CHAPTER IV

FERTILITY PATTERN AMONG MARITIME FISHERWOMEN COMMUNITY
An attempt is made in this chapter to study fertility pattern among maritime fishermen community. The objective of the study is to examine the relationship between fertility pattern and demographic variables such as (a) age at marriage, (b) age of the mother, (c) son preference, (d) infant mortality and (e) family structure. Further we intend to examine the relationship between fertility and economic variables such as (a) income levels and (b) employment of wife.

AGE AT MARRIAGE AND FERTILITY

Raising the age at marriage is seen by demographers to be one of the relatively few policy alternatives beyond family planning. That might be able to initiate or accelerate population growth changes on a major scale (Rafiqul Huda Chaudhury, 1982). In this context our data reveals interesting findings. It is found that majority of maritime fisherwomen (36 per cent) have married before they attained 17 years of age, i.e., between 14 to 17 years. This age group is considered as younger age group. However, a sizable percentage (44) have married between 18 to 20 years age and they are considered as older age group.

Among the women who married at younger age group 19 of them have three and less children and 37 women gave birth to four and more number of children. The highest number being eight.
Among the older age group 21 women have given birth to three and less number of children and the remaining 23 women in this group have four and more number of children, the highest number of children being seven.

The above data leads us to hypothesis that the number of children will vary by the age at marriage and the null hypothesis is that the number of children will not vary by the age at marriage. The results of the analysis are presented in Table 9.

The results show that the obtained chi-square value \( (\chi^2 = 1.99) \) is less than the Table value at 0.05 confidence level with one degree of freedom indicating insignificant relationship between age at marriage and number of children. In other words there is no significant relationship between age at marriage and number of children among the maritime fisherwomen.

In other words raising the age at marriage up to 21 years may not affect fertility changes among the maritime fisherwomen.

However, it may be pointed out here that ‘the largest differences exist between women who marry before the age of 30 and those who marry later, the difference being order of one child’ (Agarwala, S.N. 1969). All the
TABLE 9

Age at Marriage and Number of Children

<table>
<thead>
<tr>
<th>Age at Marriage</th>
<th>Number of Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 - 3</td>
<td>4 and above</td>
</tr>
<tr>
<td>14 - 17</td>
<td>(A)</td>
<td>(B)</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>(33.93)</td>
<td>(66.07)</td>
</tr>
<tr>
<td>18 - 20</td>
<td>(C)</td>
<td>(D)</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>(47.73)</td>
<td>(25.27)</td>
</tr>
<tr>
<td>Total</td>
<td>40 (A+C)</td>
<td>60(B+D)</td>
</tr>
</tbody>
</table>

$X^2 = 1.95 \quad P > 0.05 \text{ not significant} \quad df = 1.$
respondents in our study have married well before they have attained the age of 22 years and probably this may be reason for insignificant relationship between age at marriage and number of children. In the light of the above discussion it may be said that to effect fertility changes the age at marriage may have to be extended well beyond 21 years of age.

AGE OF THE MOTHER AND FERTILITY

Age of the mother and fertility is found to be having some relationship. In this context our data reveals some insights. It is found that majority of fisherwomen (57 per cent) are in the age group of below 30 years. This age group is considered as younger generation. However, a sizable percentage (43) women are in the age group of above 30 years and these women are considered as older age group.

Among the women who are in the age group of below 30 years 46 of them have four and less children and 11 women gave birth to four and more number of children. The highest number being six.

Among the older age group 19 women have given birth to four and less number of children and the remaining 24 women in this age group have five and more number of children, the highest number of children being eight.
### TABLE 10

**Age of the Mother and Number of Children**

<table>
<thead>
<tr>
<th>Age of the Mother</th>
<th>Number of Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 – 4</td>
<td>5 and above</td>
</tr>
<tr>
<td>15 – 30</td>
<td>(A) 46</td>
<td>(B) 11</td>
</tr>
<tr>
<td></td>
<td>(80.70)</td>
<td>(19.30)</td>
</tr>
<tr>
<td>31 – 49</td>
<td>(C) 19</td>
<td>(D) 24</td>
</tr>
<tr>
<td></td>
<td>(44.19)</td>
<td>(55.81)</td>
</tr>
<tr>
<td>Total</td>
<td>(A+C) 65</td>
<td>(B+D) 33</td>
</tr>
</tbody>
</table>

\[ X^2 = 14.37 \quad P < 0.05 \text{ significant} \quad df = 1. \]
The above data leads us to hypothesis that the number of children will vary by the age of the mother and the null hypothesis is that the number of children will not vary by the age of the mother. The results of the analysis is presented in Table 10.

The results show that the obtained chi-square value \( (X^2 = 14.37) \) is higher than the table value at 0.05 confidence level with one degree of freedom indicating significant relationship between the age of the mother and number of children. In other words there is significant relationship between age of the mother and number of children among the maritime fisherwomen. It means higher the age of the mother, greater will be the number of children. This is understandable due to the longer period of married life and also due to the fact that these women were married at an early age i.e., well before they have attained the age of 20 years.

SON PREFERENCE AND FERTILITY

Researches on fertility in patriarchal societies with agrarian economy report that preference for son contributes to the larger family size resulting in higher fertility rate, due to a combination of economic social and cultural factors (Freedman and Coombs, 1974, Arnold
et al., 1975). In this context our data on maritime fisherwomen reveals interesting findings.

It is found that majority of women (72 per cent) have preferred to have male children and a small percentage (28) have not preferred to have male children.

Among the women who preferred to have male children, 27 have three and less number of children and 45 women gave birth to four and more number of children. The highest number being eight.

Among the women who have not preferred to have male children 15 women have given birth to three and less number of children and the balance 15 women have four and more number of children. The highest number of children being six.

The above data leads us to hypothesis that the number of children will vary by sex preference and the null hypothesis is that the number of children will not vary by sex preference. The results of the analysis are presented in Table 11.

The results show that the obtained chi-square value ($x^2 = 0.67$) is less than the table value at 0.05 confidence level with one degree of freedom indicating insignificant
### TABLE 11

Number of Children and Son preference

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Son preferred</th>
<th>Son not preferred</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(A)</td>
<td>(B)</td>
<td>(A+B)</td>
</tr>
<tr>
<td>1 - 3</td>
<td>27</td>
<td>13</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>(67.50)</td>
<td>(32.50)</td>
<td>(100)</td>
</tr>
<tr>
<td>4 and above</td>
<td>(C)</td>
<td>(D)</td>
<td>(C+D)</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>(75.00)</td>
<td>(25.00)</td>
<td>(100)</td>
</tr>
<tr>
<td>Total</td>
<td>(A+C)</td>
<td>(B+D)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>28</td>
<td></td>
</tr>
</tbody>
</table>

$X^2 = 0.67 \quad P > 0.05$ not significant \quad df = 1.$
relationship between son preference and number of children. In other words there is no significant relationship between son preference and number of children among the maritime fisherwomen.

In means son preference may not affect the fertility among the maritime fisherwomen. However, it is interesting to note that within the same country i.e., India, evidence of son preference varied greatly. The respondents in our study who have not preferred to have male children are having male and probably this may be the reason for insignificant relationship between son preference and number of children. Another important reason is that the minimization of total occupational hazards at sea by the welfare measures provided by the Government, which enhanced social security among the maritime fisherman community. These measures have greatly reduced the loss of human life and risk of uncertain employment or secondary source of living at sea.

INFANT MORTALITY AND FERTILITY

High infant and child mortality is considered one of the deterrent factors in the adoption of small family size in developing countries because successful reproduction requires high fertility to offset high mortality (Davis 1945,
In other words, couples do not have merely want babies but surviving offspring. A review of historical literature (U.N. 1973) broadly suggests that no country has experienced a substantial decline in fertility without a major decline in mortality. In late 17th century in France, when half of all children died before their fathers died, total fertility was already markedly curtailed. In the late 18th century France when natural fertility was declining rapidly, the infant mortality rate was still 253 per mille (Floramities, 1939). In 1900 when natural fertility was declining rapidly in Germany, there was still remarkably little difference between German and Indian mortality levels (Vare, 1977). On the contrary, there is some evidence of increasing fertility in some countries of Africa and Latin America (Cassen, 1976).

Among maritime fishermen community the crude infant mortality rate is 20.87 for the year 1985. During the period 1985, 11 infant deaths were registered. The total mid-year population of the maritime fishermen community is 327.

FAMILY STRUCTURE AND FERTILITY

The fertility level of society is expected to be influenced by its dominant family structure. It is usually
hypothesized that nuclear family and household structures promote lower fertility than extended or joint household structures. In the developing countries, the great majority of people still live in extended families. The controversial theory of family structure and fertility was generated a lot of empirical studies, particularly at the individual level i.e., using the individual women and her affiliation in a particular family type. However, the findings of studies are inconclusive. Some studies have found nuclear structures to be associated with lower fertility (Freedman, Takeshita and Sun, 1964; Iiy, 1967; Kerkel, 1972; Palmore 1972), while others have found the opposite, or little or no relationship between them (Nag, 1967; Pachra and Malakar, 1967; Mosenu and Stoeckel, 1972; Karin, 1974 and De Vries, 1976).

All the households of the maritime fishermen community of Nypadu village are nuclear families. The average number of live births are 3.63. There is no joint families in this maritime fishermen habitat.

INCOME LEVELS AND FERTILITY

Researchers have brought out that fertility decline is more sensitive to changes in income distribution than are changes in per capita income (World Bank, 1974).
In India, it can be seen that states such as Kerala, Karnataka, Andhra Pradesh and Orissa whose per capita income is low or moderate, but where income distribution is even, exhibit low fertility (Sudhakar Rao, N. 1976). In this context, our findings confirm the above views.

It is found that a small percentage (16) families are in the lower income group and majority of the fisherman families (84 per cent) are in the higher income group.

Among the families in the lower income group i.e., between 0 to 6000 rupees, 11 respondents have four and less number of children and 5 respondents have five and more number of children. The highest number being six.

Among the higher income group families 43 respondents have four and less number of children and the balance 41 respondents have five and more number of children. The highest number of children being eight.

The above data leads us to hypothesize that the number of children will vary by the levels of income and the null hypothesis is that the number of children will not vary by income levels. The results of the analysis are presented in Table 12.
**TABLE 12**

Income Levels and Number of Children

<table>
<thead>
<tr>
<th>Levels of Income</th>
<th>Number of Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 - 4</td>
<td>5 and above</td>
</tr>
<tr>
<td>(Rs.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 - 6000</td>
<td>(A)</td>
<td>(B)</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(68.75)</td>
<td></td>
</tr>
<tr>
<td>6001 and above</td>
<td>(C)</td>
<td>(D)</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>(51.19)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>(A+C)</td>
<td>(B+D)</td>
</tr>
<tr>
<td></td>
<td>54</td>
<td>46</td>
</tr>
</tbody>
</table>

\[ X^2 = 1.87 \quad P > 0.05 \text{ not significant} \quad df = 1. \]
The results show that the obtained chi-square value 
\( x^2 = 1.67 \) is less than the table value at 0.05 confidence 
level with one degree of freedom indicating insignificant 
relationship between the income levels and number of 
children. In other words, there is no relationship between 
the income levels and number of children among the maritime 
fishermen community. This trend is but natural, as the 
distribution of income is by and large very low within 
the community. It means lower levels income distribution, 
however, even if it is, will not affect the fertility changes.

EMPLOYMENT OF WOMEN AND FERTILITY

Gainful employment of women outside home is found to be inversely related to fertility. This relationship has been found to be more pronounced in the industrialised than in developing countries and in urban than in rural areas (Mahadevan, K. I 1979). Our findings in the present study lend support to the above research findings.

It is found that majority of maritime fisherwomen (62 per cent) have employed and a sizeable per cent (38) have not employed. Among the employed women, 16 of them have two and less number of children and 46 gave birth to three and more number of children. The highest number being
### TABLE 13

**Employment of Wife and Number of Children**

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1 - 2</td>
<td></td>
</tr>
<tr>
<td>3 and above</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Employed</th>
<th>Unemployed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>(25.81)</td>
<td>(39.47)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>23</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>(74.19)</td>
<td>(60.55)</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>62</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

\[ x^2 = 2.06 \quad p > 0.05 \text{ not significant} \quad df = 1. \]
sight. Among the unemployed 25 women have given birth to two and less number of children and the remaining 23 in this group have three and more children. The highest number of children being six.

The above data leads us to hypothesize that the number of children will vary by the employment of wife and the null hypothesis is that the number of children will not vary by the employment of wife. The results of the analysis are presented in Table 13.

The results show that the obtained chi-square value ($x^2 = 2.06$) is less than the table value at 0.05 confidence level with one degree of freedom indicating insignificant relationship between the employment of wife and number of children. In other words there is no significant relationship between the employment of wife and number of children among maritime fisherwomen.

It may be pointed out here that the nature of employment of the fisherwomen, is by and large seasonal and subsidiary, unlike the urban and industrial employment, which is more stable. Hence, the insignificant relationship between the employment of wife and number of children among the maritime fisherwomen.
**Crude Birth Rate Among Fishermen Community**

Total population of the maritime fishermen habitat is 527 and the number of live births during the year 1983 is 28. The crude birth rate among the maritime fishermen community is 53.13.

Fertility measures the rate at which population adds itself by births. Human fertility is responsible for biological replacement and for the maintenance of human fertility. Raising the age at marriage is seen by demographers to be one of the relatively few policy alternatives beyond family planning that might be able to initiate or accelerate population growth changes on a major scale. The age at marriage among the maritime fishermen community will not vary the number of children. Women who have married in the age group of 14 to 17 years of having less number of children than those married in the age group of 18 to 20 years. Age of the mother have shown significant relationship with regard to number of children. It means higher the age of the mother, greater will be the number of children. This is understandable and nature aiming to the longer period of married life. In some surveys it was found that hundred per cent of the respondents considered a son as an economic asset. In our study on maritime fishermen community insignificant relationship was found
between number of children and son preference. High infant mortality is considered one of the deterrent factors in the adoption of small family size. The fertility level of a society is expected to be influenced by its dominant structure. It is usually hypothesized that nuclear family and household structures promote lower fertility than extended or joint household structures. There is no joint families among the maritime fishermen habitats.

Increased income is not sufficient condition for rapid economic growth and decline in fertility. Among the respondents of the fishing hamlet it was found that there was not relationship between the income levels and number of children. Gainful employment by women outside home is found to proportionately related to fertility among the maritime fisherwomen. The crude birth rate among the fisherwomen for the year 1965 is 53.13.
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