Original Article

Factors associated with growth faltering in Sri Lankan infants: A case-control study in selected child welfare clinics in Sri Lanka

Nevinda de Silva¹, K Wijerathna¹, S Kahatapitiya¹, Prabath Silva¹, I Herath¹, R Perera¹, S Gunawardena¹

Key words: infant, failure to thrive, breast feeding, diet

Abstract

Background

Growth faltering during later infancy is common in Sri Lanka. While retarding the physical and mental development of the infant, its burden on the social and economic aspects of the family, society and country is immense.

Methods

A case-control study, involving 150 controls and 75 cases (Total 225), was conducted in two randomly selected Child Welfare Clinics. Infants with failure to thrive were identified from Child Health Development Records and a pre-tested, interviewer administered questionnaire was used for data collection. Data was analyzed using SPSS 17.0.

Results

Sex distribution was almost equal (Males=52.4%, Females=47.6%). The mean age of mothers was 26 years (SD=4.7) and only 26.2% (n=59) were employed although over 90% had secondary education. Lower segment caesarean section, low birth weight, intra-uterine growth restriction and presence of acute illnesses had a significant association with growth faltering with odds ratios (OR) of 3.3 (95% Cl=1.8-5.8), 3.0 (95% Cl=1.6-5.6), 3.5 (95% Cl=1.3-9.5) and 2.3 (95% Cl=1.3-4.1) respectively. Significant factors pertaining to feeding were, non-exclusive breast feeding (OR=2.8 and 95% Cl=1.5-5.3), inadequate duration of breast feeding per feed (OR=3.8 and 95% Cl= 2.1-6.9), formula feeding (OR=2.1 and 95% Cl=1.2-3.7) and inadequate diet (OR=2.7 and 95% Cl=1.5-5.0). Parental and household factors such as young maternal age, inadequate maternal education, increased number of children and non-availability of domestic help were not statistically significant. However, low monthly income was a significant factor associated with growth faltering (OR=3.3 and 95% Cl=1.8-6.2).

Conclusion

Infant and dietary factors were of paramount importance while parental and household factors played a minor role in growth fattering.

Corresponding Author: Nevinda de Silva E-mail: < nevindadesilva@gmail.com >

Received: May 2015, Accepted revised version: September 2015, Published: October 2015

Competing Interests: Authors have declared that no competing interests exist

¹ Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka