Mutharayappa, R.: Factors Affecting Fertility Among Tribals. Man & Development. Dec 1994. 16(4).p.63-79.

Factors Affecting Fertility Among Tribals

R. Mutharayappa

Though fertility is a biological phenomenon there are a number of other factors influencing the levels and differentials of fertility among tribals. Demographers usually measure the fertility differentials by looking at such dimensions as land, income, occupation, education, family type, etc., of women. It is understood that some of these variables are not relevant for the tribal population. Because, tribals usually own very meager assets and most of them work in traditional occupations and the majority of them are below the poverty line. When such is the situation, measuring fertility differentials using these variables for tribals may not provide good insights. Therefore, here we are measuring fertility differentials of Jenu Kuruba and Kadu Kuruba tribal women by looking at their cultural practices. The cultural factors always indirectly alter the fertility of a tribal woman.

The Jenu Kurubas and Kadu Kurubas are two different endogamous tribal populations living in similar ecological settings. The social structure, economic organization and cultural identity of these two groups have helped to identify them as primitive tribes in Karnataka. However, because of their social and cultural diversities and economic disparities in their ways of life, it is interesting to study the factors related to fertility behavior among these two tribal groups.

The main objectives of the present study is to understand the factors effecting fertility among, Jenu Kuruba and Kadu Kuruba tribes of Karnataka. An attempt has been made to present some of the cultural factors, such as age at marriage, multiple marriage, type of marriage and ways of acquiring a mate in relation to the fertility behavior of tribal women. Such social factors as education and family-type related to fertility have also been considered. For highlighting. These dimensions we have relied mainly on primary data.

The area selected for the present study is Heggadadevanakote taluk of Mysore district. Heggadadevanakote has a large concentration of tribals; the majority of them belong, to Jenu Kuruba and Kadu Kuruba tribes. There are 77 villages in Heggadadevanakote where Jenu Kuruba and Kadu Kurubas live. For selecting the sample, these villages have been categorized into high, medium and low concentration of tribal population villages. The data and information have been collected from 1,200 tribal households (600 Jenu Kuruba and 600.Kadu Kuruba)

belonging to three categories of villages A total of 1,133 ever married (564 Jenu Kuruba and 569 Kadu categories Kuruba) women where identified for in-depth interviews. The data were collected with the help of a structured interview schedule.

Generally, fertility among tribals is high and varies from one tribe to another. According to Majumdar (1947) economic conditions are largely responsible for these variations. During the course of his field studies, he collected information on children ever born and children surviving among six tribes. His estimates suggest high fertility among tribals (for instance, Ho 6.2, Oraon 6.0, Kuki 6.5, Khond 7.2, Taru 6.6 and Saora 5.7). Evidences of high fertility among tribals have also been noticed in another study in Bihar. Verma (1977) estimated that the average number of children born to ever-married women aged 45-49 years as 6.96 among Santhals and 6.33 among Birhor tribes. However, there are a few studies showing that the average number of children born to ever-married females of post-child bearing ages is less than five. The reason for the relatively lower fertility among tribes are varied. Nag (1973) reported that the average number of children born to ever-married women among Khasis was 4.8, among Oraon's of Bihar 4.0 and among Khond's of Orissa 3.7.

The fertility performances of Jenu Kuruba and Kadu Kuruba women are provided in Table [1]. It shows that the Jenu Kuruba have a crude birth rate of 36.8 per l000 population and the Kadu Kurubas 38.4. The crude birth rate of Jenu Kuruba and Kadu Kuruba tribes compared to that of the sample Registration System (SRS) estimated crude birth rate of Karnataka State (29.0 per 1000 population) as a whole, is relatively high. It is higher even than other tribal populations in Kamataka such as the Koragas (36.0 per 1000 population) (Reddy et al., 1984).

General fertility rates and the mean number of children born to ever-married women aged 15-49 years among these tribals show that Kadu Kuruba women have a relatively higher fertility than Jenu Kuruba women.

The fertility performance of a woman varies according to the age of the mother and her duration of married life. If the duration of marriage increases beyond 20 years,

Table 1: Fertility Rates of Jenu Karuba and Kadu Karuba Tribes of Karnataka and General Population

	Crude Birth Rate (per 1000 Population)	General Fertility Rate (per 1000 Women of	Mean No. Of Children Ever Born to Women	Source

		reproductive Age)	Aged 15-49 Years	
Jenu Karuba	36.8	210.0	3.8	Present Study
Kadu Karuba	38.4	212.5	4.5	Present Study
Karaga	36.0	132.4	3.4	Reddy et al 1984
Soliga	44.7	188.0	-	Reddy et al 1983
Karnataka General Population	29.0	-	-	Sample Registration System

in non-contraceptive societies women may give birth to more children. Generally, fertility is higher among women of the older age group than in the younger age group. This is true of Jenu Kuruba and Kadu Kuruba tribes. It is evident from the data provided in Table 2 that as the age of the mother increases the fertility of a woman also increases among both the tribal groups. However, the difference of fertility levels in each age group between the two tribes is large. For instance, among Jenu Kurubas, women in the age group of 45-49 years had 6.5 live births. On the other hand, Kadu Kuruba women in the same age group had 8.1 live births. Similar fertility differentials between the two tribes can be observed in other age groups as well. The reason for slightly lower fertility among Jenu Kuruba women is attributed to the traditional contraceptive practices prevailing among them.

Table 2: Children Ever-born per Women by Age at Marriage and Current Age of Mother Among Jenu Kuruba and Kadu Kuruba Tribes

Current Age Of Mother	**Jenu Karuba Age of Marriage**						**Kadu Karuba Age of Marriage**					
	12	**13**	**14**	**15**	**16+**	**Total**	**12**	**13**	**14**	**15**	**16+**	**Total**
15-19	0.6	1.6	1.3	1.0	0.5	1.0 (73)*	0.6	1.5	1.4	1.2	0.8	1.1 (67)
20-24	3.0	2.5	2.5	2.0	1.2	2.2 (146)	3.1	2.6	2.4	1.8	1.6	2.3 (143)
25-29	0.0	4.2	3.5	3.0	2.4	2.6 (132)	4.9	4.3	3.8	3.2	2.0	3.6 (135)
30-34	4.7	5.7	4.9	4.5	3.8	4.7 (71)	5.8	5.7	4.2	4.0	3.8	4.7 (78)
35-39	7.0	4.8	4.6	4.5	4.4	5.0 (60)	7.8	6.2	5.2	4.2	4.0	5.4 (64)
40-44	0.0	6.3	5.8	5.8	8.0	5.1 (42)	7.9	7.2	7.0	6.1	5.9	6.8 (54)
45-49	9.0	6.9	5.0	5.8	6.0	6.5 (42)	9.8	9.8	8.3	5.9	6.0	8.1 (28)
Total	3.4	4.5	3.9	3.8	3.7	3.8	5.7	5.3	4.6	3.9	3.4	4.5

	(13)	(192)	(152)	(128)	(79)	(564)	(13)	(134)	(210)	(127)	(85)	(569)

*Figures in the parentheses are the absolute numbers of mothers in the respective age groups.

't' calculated value is 5.787. Indicates that mean children ever born to women in two tribes are statistically different.

Note: 't' calculated value is significant when it is greater than 't' critical value (1.96) at five per cent level of significance.

Most of the studies conducted both among tribes and non-tribes have shown that there is a direct relation between age at marriage and fertility. This is because; age at marriage marks the beginning of the social and biological entry of the woman into married life in most societies. Dandekar (1961) writes that "important among factors that determine the level of human fertility are exposure or non-exposure to pregnancy through marriage. The exposure begins evidently with age at marriage." According, to Busfield (1971) age at marriage varies considerably among, different cultural groups. Further, he feels that the selection of mate with different characteristics in the different cultural groups leads to differences in family size rather than age at marriage.

There are some studies conducted on tribes, which indicate higher fertility among women who marry early than those who marry late. For instance, in the Yanadi tribe of Andhra Pradesh, women marrying at the age of 14 had 4.6 mean live births, whereas women who married at the age of 18 and over had 3. 3 mean live births (Gurumurthy, 1984). Among Jenu Kuruba and Kadu Kuruba tribes too the differences in age at marriage result in significant differences in fertility. Data provided, in Table 2 clearly indicate that ever-married women aged 45-49 years who married at the age of 12 had 9.0 live births in the Jenu Kuruba tribe. On the other hand, the ever-married women in the same age group who married at the age of 16 years and over had 6.0 live births. Similar is the situation in the Kadu Kuruba tribe. The fertility difference between women who married at the ages of 12 and 16 is large. Women in the older age group always had a tendency to have more births than younger women. The difference between two tribes on completed fertility is slightly large.

When the duration of marriage is controlled, age at marriage shows a relationship with fertility of women in the older age cohorts. Data provided, in Table 3 clearly show that as the age at marriage increases the fertility of a woman decreases. On the other hand, as the duration of marriage increases the tendency of women to give more births increases among both the tribal groups. The hypothesis of higher the age at marriage greater the depressing fertility has been

confirmed even among such primitive peoples as the Jenu Kuruba and Kadu Kuruba tribes. However, among Jenu Kuruba women, marrying at the age of 12, the mean values fluctuate because of the small sample size in that age group (Fig. 2 **Figure is missing**).

Table 3: Mean Number of Children Ever Born per Women by Age at Marriage and Duration of Marriage among Jenu Kuruba and Kadu Kuruba Tribes

Age at marriage in years	Jenu Kuruba				Kadu Kuruba			
	Duration of Marriage and Mean No. of Children				Duration of Marriage and Mean No. of Children			
	Upto 10 Years	11-20 Years	21+ Years	Total	Upto 10 Years	11-20 Years	21+ Years	Total
12	2.0	3.3	5.0	3.4 (13)*	3.8	5.4	8.1	5.7 (13)
13	1.9	4.6	7.0	4.5 (192)	3.0	5.0	7.9	5.3 (134)
14	1.9	4.0	6.0	3.9 (152)	2.9	4.6	6.5	4.6 (210)
15	1.8	3.9	5.9	3.8 (128)	2.0	4.2	5.6	3.9 (127)
16+	1.6	3.7	5.8	3.7 (79)	1.6	3.7	5.0	3.4 (85)
Total	1.8 (223)	3.9 (193)	5.9 (148)	3.8 (564)	2.6 (210)	4.5 (213)	6.6 (146)	4.5 (569)

*Figures in the parentheses are the absolute numbers of mothers.

In recent years, the effect of education, especially among females, has been recognized as a major factor that effect the age at marriage and fertility. However, the degree and direction of the effect of education on fertility among tribes needs a more detailed analysis. A few studies have examined the impact of education on fertility in a casual model. Such studies have mostly considered education as an alternative to marriage. For instance, among Zemi tribal women of Nagaland (Bhowmik et. al., 1971), Yanadi tribal women of Andhra Pradesh (Gurumurthy, 1984), women in the rural hills and rural plains of Karnataka (UN Mysore Population Study, 1961), etc. Among Jenu Kuruba and Kadu Kuruba tribes education has not shown any significant reduction in fertility even though a declining trend is visible. This is because the level of education among these tribes is very low, as low as less than middle school level. When we controlled the duration of marriage with education, a trend of fertility decline was visible. However, this trend of decline may not be considered because of the small sample size of literate women.

Several micro level studies have indicated that pro-natal values are more dominant in extended families than in nuclear families, because children are considered an economic asset in terms of family labor and old age security in the extended families. The second factor influencing the family type is the influence of mother-in-law. The mother-in-law often reinforces traditional high fertility values and is opposed to any attempt on the part of the daughter-in-law to restrict fertility. Contrary to this, Nag (1974) compared the fertility level by dominant family types in 41 non-industrial societies, and found no evidence having extended families of higher fertility in societies than nuclear families. Further, he suggested that women in extended families have less frequency of sexual intercourse, than those, in nuclear families owing to lack of privacy and to the kinship pressure for observing the periods of abstinence more strictly. Similarly, among Zemi tribals of Nagaland with 54.8 per cent simple type families, the mean number of live births was 4.51 (Bhowmik et. al., 1971). However, among Jenu Kuruba and Kadu Kuruba tribes, slightly higher fertility was noticed in the extended families than in nuclear families. For instance, Jenu Kuruba tribal women belonging to nuclear families had 3.8 live births and those belonging to extended families had 4.0 live births. On the other hand, in the Kadu Kuruba tribe women living in nuclear families had 4.0 live births and those living in extended families had 5.2 live births. When the duration of marriage is controlled, women in the extended families are seen to have more live births than women in nuclear families. However, the fertility differential between the two tribes, both in nuclear families and extended families, are large. These data are shown in Table 4.

Table 4: Mean Number of Children Ever Born per Women by Type of Family and Duration of Marriage among Jenu Karuba and Kadu Karuba Tribes.

Family Type	Jenu Kuruba				Kadu Kuruba			
	Duration of Marriage & Mean Number of Children				Duration of Marriage & Mean Number of Children			
	Upto 10 Years	11-20 Years	21+ Years	Total	Upto 10 Years	11-20 Years	21+ Years	Total
Nuclear Family	1.7	3.8	5.9	3.8 (549)	2.3	4.0	6.0	4.0 (470)
Joint Family					2.6	4.2	6.8	4.5 (55)
Extended Family	1.9	4.1	6.0	4.0 (15)	3.2	5.4	7.1	5.2 (44)
Total	1.8 (223)	3.9 (193)	5.9 (148)	3.8 (564)	2.6 (210)	4.5 (9213)	6.6 (146)	4.5 (56)

Use of Ethno-Medicines

Family type has played a very important role in determining the fertility behavior of women among these tribes. This is because, the majority of them belong to nuclear families and many of the Jenu Kuruba and Kadu Kuruba women in nuclear families are beginning to adopt the spacing method (temporary method) or have already adopted the traditional permanent method of family planning, by using such ethno-medicines as herbs, leaves and roots. Since these tribes are in the forest they have much expertise in making indigenous medicines. In the extended families, because of less freedom and more kinship pressure, many of the women are not able to adopt any contraceptive method or use medicines.

As we have stated earlier, marriage among Jenu Kuruba and Kadu Kuruba tribes is a social union and a secular affair controlled by the sexual gratification of the couples. The kinship network is not enduring among them. Parents have very little control over children after they become adults. There are several instances where older men and women elope with young boys and girls. When such is the situation obtaining, relevant information on the number of children born to women from each husband would be difficult to secure. However, every possible care has been taken to probe and get as much accurate information as possible from women who have married more than once.

The mean number of children born to a woman has been computed taking into account all the children that she had had irrespective of the number of husbands. As expected, as the number of marriages increases correspondingly with the increase in the duration of married life, the chances of women giving birth are more. For instance, women who married more than once (twice) had 7.6 mean children among Jenu Kurubas and 8.1 mean children ever-born among Kadu Kurubas with more than 21 years of married life. On the other hand, women who married more than once with less than 10 years of married life had 2.6 and 3.2 mean children ever born in Jenu Kuruba and Kadu Kuruba tribes, respectively. These data are shown in Table 5. When the duration of marriage is controlled, higher fertility is noticed among women in the middle and older age cohorts than younger women even among those who married once in their lifetime. Another interesting aspect brought out in Table 5, is that even though both Jenu Kuruba and Kadu Kuruba tribes live in similar ecological conditions, their fertility rates differ in every duration of marriage age cohort. The differences in fertility rates between the tribes might be attributed to the expertise among Jenu Kurubas in using indigenous medicines as contraceptives.

Table 5: Mean Number of Children Ever Born per Woman by Multiple Marriages and Duration of Marriage among Jenu Karuba and Kadu Karuba Tribes.

No. of Marriages	Jenu Kuruba				Kadu Kuruba			
	Upto 10 Years	11-20 Years	21+ Years	Total	Upto 10 Years	11-20 Years	21+ Years	Total
Once	1.1	3.0	4.2	2.7 (420)*	2.0	3.1	5.2	3.4 (479)
Twice	2.6	4.9	7.6	5.0 (144)	3.2	6.0	8.1	5.7 (90)
Total	1.8 (9223)	3.9 (193)	5.9 (148)	3.8 (564)	2.6 (210)	4.5 (213)	6.6 (146)	4.5 (569)

*Figures in the parentheses are absolute numbers of mothers.

The marital reproductive duration varies among Jenu Kuruba and Kadu Kuruba tribes because of frequent divorce and separation. The duration of marriage was computed by taking into account the period of break in marital union with first and second husbands. However, it was found that the average gap between first and second marriages was 2.8 months, in the case of divorced women and 1.6 years in the case of widows among Jenu Kurubas. On the other hand, among Kadu Kurubas the gap was 6.8 months in the case of divorced women and 2.4 years in the case of widows. The large difference in gap between the end of the first marriage and the beginning of the second marriage between the two tribes might be attributed to the flexible marriage norms of the Jenu Kurubas. For the purpose of analysis the duration of married life of women was computed by taking into account together the periods spent with the first and second husbands, and then divided into three categories, viz., upped 10 years, 11 to 20 years and 21 years and above.

Several physical anthropological studies have shown that consanguinity does not affect reproductive performance of women. However, some studies indicate that as the degree of consanguinity increases the reproductive wastage of women also increases (Hug, 1988), [Hug and Rakshit, 1975] . Among Jenu Kuruba and Kadu Kuruba tribes measuring the degree and direction of consanguinity would be difficult because of their frequent divorce and second marriage. The Jenu Kuruba and Kadu Kuruba tribes prefer marriage within kin groups. However, an attempt has been made to compute the fertility performance of women by type of marriage. Data provided in Table 6 clearly indicate that fertility is slightly higher

in the consanguineous groups than in non-consanguineous groups both among Jenu Kuruba and Kadu Kuruba tribes. The slightly higher fertility noticed among the consanguineous group might be because of the lower age at marriage among them. Another interesting feature revealed in Table 6 is that within consanguineous and non-consanguineous groups in both the tribes, higher fertility is noticed among women who married more than once. This might be because of the increase in the marital duration of women who married a second time.

Table 6: Mean Number of Children Ever Born per Woman by Multiple Marriages and Type of Marriage, Ways of Acquiring Mates among Jenu Karuba and Kadu Karuba Tribes.

Marriages	Jenu Kuruba Number of Marriages & Mean Number of Children			Kadu Kuruba Number of Marriages & Mean Number of Children		
	Once Married	Twice married	Total	Once married	Twice Married	Total
I. Ways of Acquiring Mate						
(a)Elopement	2.4	4.4	3.4 (352)*	2.9	5.6	4.2 (89)
(b)Arranged	3.1	5.6	4.3 (212)	3.9	5.9	4.9 (480)
Total	2.7 (420)	5.0 (144)	3.8 (564)	3.4 (479)	5.7 (90)	4.5 (569)
II. Type of Marriage						
(a)Consanguineous	2.9	5.2	4.0 (439)	3.8	6.3	5.0 (130)
(b) Non-Consanguineous	2.6	4.9	3.7 (125)	3.1	5.2	4.1 (439)
Total	2.7 (420)	5.0 (144)	3.8 (564)	3.4 (479)	5.7 (90)	4.5 (569)

*Figures in the parentheses are the absolute numbers of mothers.

The method of acquiring mates is another factor influencing fertility in these communities. About three-fourths of the Jenu Kurubas and nearly one-sixth of the Kadu Kurubas acquire mates by way of elopement. The mean number of children ever born to women has been computed by way of acquiring a mate. As expected, women whose first marriage was arranged by parents had a slightly higher fertility than those who married first by way of elopement.

On the other hand, those women who married first by way of elopement and again remarried in the same way had a slightly lower fertility than of arranged

marriages. It was also observed that women married by way of elopement at an earlier age than those arranged by parents. Even though the age at marriage of women by elopement is lower, their fertility is also lower. This might be attributed to the fact that there was a greater possibility of the use of indigenous medicines as contraceptives by them.

The practice of abortion, whether spontaneous or induced, are reported to be widespread in many tribal societies. The rate of abortions is more among tribals among whom pre-martial sex relations are not practiced. In such societies pregnancy arising out of such relations are not considered desirable. Davis and Blake (1956) reported that the majority of pre-industrial societies practice abortions to a considerable extent. But the occurrence of abortions would not come to the knowledge of men. Nag(1962) had selected 41 non-industrial societies for his study. Out of these 13 have been rated high on the scale of frequency of abortions. In another study Gurumurthy (1984) reported that out of 600 Yanadi women 55 had experienced either spontaneous or induced abortions.
The practice of abortions is common among Jenu Kuruba and Kadu Kuruba tribes, particularly among young girls. Out of 564 women in the Jenu Kuruba tribe and 569 in the Kadu Kuruba tribe studied, 116 Jenu Kuruba (20.5 per cent) women and 29 (5.0 per cent) Kadu Kuruba women had either deliberate or spontaneous interruption of pregnancy as can be seen from Table 7. When further investigated during fieldwork among the Jenu Kuruba tribe, 85 women reported that they had had abortions after they married, the remaining 31 women stated that they had had aborted before marriage. Most of the women who terminated pregnancy either before or after marriage used only indigenous medicines. Some women did have knowledge of modern methods of terminating pregnancy, but they had little access to these facilities. The women as a group kept events of abortion secret among themselves, because their men did not like it and could impose punishments.

Table 7: Percentage Distribution of Women by Type of Abortions among Jenu Karuba and Kadu Karuba Tribes

Type of Abortion	Jenu Karuba	Kadu Karuba
Spontaneous	38 (4.9)	11 (1.9)
Induced	88 (15.6)	18 (3.1)
Women Who Have Not Experienced Abortions	448 (79.5)	540 (95.0)
Total	564 (100.0)	569 (100.0)

Induced Abortions Conducted by Older Women

An attempt has been made to gather information about persons attending to abortions and what medicines they used. Induced abortions were mostly carried out by older women, particularly the wife of the tribal medicine-man. She alone knows the use of indigenous medicines for induced abortions.

There are women, particularly young women who have had abortions spontaneously because of malnourishment. They reported that they could distinguish between a spontaneous abortion and menstruation, which occurs regularly. Most of the women said that spontaneous abortions are God's punishment because of immoral activities of the women concerned.

Several studies have indicated that induced abortions might reduce the birth rate even among the tribals. However, among Jenu Kuruba and Kadu Kuruba tribes induced or spontaneous abortions are not reducing the fertility of women, even though a slight, though very negligible, fertility difference can be seen between women who adopted induced abortions and those who did not. This small difference in fertility may not be considered significant because of the small sample size.

Family planning is another factor in fertility reduction. Acceptance of family planning methods varies from tribe to tribe according to their customs and practices.

However, acceptance of family limitations norm is common in tribal societies. There are some studies indicating that the tribals were aware of family planning practices and practiced traditional family planning methods. For instance, Marshall and Polgar (1976) reported that contraceptive practices were prevalent even among food gatherers who practiced traditional family planning methods, such as abstinence, withdrawal, etc. In another study, Sinha (1964) reported that among Santal tribes of Uttar Pradesh, oral medicine and herbs were used for limiting family size. There is evidence of use of family planning methods among Yandi tribes of Andhra Pradesh (Turumurthy, 1984). More than 25 per cent of the Yanadis have accepted different methods of family planning. Contraceptive practices too are prevalent among Jenu Kuruba and Kadu Kuruba tribes. Data provided in Table 8 clearly indicate that more Jenu Kuruba women are using contraceptives, than Kadu Kuruba women. For instance, nearly 54 per cent among Jenu Kurubas and over 30 per cent among Kadu Kurubas have accepted different methods of contraception. Among Jenu Kurubas more of women (40.6 per cent) use indigenous medicines for preventing pregnancies or postponing births. Only 13.2 per cent. of the women use modern contraceptives. On the other hand, among Kadu Kurubas more women (24.8 per cent) use modern methods of

contraceptives. Only 6.8 per cent of the women use indigenous medicines for preventing or postponing pregnancies.

Table 8: Percentage Distribution of Respondents and Mean Number of Children Ever born per Women by Type of Contraceptive Practices among Jenu Karuba and Kadu Karuba Tribes

Method of Contraception Used	Jenu Kuruba				Kadu Kuruba			
	Duration of Marriage				Duration of Marriage			
	Upto10 Years	11-20 Years	21 + Years	Total	Upto10 Years	11-20 Years	21 + Years	Total
I Percentage of Distribution of Respondents:								
1.Indigenous Medicines	13.4 (30)*	45.2 (87)	75.7 (112)	40.6 (229)	4.3 (9)	7.0 (15)	10.3 (15)	6.8 (39)
2. Modern Methods	5.4 (13)	26.9 (53)	6.7 (10)	13.2 (75)	12.8(27)	38.4 (82)	21.9 (32)	24.8 (141)
3. Not Using any Methods	80.8 (180)	27.9 (54)	17.6 (26)	46.2 (260)	82.9 (174)	54.6 (116)	67.8 99)	68.4 (389)
Total	100 (223)	100 (193)	100 (148)	100 (564)	100 (210)	100 (213)	100 (146)	100 (569)
II. Mean Number of Children Ever Born Per Women.								
1.Indigenous Medicines	1.2	2.8	4.1	2.7 (229)	1.9	3.1	4.9	3.3 (39)
2. Modern Methods	1.7	3.5	5.2	3.4 (75)	2.3	4.2	5.8	4.1 (141)
3.Not Using any Methods	2.6	5.6	8.4	5.5 (260)	3.8	6.2	9.1	6.3 (389)
Total	1.8 (223)	3.9 (193)	5.9 (148)	3.8 (564)	2.6 (210)	4.5 (213)	6.6 (146)	4.5 (569)

*Figures in the parentheses are the absolute numbers of women.

't' calculated value is 2.1776. It indicates that mean children born to women by acceptance of type of contraception in the two tribes are significant.

Note: 't' calculated value is significant when it is greater than 't' critical value (2.58) at 1 per cent level of significance.

Large Fertility Differential

The fertility performance of women who use contraceptives have been shown in Table 8. Women who used indigenous medicines to prevent pregnancies had lower fertility than those who used modern methods of contraceptives. Women among both Jenu Kuruba and Kadu Kuruba tribes who did not use any method had higher fertility. However, the observed fertility differential between the two tribes was very large.

For instance women in the Jenu Kuruba tribe who practiced family planning using indigenous medicines had 2.7 mean live births. On the other hand, such women in the Kadu Kuruba tribe had 3.3 mean live births. Similar fertility differences existed between the tribes among women who had accepted modern methods of family planning and also among women who had not been using any method of contraceptives. Several reasons have been put forward for some women not using any type of contraceptives: wanting. a child of specific sex; no one to provide care during operation and later; fear of complications and ill health; and ignorance about the availability of family planning methods, etc.

The indigenous medicines used by the Jenu Kurubas and Kadu Kurubas were roots, herbs, leaves and other ethno-medicines supplied by the tribal people especially women. The type and names of indigenous medicines used for contraception are different from one tribal settlement to another. During fieldwork only one or two women in each settlement were found to have knowledge of these medicines. These women belonged to older age groups, and invariably attended to deliveries and abortions. The indigenous medicines commonly used by these tribes for delaying births (spacing) are: the bark of pungamia glabra, bark of papaya tree (carica papaya) and roots of reeds mixed together with poppy seeds and Bengal gram, ground together, with no water to make a paste which was kept in the open for a night in the dew. The women who wanted to take the medicine had to swallow this paste (pills) on an empty stomach early in the morning for a period of one week before the menstrual period. As a terminal method (permanent method of contraception like vasectomy, tubectomy, etc.), the medicines used by these tribes were the milk of giant swallow wort (calotropis gigantia), menthi leaves (Fenugreek), roots of white yam (dioscorea alata) mixed together with turmeric powder and made into a paste, using a little hot water. According to the tribals this medicine had to be administered after the delivery had taken place for a period of 90 days: However, there have been cases where women practiced this method have not been successful in preventing pregnancy.

Besides using indigenous medicines, a number of women practiced modern methods of contraception. An attempt was made to gather information about the

practice of different modern methods of contraception by these tribals. During the fieldwork, investigations revealed that though many of the tribals were aware of most of the modern methods of contraception, only those women seeking a terminal method came forward to accept modern means.

References

1. Bhowmik, K. L., Chowdari, M K, Ruranjan Das & Chaudari, K K, 1971, "Fertility of Zemi-Women in Nagaland", Institute of Social Studies, Culcutta.

2. Busfield, 1971, "Age at Marriage and Family Size, Social Causation and social selection Hypothesis", Journal of Bio-Social Science, Vol 4.

3. Dandekar K., 1961, "Widow Remarriage in Six Rural Communities in Western India", Proceedings of International Population Conference, New York.

4. Davis, Kingsley and Blake, Judith, 1956, "Social Structure and FertilityNag, Moni, 1974 "Socio-Cultural Patterns Family Cycle and Fertility ", Population Debate, Vol.II.

5. Gurumurthy, G., 1990, Culture and Fertility Behavior of Yanadis, Himalaya Publishing House, Bombay.

6. Hug, F, 1988, "Marriage and its Impact on Demography among two Endogamous Muslim Groups of west Bengal" in Goswamy, BB, Sarkar, J., Danda, D.,(ed) Marriage in India, Anthropological Survey of India, Culcutta.

7. Hug__, F and Rakshit, HK, 1975 "Marriage Distance and Consanguinity in Three Muslin Villages in Murshidabad", in Rakshit, HK, (ed) Bio-Anthropological Research in India.

8. Majumdar, D N, 1947, The Matrix of Indian Culture, The Universal Publications Ltd., Lucknow.

9. Marshall, B John and Steven Polgar, 1976, Culture, Natality and Family Planning (Monograph) Carolina Publication Center, University of North Carolina, Chapel Hill, North Carolina.

10. Nag, Moni, 1962, Factors Effecting Human Fertility in Non-Industrial Societies --A Cross Cultural Study, No.66, Department of Anthropology, Yale University.

11. Nag, Muni, 1973, "Tribal, Non-tribal Fertility Differentials in India", Demography India, Vol II.

12. Nag, Moni, 1974, "Socio-Cultural Patterns, Family Cycle and Fertility", Population debate, Vol II.

13. Reddy PH, Bhattacharjee PJ and Venugopala Rao, MR, 1983, Tribes in Karnataka-A Study of Socio-Economic and Demographic Characteristics of the Soligas, Population Center, Bangalore. 1984, Tribes in Karnataka-A Study of Socio-Economic and Demographic Characteristics of the Koragas, Population Center, Bangalore.

14. Sinha, UP, 1964, "A Comparative Study of the Fertility of the Tribal Laborers of Jamshedpur", Bulletin of the Bihar Tribal Research Institute' Vol. 6, No. 2.

- United Nations, 1961, Mysore Population Study, Department of Economic and Social Affairs, Population Studies No. 34.

15. Verma, KK, 1977, Culture, Ecology and Population (An Anthropo-Demographic Study), National Publishing House, New Delhi.