A study on health profile of pre-school children of Khagaria district of Bihar

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■ **ABSTRACT :** To study the health profile of pre-school children, the present investigation was planned and carried out. A sample of 100 pre-school children of Pansalwa village of Beldour block of Khagaria district of Bihar was selected at random. Findings of the study clearly revealed that a majority of the mothers (53%) were not washing their hands before feeding their child as well as 86 per cent of the children's hands, too were not washed before eating. Breast feeding was observed as 81 per cent and only 8 per cent of the children were exclusively top-fed. Weaning- age of the child on an average was found to be 18 months. Immunization coverage of the children was very low (56%) and Helminthic infestations were also observed among 32 per cent of the children. Morbidity profile of the children clearly revealed that 50 per cent of the children were victims of upper respiratory tract infections followed by incidence of diarrhoea (44%). Conclusively, health profile of children was observed to be abysmally poor.

■ **KEY WORDS :** Pre-school children, Health profile, Immunization, Morbidity, Infant feeding practices

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Pre-school children (1-6 years) undoubtedly are the most crucial segment of our population, due to not only to their sheer numbers, but also because during these formative years, foundations are laid for adult life. Today's child is the nation's future economic asset. The quality of our future human resources is going to be determined largely by the investment made now for the sound development of the child population (Gopalan, 1993).

India has the highest child population in the world, and children in 0 – 6 years age group number around 158 million (census of India, 2001). In the country, the highest percentage of child population was found in Bihar (40.8%) and Uttar Pradesh (40.1%). Nearly two out of three pre-school children in India are malnourished (Shrilakshmi, 2000). For a healthy working population, it is essential that children must have a sound health profile which is possible only when they will receive adequate nutrition to ensure proper physical and mental growth.

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Mal nutrition invariably is an outcome of poor health status of the children. Health profile is a composite term comprised mainly of dietary information pertaining to the child, infant feeding practices, weaning practices, immunization status and morbidity profile of the child.

A mother is the principal provider of primary care that the child needs during the first six years of life. The type of care, she provides, depends to a large extent on her knowledge and understanding of some aspect of basic nutrition and health care (Gaisie, 1969).

Of the numerous problems facing the countries development, poor health status of pre-school children is the most dominant. Keeping all these paints in view, the present study was planned with the objective; to assess the health profile of pre-school children of Khagaria district of Bihar. The observations were area specific; hence concrete recommendation at state level could not be aimed.

■ **RESEARCH METHODS**

To fulfill the objectives of the present study, it was planned and carried out on a random sample of 100 pre-school children of Pansalwa village of Beldour block of Khagaria district of Bihar. The sample was equally divided into two groups *viz.,* control (50) and experimental (50) children. Interview technique was used for data collection. Based on objective of the study, a pre-tested, structured, pre-coded interview schedule was designed. Mothers/ caretaker of the children were interviewed for the purpose.

■ **RESEARCH FINDINGS AND DISCUSSION**

For assessment of health profile of pre-school children, it is of paramount importance to present the 'age and sex wise frequency distribution of children', which has been depicted in Table 1.

Table 2-7 are representing the important aspects of health profile of children like dietary information, infant feeding

Table 1 :Age and sex wise frequency distribution of children								
Sr. No.	Age (years)	Control children (n=50)			Experimental children (n=50)			Pooled (n=100)
		Boys	Girls	Total	Boys	Girls	Total	
1.	1-2	7 (14)	7 (14)	14 (28)	11 (22)	7 (14)	18 (36)	32
2.	2.1-3	6 (12)	9 (18)	15 (30)	10 (20)	5 (10)	15 (30)	30
3.	3.1-4	6 (12)	6 (12)	12 (24)	7 (14)	4 (8)	11 (22)	23
4.	4.1-5	5 (10)	2 (4)	7 (14)	2 (4)	2 (4)	4 (8)	11
5.	5.1-6	2 (4)	0 (0)	2 (4)	1 (2)	1 (2)	2 (4)	4

Figures in parentheses represent percentages

Table 2 : Dietary information for the child				
Sr. No.	Details	Control children (n=50)	Experimental children (n=50)	Pooled (n=100)
1.	Acceptance of food			
	Good	27 (54)	17 (34)	44
	Fair	15 (30)	18 (36)	33
	Poor	8 (16)	15 (30)	23
2.	Food consistency			
	Solid	14 (28)	15 (30)	29
	Semi -solid	24 (48)	21 (42)	45
	Liquid- fluid	12 (24)	14 (28)	26
3.	Food peference			
	Mostly milk	22 (44)	29 (58)	51
	Normal family diet	8 (16)	7 (14)	15
	Soft cereals	11 (22)	11 (22)	22
	Roti and dhal	9 (18)	3 (6)	12
4.	Reheating food			
	Yes	17 (34)	22 (44)	39
	No	33 (66)	28 (56)	61
5.	Washing hands before feeding the child			
	Yes	22 (44)	25 (50)	47
	No	28 (56)	25 (50)	53
6.	Child's hand washed before eating			
	Yes	5 (10)	9 (18)	14
	No	45 (90)	41 (82)	86

Figures in parentheses represent percentages

Table 3 : Frequency distribution of children fed with breast milk, top milk and colostrums

Sr. No.	Feeding practices	Control children		Experimental children		Pooled (n=100)
		Boys (n=26)	Girls (n=24)	Boys (n=31)	Girls (n=19)	
1.	Breast fed	22 (84.6)	18 (75)	26 (83.94)	15 (89)	81
2.	Exclusively top fed	1 (3.84)	2 (8.33)	2 (6.45)	3 (17.58)	8
3.	Colostrums fed	2 (7.69)	3 (12.5)	4 (12.90)	3 (17.58)	12
4.	Breast fed and top fed	3 (11.5)	4 (16.7)	3 (9.7)	1 (5.3)	11

Figures in parentheses represent percentages

Table 4 : Mean – age of children at weaning

Sr. No.	Weaning - practices	Mean – Age (months)				Pooled (n =100)
		Control cildren (=50)		Experimental cildren (=50)		
		Boys	Girls	Boys	Girls	
1.	Initiation of top-feeding	9	6	12	9	9
2.	Initiation of semi-solid and solid	12	6	18	12	12
3.	Cessation of breast milk	24	18	18	12	18

Table.5: Distribution of the children for immunization

Details	Control children (n=50)	Experimental children (n=50)	Pooled (n=100)
Not immunized	23 (46)	21 (42)	44
Immunized	27 (54)	29 (58)	56
Immunized for			
Polio	23 (85.18)	28 (96.55)	90.86
BCG	18 (66.66)	19 (65.5)	66.0
Measles	13 (48.14)	17 (58.62)	53.38
DPT	21 (77.77)	24 (82.75)	80.26

Figures in parentheses represent percentages

Table 6 : Per cent prevalence of Helminthic infestations

Details	Control children (n=50)	Experimental children (n=50)	Pooled (n=100)
No infestation	70 (35)	66 (33)	68
Infestation present	30 (15)	34 (17)	32
Ascaris lumbriccoides	6.66 (1)	5.88 (1)	6.25 (2)
Other small worms (enterobius vermicularis)	93.33 (14)	94.11 (16)	93.75 (30)

Figures in parentheses represent numbers

Table 7 : Morbidity profile of children

Details	Control children (n=50)		Experimental children (n=50)		Pooled (n=100)
	1-3 yrs (n=29)	4-6 yrs (n=21)	1-3 yrs (n=33)	4-6 yrs (n=17)	Total 100
Mumps	3 (10.34)	2 (9.52)	2 (6)	2 (11.76)	9
Severe diarrhea	8 (27.6)	10 (47.6)	18 (54.4)	8 (47)	44
URI	17 \(58.62)	14 (66.66)	11 (33.33)	8 (47)	50
Measles	1 (3.44)	-	-	-	1
ARI	5 (17.2)	2 (9.52)	2 (6)	1 (5.9)	10
Any other	17 (58.6)	8 (38.1)	15 (45.45)	7 (41.1)	47

Figures in parentheses represent percentages

practices, weaning age of the children and their immunization status and morbidity profile of the children.

Analysis of the data presented in Table 1 reveal that a maximum percentage (32%) of the children fell between 1-2

years of age, where as lowest percentage (4%) of them were observed between 5.1 -6 years of age.

Dietary information pertaining to the child :

Dietary information regarding the child included both quality and quantitative data. Qualitative details were related to the meal patterned, preference and use of the home produce for the child.

Dietary information pertaining to the child has been presented in Table 2. Forty four per cent of the mothers reported that their child was a good eater which did not support by findings of food consumption pattern of the child there by indicating that mothers do not have correct perception regarding the food needs of their children. Even the elementary hygiene has been over steed by the mothers, so that majority (53%) of the mothers were not washing their hands before feeding their child as well as children's hands too, were not washed before eating as reported Eighty six per cent of the mothers reported that their child did not use to wash his hands.

Infant feeding practices :

Table 3 clearly depicts that breast feeding (81%) was observed to be universal phenomenon. However, despite of this positive trend, 88 per cent children were deprived of colostrum. A total of 8 per cent children were exclusively top fed.

The mean age for introduction of top feed was found to be 9 months. Introduction of semi – solid and solid foods to the children was delayed; the mean – age for the same was being 12 months. The mean – age for cessation of breast feeding was found to be 18 months (Table 4).

Immunization status of children :

In the present study, children were considered to have received immunization if they had received even a single dose of any antigen. As per this criterion, immunization coverage of the children was abysmally low.

It is evident from Table 5, that 56 per cent of the children were immunized. Among immunized children, approx. 91 per cent had received polio vaccine and 66 per cent were immunized against BCG. Approximately 53 per cent children were immunized against measles whereas about 80 per cent had received vaccine against DPT.

Helminthic infestations :

Helminthic infestations were fairly common in both the groups of children. As per mother's reporting for the presence of worms in the faeces, 32 per cent of the children could be considered to be infested (Table 6). Among infested children, Ascaris infestation was reported by approx. 6 per cent mothers only, whereas approx. 94 per cent mothers reported other small worm infestation like *Enerobius vermicularis*, *Trichuris trichuria* etc.

Morbidity profile of children :

In the present study, morbidity history for past two months was collected from the mothers.

The findings of Table 7 revel that upper respiratory tract infection was reported most frequently by 50 per cent of the mother. The occurrence of severe diarrhoea was indicated by 44 per cent of mothers followed by acute respiratory tract infections (10%) and mumps (9%) . Ailments such as skin and eye infections, vomiting, jaundice and fevers with URI have been clubbed under the 'any other' category, the incidence for the same was found to be 47 per cent.

Conclusively it might be said that health status of the pre-school children was found to be unsatisfactory, so there is s great need of health counseling for the mother of the children to uplift the children's health status.

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