Contraceptive Use and Desire for More Children in Rural Districts of Two States in India - A Community Based Cross Sectional Study

(An ICMR Task Force Study)

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ABSTRACT

Keeping in view comprehensive reproductive health care, to study the effect of met desire for children on contraceptive acceptance among married rural women aged 15-44 from one good and one poor performing state of India. Information on knowledge, attitude, practices of contraception, desire for additional children was collected from 52,414 women (22,344 from Uttar Pradesh (UP) and 30,070 from Tamil Nadu (TN)). Results reveal that 81% and 27% women at least three living children desire to have additional children in UP and TN respectively. Desire for only one male and one female children is higher in TN among younger women (56-96%) as compared to 18-51% in UP. Contraceptive use in UP and TN was 22.7% and 51.4% respectively. In UP 31% accepted a family planning after fulfilling their met desire for children as compared to 72% in TN. It is recommended to promote small family norm along with contraceptive use.

Introduction:

India was the first country to start family planning programme long back in 1952. In the first 50 years there have been many changes. The family planning programme was changed to family welfare programme and presently Reproductive and Child Health programme. The changes were done to increase the acceptance of family planning methods.

International conference on population and development (ICPD) endorsed the definition of reproductive health as a state of physical, mental and social well-being in all matters relating to the reproductive system at all stages of life[1]. Good reproductive health implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when, and how often to do so. Men and women should be informed about and have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enables women to safely go through pregnancy and childbirth.

"Unmet need for family planning", which refers to the condition of wanting to avoid or postpone childbearing but not using any method of contraception, has been a core concept in international population for more than three decades[2,3]. The importance of the unmet need for family planning or satisfying an individual's reproductive aspirations as a rationale for formulating population programmes was further explicitly reiterated by the Programme of Action of the International Conference on Population and Development (ICPD), which states that "Government goals for family planning should be defined in terms of unmet needs for the information and services" and that all countries should, over the next several years, assess the context of national unmet need for good-quality family planning services[1]. ICPD+5 has called for a 50 per cent reduction in the unmet need for contraception by 2005 and its total reduction by 2015.

Indian Council of Medical Research (ICMR) has been engaged in studies focusing at developing strategies for improving Maternal and Child Health (MCH) and family planning (FP) services at grass root level for over a decade. With a shift in focus from MCH and FP towards comprehensive reproductive health care, ICMR initiated a project on Integrated Reproductive Health Care Delivery through its network of Human Reproduction Research Centres (HRRCs) located at medical colleges in various regions of the country. This paper is based on observations related to information on knowledge, attitude, practices of contraception, desire for additional children and was collected during a large reproductive health survey of eligible married women.

Objective:

To study the association between met desire for children and contraceptive acceptance

Materials and Methods:

A multi indicator cluster survey of eligible women (married women of 15-44 years of age), was carried out covering various reproductive health issues including family planning. A three stage stratified random cluster sampling was adopted for selection of villages from the rural areas for the survey. Selection of districts was done by the HRRCs in consultation with the district health authorities. Stratification for sampling of villages was done at two stages on the basis of distance from the health facilities. In the first stage blocks were stratified into two groups based on distance from the District Hospital and one block was selected randomly from each group. In the second stage villages in the two selected blocks were stratified into three groups on the basis of distance from Primary Health Centre (PHC) and presence of sub centre (SC) in the village thus forming six strata. At the third stage random clusters (villages) were selected from each stratum to provide coverage of about 4000 eligible women from the district.

Questionnaires for the survey were prepared centrally in English and were translated into regional languages at the respective HRRCs. The questions pertaining to women's perceptions, opinions, knowledge, attitudes etc. were open-ended and the probable responses were listed to facilitate recording and minimizing interview time. No leading or suggestive questions were asked to avoid courteous responses and over estimation. Women were interviewed at their homes by female interviewers. Only volunteered responses were recorded. Necessary instruction manuals were prepared and regional workshop of HRRC medical officers were held for discussing conduction of the survey. Selection of the interviewers was done locally by the HRRCs. Training of interviewers was carried out by the HRRC medical officers.

From among the current contraceptive users, all users of IUD, OC and acceptors of a permanent method during the one year were interviewed in detail regarding source, services, family support, need realization and first time use of any family planning method. In addition a systematically selected sample of non-pregnant women who were not using any family planning method were interviewed to assess their knowledge about available family planning methods, services and reasons for not using any family planning method.

Results:

This paper includes observations from two states in India i.e. UP and TN. Both states are distinct, geographically and regarding attainment of health indicators. UP is in the northern part of the country with poor health indicators conversely TN is in the southern part of the country with good health indicators. A total of 52,414 eligible women, 22,344 from five districts of UP and 30,070 from the six districts of TN covered under this study. The Average age of the women from the two states was similar UP (29.2±6.9) & TN (29.9±7.2), where as average age at marriage was found to be significantly lower in UP (16.7 ± 2.8) as compared to TN (18.3 ± 2.7). Age at first conception though appear to be lower in UP (17.6 ± 2.4) as compared to TN (18.6 ± 2.9) was not statistically different.

Information on current use of family planning methods was obtained from all the women covered under this survey. Overall contraceptive prevalence including permanent, spacing and barrier method in UP and TN was 22.7% and 51.4% respectively. This varied between 13.8% in Barabanki district to 33.8% in Meerut district in UP and 44% in Chengai MGR district to 54.9% in Cheyyar HUD district in TN. Majority of the couples had accepted a permanent method of contraception-mainly female sterilization. Use of spacing methods including IUD & OC was reported by less than 2% of women in majority of the districts. For tubal sterilization the mini laparotomy technique in comparison to laparoscopy appeared to be more popular in the study district from TN. Use of condoms was also poor in all the study districts of TN (table 1).

The women from UP even though were in the similar age group as from TN had significantly more living children and still desired more children. Demographic shift with regard to desired children has taken place in both the states. Younger women (15-24 yrs.) from all districts have expressed desire for fewer children as compared to their elder counterparts & significantly larger percentages of women in the 15-24 years age group (18-51 % in UP & 56-96 % from TN) expressed desire for only one male and one female child as compared to 4-6 % from UP and 21-77 % from Tamil Nadu the women from 35-49 years age group (Table:2).

The difference between the shift that has taken place in the two states is that of degree. UP appears to be almost two decades behind TN. The women of 15-24 years age from UP are comparable to women of 35-49 yrs. from TN with regards to attitude of adopting small family norms.

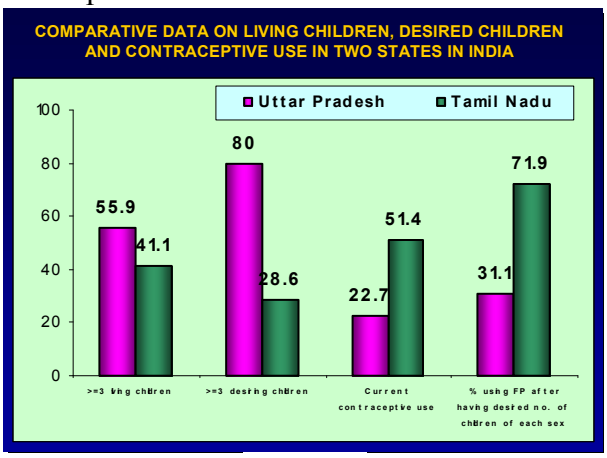

Fig.-1

Contraceptive acceptance in UP was also poorer as compared to TN. Even after having desired number of children of each sex, which is already higher in UP as compared to TN, fewer women 31.1% from UP had accepted any family planning method as compared to TN 71.9% (Table:4 & Fig.-1). Percentages of women accepting terminal method after having one male and one female child was 20.3% in UP as compared to 61.1% in TN (Table: 3).

Discussion:

This study was conducted in rural areas of 11 districts of two states of India namely Utter Pradesh and Tamil Nadu. The sample size in the study included for the two states was larger than the National Family Health Survey (NFHS-2)[4]. It has provided information related to knowledge, attitude, practices of contraception, desire for additional children. This is of practical relevance to programme administrators and policy makers responsible for monitoring existing programmes and formulating new strategies to meet the health and family planning needs of the population and addressing the high-unmet need for contraception.

The present study reveals a modest contraceptive prevalence rate of 22.7% in rural areas of UP as compared to 51.4% in TN. Increasing contraceptive prevalence rate is one of the steps needed to reduce fertility in India. Learning, motivation and intention formation in a socio-cultural context contributes to the adaptation of contraceptive behavior. It is generally expected in terms of socio-economic and demographic characteristics at the individual as well as at the social level. Various studies have shown that number and sex of living children have considerable influence on acceptance of family planning method. Sex preference is a major determinant of contraceptive use[5]. In our study son preference is much higher in state of Uttar Pradesh than in Tamil Nadu. Another study shows that son preference is much higher in the demographically backward state of Uttar Pradesh than in the advanced state of Kerala[6]. However it has been seen that women do not practice family planning methods even though she has good knowledge. A study from Rajasthan showed 60.8% had knowledge regarding family planning methods but only 19% were using and that irregularly[7].

Another side of the picture is desire of children and use of these methods. Despite having knowledge women and men did not use these methods because they need more children[8]. Many potential informational barriers exist to contraceptive use. Women must be aware of the methods available, must know where supplies of these methods can be obtained and they must know how to use the method they choose. Lack of this knowledge is strongly associated with unmet need for contraception. In a study that concludes that knowledge barriers are relatively insignificant in the rural areas of India, as nearly three-quarters of the non-users were aware of at least one modern

method of family planning and at least one source where it could be obtained. Majority of the respondent (non-users) wanted to adopt a contraceptive method only after achieving desired family size .The main reason given for not using any family planning method was "family not complete"[9]. Several studies indicate that in rural areas the desired family size of most couples is still three or more children[10]. Various studies have shown inadequate facilities and skilled manpower for family planning services. An ICMR study showed that approximately 40 percent of the PHCs were not adequately equipped for management of emergencies and contraceptive supplies were not adequate at PHC or subcentre level[11].

Conclusion:

In states like Uttar Pradesh there is a need to promote small family norm along with contraceptive use by policy makers and field workers to increase acceptance of family planning and efforts should be made to make people aware of the benefit of small family norm.

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Table 1 : NUMBER OF SUBJECTS COVERED FOR VARIOUS OMPONENT

State	District	Eligible women	Non user	IUD	OC	Mini-laprotomy	Laparo-scopy	Condom
UP	Barabanki	5276	86.2	0.5	0.7	0.2	5.0	7.2
	Allahabad	3935	85.5	0.4	0.3	0.6	11.5	1.5
	Kanpur	4036	77.9	0.7	0.9	3.2	9.2	7.8
	Meerut	4283	66.2	4.0	2.2	0.5	11.3	14.6
	Ghaziabad	4814	70.8	2.0	1.0	0.6	19.7	5.6
	Total	**22344**	**77.3**	**1.5**	**1.1**	**0.9**	**11.3**	**7.4**
Tamil Nadu	Chengai MGR	4139	56.0	1.2	0.9	40.3	0.7	0.1
	N.Chengelpet	5741	48.5	1.3	0.4	47.1	2.1	0.2
	Cuddalore	4805	52.7	1.3	0.7	32.2	12.0	0.1
	Madurai	5022	45.2	2.6	0.5	47.2	3.8	0.1
	Vellore	5368	46.3	0.7	0.1	52.4	0.2	0.1
	Cheyyar HUD	4995	45.1	0.9	0.3	52.6	0.0	0.0
	Total	**30070**	**48.6**	**1.3**	**0.4**	**46.2**	**2.9**	**0.1**

Table 2 : PERCENTAGE OF WOMEN EXPRESSING DESIRE FOR MALE AND FEMALE CHILDREN BY AGE

State	District	15-24 years				25-34 years				35-49 years			
		M:1 F :1	M:1 F :≥2	M: ≥2 F:1	M: ≥2 F: ≥2	M:1 F :1	M:1 F :≥2	M: ≥2 F:1	M: ≥2 F: ≥2	M:1 F :1	M:1 F :≥2	M: ≥2 F:1	M: ≥2 F: ≥2
		N=1447	N=188	N=2336	N=836	N=1132	N=952	N=5061	N=3143	N=259	N=483	N=1689	N=2774
UP	Barabanki	18.0	4.7	41.3	28.9	8.2	9.9	36.1	37.1	5.0	11.5	22.1	50.8
	Allahabad	18.6	1.7	54.3	21.4	6.3	5.2	49.5	34.9	3.5	4.3	33.5	53.6
	Kanpur	51.3	5.8	31.4	6.8	18.8	19.8	31.3	21.9	4.9	15.4	19.5	47.2
	Meerut	18.2	5.8	39.2	5.6	8.9	4.7	58.0	22.0	5.5	4.7	42.6	41.9
	Ghaziabad	35.6	2.3	43.3	6.8	9.4	4.8	51.3	26.6	3.8	2.8	38.2	47.4
	Total	**26.0**	**3.4**	**42.1**	**15.0**	**10.2**	**8.6**	**45.6**	**28.3**	**4.5**	**8.5**	**29.7**	**48.7**
		N= 5614	**N= 249**	**N= 346**	**N= 316**	**N= 8159**	**N= 1189**	**N= 1618**	**N= 840**	**N= 4031**	**N= 902**	**N= 1402**	**N= 2774**
Tamil Nadu	Chengai MGR	82.1	3.1	5.9	0.8	50.8	11.3	21.9	7.0	31.1	10.7	27.4	22.1
	N.Chengelpet	67.1	2.6	5.8	0.3	54.2	5.0	8.2	1.9	33.6	4.4	9.6	6.3
	Cuddalore	86.2	2.8	2.3	0.6	73.5	6.0	7.1	5.3	68.2	4.3	5.8	15.3
	Madurai	56.4	6.6	7.9	21.7	48.1	10.8	10.9	19.7	32.1	10.5	13.4	33.4
	Vellore	87.2	3.7	4.0	0.5	44.9	18.2	18.0	2.6	21.2	24.2	23.1	14.2
	Cheyyar HUD	95.8	1.2	2.1	0.0	86.3	3.0	7.9	0.7	77.0	2.6	12.0	6.1
	Total	**77.5**	**3.4**	**4.8**	**4.4**	**60.1**	**8.8**	**11.9**	**6.2**	**44.1**	**9.7**	**15.2**	**15.0**

Table 3 : PERCENTAGE DISTRIBUTION OF DESIRE AND LIVING CHILDREN (MALE AND FEMALE) AND USING FAMILY PLANNING

State	District	Male : 1 Female : 1			Male: 1 Female : ≥ 2			Male : ≥ 2 Female :1			Male: ≥ 2 Female: ≥ 2		
		Desired	Living	Using FP	Desired	Living	Using FP	Desired	Living	Using FP	Desired	Living	Using FP
UP	Barabanki	10.1	8.5	14.6	8.9	9.9	15.3	34.0	14.4	24.1	38.3	19.8	17.5
	Allahabad	8.3	7.6	8.4	4.1	10.9	11.4	45.3	16.0	26.0	37.9	27.0	23.1
	Kanpur	20.5	10.7	21.3	15.6	12.1	32.3	27.5	15.6	31.9	27.2	22.0	25.2
	Meerut	8.9	14.4	35.8	4.3	19.5	48.6	50.5	19.7	44.1	22.5	10.1	39.0
	Ghaziabad	16.0	12.8	21.3	3.7	8.8	27.0	46.6	19.0	44.9	24.4	20.4	49.3
	Total	**12.7**	**10.0**	**20.3**	**7.3**	**10.4**	**26.9**	**40.7**	**17.1**	**34.2**	**30.2**	**22.6**	**30.8**
Tamil Nadu	Chengai MGR	51.8	14.7	54.9	9.3	13.5	70.4	20.0	14.1	78.7	10.2	7.5	73.6
	N.Chengelpet	51.3	15.7	62.6	4.3	13.3	82.3	7.9	13.1	79.3	2.8	7.9	64.9
	Cuddalore	75.2	16.3	58.2	4.8	12.4	70.0	5.5	12.6	73.8	6.7	8.8	71.4
	Madurai	46.2	17.3	63.5	9.6	14.3	73.2	10.7	12.7	83.1	23.8	6.9	77.3
	Vellore	45.4	16.6	66.0	17.2	13.6	83.8	16.8	12.4	88.0	6.3	6.2	80.6
	Cheyyar HUD	85.0	15.1	61.6	2.5	13.9	84.3	8.2	14.7	88.0	2.4	7.5	80.4
	Total	**59.4**	**15.9**	**61.1**	**7.8**	**13.5**	**77.3**	**11.2**	**13.3**	**81.8**	**8.5**	**7.5**	**74.7**

Table 4 : PERCENTAGE OF WOMEN USING FAMILY PLANNING IN RELATION TO THEIR MET DESIRE FOR MALE & FEMALE CHILDREN

State	District	LM<DM LF<DF	LM>DM LF<DF	LM<DM LF>DF	LM>DM LF>DF
UP	Barabanki	4.1	11.4	7.7	21.0
	Allahabad	2.3	17.6	7.1	25.1
	Kanpur	9.4	20.5	13.3	26.9
	Meerut	15.9	33.4	35.1	35.8
	Ghaziabad	3.6	30.1	16.6	46.5
	Total	**7.1**	**22.6**	**16.0**	**31.1**
Tamil Nadu	Chengai MGR	0.5	28.6	30.1	68.5
	N.Chengelpet	4.2	35.5	28.8	61.6
	Cuddalore	2.0	30.5	25.0	66.9
	Madurai	33.4	34.2	22.3	76.3
	Vellore	0.6	15.2	12.4	80.2
	Cheyyar HUD	1.0	44.1	31.9	78.2
	Total	**6.9**	**31.3**	**25.1**	**71.9**

LM: Living Male children **DM**: Desired Male children

LF: Living Female children **DF**: Desired Female children