

## Prevalence of 'At Risk' Factors in Under Five Children

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Children under five constitute about 14% of total population(1). This age group is most affected by various common morbidities, some of which lead also to mortalities in this vulnerable population. Owing to lack of resources and constraints of time, all under five children can't be given equal time and attention. Therefore 'at risk' concept has gained importance because under this strategy, health care is provided to all and children with high risk group are given special attention. Barnes(2) observed that 74% of perinatal deaths were identifiable as 'at risk'. Shah(3) reported that 76% of under five who died in rural Maharashtra were 'at risk'. Scientists have defined 'high risk' factors for the 'at risk' approach strategy(4-6). In the present study, criteria recommended by Ghosh was adopted(6).

### Material and Methods

The present study was conducted in

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village Gadaipur in Delhi during the period 1991-92. Village Gadaipur has a population of about 800 and was one of the field practice of University College of Medical Sciences, Delhi. A house to house survey was done by a team of the first author and medical social worker. All the under five children in village were examined and mothers were interviewed. The data was recorded on a pretested, semistructured proforma. The houses found locked were visited again to ensure complete coverage of children. For recording exact ages of children, the local calendar was used. Only four children of under five years of age could not be included in the study as they had gone to their maternal grandparents. All 113 children residing in village were included in the present study. The children were screened for the prevalence of 'at risk' factors as recommended by Ghosh(6) and the point prevalence of 'at risk' children was established.

### Results

There were 58 females (51.3%) and 55 males (48.2%). All the children were Hindu by religion. Sixty (53.1%) mothers who had under five children were illiterate, while 53 (46.9%) were literate. Seventy eight (69%) mothers belonged to families having income less than Rs. 1,000/- per month and 35 (31%) had income more than Rs. 1,000/- per month.

A total of 76 (67.3%) children were identified as 'at risk' children. The distribution of 'at risk' factors present in children is given in *Table I*. There was no significant difference between prevalence of 'at risk' factors amongst male and female under five children. The most common 'at risk' factor identified was weight below 70% of reference (40.7%) followed by chronic

TABLE I- 'At Risk' Factors Amongst Under Five Children (n=113)

S. No.	'At Risk' Factors	Children with 'at risk' factors	
		(%)	
1.	Deaths of either or both parents	0	(0)
2.	Weight below 70% of reference (second degree malnutrition)	46	(40.7)
3.	Breast feeding not established or is insufficient	2	(1.76)
4.	Birth order of five or more	9	(7.96)
5.	Major congenital anomalies	0	(0)
6.	Spacing less than two years	27	(23.8)
7.	History of death of more than two siblings	5	(4.42)
8.	Chronic gastroenteritis and/or respiratory infection	40	(35.3)
9.	Twins or low birth weight babies	8	(6.15)
10.	Mother economically active and child being looked after by substitute	13	(11.5)

gastroenteritis and/or respiratory infections (35.3%), followed by birth spacing less than two years (23.8%).

Forty two children (37.2%) had more than one risk factor operating simultaneously in an under five child. The commonest combination was that of weight below 70% of reference and chronic gastroenteritis and/or respiratory infections (9.73%) (Table II).

### Discussion

In a developing country like India with limited resources, it is not possible to give equal attention to all children. Point prevalence of 'at risk' factors, therefore, identifies those children who need more specialized care.

In the present study, a total of 76 (67.2%) children have been identified as 'at risk', Shah *et al.*(3) and Kapil *et al.*(7) have reported figures of 19% and 63%, respectively. Chaudhary *et al.*(8) and Lai (9) have

also reported 51% of children surveyed in rural area as 'at risk'. Bansal(10) has reported 89% 'at risk' children. These differ-

TABLE II- 'At Risk' Factors Combination Amongst Under Five Children (n = 113)

S. No.	Combination of 'At Risk' factors	Children with 'At Risk' factors	
		No.	(%)
1.	02 + 08	11	(9.73)
2.	06 + 08	7	(6.19)
3.	02 + 06	5	(4.42)
4.	02 + 06 + 08	7	(6.19)
5.	04 + 06	3	(2.64)
6.	08 + 11	2	(1.76)
7.	Other combinations	7	(6.19)
Total		42	(37.16)

Please refer to Table 1 for social numbers of 'At Risk' Factors.

ences could be due to adoption of different criteria for identification of 'at risk' factors and qualitative differences in the samples surveyed.

Amongst the various 'at risk' factors, the commonest 'at risk' factor in the present study was weight below 70% of the reference (40.7%), Similar findings have been reported by other workers(7-9) while Shah *et al.*(3) attributed only 13% children with this 'at risk' factor. This variation could be attributed to differences in agroclimatic conditions and different cultural practices.

In the present study, 55% of 'at risk' children had more than one risk factor operating in them while Kapil *et al.* (7) and Chaudhary *et al.*(8) reported 65% and 64% of such children. The commonest combination was that of weight below 70% of the reference and chronic gastroenteritis and/or respiratory infections. Similar findings have been reported by other workers(7,8).

Since a large number of children (67.5%) in the present study were identified as 'at risk', there is a need to identify the 'at risk' factors for Indian conditions. It is recommended that the criteria for establishing children as 'at risk' should be specific so that Health Workers in rural areas can identify and provide specialized care and attention to them.

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