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Socio-cultural and Economic Correlates of Infant Mortality : A case study of Andhra Pradesh

Introduction

I N India, even after 30 years of planning, infant mortality rate (IMR) remains high, as compared to IMRs of the developed and several developing countries. The crude death rate declined from 27.4 during 1941-51 to 14.2 in 1978. Whereas the infant mortality rate declined from 147 to 126 over the same period. This slowness in the decline of infant mortality implies that there are certain socio-cultural factors which play a more important role in determining the level of infant mortality than such factors as public health engineering, control of certain communicable diseases like malaria, cholera, etc. In India nearly 50 per cent of the infant deaths occur during the post-neonatal period (Registrar General, 1981 : 27); this is traceable to exogenic factors related to socio-economic condition of the family and its immediate environment. In the light of these facts, it was decided to undertake a study of the demographic, socio-economic and cultural correlates of infant mortality in Andhra Pradesh.

Objectives

The main objective of this paper is to study the influence of social and cultural factors on infant mortality.[1]

1. This paper forms a part of a bigger study which **is** being carried out to fulfil the requirements for doctoral degree at the Jawaharlal Nehru University, New Delhi.

Sample Selection

For any analysis of socio-cultural and environmental factors that might affect infant mortality, it is necessary to have detailed data that permit cross-classification of infant deaths by the social and cultural background of the household, and the environmental setting of the village. No such data are available from secondary sources in India. Hence, it was decided to obtain primary data by conducting a field survey.

In order to have information on the social and cultural aspects of those households which experienced at least one infant death during the recent past (say within a period of 2 to 3 years, if not just the last year), it is necessary to have atleast 400 to 500 such households. If one has to take a general sample of households from any selected area, this implies, a sample of at least about 27000 households.[3] Since it was not possible to collect detailed data from such a large number of households within the limited time, and with limited monetary resources, it was decided to select only those households which had experienced atleast one infant death in the recent past, that is, over a period of three years from January 1978 to January 1981.

To study the differentials in infant mortality due to environmental and infrastructural variables, the sample was selected from two regions of the State—one developed and the other comparatively less developed. **Based** on Alam's development index for Andhra Pradesh (Alam, 1974 : 96), East Godavari district was selected to represent the developed region of the State, and Medak district was selected to represent the underdeveloped region.

One Primary Health Centre (PHC) was selected from each of the two districts as the first stage unit. From the selected PHC, few sub-centres[3] were selected in such a way that all the villages of the selected sub-centres were included in the sample, and from these villages all those households were taken which had experienced an infant death during the past three years. The decision about the number of sub-centres rested on the number of households in the sample which was decided to be roughly 300 from each PHC. In this process 4 sub-centres were taken from Medak district, and 10 from East Godavari district.

The data were collected from the selected households of the two districts

2- In Andhra Pradesh the birth rate and infant mortality rates were 33.2 and 112 respectively during 1978. This implies that 33.2 live births will take place in a year among 200 households (assuming a family size of 5) with 3.7 infant deaths. Hence for 500 cases of infant deaths we need to cover 27,000 households.

3. In India a Primary Health Centre (PHC) is the one which has a medical officer, two other qualified doctors, one of them being generally a lady doctor, covers a population of about 1,00,000. As the number of villages under PHC is quite large, some times 100 or more, each PHC is divided into 10 or more sub-centres, each covering a population of nearly 10,000 or spreading over roughly 10 villages. Each sub-centre will have one male health worker and one female health worker to render services to the population.

from January 1981 lo April 1981. Data were collected from 21 villages in Medak, and from 11 villages in East Godavari.

Social Background of Sample Population

In the sample of Medak district, 76 per cent of the households were Hindus, 4 per cent Christians, and 20 per cent Muslims (the corresponding percentages in the 1971 census for this district were 85, *4* and II). In East Godavari, 87 percent of the households were Hindus, 7 per cent Christians, and 6 per cent Muslims (the corresponding percentages in the 1971 census for this district were 96, 2 and 2).

The selected population consisted of a number of castes and sub-castes. However, for the sake of analysis, the castes were categorised into three major groups : (i) high castes —Brahmin, Vysya, Kamma, Reddi etc.; (ii) middle castes—Mutharasi, Balija, Devangari, etc.[1] and (iii) low castes—Adi Andhra, Adi Dravida, Arya (mala), Arundhatiya, Jambavulu, Madiga, Mala, Mala Dasari, Mala-jangam (Census of India, 1978 : 49).

In Medak 12 per cent of the households belonged to high caste group, 23 per cent of the households to middle caste, and 65 per cent to low caste. The respective percentages were 35, 11 and 54 in East Godavari.

In Medak 51 per cent of the households belonged to nuclear family type, and 49 per cent to non-nuclear family type.[5] The respective percentages for East Godavari were 80 and 20,

In Medak, 93 per cent of the respondents (mother of the infant died) were illiterates, 4 per cent have primary education and 3 per cent have higher than primary education. The respective percentages for East Godavari were 84, 6 and 10 indicating the poor literacy in the former district

In Medak 54 per cent of the mothers were labourers. 40 per cent were housewives,[8] and 6 per cent were self employed craft workers.[7] In East Godavari the respective percentages were 33, 57, and 9 indicating that in the former district the families depended more often on the income of the womenfolk.

Occupation of father determines the socio-economic status of the household. Based on the similarity of the nature of work different occupations were grouped into six categories. In Medak 35 per cent were agricultural labourers, 7 per

4. The classification of high and middle caste groups is based on normal social recognition.

5. Non-nuclear family—All the other types of families excluding nuclear family i.e. a Conjugal pair and their offspring, sometimes augmented by other individuals.

6. As quoted by Registrar General Labourer whose main economic aclivily is labourer, and also attends to household duties. Housewife whose main activity is attending to household dunes, also engaged oneself in some other economic activity such as helping in famliy cultivation or preparing cowdung cakes at odd times for sale etc.

7. Self employed craft worker—weavers, basket makers, dobi, etc.

cent were self-employed craft workers, 12 percent were blue collar workers, 24 per cent were owner-agricultursits; 11 per cent businessman and 10 per cent white-collars. In East Godavari the respective percentages were 40, 9, 19, 9, 13 and 10-

Socio-economic status (SES) is the combination of various social and economic characteristics which determine llie position of an individual or a group on the social ladder of any community. In India, the initial attempt to develop a socio-economic scale was made by Kuppuswamy (Auluck, 1980 : 43). This scale involves three variables—education, occupation and monthly income. Based on the sum total of the scores against these variables on a 7 point scale, socio-economic status index was prepared,

Socio-economic status scale for the present study was developed with the variables of per capita income of the households, education and occupation of father, and the type of house. The type of house was also included here with the assumption that it reflects the environmental conditions and intrastructurai facilities of the household.

In categorising the respondents into objective composite socio-economic status categories, the following approach was adopted. Firstly, the households are categoriesed into three groups based on the type of house in which they live. Secondly, it is noted that income and educational levels are directly measurable and hence they can be objectively ascertained. As a first step a two dimentional matrix grouping house-holds on the basis of objective measures of their income and educational levels was therefore, prepared for each category of type of house. Then the occupation of the father of the infant died has been noted down in each of the 72 cells. The 72 gradings describing education, occupation, income and type of house have been further regrouped into four socio-economic strata as per Table 1.

TABLE 1—GROUPINGS OF SOCIO-ECONOMIC VARIABLES INTO SOCIO-ECONOMIC STATUS SCALE

Per capita income in Rupees	*Tvpe of house* / *Education* / *Occupation*	*Hut*		*Kutcha*		*Pucea*	
		111.	*Lit.*	*111.*	*Lit.*	*III.*	*Lit.*
< 50	Labourers	1	1	1	2	2	3
	Others*	1	2	2	3	3	4
> 50	Labourers	1	2	2	3	2	4
	Others*	2	3	3	4	3	4

*It includes self employed craft workers, blue-collar workers, own agriculturists, businessmen and white collar workers.

The socio-economic gradations ranged from the households whose place of residence was hut with no educational background, and the occupation of the father was labourer with per capita income of less than Rs 50 to a class of households whose residence is a pucca building with some educational background, higher income and high level of occupation. With the above classification, the households were grouped into four categories of socio-economic status. They are low, middle, upper middle and high.

In Medak 48 per cent of the households belonged to low socio-economic status group, 24 per cent to middle SES, 15 psr cent to upper middle status, and 13 per cent to high SES. The respective percentages for East Godavari are 48, 16, 17 and 19 indicating that the households in the latter district are of comparatively high socio-economic status.

Method of Analysis

The selection of an economically developed and the other less developed was done on the basis of thirty indicators of development (Alam, 1980 : 96). This did not guarantee that the households which had experienced at least one infant death during the reference period in the selected villages also differed in the same way as the two districts. In fact, there were no significant differences in relation to many of the socio-economic characteristics among the selected households of Medak and East Godavari districts (as brought out in the social background). Hence the two samples from Medak and East Godavari were combined for the analysis of socio-cultural factors and proportion of infant deaths. Further, as most sample households from the two districts were of Hindus, religion was excluded from the list of explanatory variables.

Socio-economic and Cultural Correlates of Infant Mortality

It is presumed that caste, type of *family,,* education and occupation of mother and father, socio-economic status, pre-natal care and the type of medical attention at the time of birth are the major socio-economic factors that are likely to influence infant mortality rate in any area. Similarly, infant feeding practices, sex differentials in medical care are the cultural factors that are likely to influence infant mortality rate. The influence of each of the social and cultural factors on infant mortality has been discussed below.

Social Factors

Caste it is hypothesised that lower caste couples will experience higher infant mortality than high and middle caste couples. This may be due to the poor economic status of the former. The difference in the proportions of infant deaths to live births is observed to be non-significant over caste categories (Table 2). Thus the available evidence does not support the hypothesis.

TABLE 2—**PROPORTION** OF INFANT DEATHS **BY** CASTE

Caste	*Infant deaths*	*Live births*	*Proportion of infant deaths*	*Difference*
Low	**379**	**992**	**0.382**	**0 005ns**
Middle	**105**	**278**	**0,377**	**—0.029ns**
High	**156**	**384**	**0.395**	

***ns* : not significant**

Type of Family

The type of family will have an important impact on the life style, food habits, decision making when an infant falls sick to show it to the doctor, etc. So indirectly it influences infant mortality. Based on literature survey the researcher started with the presumption that infant mortality will be higher in nuclear families than in non-nuclear families owing to comparatively lesser care of the new born in the former, especially when the mother goes out for work. Our data (Table 3), however, rejects the basic hypothesis as the same is significantly higher among non-nuclear families as compared to nuclear families. This finding may be due to the process of modernisation which favours nuclear family. The possible reasons for lower infant mortality in nuclear families could be that (i) in non-nuclear families mother-in-law or some other member of the family decides the nature of care at home, or about consulting a doctor when the child falls sick. In contrast, in a nuclear family, the mother or the father decides to consult a doctor without wasting much time in such circumstances, (ii) the level of education of father and mother is higher in nuclear families than in non-nuclear families, (iii) the medical care during delivery will be more in nuclear families than in non-nuclear families. The above reasons were examined one by one in the following paragraphs.

TABLE **3-^pROPORTION OF** INFANT DEATHS BY TYPE **OF** FAMILY

Type of family	*Infant deaths*	*Live births*	*Proportion of infant deaths*	*Difference*
Nuclear	525	*1475*	*0.356*	0.071
Non-nuclear	265	620	0.427	

**Significant at 0.01 level.

TABLE 4—DISTRIBUTION OF HOUSEHOLDS ACCORDING TO DECISION MAKER BY TYPE OF FAMILY

Decision maker	*Type of family*			
	Nuclear		*Non-nuclear*	
	No.	%	*No.*	%
In-laws	18*	4.6	105	50.7
Mother	341	86.7	90	43.5
Father	34	8.7	i2	5.8
Total	393	100	207	100.0

*Though the families are physically separated, on certain decisions as above the in-laws were consulted because they slay in the same locality.

(i) *Type of Family Versus Decision Maker*

It showed that among non-nuclear families, in-laws were the major decision-maker on the nature of care that had to be provided to the infant at the time of sickness. In contrast, in nuclear families, child's mother was the major decision-maker, and hence, the infant mortality was lower in them. To understand the real impact of decision-making on infant mortality, the proportions of infant deaths were calculated separately for nuclear and non-nuclear families according to the decision-maker (Table 5), The figures in the categories of mother and father were combined for crobs classification as there were very few numbers in the latter category.

TABLE 5—PROPORTIONS OF INFANT DEATHS *(IDS)* BY *TYPE OF* FAMILY ACCORDING TO THE DECISION-MAKER

Decision maker	*Type of Family*							
	Nuclear				*Non-nuclear*			
	IDs	*LBs*	*Prop.*	*Diff.*	*IDs*	*LBs*	*Prop.*	*Diff.*
In-laws	*28*	64	0.438		I28	249	O.5I4	
				0.074				0.113**
Mother/ Father	515	1415	0.364		138	344	0.401	

ns : not significant **significant at **0.01** level

The data from Table 5 revealed that the proportion of infant deaths was higher in families where the decision making was done by in-laws than in those where it was done by either of the parents of the child in both type of families.

However, in joint families the same was statistically significant. The above findings reveal that decision making is an important intervening variable which influences infant mortality through type of family.

(ii) *Type of Family Versus Education of Parents*

Analysis was done by classifying the infant deaths against the type of family and educational level of mother and father (separately) as shown in Table 6.

TABLE **6-PROPORTION OF** INFANT DEATHS **TO LIVE BIRTHS ACCORDING TO EDUCATION OF FATHER AND MOTHER BY TYPE OF FAMILY**

Education / *Family*	*All education groups* Prop. of IDs to LBs	Diff.	*Illiterate* Prop. of IDs to LBs	Diff.	*Primary* Prop. of IDs to LBs	Diff.	*Middle and above* Prop. of IDs to LBs	Diff.
Education of Father								
Nuclear	0.356		0.356		0.334		0.382	
		0.071**		0.073**		0 075ns		0.002ns
Non-nuclear	0.427		0.435		0 459		0.384	
Education of Mother								
Nuclear	0.356		0.357		0.302		0.384	
		0.071**		0.067**		**0.307****	-0.051ns	ns
Non-nuclear	0.427		0.4:4		0.609		0.333	

**Significant *ns:* not significant

As can be seen from Table 6 the proportion of infant deaths was significantly smaller in nuclear families than in non-nuclear families over all educational groups. When viewed against the educational level of fathers, while this proportion was smaller for nuclear families than for non-nuclear families over all categories, (he difference was significant only for illiterate fathers. However, when viewed against the educational level of mothers, this difference was significant for illiterate as well as for mothers of primary level education. Thus, there does seem to be an association between the type of family and the educational level of mother.

(iii) *Type of Family Versus Delivery Care*

The delivery care is more modern in nuclear families than in non-nuclear families (Table 7).

TABLE 7—TYPE OF MEDICAL CARE DURING DELIVERY BY TYPE OF FAMILY

Type of family	Delivery care						Total
	India.			TD/ANM/Dr.£			
	No.	%	Diff.	No.	%	Biff.	
Nuclear	1105	76.7		335	23.3		1440
			4.S*			4.8*	
Non-nuclear	472	81.5		107	18.5		579

£Very few deliveries were attended by doctor and trained dais and hence they are combined into one group.
*Significant

Table 7 showed that the delivery care by paramedical personnel was significantly higher in nuclear families than in non-nuclear families.

Thus, from the above analysis one can conclude that the type of family affects infant mortality through decision-making, education of mother and delivery care. However, this finding needs farther probing in future research.

Education of Mother

Education of mother is considered as one of the *most important* variables affecting infant mortality. A study (Caldwell, 1979 : 395-413) shows that education enables the mother to adopt modern ideas and her ability to deal with new ideas especially those from outside her own culture. Better information about nutrition and hygiene can lead directly to prevention of some of the most common childhood diseases. An educated mother is also better able to judge the gravity of an illness, to understand the capabilities of modern medicine, and therefore to seek appropriate care for a sick child at the right time. The proportion of infant deaths by education of mother is given in Table 8.

TABLE 8-PROPORTION OF INFANT DEATHS BY LEVEL OF EDUCATION OF MOTHER

Level of education	Infant deaths	Live births	Proportion of death	Difference
Illiterate	692	1863	0.373	
				0.006 ns
Primary	40	109	0.367	
				0.007 ns
Middle	46	123	0.374	

ns : not significant

Table 8 showed that there was no significant difference in proportions of infant deaths between illiterate mothers, and mothers with some schooling. However, the proportion of infant deaths was insignificantly higher in mothers of middle level of schooling than those with primary level schooling. This may be because the educational level is still below the transition stage.[8]

Occupation of Mother

Occupation of mother is considered as an important variable as it determines the amount of care that a mother can render to the newborn infant. If the occupation is outside the household, there will be less care for the newborn and hence the chances of death are more. Proportion of infant deaths by occupation of mother is given below.

TABLE 9- PROPORTION OF INFANT DEATHS BY OCCUPATION OF MOTHER

Occupation	*Infant deaths*	*Live births*	*Proportion of deaths*	*Difference*
Self employed	50	164	0.305	
				0.059ns
House wife	367	1008	0.364	
				*0.041**
Labourer	374	923	0.405	

*significant at 0.05 level, ns—not significant.

Table 9 reveales that the proportion of infant deaths was significantly higher in those households where the woman was working as a labourer, in comparison to those where she was just a housewife. The proportion of infant deaths was insignificantly higher in households where the woman was a house-wife than those where she was self employed. The above analysis confirms the hypothesis that the infant mortality will be higher for mothers who work outside the household than for house wives.

Occupation of Father

Occupation of father determines the socio-economic status of the households. Infant mortality will be higher in labourer families than in others. The proportion of infant deaths by occupation of father is given in Table 10.

8. According to Caldwell the step from primary to secondary **was twice** as important as that of illiteracy to primary schooling. So middle level schooling is considered as the transition stage.

TABLE 1O-PROPORTION OF INFANT DEATHS BY THE! OCCUPATION OF FATHER

Occupation	*Infant deaths*	*Live births*	*Proportion of death*	*Difference between labourers and others*
White collar	79	242	0.326	0.074*
Businessman	91	251	0.362	0.038ns
Own agriculturist	134	362	0.370	0.030ns
Blue collar	119	325	0.366	0.034ns
Self-employed craft workers	63	202	0.312	0.088*
Labourer	304	764	0.400	—

ns — not significant

Table 10 shows that the proportion of infant deaths was higher amongst labourers when compared to all other workers but the difference were significant only in comparison to while collars and self-employed craft workers. The higher infant mortality in the category of labourers may be due to the fact that in most (three-fourth) of the households, when father is a labourer, mother of the child is also labourer to support the economic needs of the family. The hypothesis that the infant mortality will be higher in labourer families was confirmed by the above analysis.

Socio **Economic *Status***

Socio-economic status here is a combination of per capita income of the household, education, and occupation of father, and the type of house. The higher the socio-economic status, the lower will be infant mortality. The proportion of infant deaths by socio-economic status is given in Table 11.

TABLE 11-PROPORTION OF TNFANT DEATHS BY SOCIO-ECONOMIC STATUS

SES	*infant deaths*	*Live births*	*Proportions ofdeaths*	*Difference*
Low	387	984	0.393	0.002ns
Middle	163	423	0.395	
Upper Middle	132	375	0.352	0.043ns
High	114	313	0.364	0.012ns

ns = not significant

Table 11 showed that the proportion of infant deaths did not show a definite relationship with socio-economic status. The above trend becomes much more clear when the type of family was controlled to find out the impact of socio-economic status on infant mortality (Table 12).

TABLE 12—PROPORTION OF INFANT DEATHS ACCORDING TO SOCIO ECONOMIC STATUS AND TYPE OF FAMILY

SES	*Type of Family*									
	Nuclear					*Non nuclear*				
	ID	*LB*	*Prop. of deaths*	*Difference*	*Differencea*	*ID*	*LB*	*Prop, of deaths*	*Difference*	*Difference**
Low	256	697	0.367	*0.015ns*		*129*	*281*	*0.459*	*0.037ns*	
Middle	109	285	0.382	0.037ns		57	135	0.422		
					0.040ns				0.012ns	
Upper Middle	91	264	0.345			41	100	0.410		0.099[a]
				O.O18ns					0.050ns	
High	74	226	0.327		40		111	0.360		

[a]Differences between low and high SFS.

The data from Table 12 revealed that the proportion of infant deaths declined with increase in socio-economic status in both nuclear and non-nuclear families. The proportion of infant deaths was statistically higher in low socio-economic status non-nuclear families than those of high socio-economic status non-nuclear families. However, among the nuclear families the proportion of infant deaths in low socio-economic status was insignificantly lower than those of middle socio-economic status which may be due to the recall lapse in the former category in reporting infant deaths. To get over this problem a separate analysis (Table 13) was undertaken to see the impact of socio-economic status on infant mortality for the latest conception only.

Table 13 reveals that the proportion of infant deaths declined with increase in socio-economic status, although, the differences between the proportions were not significant. So, the above findings partially confirm the basic hypothesis that the infant mortality shows an inverse relationship with socio economic status.

Delivery and Child Care

The catering of health services to a particular region is reflected in the type of delivery care provided. It is expected that higher the dependence on untrain-

TABLE 13—PROPORTION OF INFANT DEATHS BY SOCIO-ECONOMIC STATUS (LATEST CONCEPTIONS ONLY)

SES	*ID*	*LB*	*Proportion of deaths*	*Difference*	*Diff. between low and SES category against which indicated*
Low	138	274	0.577		
				0.077ns	
Middle	62	124	0.500		
				0.015ns	
Upper Middle	50	103	0 485		
				0.031ns	0-092ns
High	49	108	0.454		
					0.123*

ns = not significant
*Significant at 5 per cent level.

ed traditional dais, the higher will be the infant mortality. The proportion of infant deaths by the type of personnel attending delivery is given in Table 14.

TABLE 14—PROPORTION OF INFANT DEATHS BY TYPE OF PERSONNEL ATTENDING DELIVERY

Personnel	*Infant deaths*	*Deliveries*	*Proportitin of deaths*	*Difference*
Indigenous Dai	639	1577	0.405	
				0.082**
Trained dai/ANM+	143	442	0.323	

Note : +Very few deliveries are conducted by ANM and hence they are combined with that of trained dai.
**Significant at 0,01 Level.

Table 14 showed that the proportion of infant deaths declined significantly where the delivery was attended by trained dai or an auxiliary nurse midwife. The above findings confirm the hypothesis the higher the dependence on the untrained traditional dais, the higher will be infant mortality.

Type of Instrument Used to Cut the Cord

It is an important variable in influencing infant mortality, If an unsterilised

instrument is used to cut the cord the chances of infant mortality, specifically neo-natal mortality will be higher.

TABLE 15 PROPORTION OF INFANT DEATHS BY TYPE OF INSTRUMENT USED TO CUT THE CORD

Instrument	*Infant Deaths*	*Deliveries*	*Proportion of deaths*	*Difference*	*Difference*[a]
Sickle	**639**	**1577**	**0.405**		
				0.045[ns]	
Blade	**50**	**139**	**0.360**		**0.098****
				0.053[ns]	
Scissors	**93**	**303**	**0.370**		

Difference **between** sickle **and scissors.**

The data from the above table shows that the proportion of infant deaths was significantly lower when scissors or blade was used to sever the cord than when a sickle was used.

Cause of Infant Death

The cause of infant death was determined from the information about the symptoms, conditions, anatomical site and duration of the diseases. The infant deaths are usually divided into two main groups : (i) deaths from birth upto 28 days—neo-natal deaths, and (ii) deaths between 29 days to one year—post-neonatal deaths. The former occur due to endogenic causes such as genetic causes, congenital malformations, etc., while the etiology of the post-neonatal mortality relates to exogenic factors such as socio-cultural and environmental conditions.

Though the information was collected about the causes of each infant death that occurred during the reference period in the selected households, the analysis was limited to the latest infant death only as that information was considered more reliable due to better recall.

The data of Table 16 reveal that the neo-natal deaths are more than the post-neonatal deaths. The major causes of neo-natal mortality were (i) maternal factors such as prematurity, birth injuries, and delivery problems, (ii) air borne diseases-tetanus, and (iii) respiratory troubles. The above accounted for about 75 percent of neo-natal deaths.

The major causes of post-neonatal deaths were (i) water-borne diseases diarrhoeal diseases and jaundice, (ii) fevers—pnuemonia, and (iii) respiratory troubles. The above accounted for 63 per cent of post-neonatal deaths.

TABLE 16—DISTRIBUTION OF INFANT DEATHS BY CAUSE AND AGE AT DEATH

Cause	*Age at death*			
	Neo-natal		*Post -neonatal*	
	No.	%	No.	%
Maternal	146	40	3	1
Water-borne diseases	13	4	89	36
Air-borne diseases	126	35	*38*	15
Stomach problems	20	5	18	8
Fevers	18	5	51	20
Others (don't know)	39	11	50	20
Total	362	100	249	100

Cultural Factors

Culture is so embeded into the life-style of the people that it is reflected in each and every activity of their functioning. The customs and beliefs which the rural people follow during child rearing are described briefly in the following paragraphs.

***Sex** Differentials in Medical Care*

In the Indian society there is preference for a son. Hence, medical attention was given more often for male infants than for female infants when they were sick as is established in Table 17.

TABLE 17—DISTRIBUTION OF INFANT DEATHS ACCORDING TO MEDICAL ATTENTION GIVEN DURING ILLNESS BY SEX

Sex	*Medical attention*			*Proportion*	*Difference*
	Yes	*No*	*Total*		
Male	*125*	*283*	408	0.306	0.124**
Female	68	305	373	0.182	

The data from the above shows that the medical attention given to male children during illness was significantly higher than for female infants confirming the basic hypothesis. Similar findings were observed by Ruzicka (Ruzicka, 1983: 311-33).

INITIATION TO BREAST FEEDING. Breast milk provides the necessary nutritional needs for infants and also transmits certain antibodies from mother to child. During the first two or three days after the baby is born, the breast does not secrete milk but yields a yellowish fluid called colostrum. It is believed that Colostrum is good for the baby and it takes care of its first hunger. The colostrum is lower in fat but richer in proteins and has a higher concentration of antibodies which protect against infections. It is also a richer source of zinc and vitamin A (which can be stored in the infant's liver). Zinc and vitamin A are known to have profound influence on immunological mechanisms concerned in resistence to infections. By not putting the infant to the breast immediately after delivery, the infant is denied of these benefits. (Yngve, 1983 : 23.)

In some parts of India, there is a mistaken belief that colostrum or the first milk remains in the breast for 9 months during pregnancy and therefore is harmful. (Venkatachalam and Rebellow, 1978 : 29).

About 74 per cent of the households initiated the breast milk to the infants on the third day after birth, which means that the infant is denied of the benefits of colostrum. The pre-lacteral feeds were sugar water, honey water, etc. It cannot be easily known whether this factor has a positive or negative effect on infants' progress and health. Because its effects can be both short term as well as long term. So unless medical evidence is collected on infants' progress and health, when the child is deprived of the mother's milk for the first 2 to 3 days in comparison to the one who is not so deprived, it is *difficult to* say at this stage unequivocally that this phenomenon leads to higher infant mortality.

Conclusion

Many studies all over the world confirm that there is a relationship between socio-economic status and infant mortality. The socio-economic and cultural factors which are of significance for infant mortality are type of family, education and occupation of parents, socio-economic status of the family, child birth practices, infant feeding practices and preference for sons in giving medical attention. However, the impact of type of family on infant mortality needs further probing in future research.

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