

Association of breastfeeding practices and nutritional status of children aged one to five years in Jaffna district

K. Kandeepan, S. Balakumar and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna

Proper breastfeeding practices lead the children to achieve adequate growth and good health which is the essential foundation of human development⁽¹⁾. Currently, Sri Lanka has adopted the World Health Organization (WHO) recommendation of Exclusive Breastfeeding (EBF) for six months, followed with continuation of breastfeeding up to or beyond two years⁽²⁾.

The objective of this study was to assess the association between breastfeeding practices and nutritional status of children aged one to five years in Jaffna district.

Multistage cluster sampling was used and a total of 846 children (414 males and 432 females) were recruited in this study. Anthropometric measurements such as height and weight were used to compute age and sex specific Z scores for malnutrition in terms of wasting, underweight, stunting and over nutrition based on WHO standards. Information regarding breastfeeding patterns, some socio-demographic factors such as age, gender and educational level of the mothers were collected by using interviewer administrated questionnaires. Data were analyzed with SPSS version 16.0. The association between malnutrition and socio-demographic factors were tested using the Pearson's Chi-squared test, Analysis of Variance (ANOVA) technique and a measure of the strength of association by logistic regression.

The median duration of EBF was five months (SD1.6). In this study population, 64.4% (*n* 545) children were exclusively breastfed until the completion of 6 months, 0.5% (*n* 4) continued EBF beyond 6 months, 2.6% (*n* 22) were never exclusively breastfed (formula milk introduced during initial period) and 32.5% (*n* 275) children were breastfed, but not exclusively until the completion of 6 months. The overall prevalence of wasting, underweight, stunting and overweight was 21.6, 33.1, 26.4 and 3.4%, respectively. There was a significant correlation between education level (last grade attended at school) and exclusive BF period ($r=0.781$; $P<0.05$). Prevalence of undernutrition was significantly higher among non-EBF children compared to EBF children (Table).

Table: Prevalence of malnutrition in children with Exclusive breastfeeding.

	EBF children (%) (<i>n</i>)	Non EBF children (%) (<i>n</i>)	OR ¹ (CI)	P-value
Wasting	14.3 (78)	36.2 (109)	3.5 (2.5-4.9)	0.001
Underweight	21.7 (118)	54.2 (164)	4.3 (3.2-5.9)	0.001
Stunting	21.5 (117)	32.2 (106)	2.0 (1.4-2.7)	0.001
Overweight	4.2 (23)	0.7 (02)	0.1 (0.03-0.6)	0.014

¹ORs for Non-EBF group considering EBF as the reference.

Of the total, 0.4% of mothers had no schooling and they have stopped EBF at a mean duration of 3.5 months. Of the mothers 9.8, 85.4, and 4.5% of mothers had primary, secondary and tertiary educational level, respectively and they have stopped EBF at the mean of 4.2, 5.8, and 5.4 months, respectively. Of this total population, 585 (69.1%) of the mothers had stopped breastfeeding their children at the time of data collection. Out of them, 55.6% (*n* 325) of children were breastfed beyond 2 years.

Based on this research finding, it appears that the rate of EBF and the duration of breastfeeding were still lower than the national data of Sri Lanka and EBF is significantly associated with nutritional status of children.

1. Dinesh Kumar, Goel NK, Poonam Mittal, C & Purnima Misra (2006). *Ind J Pediatr*, 73 (5), 417-422.
2. WHO (2002). 55th World Health Assembly; WHA55.25 Infant and Young Child Nutrition. Geneva, Rome.