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Tel: +94(0) 77 224 1493 / +94(0) 117 020 784

iarconferences@gmail.com

[23]

DIETARY PATTERN AND NUTRITIONAL DEFICIENCIES AMONG CHILDREN IN JAFFNA DISTRICT, SRI LANKA

¹Kandeepan, K., ²Balakumar, S., ³Arasaratnam, V.

^{1, 2, 3} Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka.

ABSTRACT

A balanced diet during childhood is crucial not only for the well-being and growth of the child but also for the establishment of healthier dietary habits that will persist in later life. This study was aimed at determining the dietary pattern, energy intake and nutritional status of children aged 1-5 years children in Jaffna district, Sri Lanka during 2012-2014. This was a descriptive cross-sectional study. A Semi quantity-food frequency questionnaire (FFQ) was administered to obtain the dietary data. Among the total 846 children, 414 were males (48.9%). The mean age of the children was 35 (± 13) months. The mean (\pm SD) intake of cooked rice and, rice and wheat flour products were 85.11 (± 24.24) and 67.75 (± 28.7) g/day respectively whereas mean (\pm SD) intake of high protein foods namely fish, meat, egg, and legumes were 15.57 (± 8.04), 5.01 (± 2.17), 22.79 (± 10.57) and 51.35 (± 20.66) g/day respectively. The intake of green leafy vegetables was 6.22 (± 3.72) g per day. Though they had a satisfactory amount of legumes (Dhal is the basic protein in every meal), 27.2% of children had low albumin level (< 3.5 g/dL). Only 323 (38.2%) children consumed milk with a mean volume of 234.58 (± 120.81) mL per day. The highest percentage of the deficit in a variety of green leafy vegetables taken was observed (84.4%). The majority of the children (74.9%) consumed only spinach (*Amaranthus gangeticus*) while others consumed leaves of *Moringa oleifera*, *Alternanthera sessilis*, *Centella asiatica*, and *Sesbania grandiflora* as the source of iron. Moreover, 34.9% of children had iron deficiency anaemia (WHO, 2011). In this study, 17.6% of the children had iodine deficiency. Mean (\pm SD) consumption of calories of the children aged 12-23, 24-35, 36-47 and 48-59 months was 782.6 (± 150.3), 918.6 (± 142.5), 998.5 (± 139.2) and 1055 (± 173.5) kcal/day respectively. Banana (non-seasonal fruit) was the major fruit for children (89.8 %). The consumption of a diet with more protein percentage ($> 15\%$) was positively correlated with weight (R: 0.452). Similarly, Serum albumin concentration was significantly increased with dietary protein intake (R-Sq: 0.214). This study concluded that children of Jaffna district consumed a low level of nutrients than the recommended amount and had a disproportionate percentage of macronutrients and calories. In addition, micronutrient deficiencies were observed in significant numbers of children.



Keyword: Malnutrition, Micronutrient deficiencies, Dietary pattern, Albumin, Iodine and calories.