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The Situation and Factors Associated with Dental Caries Among Preschool Children in Nakhon Si Thammarat Province, Thailand

[Children](#) • [Article](#) • [Open Access](#) • 2026 • DOI: 10.3390/children13091282 [Kaewpawong, Pastraporn](#)^a ; [Kusol, Kiatkamjorn](#)^a ; [Pairoh, Hasanah](#)^b^a Excellence Center of Community Health Promotion, School of Nursing, Walailak University, Nakhon Si Thammarat, 80160, Thailand[Show all information](#)

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Abstract

Background: Early childhood caries (ECC) remains a major public health concern and is influenced by interactions among children, environmental, and dental care factors. **Purpose:** This study aimed to determine the prevalence of dental caries and identify factors associated with dental caries among preschool children in Nakhon Si Thammarat Province. **Methods:** A cross-sectional study was conducted among 435 children aged 3–5 years and their primary caregivers. Oral health was assessed by preliminary visual screening, and caregivers completed structured questionnaires on demographic characteristics, oral health attitudes and practices, and dental service utilization. Generalized estimating equations (GEEs) were used to account for clustering within child development centers. **Results:** Dental caries was identified in 52.6% of children, and 55.6% had visible oral uncleanliness. In multivariable GEE analysis, higher caregiver oral health care practice scores were associated with lower odds of dental caries (AOR = 0.05; 95% CI: 0.02–0.14; $p < 0.001$). Children whose caregivers had an educational level below a bachelor's degree had higher odds of dental caries (AOR = 3.03; 95% CI: 2.09–4.41; $p < 0.001$). Children who were never or only sometimes taken to a dentist for toothache also had higher odds of dental caries (AOR = 1.95; 95% CI: 1.31–2.90; $p = 0.001$). **Conclusions:** Dental caries remains common among preschool children in southern Thailand. Strengthening caregivers' practical oral health care skills and

promoting preventive rather than symptom-driven dental care may support caries prevention. © 2026 by the authors.

Author keywords

dental caries; factors; preschool children; situation

Indexed keywords

EMTREE medical terms

Article; association; attitude to health; bottle feeding; caregiver; child; child development; clinical assessment; content validity; controlled study; cross-sectional study; demographics; dental caries; environmental factor; factors associated; female; health; health care practice; health status; human; Likert scale; major clinical study; male; nutritional status; oral health assessment; preschool child; prevalence; primary caregiver; public health; questionnaire; scientist; situation; structured questionnaire; tooth brushing; tooth extraction; tooth pain

Device trade names

Commercial names given to devices, used for branding and differentiation in the market, commonly referenced in scientific and clinical research.

Tradename	Country	Manufacturer
IBM SPSS Statistics for Windows Version 24.0	United States	IBM

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