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Influence of Age at Marriage and Family Planning on Fertility

Introduction

THE relationship between age at marriage and fertility is well known (Population Reports 1979; Nag 1982) and it is also known that a substantial increase in age at marriage is necessary for effecting reduction in fertility (Agarwala 1967; Durch 1980). The role of family planning, also a proximate determinant, on fertility has been studied well (Bhatia 1989 and Kapoor 1989). However the relationship between age at marriage, family planning adoption and fertility was not investigated fully and therefore a study was conducted to find out the influence of age at marriage and family planning on fertility and the results are presented here.

Materials and Methods

The data for the study were collected from a population of 35,000 in Vellore Town and from a population of 45,000 in K. V. Kuppam Block, a nearby rural area during the year 1985-86. Trained female interviewers visited the households in these areas and collected demographic and socio-economic data of households and reproductive performance including adoption of family planning. The number of married women covered were 7683 in the rural and 6521 in the urban areas. Female social scientists trained in the techniques of in depth study stayed in three villages and two urban areas, visited the households in which unmarried girls of marriageable age were present, discussed with the family and decision-makers about the marriage details to detect the reasons for early marriage and the forces that would effect increase in age at marriage.

Results and Discussion

The median age at marriage of all females in the rural areas was 17.2 and in the urban 18.3. In the marriages conducted during the six years, from 1982 to 1987, the median age at marriage of brides was 18 (mean 18.6) in the rural area and 19 (mean 19.6) in the urban area. In these marriages, 36.3% of the brides in the rural area and 29.0% in the urban area were

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lower than 18 years old. These indicate very slight increase in the age at marriage of females in the recent past and also confirm the findings of others about Tamil Nadu (Kadi 1987; Goyal 1988).

Of all the married women, adopters of permanent methods of family planning was 21.4% in the rural and 34.0% in the urban area. The adopters of temporary methods were 1.1% in the rural and 3.7% in the urban area. These figures are lower than those reported for Tamil Nadu (Government of India 1988). As the percentage of temporary methods adopters was very small, further analysis was done only for permanent methods adopters. Among those who adopted permanent methods, 92.1% had tubectomy and 7.9% vasectomy (of husbands) in rural areas. The corresponding figures for the urban area were 98.8% tubectomy and 1.2% vasectomy. The figures for rural areas are close to those reported in comparable population (Richard and Joseph 1985).

Table 1 gives the percentage adopters of permanent methods of family planning classified by current age of women and their age at marriage in urban areas. All ages taken together, of those who married early (upto 15), 33.5% adopted family planning, which is slightly lower than those who married at ages 16 to 19, and a little higher than those who married at ages 20 to 23. Among those who were aged 20 to 29 at the time of the study, the percentage adopters were the highest for those who married early (at age of 15 or early). Among the women who were aged 30 to 39, those who married at ages 16 to 19 accepted family planning in a higher proportion than others. Again, among those who were aged 40 and more, the adopters were high for those who married at ages 16 to 23. In the rural areas (Table 2) among all ages, nearly one in five accepted family planning whose age at marriage was 23 or lower. Among those aged 20 to 29 and also 30 to 39 the percentage of accepters was the highest for those married early (at age 15 or early). However, among those aged 40 or more, the accepters was the highest for those who married at ages 20 to 23. These indicate that there is no clear association between age at marriage and acceptance of permanent methods of family planning. This may suggest that family planning was adopted after begetting a fixed number of children, whatever be their age at marriage.

TABLE I: AGE AT MARRIAGE. CURRENT AGE AND ADOPTION OF PERMANENT FAMILY PLANNING METHODS; URBAN AREA

Age at Marriage (years)	20-29		30-39		40+		Total	
	No. adopters	%	No. adopters	%	No. adopters	%	No. adopters	%
Upto 15	325	37.8	402	49.8	657	21.5	1384	33.5
16-19	1140	24.2	937	56.5	1002	31.2	3079	36.3
20-23	516	21.3	468	47.0	480	31.5	1464	32.9
24+	91	7.7	201	31.3	150	26.0	442	24.6
All Ages	2072	24.9	2008	50.4	2289	28.3	6369	34.1

Note: There was only one adopter among the 152 women aged 15-19.

TABLE 2: AGE AT MARRIAGE, CURRENT AGE AND ADOPTION OF PERMANENT FAMILY PLANNING METHODS: RURAL AREA

Age at Marriage (Years)	Current Age							
	20-29		30-39		40-49		Total	
	No. adopters	%	No. adopters	%	No. adopters	%	No. adopters	%
Upto 15	481	27.2	721	36.8	1230	12.4	2432	22.6
16-19	1259	18.3	1081	34.2	1237	15.7	3577	22.2
20-23	403	12.4	375	33.6	496	20.6	1274	21.8
24+	28	0.0	59	18.6	69	14.5	157	13.4
All Ages	2172	18.9	2236	34.5	3032	15.1	7440	22.0

Note: There was only one adopter among the 243 women aged 15-19.

The mean number of children ever born was considered as the measure of fertility. In the rural area it was 4.1 for those who accepted family planning and 3.9 for those who did not. In the urban area it was 4.1 for those who accepted family planning and 3.1 for those who did not. There was no difference in the number of children ever born between the rural and urban areas among those who adopted family planning.

The analysis of variance carried out for the number of children ever born with age at marriage and current age for accepters of family planning showed that the age at marriage and current age were significant ($P < 0.001$) in determining the mean number of children ever born. This was true both in the rural and urban areas. Similar analysis of variance for nonadopters of family planning also indicated that age at marriage as well as current age were significant in determining the mean number of children ever born $P < 0.001$.

In order to examine the relative influence of age at marriage and family planning acceptance on fertility, multiple classification analysis was done (Andrews *et al.* 1973; Roy and Rao 1985). In these analyses, age at marriage (taken in smaller intervals) and family planning adoption were taken as main effects and current age of women was considered as covariate. The results given in Table 3 show that even after adjusting for family planning adoption and current age, those who married early had more number of children compared to those who married late. There is a good gradation in fertility over age at marriage. Those who married after 25 years had two children less than those who married at 13 or earlier.

An important finding is that there is a large differential in fertility over age at marriage compared to family planning acceptance. This is also confirmed by the level of beta coefficients which give an indication of relative influence of the factors considered in the analysis. The beta of the age at marriage was higher than that of family planning adoption. So the influence of family planning on the number of children ever born is lower than the influence of age at marriage even after adjusting for current age. This is true in both the rural

TABLE 3: MULTIPLE CLASSIFICATION ANALYSIS OF CHILDREN EVER BORN (C.E.B) WITH AGE AT MARJUAGE AND FAMILY PLANNING (PERM.) AS MAIN FACTORS AND CURRENT AGE ASCOVARIATE

Variable	Urban			Rural		
	N	Unadjusted	Adjusted	N	Unadjusted	Adjusted
Age at Marriage						
<=I3	288	5.0	4.0	827	5.2	4.5
14-15	1114	4.3	4.0	1712	4.4	4.3
16-17	1610	3.7	3.8	2113	3.9	4.1
18-19	1545	3.3	3.5	1600	3.5	3.8
20-21	1086	3.0	3.0	986	3.4	3.4
22-23	423	2.4	2.5	288	3.1	3.0
24-25	286	2.2	2.2	105	2.8	2.6
26+	169	2.0	1.7	52	2.6	2.2
(Beta)			(.26)			(.18)
Family Planning Adoption						
Yes	2224	4.1	4.1	1643	4.1	4.3
No	4297	3.1	3.1	6040	3.9	3.8
(Beta)			(.20)			(.09)
Adjusted R squared			.394			.382

and urban areas. Therefore increase of age at marriage should be advocated more vigorously for faster reduction in fertility.

Action Recommended

Raising age at marriage can be considered on par with family planning for reduction of fertility. Although there is a law regarding age at marriage it has its own limitations (Srinivas 1977 and Pathak 1980). This will also lead to better health of the women. It is important to create social awareness of the relationship between health and early age at marriage. For the current generation of parents who are the decision makers of their daughter's marriage, it has to be done through special health and social education. By getting formal education a girl spends more time at school and prepares herself for a job which will provide security for her future. This will also help her to get a higher quality husband. The need for education of girls up to high school level should be emphasized to the parents. Either separate schools for the girls or separate section for girls (in co-education schools) should be available in each group of villages for the girls. In Tamil Nadu (area under study) most villages are linked with a town through government or private bus service. If the same services are diverted slightly to make

one trip to a high school, at school timings, then the girls in the villages can go as a group in these special trips, make use of the school available in nearby village or town and come back safe thus relieving the anxiety of the parents.

It is found in no uncertain terms that many girls in rural areas get married early because they have nothing to do and nothing to contribute to the family economy and their value to the family is low till they get married and this state aggravates when the girls drop out of school.

Meaningful employment of girls will bring some monetary benefits to the family. Many social service agencies start centers for the unmarried girls to get training in some crafts and earn a little. That enhances their value and status at home. Such training should also be geared to modern sector of economic activity. For example, the girls may be given training on repairing of transistor radios or clocks and watches. Now there is no family in the village without access to a transistor radio or a wrist watch. When the number mounts up the necessity of repair of such articles also increases and the girls in the villages can set them right. Additionally, an agent can collect the defective radios from a collection centre in the town, take them to villages for the girls to set right.

All schools for girls should be staffed by women teachers, preferably women of that locality. This will not only help the women to get employment as teachers, but also set up a model for other girls in the villages bringing demonstration effect. National Population Policy and National Health Policy should have these aspects clearly spelt out and necessary measure should be brought about both at the Centre and the State level to carry out these. Above all, Government and Non-Governmental social service organizations should be encouraged to work towards these aspects aiming to make a big dent on early age marriage.

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