

ODONTOLOGÍA

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Association between household food insecurity and oral health conditions in children
and adolescents of Ecuador: a cross-sectional national study

Original article

Association between household food insecurity and oral health conditions in children and adolescents of Ecuador: a cross-sectional national study

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Abstract

Background/Objectives: Household food consumption patterns serve as valuable indicators of Household Food Insecurity (HFI), which is increasingly recognized as a key social determinant of oral health (OH). However, the relationship between HFI and OH problems among Ecuadorian children and adolescents remains insufficiently explored. The present study aimed to evaluate the relationship between HFI, measured by indicators of household food consumption, and OH problems among Ecuadorian children and adolescents aged 5 to 17 years.

Methods: A cross-sectional study was conducted based on secondary data from the 2018 Ecuador National Health and Nutrition Survey (ENSANUT), a nationally representative survey with a probabilistic, stratified, two-stage sampling design. The analytical sample included 18,805 participants, comprising 12,336 children aged 5–12 years and 6,469 adolescents aged 13–17 years. OH problems were defined as reporting at least one of six OH-related conditions during the previous 12 months. HFI was measured by indicators of household food consumption using a 7-day food frequency questionnaire including Sugar-Sweetened Beverages (SSB), fast food, processed foods, among others. Tooth-brushing frequency was also examined. Descriptive analyses and crude and adjusted logistic regression models were performed separately for children and adolescents. Adjusted models included region, age, sex, mother’s ethnicity, mother’s educational level, and area of residence.

Results: The prevalence of OH problems were 42.5% among children and 32.9% among adolescents, while brushing less than twice a day was reported by 27.6% and 18.7%, respectively. In adjusted analyses, more frequent fruit consumption was associated with lower odds of OH problems in both age groups, whereas more frequent SSB consumption was associated with higher odds. Among children, higher fast-food and processed food consumption was also associated with greater odds of OH problems, while vegetable consumption was associated with lower odds. Among adolescents, higher-frequency consumption of SSB, fast food, and processed foods was associated with greater odds of OH problems, although the associations were less consistent than in children. Healthier dietary patterns were also generally associated with lower odds of brushing less than twice a day, particularly among children.

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