

ASSOCIATION BETWEEN NUTRITIONAL STATUS AND DENTAL CARIES IN PERMANENT DENTITION AMONG PRIMARY SCHOOLCHILDREN AGED 12-14 YEARS, THAILAND

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Abstract. This cross-sectional study assessed associations between nutrition and dental caries in permanent dentition and identified oral hygiene indicators among older children aged 12-14 years in primary schools in Thailand. The study was comprised of 862 schoolchildren from five provinces representing five regions of Thailand, from both rural and urban areas, including Bangkok. The dental hygiene status was assessed by evaluating for decayed teeth, missing teeth due to decay, and filled teeth index (DMFT index). Weight and height were measured to evaluate the nutritional status; hygiene practices assessed by interview. The results show a negative relationship between nutritional status and the DMFT index, which increased when the nutritional status decreased (Spearman's rho correlation = -0.140, $p < 0.001$). The results from multiple logistic regression analysis showed normal weight and thin schoolchildren were more likely to have a DMFT of at least 1 by 1.94 times (OR = 1.94; 95%CI = 1.25-3.00, $p = 0.004$) and 2.22 times (OR = 2.22; 95%CI = 1.20-4.09, $p = 0.001$), respectively, compared to overweight and obese children. Normal and thin schoolchildren had a higher risk for dental caries than overweight and obese children aged 12-14 years in Thailand. School health promotion activities should emphasize eating habit improvement in order to reduce the incidence of caries.

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