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Original Research Article

Socio-demographic determinants of morbidities in infancy: a cross sectional study in urban field practice area of MRMC, Kalaburagi

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ABSTRACT

Background: The first few years of life is the most crucial period of life as this age is known for accelerated growth and development. Various studies in India have shown that respiratory and gastrointestinal tract infections are the leading cause of morbidity in infants. These infectious diseases are affected by several sociodemographic factors such as birth weight, gestational age, birth order, immunization status, day care attendance and socio-economic status of the family.
Methods: A cross sectional study was conducted in the urban field practice area of department of community medicine MRMC, Kalaburagi from June 2016-October 2016. House to house survey using pre-structured and pretested questionnaire method was done.
Results: Out of 104 infants in the present study it was found that majority 53% were females and 49% were males. Majority 61.5% of the infants belonged to low socioeconomic class and majority 54.8% of them were from nuclear families, most 62.5% of the infants had 1-2 siblings in the family and 34.6% had no siblings, 51% of the mothers were illiterate and majority 54.8% of the fathers were literate. Among all the morbidities majority 36.50% had fever. No significant association was found between various social factors.
Conclusions: Though no significant association was found between morbidity and socio-demographic factors, but the socio demographic factors which showed more prevalence of morbidity among infants were females, number of siblings in the family and lower socio economic class. As these infants are the future citizens of the country hence their health should be the utmost priority for us and their health needs should be properly addressed.

Keywords: Infants, Social determinants, Demographic Determinants, Morbidity

INTRODUCTION

The first few years of life is the most crucial period of life as this age is known for accelerated growth and development. Any adverse influences during this period may result in severe limitations in their development.[1] Good nutrition, immunization and care during infancy lead to proper growth of the child as well as reduction of mortality and morbidity.[2] Although the chances of survival of new-borns has improved by 50% in the last 20 years, the first few hours, days and months of their lives are still an obstacle race.[3]

More than 70% of almost 11 million child deaths every year are attributable to six causes: diarrhoea, malaria, neonatal infection, pneumonia, preterm delivery, lack of oxygen at birth.[4] Although the target of two-thirds reduction of under-five mortality (MDG goal 4) could not be achieved by year 2015, yet combined efforts all over the world to reduce the child mortality has saved lives of approximately 48 million children under the age of 5 years until date. With the end of the era of the Millennium Development Goals, the international community agreed on a new framework – the Sustainable

development goals (SDG's). The SDG target for child mortality represents a renewed commitment to the world's children: By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries. Aiming to reduce neonatal mortality to at least as low as 12 deaths per 1,000 live births and under-five mortality to at least as low as 25 deaths per 1,000 live births.[5] In India, child mortality has declined from 125 deaths/1000 live births in 1990 to 55 deaths/1000 live births in 2014. Similarly infant mortality also reduced from 47/1000 live births in 2010 to 40/1000 live births in 2013.[6] Major causes of deaths during infancy and childhood in India are low birth weight (LBW), prematurity, diarrhoea, and pneumonia.[7]

Infant mortality and morbidity are important measures of a nation's health because of their association with variety of factors such as maternal health, quality of medical care, socio-economic conditions and public health practices.[8] Various studies in India have shown that Respiratory and Gastrointestinal tract infections are the leading cause of morbidity in infants.

These infectious diseases are affected by several socio-demographic factors such as birth weight, gestational age, birth order, immunization status, day care attendance and socio-economic status of the family.[9]

Since there is very few literature available regarding socio-demographic determinants of infant morbidity in this part of the country, therefore this study was attempted with objectives to know the prevailing morbidity conditions among the infants and to assess the socio-demographic determinants of morbidity of infants. Also this will help in bridging the gaps in existing literature related to factors affecting the health status of the infants in our field practice area.

Objectives

- To study the socio demographic factors of infants.
- To study the morbidity status of infants.
- To determine the association between various socio-demographic factors and morbidity.

METHODS

A cross sectional study was conducted in the urban field practice area of department of community medicine MRMC, Kalaburagi from June 2016 - Oct 2016. House to house survey was done using Pre-structured and pretested questionnaire method after obtaining informed verbal consent was done. All infants from the field practice area were included in the study. Mothers of infants who agreed to participate in the study were included. Those mothers not willing to participate in study and seriously ill infants were excluded from the study. Data was analysed using SPSS 20.0 version software and necessary tests were applied.

RESULTS

In the present study it was found that majority 53% of the infants were females and 47% were males. Most 83.6% of the mothers belonged to 20-29 years of age group, followed by 10.6%,5.8% belonged to more than 30 years and less than 19 years of age group respectively. Majority 86.5% of the mothers were housewives followed by 11.5% working mothers. Most of the infants belonged to upper lower socioeconomic class followed by 21.2%, 11.5%, 4.8%, 1% belonged to class III, V, II and I respectively. Most 62.5% of the infants had 1-2 siblings in their family whereas 34.6% had no siblings (Table 1).

Table 1: Socio demographic details of the study subjects.

Socio-demographic factor	Variable	Number of study subjects (N=104)
Gender	Male	49 (47)
	Female	55 (53)
Age of mother	≤19	6 (5.8)
	20-29	87 (83.6)
	≥30	11 (10.6)
Occupation of mother	House wife	92 (86.5)
	Working	12 (11.5)
Socioeconomic class	I	1 (1)
	II	5 (4.8)
	III	22 (21.2)
	IV	64 (61.5)
	V	12 (11.5)
Number of siblings	0	36 (34.6)
	1-2	65 (62.5)
	≥3	3 (2.9)
Type of family	Nuclear	57 (54.8)
	Joint	47 (45.2)
Education of mother	Illiterate	53 (51.0)
	Literate	51 (51.2)
Education of father	Illiterate	47 (45.2)
	Literate	57 (54.8)

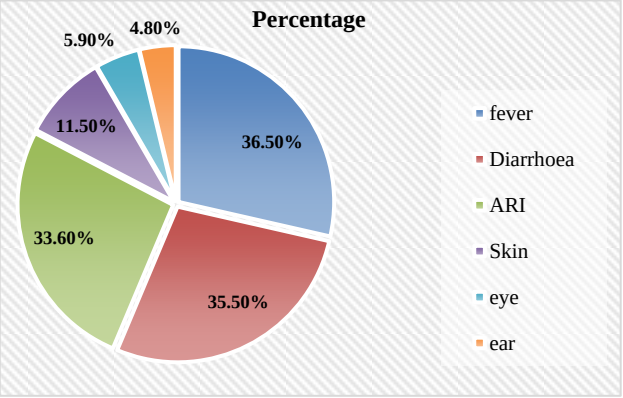

Figure 1: Morbidities among infants.

Majority 54.8% belonged to nuclear family and 45.2% belonged to joint family. Most 51.2% of the mothers were literate followed by 51% were illiterate. Most 54.8% of the fathers were literate and 45.2% were illiterate (Table 1).

In the present study it was found that most 36.5% infants had fever and diarrhoea followed by ARI, skin infections, eye infections, ear infections with 35.5%, 33.6%, 11.5%, 5.9%, 4.8% respectively (Figure 1).

Table 2: Association between sociodemographic factors and morbidity.

Socio-demographic factors	Infants with morbidity	Infants without morbidity	Significance
Gender			
Male	36	13	P>0.05 NS
Female	46	09	
Age of mother			
≤19	05	01	P>0.05 NS
20-29	71	16	
≥30	06	75	
Occupation of mother			
Housewife	75	17	P>0.05 NS
Working	07	05	
Number of siblings			
0	26	10	P>0.05 NS
1-2	53	12	
≥3	03	00	
Type of family			
Nuclear	39	18	P>0.05 NS
Joint	43	04	
Socioeconomic class			
Upper and upper middle	04	02	P>0.05 NS
Lower middle	17	05	
Upper lower and lower	61	25	
Education of father			
Literate	43	13	P>0.05 NS
Illiterate	39	08	
Education of mother			
Literate	40	11	P>0.05 NS
Illiterate	42	11	

In the present study it was found that no significant association was found between Sociodemographic factors and morbidity among infants (Table 2).

DISCUSSION

In our study done among 104 infants it was found that majority (53%) of the infants were females and most(83.6%) of the mothers belonged to 20-29 years of age group and most(86.5%) of them being house wives whereas in study conducted by Nithin et al it was found that most of the mothers were in 19-29 years of age group.[3]

In our study it was also found that most (61.5%) of the infants belonged to lower socioeconomic class, majority (62.5%) of the infants had 1-2 siblings in the family, most (54.8%) of the infants belonged to nuclear family, most (54.8%) of the fathers were literates and majority (50.96%) of the mothers were illiterates, whereas in a study done by Baruah and Borah it was found that majority (57.1%) of the infants belonged to lower middle class, most (41.2%) of the infants were the only child in the family, most (55.3%) of the infants belonged to nuclear type of family and majority (84%)of the fathers and 86.4% of the mothers were literates.[7]

In our study it was found that most common morbidity among infants was fever (36.50%) and diarrhoea (35.50%) followed by ARI (33.60%), Skin infections (11.50%), eye infections(5.90%), ear infections (4.80%) respectively whereas in a study conducted by Vyas et al it was found that most common morbidity was fever (47.9%) followed by ARI (22.3%), measles (7.1%), worm infestations (9.2%), pica (13%) and dental caries (0.5%).[1]

Whereas according to a study done by Singh et al other illness (54.07%) were most common among infants, followed by ARI (26.55%), Diarrhoea (16.09%), measles

(3.29%), also in a study done by Gladstone et al it was found that respiratory and gastrointestinal symptoms were most common with 7.4 and 3.6 incidence rates respectively.[10,11]

In the present study it was found that no significant association was found between Sociodemographic factors and morbidity among infants, whereas in the study conducted by Baruah and Borah in Assam found that infants who had more number of siblings in family had more morbidities than others, male gender was significantly associated with morbidity.[2]

Whereas in a study conducted by Ishwar, Verma and Santosh it was found that no significant association was found between gender of infant and morbidity, similarly in a study done by Hoa, Hojer and Persona it was concluded that there was no significant association between poverty, mother's education and occupation with child morbidity.[12,13]

Whereas in a study done by Kamal, Hasan and Davey it was found that children belonging to poor households faced greater risk of illness than those from well off households.[14]

CONCLUSION

Most common morbidities among infants were fever (36.5%), followed by diarrhea (35.5%), acute respiratory infections (33.6%), skin problems (11.5%), eye problems (5.9%) and ear problems (4.8%). Though no significant association was found between morbidity and socio-demographic factors of the infants, the study showed more prevalence of morbidity among females, families with more number of siblings and lower socio economic class. As these infants are the future citizens of the country hence their health should be the utmost priority for us and their health needs should be properly addressed. There is a need for sensitization on utilisation of family planning methods and primary health care services. IEC activities to be carried out for mothers and other family members. Implementation of IMNCI (integrated management of neonatal and childhood illness) at grass root level by health workers need to be emphasized.

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