

B32 Factors associated with low calcium intakes among preadolescent children aged 9 to 11 years in Malaysia: A secondary analysis of PREBONE-Kids study

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Adequate calcium during pre-adolescent age is crucial to support accelerated growth spurt and achieve peak bone mass. Limited studies have examined the factors associated with low calcium intakes in Malaysian children. This study sought to determine the factors associated with low calcium intakes among Malaysian preadolescent children aged 9-11 years in terms of food sources and dietary habits. Daily calcium intakes of 239 participants aged 9-11 years was collected using 7 days diet history. The mean daily frequency of meals, snacks, dairy, fruits or vegetables, sugar-sweetened beverages (SSB) consumption and parents' monthly household income were associated with daily calcium intake using Mann Whitney U and Kruskal-Wallis H tests. Majority of the participants (74.9%) were from low-income families. They only achieved 23% to 38% of the Malaysian Recommended Nutrient Intake for calcium, with a median intake of 357 (249) and 302 (204) mg/day for boys and girls respectively. Primary calcium sources for the boys were 'beverages' (23.7%) and 'cereal and cereal products' for girls (19.4%). In both boys and girls, breakfast (28.9%) and snacks (26.5%) contributed the most to the daily calcium intakes. The calcium intakes were significantly higher among participants who reported consuming 3 main meals daily, snacked 2 to 3 times daily and consumed at least 1 serving of dairy, fruit or vegetables daily ($p < 0.05$). However, no significant difference was observed between calcium intakes and SSB consumption as well as parents' monthly household income ($p > 0.05$). Low calcium intake was associated with poor diet quality and meal frequency. These findings may assist public education initiatives to ensure Malaysian children meet recommended calcium intake levels.