

## **The association of eating behaviour on the growth of children from the interior districts of Sabah, Malaysia**

### **ABSTRACT**

**Background:** The double burden of malnutrition among children is an emerging public health problem, especially in developing countries. Eating behaviours have been hypothesised to contribute to both being underweight and overweight in children and adults. The objective of this study was to examine the association between the Child Eating Behaviour Questionnaire (CEBQ) subscale scores and body mass index (BMI) z-scores among Malaysian children under-5 years. **Methods:** This was a cross-sectional study conducted in 2020 by recruiting a sample of 500 children aged 24–59 months old from clinics located in the interior districts of Sabah, Malaysia. The CEBQ was completed by the mothers on behalf of the child to assess their eating behaviour traits. The height and weight of the child were measured using standardised instrument. The BMI-for-age percentile, z-scores for BMI-for-age, height-for-age and weight-for-age were determined and classified using World Health Organization AnthroPlus software. The relationship between the CEBQ subscale scores and BMI z-scores were evaluated using multiple linear regression models adjusting for potential confounders. **Results:** The prevalence of underweight, stunting and wasting were 20.2%, 29.2% and 5.6%, respectively, whereas the prevalence of overweight and obese was 5.0%. There were significant positive association between Food responsiveness, Emotional overeating, Enjoyment of food with BMI z-scores ( $p < 0.05$ ; unstandardised regression coefficient: 0.17 to 0.38). In contrast, there were significant negative association between Satiety responsiveness, Slowness of eating, Food fussiness with BMI z-scores ( $p < 0.01$ ; unstandardised regression coefficient:  $-0.35$  to  $-0.36$ ). **Conclusion:** These findings show that specific eating behaviours can influence the growth of children under-5 years. Therefore, policymakers should formulate a nutrition policy that incorporates behavioural assessment and behavioural intervention in the prevention and management of malnutrition among children in Malaysia.