

EARLY CHILDHOOD GROWTH IN RELATION TO MATERNAL AND BIRTH CHARACTERISTICS: A PROSPECTIVE COHORT STUDY

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The adverse birth outcomes, which may result from insults occurring during the fetal life can have adverse influence on growth during early childhood. Objective of this study was to find out the association of maternal and birth characteristics with growth during the first two years of life in term infants. A cohort of 128 term infants was recruited from a public health service unit in Sri Lanka and followed up from 4 mo to 24 mo of age. Maternal and birth characteristics were gathered from health records. Weight and length of children were measured. Maternal parity showed an inverse association with weight gain of children at 12 mo and with WAZ (weight-for-age Z scores), WHZ (weight-for-height Z scores) and BAZ (BMI-for-age Z scores) at 12 and 24 mo of age. Pre-pregnancy BMI showed positive associations with length gain of children at 12 mo and with both weight and height gain at 24 mo of age. Maternal height showed positive associations with length gain and HAZ (height-for-age Z scores) at 12 and 24 mo of age. Birth weight showed positive associations with WAZ, HAZ and WHZ of children at 12 and 24 mo of age. Birth length showed negative association with length/ height gain of children at 12 and 24 mo of age, whereas ponderal index showed positive association with length/ height gain at 12 and 24 mo of age. In conclusion, at higher maternal parity children tend to be smaller (lower BAZ) and have lower nutritional status (low WAZ and WHZ) at 1 and 2 years of age. Children, who were born to mothers with higher maternal pre-pregnancy BMI, tend to be taller at 1 and 2 years of age. Children with higher birth weight showed better nutritional status (higher WAZ, HAZ and WHZ).

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