

Fertility and the Influencing Factors Among the Kolams

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ABSTRACT An attempt has been made to determine the extent of contribution of various biological and socio-economic factors respectively, when taken together in explaining the fertility variance among the Kolams. The dependent variable is the number of live-born children and the independent variables in the present study are: Present age of the mother, Age at menarche, Age at first conception, Type of marriage, Experience of infant death in any or both of the two birth orders, Family type, Tobacco chewing, Per capita annual income, and Use of birth control measures. All the above mentioned parameters collectively explained upto 55% of the variance in fertility. Further, each of the above contributions was statistically significant.

INTRODUCTION

The study of human fertility is of paramount importance in demographic studies. The fertility pattern observed in a population is a mixed phenomenon of biological, social & cultural variables. The biological factors like heredity, health, age and ovulation cycle may influence the fertility potential of a population to a considerable extent. Apart from this various socio-cultural factors like education, occupation, birth control methods may have their own spheres of influences on the fertility rate. In present study on the Kolams of district Adilabad, Andhra Pradesh, different fertility rates have been taken into consideration to find out birth rates in the population. Also major factors affecting the fertility rate have been taken into account.

MATERIALS AND METHODS

The questionnaire that was pretested and modified during the pilot study was used to collect the data pertaining to demographic parameters namely, age, sex, age at menarche, age at marriage, age at different live births, age at menopause, type of marriage, education, economic status, marital status, occupation, family planing, etc. The ego in the present study was ever-married Kolam woman. Demographic ratios and rates were calculated using the standard techniques. (Barclay, 1958). A multivariate analysis was carried out using SPSS (Statistical Package for Social Sciences) computer programme for the factors influencing fertility among the Kolam women.

RESULTS AND DISCUSSION

The fertility indicators of the Kolams are shown in table 1 and are all higher than the corresponding values for different other populations. One of the reasons for these higher fertility rates could be the 0% literacy level in the present population.

Factors Influencing Fertility – A Multivariate Analysis

An attempt has been made to determine the extent of contribution of various biological and

Table 1: Distribution of some Fertility Indicators among the Kolam Women

Name of the population	Child women ratio	Crude Birth Rate	General Fertility Rate	Total Fertility Rate	Reference
Kolams	818.68	40.80	191.78	6.33	Present study
Andhra Pradesh	NA	27.90	112.00	3.40	Census, 1991
India	NA	32.70	138.00	4.30	Census, 1991
Rural India	547.89	30.00	144.00	3.80	SRS, 1998

NA: Not available

socio-economic factors respectively, when taken together in explaining the fertility variance among the Kolams. The dependant variable is the number of live born children and the independent variables considered in the present study are – (i) Present age of the mother (ii) Age at menarche (iii) Age at marriage (iv) Age at first conception (v) Type of marriage (vi) Experience of infant death in any or both of the first two birth orders (vii) Family type (viii) Tobacco chewing (ix) Per capita annual income, and (x) Use of birth control measures.

The results of the above-mentioned analysis are shown in table 2.

Table 2: Stepwise Regression Analysis of factors influencing fertility among the Kolams

Step number	Variable selected as per the order of importance	R Square [% of variance explained]	Significance of contribution of the factor [P value]
1	Present age	39.00	<.0000
2	Age at first conception	46.00	<.0000
3	PCAI	52.00	<.0000
4	Infant death experience	53.00	<.0138
5	Tobacco chewing	54.00	<.0235
6	Family type	54.50	<.0253
7	Type of marriage	55.00	<.0309
8	Use of BCM	55.60	<.2044
9	Age at menarche	55.70	<.3150
10	Age at marriage	55.80	<.4711

Upto 39% of variance of number of live born children is explained by the present age, 7% by age at first conception, 6% by percapita annual income, 1% by the experience of infant death in any or both of the first two birth orders, 1% by the habit of tobacco chewing, and 0.5% each by family type and type of marriage. All the above-mentioned parameters on the whole explained unto 55% of the variance in fertility. Further, each of the above contributions is found to be statistically significant (Table 2).

The variance explained by the birth control measures is found to be only 0.6% followed by that of the age at menarche (0.1%) and the age at marriage (0.1%). All these three parameters however are not found to make a statistically significant contribution in explaining the fertility

variance among the Kolams.

Thus the lower age at first conception, lower income, experience of infant death in any or both of the first two birth orders, nuclear family type and consanguinity are found to significantly increase the fertility among the Kolams, besides the present age of the mothers. Surprisingly age at marriage, let alone age at menarche and the use of BCM are not found to influence fertility of Kolams to any significant level. However the tobacco chewing habit of the mothers is found to significantly reduce the fertility of these women.

Hence population planners need to make efforts for bringing down the infant mortality and increasing the percapita annual income and the age at first conception in order to reduce the fertility in this population. But little can be done about the family type or the consanguinity as the family type and consanguineous marriages are deeply embedded in the social system of this tribal population. However, despite the tobacco chewing habit reducing the fertility, the health welfare workers do need to abolish this too, for health reasons, other than fertility.

It is alarming to note that the use of birth control measures is not influencing the fertility in the desired direction. Very special efforts are to be made by the family welfare planners to make the use of birth control measures effective in a population where the people are invariably resorting to it after having had given birth to many children. Here it may be pointed out that if the use of BCM is advocated right after marriage, it is likely to increase the age at first conception, which is found to significantly influence the fertility, besides they also have to identify other than the above factors that may explain the remaining 44% of variance of fertility.

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