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Dietary Intake and Snacking Behaviour of Children Aged 3-5 in Urban and Rural Areas of Thailand's Southernmost Border Provinces

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Thailand suffers from the double burden of malnutrition due to the nutrition transition⁽¹⁾. Shifts in eating patterns from traditional foods to more processed foods, an increase in snacking and urbanisation are associated with the nutrition transition⁽²⁾. We aimed to explore eating, feeding, and snacking behaviours in children aged 3-5 living in urban and rural areas of Thailand's Southernmost Border Provinces (SBPs).

A cross-sectional survey was conducted among 279 parent-child dyads recruited from one urban (n=135) and three rural schools (n=144) in the SBPs. The International Eating and Feeding Tool (ICFET)⁽³⁾ was used to collect sociodemographic data, feeding frequency, food and snack consumption. Weight and height were measured to calculate WHZ (weight-for-height z score) and HAZ (height-for-age z score) scores. The frequency of consumption for groups and types of food were summed to give a monthly frequency. A 24-hour recall of intake of plated foods and drinks during five potential eating occasions was taken. Carers rated the applicability of statements regarding their use and control of snacks. Descriptive statistics and Mann-Whitney U test for comparisons between urban and rural areas were analysed using SPSS V28.

Socioeconomic disparities between caregivers from urban and rural areas were observed. One-fourth (22%) of rural caregivers reported senior high school education and no income (16%) compared to 0.7%, (P<0.001) and 1% respectively in urban caregivers (P<0.001). Child stunting was more prevalent in rural areas (24% vs 6% urban, P<0.001). No difference in wasting was observed between the two settings (7% rural vs 9% urban, P<0.423). Monthly food frequencies (times) (Median, IQR) were higher in urban compared to rural areas for milk and dairy products (30, 15-45) urban vs (15, 15-30) rural (P<0.001) and fruits and vegetables (Mean, SD) (53, 31) urban vs (43, 29) rural, (P=0.008). Half the children (56%) had three between-meals snacks and dry finger foods (mean, SD) (1.7, 0.5) times daily. Rural parents described higher scores of snack control (Median, IQR) (16, 15-18) rural vs (15, 13-16) urban, (P<0.001), and felt children were more likely to seek snacks in response to hunger compared to urban children (5, 2-5) rural vs (4, 2-5) urban, (P<0.001). Surprisingly, more snack foods were consumed in rural areas (50, 33-75) rural vs (45, 33-60) urban, (P=0.042).

Eating snacks between meals is common in Thai children living in SBPs. Snack foods are widely eaten, even more in rural than urban children. Despite the substantial differences in socioeconomic characteristics and levels of stunting, there was little variation between urban and rural areas in the commonness of snacking.

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References

1. Okubo T, Janmohamed A, Topothai C *et al.* (2020) *Maternal & child nutrition* **16**(2).
2. Popkin, BM, & Ng, SW (2022) *Obesity reviews* **23**(1).
3. Wright, CM, Gurney, JM, Mutoro, A *et al.* (2021) *Nutrients* **13**(8).