

## Documents

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**Stunting and its association with feeding problem among under five children: a case-control study in Kuantan district, Malaysia**

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**Abstract**

**INTRODUCTION:** Stunting is the most prevalent form of malnutrition among infants and young children population, both globally and locally. It refers to low height-for-age children and is primarily caused by chronic under nutrition. The objective of this study is to determine the association between stunting and feeding problems and to explore the risk factors for stunting among children aged 6 to 59 months attending health clinics in the Kuantan district. **MATERIALS AND METHODS:** A case-control study involving 160 children that attended six health clinics in Kuantan from August to October 2021 with a ratio of 1 case: 3 controls. Data were collected from mothers using a questionnaire consisting of sociodemographic and feeding assessment adapted from a validated World Health Organization (WHO) integrated management of childhood illness (IMCI) assessment form. The data was analysed using IBM SPSS version 26.0. Binary logistic regression analysis was used to identify factors associated with stunting. The odds ratio was used to measure the strength of the association between outcome and predictor variables. The significance value was set at  $p < 0.05$ . **RESULTS:** Children with identified feeding problems have more than four-time significantly higher risk of becoming stunted (Odds Ratios, OR: 4.2; 95% Confidence Intervals, 95%CI: 1.4, 12.8) as compared to children with no feeding problems. Specifically, children with inadequacy in feeding components; amount, variety and frequency of meal each have significantly six-time higher risk (OR: 6.2; 95%CI: 2.7, 14.5), four-time higher risk (OR: 4.2; 95%CI: 1.4, 12.3), and three-time higher risk (OR: 2.8; 95%CI: 1.1, 6.9), of becoming stunted as compared to children with adequate feeding. Additionally, with a decrease of one week in delivery week, one kilogram in birth weight and one centimetre in maternal height, there is a respectively significant 40.0% (OR: 0.6; 95%CI: 0.4, 0.9), 80.0% (OR: 0.2; 95%CI: 0.1, 0.7) and 11.0% (OR: 0.89; 95%CI: 0.82, 0.98) increase in the risk of become stunted among children. **CONCLUSION:** Feeding problems specifically inadequate food amount, food variety and meal frequency not following the recommendation contribute to stunting in young children. Other factors identified are lower maternal height and children with lower birth weight and delivery week. This highlights the need for more excellent detection and intervention of nutritional concerns and risk factors to prevent stunting.

**Index Keywords**

case control study, eating disorder, epidemiology, etiology, female, growth disorder, human, infant, Malaysia, male, preschool child, risk factor; Case-Control Studies, Child, Preschool, Feeding and Eating Disorders, Female, Growth Disorders, Humans, Infant, Malaysia, Male, Risk Factors

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