105/A

Household food insecurity of children among 12-59 months of age in Jaffna District

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Food insecurity is a key risk factor for malnutrition and it occurs when children have insufficient, unsafe and innutritious food frequently. The objective was to assess the household food insecurity and nutritional status of children aged 12 – 59 months in the Jaffna District. Multistage cluster sampling was used and a total of 846 children (414 males and 432 females) were recruited for 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. Food insecurity was assessed by cross-tabulating the Household Food Consumption Adequacy Score (HFCAS) and food access (assessed by food expenditure as a % of the total household expenditure), as specified by the World Food Program (WFP). Haemoglobin (Hb) concentration was measured (cyanomethaemoglobin method) to identify children with anaemia (< 11 g/dL). The Socio-demographic characteristics were obtained by using interviewer administered questionnaires. The prevalence of wasting, underweight, stunting and overweight were 21.6 (*n* 184), 33.1 (*n* 282), 26.4 (*n* 223) and 3.4 (*n* 27) respectively. The mean (SD) of the food access in percentile was 75 (13.6)%. Among the subjects selected, 41.6 (*n* 351), 48.3 (*n* 408) and 10.1% (*n* 85) of children had good, average and poor food access respectively. The mean (SD) HFCAS was 60.9 (8.2)% with a range from 39 to 87% and all the children in this study population had adequate HFCAS (> 35.1%). The mean HFCAS was significantly higher in urban children [67.5% (95% CI; 66.5, 68.6)] than in rural children [58.8% (95% CI; 58.3, 59.4)]. The household food insecurity was 10.1% (10.7% in urban and 9.9% in rural children). Mean (CI) Hb concentration of the total population (*n* 845) was 11.7 g/dL (95% CI; 11.6, 11.8) and the prevalence of anaemia was 36.4 % (*n* 308). Prevalence of anaemia was higher [44.7% (*n* 38)] in food insecure than in food secure households [35.5% (*n* 269)]. Household income ($p < 0.001$), expenditure for foods ($p < 0.05$), and Hb concentration ($p < 0.05$) were higher in food secure than in food insecure households whereas educational level of the parents and sector (urban and rural) were not significantly associated with food insecurity. This study indicates that the household food insecurity is prevalent and it is associated with household income among Jaffna children. Even though food insecurity was low in Jaffna children it has a significant relationship with undernutrition and anaemia in children.

Keywords: Anaemia, anthropometry, food access, food insecurity, household food consumption adequacy score, malnutrition

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