

Socio-cultural Correlates of Infant Mortality in a Primitive Tribe

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INTRODUCTION

The level of infant mortality is a sensitive index, not only of health services but also of its social and economic development. Maternal and Child Care (MCH) from the time of conception, to the period, when child reaches one year of age is crucial for the survival of the child. This is vulnerable period, when mother and child, both are exposed to several endogenous and exogenous factors, which influences the health, growth and development of the child.

After 30 years of planning, the infant mortality rate in Madhya Pradesh, has continued to remain high, as compared to other states as well as among the other states of BIMARU category. The Madhya Pradesh constitutes the 23 percent of the population as tribals. There are 46 scheduled tribal groups in the state. Among these six tribes were identified as primitive tribe by the state government in 1984 (Tewari, 1984) later one more tribe has been added to the list of these primitive tribes. The Baigas are one among these primitive tribe group. Elwin in his famous book, *The Baigas*, about the Baigas that Baigas are one of the most ancient, most remarkable and most delightful of the peoples of India. The Baigas live in deep forest, have remained beyond the pale of plan development. Due to undulating terrain, physical barriers like thick forest patches, rivulets and hillocks, the inadequate public health system. Malnutrition of expectant and lactating mother and their strong belief in herbo-medicine man and also in the indigenous pharmacopia, which generally does not allow them to take advantage of scarcity available public health facilities (Fuch Stephan, 1932). Sir Arthur Newsholme said that no fact is better established than that the death rate, and especially the death rate among children, is highly inverse proportion to the social status of the population. The Baiga tribe is one of the few remaining in the central provinces of India that has not been greatly affected by the civilization. Hence it is necessary to see the levels of in-

fant mortality and its socio-cultural correlates in the Baigas of Baigachak.

DATA AND METHODOLOGY

The study area is two blocks of Dindori district, Madhya Pradesh. The data was collected in 1997-98, in a cross-sectional survey for Doctoral dissertation work entitled: A study of socio-cultural determinants of population growth in a primitive tribe- The Baigas of Mandla district. Following random cluster sampling, eleven villages were surveyed. Rapport was established with the inhabitants of the villages with the help of school teachers and forest workers. Information was collected from the each eligible woman by interviewing, regarding their fertility, mortality schedule from 475 eligible women among 480 households.

A woman has been considered as eligible. Where husband and wife both living together and wife has not obtained the age of 50 years/ menopause and she has not undergone the sterilization (Barclay, 1958).

Infant deaths in the households are related to live births during the same period gives the proportion of infant deaths which is several times higher than the infant mortality rate, these infant deaths relate to the cumulative pregnancy histories of the sample. Hence, the results of this study can be interpreted in pointing the differentials only and not as a measure of the IMR for different groups, which is in fact a limitation of the study. The collected data was edited, re-checked with the original questionnaire and then analysed for all variables and appropriate statistical test of significance were applied.

RESULT AND DISCUSSION

The observation showed that the infant mortality, on the basis of three years fertility/mortality record is (134.4) (Verma, 1999) higher than the Madhya Pradesh (92.9) and even higher to other scheduled tribe population of the State i.e. 103.1

(Census, 1997). Looking into high infant mortality levels prevalent in the tribe, some socio-cultural variables have been analysed to study the correlates of infant mortality.

The prevalence of consanguineous marriage was observed higher in the Baiga tribe (69%) (Verma, 2001). The proportion infant deaths among the children of the couples, who married in blood relations was found to be higher (0.114) than the other group of couples, which did not marry in blood relations i.e. 0.098. Though higher, but difference of proportion deaths between two groups was found to be statistically inconsiderable.

Type of household is an important social variable influencing infant mortality. In the study area the proportion of infant deaths among nuclear households was 0.140 which was slightly higher than joint households i.e. 0.096. Showing that type of household is associated with the infant deaths. Though the difference of proportion infant death is statistically inconsiderable.

A study conducted at Dufferin Hospital, Lucknow (Saksena, 1980), revealed that infant mortality rate was higher in nuclear household, and the reasons were attributed to the larger care received by babies in joint household, where there are other members of the household, besides mothers and father to look after them.

As evident from table 1, Annual Household Income possess a inverse relationship with infant mortality, in other words, it can be understood that by an increase in income, which improves the housing and domestic amenities and the health care conditions, hence reduces the infant mortality. Among the household variables, the annual household income is considered as the most important variable, which indirectly influences the infant mortality. The average Annual Household Income in the tribe is 5583.30 $\pm$ 2459.10 (Verma, 1999). For the analysis the Annual Household Income has been divided in two groups. Rs. $\leq$ 9000/- and Rs. $>$ 9000/-. The proportion of infant deaths in the households having annual income $\leq$ 9000/- Rs. was 0.133, which is significantly higher than latter group i.e. $>$ 9000/- Rs. which had proportion of infant deaths as 0.035 (Z = 3.76*; $p < 0.05$).

Similar findings were also observed in Mysore population study (U.N. 1961) and in San

Antonio, Texas (Markides, 1977).

One of the most often used socio-economic variables in the study of infant mortality is the level of mother's education. There are numerous studies showing the maternal education plays an important role in determining the level of infant mortality.

In the study area the proportion infant deaths to the illiterate women was 0.109, which was significantly higher than the literate women i.e. 0.047.

In a cross-cultural study covering eleven countries, the mortality rate of children whose mothers had ten or more years of schooling was only one third to one fifth the rate of children whose mothers were illiterate. (Behm Hugo et al., 1978)

Father's education plays a vital and significant role in reducing the infant mortality. The proportion of infant deaths to the children born to the women whose husband were illiterate was 0.143 which was significantly higher than that of other group i.e. whose husbands were illiterate (0.066). The difference of proportion infant death is statistically considerable.

Table 1: Proportion infant deaths according to social characteristics

S. No.	Characteristics	LB	Prop. Inf. Deaths	Z Statistics
1.	<i>Consanguineous Marriage</i>			
	Yes	898	0.114	1.04
	No	734	0.098	
2.	<i>Type of Household</i>			
	Nuclear	1154	0.140	0.91
	Joint	478	0.096	
3.	<i>Annual Household Income</i>			
	$\leq$ 9000/-	1490	0.133	3.76*
	$>$ 9000/-	142	0.035	
4.	<i>Education of Mother</i>			
	Illiterate	1569	0.109	2.23*
	Literate	63	0.047	
5.	<i>Education of Father</i>			
	Illiterate	1113	0.127	4.13*
	Literate	519	0.066	
6.	<i>Occupation of Mother</i>			
	Agriculture	1119	0.128	4.69*
	Non-Agriculture	513	0.060	
7.	<i>Occupation of Father</i>			
	Agriculture	1081	0.131	5.02*
	Non-Agriculture	551	0.059	

*Statistically significant at 0.05 level.

LB = Live birth

Father's occupation played substantial role in infant mortality. The wives of the individuals engaged in agricultural activities experienced significantly higher infant mortality (0.131) as compared to the other group i.e. who are engaged in non-agricultural activities (0.059).

The infant and child survey revealed that the infant mortality was higher among the women workers engaged in production work than those engaged in agriculture (Infant and Child Mortality Survey, 1979).

In the undulating terrain, least medical facilities available, lack of knowledge, negligence of the women, the analysis showed that the proportion infant death (0.128) is significantly higher among the women engaged in agricultural activities, as compared to the women engaged in non-agricultural activities (0.060).

The data analysis of personnel attending deliveries showed that about 97% of the total deliveries were carried out by Old ladies/Indigenous Dais. For this high percentage of the deliveries attended by the Old ladies/Indigenous Dais, the Baiga attributed it to their prevailing customs laid by their society. Only 2% of the deliveries were attended by ANM/Nurse. A point may be noted that, in 1% of the total deliveries, mother herself carried out the delivery. The proportion infant death among the deliveries carried by the Old ladies/Indigenous Dais was 0.052, whereas no infant death was observed among the deliveries attended by ANM/Nurse (Table 2).

To substantiate the findings, a case study has been made with a recently delivered lady. Ratia bai, 24 years, of Dhurkuta village conveyed about her experience during her recent delivery that-

I was working in the Bari (a kitchen garden attached with the house) when felt the seivour pains (labour pains) I sent my young child of 4 years to call the neighbouring lady and sent a call to Soonmai (A local indigenous Dai). After a

while two ladies came to help me. One lady squatted behind me and gripped my shoulders, whereas the other lady sat in front and put her hands against my thighs on presentation of vertex, immediately she made a gudhri out of my cloths and place it under me, and let the child fall on the gudhri. No one caught the child, the accompanying ladies paid more attention towards me. After while the Soonmai reached and put the cow dung to the umbilical cord of the child. The child died on tenth day, after delivery, due to unknown illness/reasons.

Instrument used to cut the cord is one of the important variable, which influences the infant mortality, use of unsterilized instruments to cut the cord, increases the risk of infant mortality. Among the Baigas, in 84% of the deliveries, the instrument used was sickle and proportion infant death was reported as 0.108, in remaining the *Khapra* (an earthen pot) (8%), stone (3%) and by blade (old/new, which so ever is available) was used. As evident from table 3 that the proportion infant death among the cases where the *Khapra* (an earthen pot) was used to cut the umbilical cord was observed to be 0.153, and the highest proportion infant death was reported among the deliveries, where the stone was used (0.245). A point may be noted here, that negligible proportion of infant death was observed, where the blade was used as an instrument to cut the cord. For the use of sickle or *Khapra* (an earthen pot), they told that Baigas are the son of *Bhumi* (land), hence these things will not harm the Baigas.

Similar findings was also observed in the rural areas of Jammu and Kashmir, in which about 69 percent of umbilical cord were clamped by unscientific instruments. So also the practise of treating the umbilical stump with non-conventional substances (Sharma and Lahori, 1977).

Following verbatism may clear their practice and attitude about instrument used to cut the

Table 2: Proportion infant deaths according to personnel attending delivery

S. No.	Personnel	Deliveries	Infant survivors	Infant death	Prop. infant death
1.	Old ladies	1510	1433	77	0.051
2.	Indigenous Dais	70	66	4	0.057
3.	ANM/Nurse	37	37	0	0.000
4.	Mother herself	15	0	15	1.000

Table 3: Proportion infant deaths according to instrument used to cut the cord

S. No.	Instrument	Deliveries	Infant survivors	Infant death	Prop. infant death
1.	Sickle	1370	1222	148	0.108
2.	Khapra	131	111	20	0.153
3.	Stone	49	49	12	0.245
4.	Blade	82	82	2	0.024

cord.

Phulso bai, 54 years, an indigenous dai of Dhaba village narrates that She has to cover all the four villages, nearby Dhaba. Excepting a few complicated cases, in which she surrenders herself and they go to ANM or elsewhere.

Last week, when a child was born in the village, after cutting the umbilical cord with the Kharpa (an earthen pot), she put the cow-dung on it and after a bath with lukewarm water, two drops of honey was given to the baby for licking. No breast milk is given, since for the first three days after delivery, a semi-liquid comes out, which is not good for health and hence the Baigas discards it. even the child can not swallow it.

Sandhya (1991) also arrived on the same conclusions in two rural districts of Andhra Pradesh.

The analysis of immunization data was carried in the light of low acceptance, non-response, negligence and reluctance of the mothers, and least availability of medical personnel and infrastructure. The proportion infant deaths to the children, which had received the immunization was 0.006. This figure was significantly lower than the other group of children, which did not receive any dose of immunization, i.e. 0.133 ($Z = 9.44^*$, $P < 0.05$). Similar findings was also observed in the suburban area of Mumbai (Ruzicka and Kanitkar, 1973).

SUMMARY AND CONCLUSION

The analysis reveals that the variables such as illiteracy of parents and parents engaged in agriculture related practices, persons married in blood relations, had experienced high infant mortality. This high infant mortality may be attributed to their belief in indigenous unhygienic method of delivery, primitive method of cutting the cord, discarding the colostrum etc.

Since infant mortality is high in the tribe, the health education programme should be strengthened. To improve Maternal and Child Health care service, the stress should be made for safe delivery through trained dais/ANMs. Priority should be given to improve the literacy among the females particularly, this will inturn help them in attaining safe motherhood and will also reduce the prevalence of marriages in blood relations. These efforts will definitely reduce the prevalent high infant mortality in the tribe.

A system of continuous monitoring of various programmes should be developed, without disturbing their socio-cultural norms and values.

KEY WORDS Aborigines. Baigachak. Maternal and Child Health Care (MCH), Proportion Infant Death, Immunization.

ABSTRACT The paper outlines the infant mortality and its social, cultural correlates among the Baiga tribe, which is one of the most primitive, aboriginal tribal group of Central India. The infant mortality rate among the Baigas was 134.4. Annual Household Income, Literacy/ Occupation of parents along with unhygienic system of delivery found to be associated variables.

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