitude, were 96% and 87% respectively, but only 45% acceptors and 43% non acceptors used some temporary contraception.

Conclusions: Number and sex of children is the significant determinant for use of contraception. Proportions of acceptors and non acceptors of tubectomy with unfavorable attitude towards contraceptives were 4% and 13% respectively and this difference was statistically highly significant.

Key words: Tubectomy, acceptor, non-acceptor, knowledge, attitude, practice.

INTRODUCTION

India being the second most populous country in the world, at mid-year 2017, its total population reached 1.34 billion (contributing to 7.55 billion that of world), and also projected to rise up to 1.50 billion in 2030 and 1.66 billion by 2050.[1] India holds, only 2.4% of global land but supports 17.5% world population.[2] Its National Family Planning Program (NFPP) launched in 1952; has substantially very slow progress.[3] It has tubectomy and vasectomy as its permanent contraceptive methods and condom, oral pills and copper-T along with ECP (Emergency Contraceptive Pills) and DMPA (Depot Medroxy Progesterone Acetate) as temporary methods.[4] NHP 1983, [5] NPP 2000, [6] NRHM 2005, [7] have three demographic goals as: to reduce CBR to 21, NRR to 1 and to raise the CPR to at least 60%. These were scheduled to be achieved by 2000 in first instance and then by 2010 but yet, not

achieved and now; NHP 2017 has targeted TFR 2.1 to be achieved by 2025 [8] Currently; CBR is 21.4, TFR 2.3 and NRR is 1.2.[4] NFHS-4 (2015-16) revealed that, the total unmet need for contraception being 12.9%, it's 5.7% for spacing methods. The current proportions of contraceptive prevalence for tubectomy, vasectomy, and all modern spacing methods (together) were 36%, 0.3% and only 11.5% respectively.[9] India's 'vision FP 2020' based on 'London Summit on Family Planning 2012' is placing large focus on spacing methods to enhance the pace of population control and mitigate maternal and childhood morbidity and mortality.[10] To achieve above mentioned three goals, demographers suggest that, CPR should be at least 60% and about half of that by spacing methods. But current total CPR by any modern method is 47.8% and that by all spacing methods, 11.5% only. With this issue of lower use of spacing methods in India, authors have repeatedly thought and discussed, so as to why, even after government's constant efforts to promote spacing methods, eligible couples are not opting for effective programmatic modern spacing methods, though they are free? In line with this, to know the status of knowledge, attitude and practice of contraception, especially temporary contraceptives amongst eligible women (acceptors and non-acceptors of tubectomy), this study was undertaken.

MATERIALS AND METHODS:

An analytical, cross-sectional, case-control study was undertaken. The headquarter town, (Aalandi-Devachi), of Rural Health and Training Center (RHTC) of a private medical college with a population of about 41500, in Pune district (Maharashtra), served as the locale for this study. The study period was fixed from November 2015 to October 2017 and information collected during November to December 2017, by trained staff of RHTC as: ANMs, Medical Social Workers and Medical Interns, in structured and pretested format and questionnaire, through direct interviews with the respondents.

Variables: The Respondent was a woman currently married, below the age of 45 years and having at least two living children at the time of interview. The acceptor was a respondent who had undergone tubectomy during study period. The non-acceptor was such a respondent who herself or her husband had not undergone sterilization operation till the end of period of inquiry and currently not pregnant. To test the knowledge of respondents, three questions regarding contraceptives/ FP (types, sources, information sources) were administered to each respondent and if answers to all questions were correct, the respondent was classified as having adequate knowledge and if the answer was incorrect even to a single question, the respondent was classified as having poor or inadequate knowledge. Similarly three questions regarding their attitude towards contraceptives/ FP were administered and attitude classified as favorable or unfavorable. A list of 151 acceptors of tubectomy in study period, at local Government Rural Hospital Aalandi was obtained and the data collected as mentioned above. Even after two rounds, only 137 respondents could be contacted and interviewed for data collection and this formed the study group. Similarly, one-to-one 137 non-acceptors as defined above were randomly selected and information collected in the same format and questionnaire in the same way used for acceptors. This formed the comparision group. The data were then presented in tables and text, analyzed, discussed and conclusions drawn. For statistical analysis, data were subjected to 'epi-info' and 'WIN-PEPI' soft ware. The institutional ethical committee approval was obtained before the start of study and written consent from every respondent sought before interview.

RESULTS

Demographic variables of age at marriage, age at first delivery and the average number of living children, for the ease of presentation and discussion, are dichotomized and presented in a single table. Table 1 show that the mean age for acceptors and non acceptors of tubectomy is 28.93 and 27.89 years respectively. The average age of marriage amongst acceptors is 17.33 and 18.06 amongst non-acceptors. The mean age at first delivery in acceptors and non-acceptors is 19.26 and 20.04 respectively.

Table-1: Distribution of respondents by age and number of living children

Parameter	Acceptors (n=137) (%)	Non acceptors (n=137) (%)	P
Age at marriage			
18 or above	82 (60)	97 (71)	**0.076**
Below 18	55 (40)	40 (29)	
Age at 1st delivery			
20 or above	66 (48)	81 (59)	**0.090**
Below 20	71 (52)	56 (41)	
Total living children			
2	104 (76)	110 (80)	**0.465**
More than 2	33 (24)	27 (20)	
Sons per respondent			
Zero	4 (3)	42 (31)	**0.001**
1 or more	133 (97)	95 (69)	
Daughters per respondent			
Zero	39 (28)	15 (11)	**0.001**
1 or more	**98 (72)**	**122 (89)**	

Table-2: Distribution of respondents according to temporary contraceptives they knew

Spacing/ temporary method	Acceptors (n=137) (%)	Non acceptors (n=137) (%)
Condom	67 (49)	72 (53)
Oral pills	49 (36)	47 (34)
Copper-T	34 (25)	41 (30)
ECP	0 (0.00)	0 (0.00)
DMPA- an injectable contraceptive	0 (0.00)	1 (0.73)
None	7 (5)	5 (4)
Total	**157***	**166***

*Totals do not match with the number of respondents (137 each) as some of the respondents knew more than one spacing method. Pearson X^2 (DF 5) = 2.571, P=0.766, Not significant
ECP=Emergency Contraceptive Pill; DMPA =Depot Medroxy Progesterone Acetate)

Table-3: Adequacy of knowledge of temporary contraceptives amongst respondent

Knowledge of contraceptives/ FP	Acceptors (n=137) (%)	Non acceptors (n=137) (%)
Adequate	106 (77)	111 (81)
Poor or Indifferent	31 (23)	26 (19)

X^2 = 0.354, P = 0.552, Not significant

Table 4: Attitude towards temporary contraceptives amongst respondents

Attitude for contraceptives/ FP	Acceptors (%)	Non acceptors (%)
Favorable	132 (96)	119 (87)
Unfavorable or Indifferent	5 (4)	18 (13)
Total	**137 (100)**	**137 (100)**

X^2 = 6.835, P = 0.009, Highly significant

Table-5: Practice of modern temporary contraceptives amongst respondents

Practice of Contraceptive	Acceptors (n=137) (%)	Non acceptors (n=137) (%)
Condom	20 (15)	18 (13)
Oral Pills	13 (9)	7 (5)
Cu-T	29 (21)	34 (25)
ECP	0	0
DMPA	0	0
None	75 (55)	78 (57)

X^2 (DF 5) = 4.189, P = 0.242, Not significant

Mean number of total living children is 2.27 in acceptors (TFR), 2.19 in non acceptors and it is 2.23 in all respondents. The average number of sons is 1.32 per acceptor and 0.83 in non-acceptors. The mean number of daughters per acceptor (NRR) being 0.92, it is 1.33 in non-acceptors. The sex ratio of living children in acceptors is 697, that in non-acceptors; 1602 and combined for both the groups; it is 1051.

Table 2: About 95% acceptors and 96% non acceptors knew one or more temporary contraceptives and rest had no knowledge of any temporary contraceptive (X^2_5= 2.571). Table 3: About 77% acceptors and 81% non acceptors had adequate knowledge and rest had poor knowledge or they were indifferent to that knowledge (X^2=0.354). Table 4: Favorable attitude was observed in 96% acceptors and 87% non acceptors but remaining 4% and 13% acceptors and non acceptors respectively had unfavorable or indifferent attitude (X^2=6.835). Table 5: Before tubectomy, only 15%, 9% and 21% of acceptors used condom, oral pills or Cu-T respectively and 13%, 5% and 25% non acceptors respectively had used them and remaining 55% acceptors and 57% non acceptors did not use any (X^2_5 = 4.189).

DISCUSSION

In our study, the proportions of acceptors and non acceptors marrying below legal age (18 years) were 40% and 29% respectively and remaining in both the groups had their marriage at 18 or later, however this difference is statistically not significant as P=0.076. But the proportions of marriages below legal age in both the groups are alarming. The Child Marriage Restraint (Amendment) Act 1978 [11] and Prohibition of Child Marriage Act 2006 [12] fix the minimum age of marriage as 18 years for girls and 21 years for boys. The present study mean ages at marriage for acceptors and non acceptors are 17.33 and 18.06 years respectively and they are comparable with Census 2011 mean age of marriage for girls which is 19.3 years. [13] NFHS 4 (2015-16) [9] revealed that the proportion of rural women marrying below the legal age was 31.5% which is lower than that of acceptors and comparable with that of non acceptors. The proportions of first deliveries amongst acceptors and non acceptors below age 20 (the minimum age considered suitable for first delivery) are 52% and 41% respectively and remaining in both groups had their first deliveries after 20, however this difference between two groups is statistically not significant as P=0.090. Their mean ages at first delivery were 19.26 and 20.04 years respectively. Parveen et al [14] in their study found that the mean age for first delivery was 19.8 years which is comparable with present study, but both are adverse from the health and legal age at marriage point of view. The difference between proportions of acceptors and non acceptors with one or more sons (97% and 69% respectively) is statistically highly significant as P=0.001. Only 4 acceptors (3%) had no sons but only daughters, two each, and had accepted tubectomy, but 42 (31%) non acceptors had no sons but only daughters. This shows strong preference for sons in all respondents.

Ruchi Kalra et al [15] in their qualitative study found that all tubectomy acceptors felt strongly the need

of having at least one son for the family progression and care provider to them during their old age and for performing the last cultural rituals at the time of death. Similarly the difference between proportions of acceptors and non acceptors with one or more daughters (72% and 89% respectively) was highly significant as P=0.001. There were 39 (28%) acceptors having no daughters (but only sons) and only 15 (11%) non acceptors had no daughters. This reveals the prejudiced negative thinking towards daughters. Joshi V et al [16] in their study conducted in Maharashtra (India) found that, for a large majority, the number of male living children was the prime requirement. Also, for agrarian couples to have a sufficient number of sons to work in the fields, and for all couples for economic security in their old age, was the most important motivating factor.

We found that, most respondents, 95 % acceptors and 96 % non acceptors knew one or more temporary contraceptives and remaining 5% acceptors and 4% non acceptors were unaware of any temporary contraceptive method. The most to least known contraceptives in both the groups were condom (49%-53%), oral pills (34%-36%) and Copper-T (25%-30%) in descending order, and the difference in knowledge of two groups regarding temporary contraceptives was statistically not significant as P=0.766. None of the 274 respondents knew about the ECP, which is introduced in NFPP in 2012, but one respondent (non acceptor of tubectomy) told that she had heard of DMPA (which is introduced in program during 2017, but socially marketed in private sector since 1987). Kiran G Makade et al [17] in their study on 342 married women from Mumbai slum had found that, 87.7% were aware of contraceptive methods and this awareness level is lower than that of present study.

We found that, 77% acceptors and 81% non acceptors were found to have adequate knowledge of temporary contraceptives and remaining had poor knowledge or they were indifferent to that knowledge and this difference between two groups is statistically not significant as P=0.552. N Saluja et al [18] in their study on 250 couples of rural Haryana had found that 94.4% women had knowledge of contraception and 59.2% were using it. These proportions are higher than present study and could due to regional, social and study period differences.

We saw that, the proportions of acceptors and non acceptors with favorable attitude towards contraception were 96% and 87% respectively and remaining 4% acceptors and 13 % non acceptors had either unfavorable or indifferent attitude for contraception and this observed difference in attitudes between acceptors and non acceptors was statistically highly significant as P=0.009. N Saluja et al in their above mentioned study had also found that, 79.2 % women had positive attitude towards contraception. The present study proportions regarding awareness of contraception are higher than this study and could be due to regional, socio-cultural and study period differences.

In the present study, while 77% acceptors and 81% non acceptors had adequate knowledge of contraceptives, only 45% acceptors and 43% non acceptors used some modern temporary contraceptive in the form of condom, oral pills or Cu-T and their proportions amongst acceptors were 15%, 9% and 21% respectively and amongst non acceptors they were 13%, 5% and 25% respectively. Remaining 55% acceptors and 57% non acceptors did not use any temporary contraceptive, however this difference between two groups regarding practice of contraceptives is statistically not significant as P=0.242. None of all 274 respondents used ECP or DMPA, as both of them were unknown to almost all respondents. Amongst condom, oral pills and Cu-T, Cu-T is relatively newer in NFPP, yet it is the most commonly used temporary contraceptive in both the groups, 21% acceptors and 25% non acceptors. This could be due to its effectiveness, safety, one time procedure, requiring least sustained motivation and follow up and above all, almost none of the logistic problems (as procurement, storage, disposal etc). Prachi Koranne et al [19] in their study on 200 married women in Maharashtra, found 100% awareness but only 48% of them used some modern temporary contraceptives, which is comparable with present study.

CONCLUSIONS:

Number of sons per respondent strongly favors contraception especially permanent method and number of daughters strongly disfavor permanent as well temporary contraception leading to more births, close births leading to poor maternal and child health leading to higher maternal, perinatal, infant and child mortality and maternal and child under nutrition. Lack of desired number of children of desired sex amongst prejudiced couples leads to unfavorable attitude towards contraception, in spite of adequate knowledge, leading to above mentioned situations/ problems.

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