

FERTILITY PATTERN AND FOETAL/CHILD LOSS AMONG RURAL INDIAN WOMEN

by

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Introduction

High fertility and high foetal/child loss is an important feature in developing countries like India, particularly in the rural areas. High fertility has an adverse effect on maternal and child health, as reflected by high mortality and morbidity among mothers and children. The reverse relationship between the two, is also well documented. Higher the mortality in childhood, infant mortality, the higher will be the fertility rate among women. Decline in infant mortality rate has been found to be associated with lowered fertility rate. Studies on fertility and child loss are scarce in India. The present study attempts to highlight the pattern of fertility and foetal/child loss among rural women, particularly in reference to maternal age.

Material and Methods

The present work was carried out in the area of Rural Health Training Centre (RHTC) Naila to study the fertility

patterns and foetal/child loss among rural women in reproductive age group. The RHTC covers 54 villages of varying population size. Out of these, 8 villages were selected by stratified random sampling based on population of villages. Total 605 women were interrogated. A house to house survey was conducted and a detailed obstetric history was obtained from the eligible women regarding number of conceptions, interval between conceptions, type and mode of delivery, outcome of pregnancy, place and agency of delivery, associated complications if any and utilisation of MCH services during last pregnancy. Information pertaining to socio-cultural, demographic and economic characteristics were also recorded.

Observations

Obstetric history of women revealed an interesting fertility pattern (Table I). The average number of conceptions (pregnancies) showed an increase with the increase in age of women. Average number of pregnancies was lowest, 2.08 among young women in 15-24 year age group. The average number of pregnancies increased to 3.58 in women of 25-34 year age and it was highest, 6.31, among women aged 35 years and above. Similar pattern was seen with average parity i.e. number of living children, being 1.55 in

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TABLE I
Average Number of Pregnancy, Living Children and Foetal/Child Loss in Relation to Maternal Age

	Age of women (Years)		
	15-24 (N* = 106)	25-35 (N = 313)	35 and above (N = 185)
Average No. of Pregnancies	2.08	3.58	6.31
Average No. of living children	1.55	2.75	4.82
Average foetal/child deaths	0.53	0.83	1.49

* N is number of women.

15-24 year age group, 2.75 in 25-34 year age group and 4.82 in women of age group of 35 years and above. It was observed that women aged 35 years and above suffered highest foetal/child loss as compared to younger women. On an average, each mother in this age group experienced 1.49 foetal/child deaths. The women belonging to 15-24 year and 25-34 year age groups had comparatively lower average foetal/child deaths, being 0.53 and 0.83 respectively.

Table II shows distribution of women according to number of children lost in

highest being 77.3 per cent who suffered foetal/child loss. Nearly one fourth of them (24.3 per cent) lost 3 or more children. It was also revealed that nearly half of the women in 15-24 year and 25-34 year age group suffered foetal/child loss. Young women belonging to 15-24 year age group, mostly lost 1 child (36.8 per cent), 6.6 per cent lost 2 children and only 0.9 per cent of women lost 3 or more children. Among women of 25-34 year age, 16.9 per cent lost one child, 20.1 per cent 2 children and 8.6 per cent 3 or more children.

TABLE II
Percentage of Women According to Number of Children Lost in Relation to Maternal Age

No. of children died	Age of women (Yrs.)		
	15-24 (N*=106)	25-34 (N=313)	35 and above (N=185)
One	36.8	16.9	31.9
Two	6.6	20.1	21.1
Three or more	0.9	8.6	24.3

* N is number of women.

relation to maternal age. The proportion of women age 35 years and above, was

Relationship between maternal age and time of child death was also observed. The foetal loss was proportionately highest among young women aged 15-24 years. 6.6 per cent of them had suffered foetal losses. Next to follow this were women aged 35 year and above, of whom 6.4 per cent had foetal losses. The foetal loss was lowest in women belonging to 25-34 year age group. 4.8 per cent of women belonging to this age group suffered foetal loss. Thus it revealed a typical J shaped relationship. Contrary to it, the neonatal and post neonatal deaths showed a rise with the increase in maternal age, both being lowest in women belonging to

15-24 year age and highest in women age 35 years and above.

TABLE III
Percentage of Women Experienced Foetal
Neonatal and Postneonatal Losses in
Relation to Maternal Age

Deaths	Age of women (Yrs.)		
	15-24 (N=106)	25-34 (N=313)	35 and above (N=185)
Foetal	6.6	4.8	6.4
Neonatal	3.7	7.7	10.3
Post neonatal	9.4	13.4	18.9

N is number of women.

Discussion

Foetal and child losses among women in India and other developing countries are pretty high and it is more so in the rural areas. Obstetric history of fertile women in this study has revealed high average foetal/child loss accompanied by high average number of pregnancies. High foetal/child mortality and high fertility are closely associated to each other. With the increase in the average number of pregnancies, an increase in average foetal/child loss was observed. Alike it, average number of pregnancies and average number foetal/child loss was found to increase in another rural study in Madhya Pradesh (Care India, Gopaldas *et al*, 1975). The reverse, i.e. higher the child mortality, the higher would be the fertility is also true. According to latter view, as long as childhood mortality remains high, there is a major psychological barrier to fertility limitation (Frederiksen, 1969 and Omran, 1971). The family formation patterns including family size and desired number of male and female children are greatly influenced by the

child loss experience of individual couples or community (WHO, 1976).

Several factors have been ascribed to high foetal/child mortality such as poverty, poor environmental conditions, poor nutrition, lack of medical care, early marriages, high parity at younger age with short pregnancy interval and maternal age. The latter has a significant influence on outcome of pregnancy in terms of foetal, neonatal and post neonatal loss as also revealed in this study. Either there is a progressive increase in neonatal and post neonatal mortality with the increase in maternal age or it is typical, J shaped pattern as seen in our study. There is an age-band in the fertility span of a woman during which reproductive risks are minimum, the risks progressively increase on either sides of this safe age band exhibiting J shaped, U shaped or reversed J shaped curves (Mehdi *et al*, 1961 and Bajpai *et al*, 1966). In this study, the foetal loss in relation to maternal age revealed a reversed J shaped pattern.

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