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Family Planning Practices and its Impact on Fertility in Maharashtra

Introduction

INSPITE of socio-economic changes and spread of literacy in India, the desire of a male progeny has continued to be strong. So much so that a married woman enjoys a higher status in her husband's household after the birth of a son, and mothers of many sons are admired. On the other hand, a married woman with no child or unable to produce a male child enjoys little or no status and is cared least in the house. There is, thus, every reason to believe that the desire of a male progeny among couples may manifest as a barrier and interfere with their decision to accept contraception, and may even increase their fertility performance. The family welfare programme in India is voluntary and its acceptance and choice of a contraceptive method is a matter of individual's decision. Unless couples behave in a rational manner and plan their family according to their felt needs without giving weightage to sex composition of the children, the acceptance of family planning will remain selective.

This study is restricted to Maharashtra, because in this State situation in respect of planned parenthood has been quite favourable as compared to other states in India. So much so that the first birth control clinic in India was established in Maharashtra at Bombay in 1925 by Prof. R.D. Karve. The Family Planning Association of India, a voluntary agency, was established in 1949 at Bombay, and since then has been doing poineering work in the field of family planning. Thus, in Maharashtra family planning work started much before the Government of India introduced it in the country in 1952. Further, Maha-

rashtra is quite a progressive State having per capita income of Rs. 1455/- as against Rs. 1020/- for the country for 1975-76 at current prices (CSO, 1979); and general literacy rate is about 39% which is next to Kerala (R.G., 1972). The mean age at marriage for female has increased from 15.9 years in 1961 to 17.5 years in 1971 (Goyal, 1975). These are some of the important indicators favourable for better acceptance of the family planning programme and low fertility conditions. Accordingly, an attempt has been made in this paper to assess the family planning performance and contraceptive preference of the acceptors, role of male progeny as a change agent and effectiveness of family planning programme in Maharashtra.

Coverage

This study is primarily based on the data collected on family planning by the National Sample Survey Organisation (NSSO) during 28th round (Oct. 1973-June, 1974). For the State of Maharashtra a sample of 16,809 households—9138 households m rural areas and 7,671 households in urban areas was canvassed (NSSO, 1976, 1978). The data on family planning were collected through interviews of husbands with wives between the ages of 15 to 49 years. The tabulations of the data are available for rural and urban areas for couples ever practising family planning and currently practising family planning by type of method, present age of wife, surviving children and age of last child. The usual cross-classification of acceptors by socio-economic status, age of wife at the start of contraception and number of children are not available. This serious limitation of the present study restricts its comparability with other available studies. On the other hand, its advantage is that it is based on the current fertility status of the acceptors rather than on their opinion.

Distribution of Current Users

Parity increases with increase in the age of a mother and that makes her conscious of family limitations. In other words, family planning users should increase with increase in the age of wire and parity. Table 1 gives the distribution of current users by present age of wife.

It is seen from Table 1 that pattern of acceptance of family planning is similar in rural and urban areas of Maharashtra. The rate of acceptance first increases with age, and then having reached a peak starts declining. The highest rate of acceptance is achieved in the age group 35-39. Further, rates of acceptance in urban areas are higher than in rural areas in each age group. Tt is precisely for

TABLE 1– DISTRIBUTION OF CURRENT USERS BY PRESENT AGE OF WIFE

Present age of wife	*Percentage of current users*	
	Rural	*Urban*
15-19	0.40	1.10
20-24	5.00	11.80
25-29	18.60	30.90
30-34	32.20	37.70
35-39	36.60	45.50
40-44	31.80	36.90
45-49	25.00	32.80
All ages	21.20	30.00
Mean age	35.30	34.60

this reason that mean age of wife of the current users is lower in urban areas than in rural areas. The difference in the mean age was found to be statistically significant.

In the age group 15-19, which consists of young couples who have been recently married or have low parity, practice of contraception for postponement/ spacing of birth was quite uncommon. In the age group 20-34, which is the most fertile period of the reproductive span of a woman, 18.7 percent (not given in Table 1) women were found to be currently protected in rural areas and 27.0 percent in urban areas. This suggests that quite a high proportion of women in their most fertile period were un-protected and exposed to the risk of conception. Again, after forties when fertility is quite low and onset of menopause occurs to women, practice of family planning has been found declining,

Contraceptive Practices

The 28th round of the NSSO with a representative sample of 12,296 married women aged 15-49, approximately equally divided between urban and rural residents of Maharashtra, has revealed that about 24.9 per cent of women in union were currently practising contraception in the State—about 21.2 per cent in rural areas and about 30.0 per cent in urban areas, and their distribution by method of use is shown in Table 2.

TABLE 2—PERCENTAGE DISTRIBUTION OF CURRENT USERS BY TYPE OF METHOD

Family planning method	*Current users*			
	NSSO			*ORG Baroda*
	Rural	*Urban*	*Combined*	
Vasectomy	60.67	19.78	39.52-1	65.6
Tubectomy	27.95	42.49	35.47*f*	
IUCD	1.16	2.85	2.04	3.5
Condom	5.04	18.20	11.85	16.2
Oral-pill	0.61	6,04	3.42	—
Diaphragm	NIL	1.02	0.53"	
Foam Tablet	0.14	0.45	0.30	2,1
Jelly/Cream	NIL	0.52	0.26	
Traditional method*	4.43	8.65	6.61	13.6
All methods	100.00	100.00	100.00	100.00
Couples currently protracted (%)	21.18	30.03	24.86	22.70
Number of current users	1426	1442	2868	

The term 'Traditional method ' includes methods such as 'Coitus-interruptus, 'Rhythm' and 'Abstinence', which have been traditionally in use for birth prevention by the people. In the tables brought out by the NSSO, users of traditional methods are shown separately for Withdrawal, Rhythm and Abstinence and, therefore, figures shown in Table 2 may be slightly overestimated, as some of the users may be practising more than one method in combination.

Table 2 indicates that sterilisation was the most commonly practised method of family planning in Maharashtra. The practice of spacing methods was more common with urban couples than with rural couples. Comparison with Operation Research Group Baroda (1972) study, which was conducted in July 1970, indicates a notable shift of acceptors of condom and traditional methods to sterilisation in Maharashtra during the intervening period of about 3 years. This is expected because during this period mass vasectomy camp approach was adopted and higher incentives were offered to the acceptors to boost the rate of acceptance.

It appears that among rural residents Vasectomy and among urban residents

Tubectomy[1] were the most favoured methods of family limitation, and that condom was as popular as Vasectomy among urban residents. In urban areas the three most commonly used methods, other than sterilisation, were Condoro, Oral-pill and Traditional methods. On the other hand, in rural areas, Condom and Traditional methods were more common as spacing methods of family planning. The IUCD appeared to be not too much in demand both in rural and urban areas, while Diaphragm and Jelly/Cream were preferred mostly only by urbanites. Thus among rural couples the practice to limit their family was more common than to space their children. On the other hand, urban couples were evenly divided among users of spacing methods and sterilisation and were, thus more consciously practising family planning. This was expected because of socio-economic differentials in rural and urban population of Maharashtra.

Practice of Spacing Methods for Family Limitation

Couples who are currently practising methods and are desirous of having another child will generally drop-out when their last child is around 3 years. And if these couples continue to practice spacing methods even when the last child is 4 years or more, then it may mean that these couples are using these methods for family limitation. These couples are apparently satisfied users and have completed their family formation, but are reluctant to accept sterilisation for family limitation. The NSSO has brought out data on current users by method of use and age of last child, which will indicate the extent to which spacing methods were being practised for family limitation.

TABLE 3-DISTRIBUTI0N OF CURRENT USERS OF SPACING METHODS AND HAVING LAST CHILD AGED 4 YEARS AND MORE

	Method of use				
	IUCD	*Oral-Pill*	*Condom*	*Traditional methods*	*Spacing methods*
Rural	58.80	11.10	24.00	33.90	30.30
Urban	42.20	26.90	41.50	40.40	38.10

Table 3 indicates a different pattern of practice in rural and urban areas. In urban areas over 40 per cent of users of IUCD, Condom and traditional methods were practising these methods for family limitation. And in rural areas use of IUCD appeared to be more common for family limitation and Traditional methods and Condom were in practice to a lesser extent. The use of spacing methods for family limitation was found to be about 30 per cent in rural areas and about 38 per cent in urban areas. It has been found that about 12 per cent of current users in rural areas and about 38 per cent in urban areas were practising spacing methods (Table 2). In other words, about 3.60 per cent of current users in rural areas and about 14.50 per cent in urban areas were practising spacing methods for family limitation. Thus current users practising sterilisation and spacing methods for family limitation were about 92.0 per cent in urban areas.

Stage of Practice of Family Planning

The family planning advice is being imparted to married couples for proper spacing and limitation of births. The success of the family planning programme will greatly depend on the parity at which couples accept sterilisation, and also to the extent couples with lower parity favour spacing methods as a means to postpone birth of their next child. This will increase both the closed birth interval as well as open birth interval and as a consequence birth rate will decline.

available by method of use for rural and urban areas of Maharashtra The methods of use have been broadly grouped into sterilisation and spacing methods and acceptors distributed by stage of starting of practice of family planning.

Table 4 indicates that in rural areas contraception before third birth is rather uncommon and its practice starts after third birth with more emphasis on family limitation rather than spacing of births. On the other hand, in urban areas contraception was practised even before first birth; and spacing methods were quite common upto third child after which sterilisation becomes more accep table and use of spacing methods declines. It will, thus, appear that with increase in parity practice of spacing methods declines in urban areas while in rural areas voluntary spacing of births was not favoured, and sterilisation was preferred only after third birth.

Male Progeny - Most Effective Change Agent

The main strategy of the extension education and mass media programme of the family planning programme has, since its inception, been to educate the people to practice family planning for proper spacing and limitation of births

TABLE 4- PERCENTAGE DISTRIBUTION OF EVER USERS WITH STAGE OF STARTING PRACTICE OF FAMILY PLANNING

Rural			Stage at which practice of family planning started	Urban		
Sterili-sation	Spacing method's	All methods		Srerilbation tion	Spacing methods	All methods
0.33	0.59	0.92	Before 1st birth	0.06	2.90	2.96
1.32	2.18	3.50	1st and 2nd birth	0.58	13.22	13.80
2.91	1.85	4.76	2nd and 3rd birth	3.19	11.48	14.67
8.78	3.04	11.82	3rd and 4th birth	9.45	9.74	19.19
15.32	2.12	17.44	4th and 5th birth	12.12	4.69	16.81
18.63	2.24	20.87	5th and 6th birth	30.43	2.50	12.93
14.73	1.98	16.71	6th and 7th birth	6.90	1.04	7.94
22.29	1.69	23.98	7th birth and above	10.78	0.92	11.70
84.41	15.59	100.CO	All births	53,51	46.49	100.00
1278	236	1514	Number of ever users	923	802	1725

both for the welfare of the mother as well as family, and any direct reference to the determinant sex of the children was avoided. In other words, role of male progeny in the acceptance of family planning was not fully appreciated.

Table 5 indicates that the practice of family planning was uncommon both in rural and urban areas among couples having no children, and among couples having no son, it was about 7 per cent in urban areas and about 3 per cent in rural areas. Both in rural and urban areas 98 per cent of couples undergoing sterilisation have at least one son. Diaphragm is generally used by women belonging to higher strata of society, who are better educated and emancipated to a greater extent. Even here, 94 per cent of diaphragm users were those having at least one son. Thus, the attitude of educated and emancipated women belonging to privileged classes towards male progeny is hardly anyway different from those women coming from less privileged classes Even practice of spacing methods was not found common among couples having only daughters, apparently for want of a male progeny. This indicates that motivating impulse for practice of family planning is a male progeny and not the felt need for limitation of family.

If it is assumed that all couples behave rationally and that there are no sex preferences, then one may expect that couples having no son and those having at

TABLE 5-PERCENTAGE DISTRIBUTION OF CURRENT USERS OF **FAMILY PLANNING BY** METHOD AND SEX OF LIVING CHILDREN

Method of family planning	*Rural coipied having*			*Urban couples having*		
	no child	*children but no son*	*at least one son*	*no child*	*children but no son*	*at least one son*
Sterilisation	0.7	1.5	97.8	NIL	1.4	98.6
IUCD	NIL	5.9	94.1	NIL	15.5	84.5
Condom	NIL	8.1	91.9	1.0	16.5	82-5
Oral-pill	NIL	11.1	88.9	2.1	7.4	90.5
Diaphragm	NIL	NIL	NIL	NIL	6.3	93.7
Jelly/Cream	NIL	NIL	NIL	NIL	12.5	87.5
Foam tablet	NIL	NIL	100.0	NIL	NIL	100.00
Traditional methods	1.5	6.2	92.3	NIL	16.9	83.1
Spacing methods	0.6	7.2	92.2	0.8	14.5	84.7
All methods	0.7	2.2	97.1	0.3	6.4	93.3

least one son will be contracepting at least in proportion to their population. The NSSO (1976) has estimated that about 29.3 per cent of couples in reproductive age group (15-49) in rural areas and about 27.2 per cent in urban areas of Maharashtra have no son. As against this, about 2.0 per cent of couples having no son in rural areas and about 7.0 per cent in urban areas were currently practising contraception, and among couples having at least one son about 29.0 per cent of couples in rural areas and about 38.6 per cent in urban areas were currently practising contraception. This suggests that all couples do not behave rationally, and that absence of male progeny acts as a barrier in the practice of contraception among couples having no male progeny.

Male Progeny—Desire to Have One or More Sons

If the desire of a couple is to have a son then it is natural to expect that proportion of couples having one son practising family planning should be highest and that there are no significant differences in the proportion of couples having more than one son practising family planning. That is, proportion of couples having 2 sons practising family planning should be same as that for couples having one son or 3 sons etc. Proportion of current users with different combination of children are given in Table 6.

TABLE 6- PROPORTION OF CURRENT USERS BY DIFFERENT COMBINATION OF CHILDREN

	No son but daughters	*At least one son and (laughters*	*One son and daughters*	*Two sons and daughters*	*Three and more sons and daughters*
Rural	0.0184	0.2774	0.1347	0.3362	0.4192
Urban	0.0623	0.3684	0.2320	0.4738	0.4603

Appropriate statistical test has shown that differences in the proportion of current users having no son and at least one son, and those having 2 sons and one son are significant both for rural and urban areas. But differences in the proportion of current users having 3+ sons and 2 sons are found significant only for rural areas. This suggests that among couples having sons, the desire of having male progeny do not appear to end with one son. In urban areas couples seem to be indifferent to having more than 2 sons, but in rural areas couples seem to prefer having more than 2 sons.

Drop-out Rates by Sex of Children

In rural areas out of 1562 couples ever practising family planning, 1467 were found currently practising, and in urban areas out of 1877 couples ever practising family planning, 1572 couples were currently practising. The couples who were practising at some stage but were not currently practising may have dropped out for want of a child or some other reason, and among them some may be dropping out for want of a child of a particular sex. To find out sex preference in the drop-out rates, these rates have been computed by sex of living children for spacing methods of family planning, and are shown in Table 7.

TABLE 7- DROP-OUT RATES

Couples having daughters but	*Rural*	*Urban*	*Combined*
No son	50.00	31.80	34.80
One son	32.90	33.70	33.50
Two sons	33.80	26.70	29.90
Three and more sons	30.70	48.60	42.50
At least one son	34.30	34.30	34.30
All children	35.90	33.90	34.30

The drop out rates for rural areas suggest that more of couples having no son discontinue use of spacing methods mainly for want of a male progeny. This bias is very much expected from the rural population, which is mainly guided by traditional values and customs. Even among acceptors having sons drop-out rates are not low, as every third acceptor was found dropping out. This may be partly because of their desire to have additional child and partly due to their dissatisfaction with the use of spacing methods. The drop-out rates for couples having no son and those having at least one son do not show any material difference for urban areas, where practice of spacing methods was found quite common. This may be because over 80 per cent of them were having 3 children or less (Table 4) and that to complete the desired family size or to have a child of a particular sex, these couples discontinue practice of spacing methods. The drop-out rates for urban areas are nearly same for couples having no son and those having one son. On the other hand, drop-out rates for couples having 2 sons are appreciably low and those for couples having 3+ sons are appreciably high. The reasons for low drop-out rates for couples having 2 sons are understandable, that they are satisfied with the practice of spacing methods and that only a few of them desire to go for an additional child. This survey (Table 6) has revealed that 2 sons families are preferred and perhaps for this reason the drop-out rates were found to be lowest for this group. On the same analogy the drop-out rates for couples having 3+ sons should have been rather still lower, as it is expected that desire of an additional child should decrease with the increase in the number of male children. This is supported by the findings of the NSSO(1967) that desire for additional children declined from 24.7 per cent among couples having 2 male children to 9.1 per cent among couples having 3 male children. Further, there is no evidence to suggest that satisfaction of practising spacing methods decreases with increase in the number of children, rather one may expect that motivation for contraception becomes stronger with increase in the number of children. There is thus no apparent reason for a high drop-out rate for couples having 3+ sons, except that possibly more of them drop-out for sterilisation to limit their family.

Children Born to Acceptors

Data relating to couples ever practising family planning by age of wife, stage and method with which practice of family planning was started has been used to estimate average number of children born to couples ever practising family planning separately for different methods. These estimates (Table 8) are based on the assumption that the stage at which the family planning was started as the last live birth.

TABLE 8 - AVERAGE NUMBER OF CHILDREN BORN TO EVER USERS WHEN PRACTICE OF FAMILY PLANNING WAS STARTED BY METHOD OF USE

Method of use	Average number of children born		
	Rural	Urban	Combined
Sterilisation	5.34	4.86	3.14
IUCD	4.69	3.12	3.66
Condom	3.29	2.26	2.47
Oral-pill	3.50	2.45	2.59
Traditional methods	4.19	2.21	2.86
All methods	5,10	3.70	4.35

In case of Vasectomy operation it is assumed that wife of an acceptor continues to be fecund after the operation, the estimated[2] number of children born then gives the completed family S1ZE Of children born to couples accepting sterilisation comes to 5.3 children for rural areas and 4.9 children for urban areas. For IUCD average number of children born was 4.7 children for rural areas and 3.1 children for urban areas. This is supported by the findings' of Dandekar *et al.* (1978) that "The majority of IUD acceptors (85.7%) have 3 or more living children. The median age and median number of living children per acceptor was 32.5 years and 4.5 children respectively." This suggests that IUCD, even though not much in demand, was accepted by women with high parity. And condom, oral-pill and traditional methods also did not appear to be quite common among rural women with low parity. It is further seen that average number of children born to rural couples was more than to urban couples for each of the spacing methods, which, in other words, indicates that rural couples accept spacing methods at higher parity than urban couples.

The demographic effectiveness of family planning will depend on the parity at which the acceptors start contraception—lower the parity, higher the effec-

2. In case of vasectomised persons having wife currently pregnant, last live birth has been considered for the computation of average number of children bom which will lead to underestimation. The proportion of such couples is not known, and such extent of underestimation cannot be easily mation cannot be easily ascertained.

3. This study is based on the insertions done at the mass IUD camps held in Maharashtra in 1965-66. The difference in the average number of children born to acceptors of IUD as estimated in the present study and that of Dandekar *et al,* suggests that acceptors are now getting insertions done at a comparatively lower parity.

tiveness. The Registrar General, (1976) has estimated total marital fertility rate of 5.4 for urban areas and 5.9 for rural areas of Maharashtra, as against average number of 4.9 children born to couples accepting sterilisation in urban areas and 5.3 children in rural areas. The difference between the average number of children born to a sterilised couple and total marital fertility rate of the population will crudely indicate the demographic effectiveness of the sterilisation programme. The average number of births averted due to sterilisation programme comes to about 0.5 births in rural and urban areas. This raises doubts about the number of births averted due to sterilisation estimated by different researchers (Jain, 1969; T*alwar et al.*, 1974; Agarwala and Venkatacharya, 1970), Further, in urban areas about 15 percent of current users were found practising spacing methods for family limitation, while average number of children born to users of spacing methods in urban areas was about 2.5 children as against 4.9 children born to couples practising sterilisation. And if we assume that average number of children born to acceptors practising spacing methods for family limitation was about 3.5 to 4.0 children, which is obviously on the higher side, the fertility of couples practising sterilisation was then higher by about 20 per cent. This suggests that fertility of urban couples practising sterilisation was higher than those practising spacing methods and the same may be true for rural couples but the difference may not be as much as for urban couples. In other words, demographic effectiveness of spacing methods is more than that of the sterilisation programme.

Again the average number of children born to contraceptors was 5.1 in rural areas and 3.7 in urban areas and for Maharashtra it was 4.4 children (Table 8), whereas in 1960-51, average number of children considered ideal for Maharashtra (NSSO, 1967) was 3.5. This means that during the period of 13 years which has witnessed developmental activities on increasing scales, mounting economic pressure on the family, and family planning as a mass movement characterised by liberal incentives and intensive campaigns etc. there continues to be wide difference between perception and practice of family planning among couples of Maharashtra, and that completed family size continues to be significantly higher than the family size considered ideal in 1960-61.

General Review and Suggestions

This study has revealed that about 25.0 per cent of women in union, in the age group 15-49, were currently practising contraception in Maharashtra. This achievement cannot be considered to commensurate with the socio-economic de\clopment and long history of family planning movement in Maharashtra,.

Further, about 4.0 per cent out of 28.5 per cent of couples having no son and about 33.2 per cent out of 71.5 per cent having at least one son were found currently practising contraception in Maharashtra. The fact that even practice of spacing methods was found uncommon among couples having no son suggests that absence of male progeny acts as a barrier in the practice of contraception among these couples, and that social changes brought about *in* Maharashtra as a consequence of economic developments and increase in general literacy do not appear to have minimised the desire of a male progeny. This desire do not appear to end after having one son. In urban areas couple seem to prefer 2 sons but are indifferent to more than 2 sons, whereas in rural areas couple seem to prefer more than 2 sons.

Inspite of preference for sons being universal, the Western Societies have reached a level of fertility which is below replacement level, and even in South East Asian countries, where this desire is as strong as in India, there has been perceptible decline in fertility due to family planning practices. On the contrary, there are indications that this desire is getting strengthened in India. Dubey and Bardhan (1978) in their study of a tribal population in Himachal Pradesh have found that when the region was undeveloped, there did not exist any son preference, but after the economic development of the region, the parents feel that "more sons more alternative source of income", "more sons more chances to become rich and more possibility to purchase iand." In their opinion "there are several indications that as a result of the type of development that is taking place, a trend for son preference is emerging."

The expectation of life at birth in India (DFW, 1980), has increased for males from 32.40 years in 1951 to 46.60 years in 1971, and for females from 31.70 years in 1951 to 44.70 in 1971. With increased longevity more people are now surviving to live beyond retirement after active life. These people become dependent for old age care and social security, and it is at this stage that need of a son is felt most. Thus, increasing longevity is likely to strengthen the desire for a male progeny. And it is felt that unless the daughters and sons are considered on par as a source of care, support and assistance to parents especially in old age, it is difficult to overcome this preference. For this a social climate is to be created so that parents start accepting assistance etc. from their son-in-laws. To further minimise the roie of male progeny, it is suggested that the Government of India may introduce old age pensions for persons surviving beyond sixties and having no source of income. This will go a long way in reducing preference for a male progeny.

The study has brought out that couples practising sterilisation have higher fertility than those practising spacing methods, and that demographic effective-

ness of sterilisation programme has been found quite limited, because couples with higher parity were found practising sterilisation. To increase the demographic effectiveness of the sterilisation programme, it is suggested that the Government of India may introduce special incentives for couples with one or two living children undergoing sterilisation, such as : (i) insurance policy on Children, irrespective of the sex of the children, upto the age of say 20 years; (ii) lower interest rate on loans for house building as has been extended to the Government servants; (iii) tax concessions; and (iv) interest free loans to small farmers/labourers for the purchase of land, implements and fertility etc.

For a voluntary programme it is not considered desirable to suggest disincentives for those having higher order births, as it is more likely to be misunderstood by the people. on the other hand, the incentive programme is likely to be well received by tli3 people. And its dermonstration effect will include people 10 have small family and this will lead to rise in the standard of living ofpeople, especially belonging to lower strata. Once having the feel of a better living these people will strive to preserve it by limiting their family size.

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