

Documents

Dantham, P.^a, Nuvvula, S.^b, Ismail, A.F.^c, Akkilagunta, S.^d, Mallineni, S.K.^{e f}

Association between passive smoking and dental caries status in children: A cross-sectional analytical study
(2024) *Dental and medical problems*, 61 (2), pp. 209-216.

DOI: 10.17219/dmp/156655

^a Department of Pediatric and Preventive Dentistry, Swargiya Dadasaheb Kalmegh Smruti Dental College and Hospital, Nagpur, India

^b Department of Pediatric and Preventive Dentistry, Narayana Dental College and Hospital, Nellore, India

^c Department of Paediatric Dentistry and Dental Public Health, Kulliyah of Dentistry, International Islamic University MalaysiaPahang, Malaysia

^d Department of Community Medicine, India

^e Liaison Center for Innovative Dentistry, Graduate School of Dentistry, Tohoku University, Sendai, Japan

^f Department of Pediatric Dentistry, Dr. Sulaiman Al Habib Hospital, Riyadh, Saudi Arabia

Abstract

BACKGROUND: Several risk factors contribute to the development of dental caries in children, including sociodemographic, dietary, oral hygiene-related and other miscellaneous factors. Maternal smoking was highly associated with dental caries when compared to smoking by fathers or other household members. **OBJECTIVES:** The aim of the study was to determine the prevalence of dental caries and their association with exposure to environmental tobacco smoke (ETS) among 5- to 10-year-old students attending private and government schools. **MATERIAL AND METHODS:** A cross-sectional analytical study was conducted among schoolchildren. Data was collected from the primary caregivers using a pre-tested form to assess the ETS exposure under 5 domains based on history: antenatal exposure; exposure during the index period; exposure in the school neighborhood; exposure in restaurants/roadside stalls; and exposure in bus stops/railway stations. Dental caries was assessed based on the World Health Organization (WHO) guidelines from 1997. The association was reported using prevalence ratios (PRs) (95% confidence interval (CI)). **RESULTS:** Data was obtained from 211 schoolchildren attending government (39.8%) and private schools (60.2%). The overall prevalence (95% CI) of dental caries was 49.3% (42.5-56.1%). Among all the risk factors evaluated in the study, exposure to ETS was associated with a significantly increased risk of dental caries. The adjusted prevalence ratio (APR) of ETS exposure varied with the mother's educational status and high sugar exposure, although this was statistically insignificant. **CONCLUSIONS:** The prevalence of dental caries among schoolchildren aged 5 to 10 years in the city was moderate and similar to the national average. Among the risk factors assessed in the study, antenatal exposure to ETS was found to significantly increase the prevalence of dental caries by 41% after adjusting for other factors. Therefore, it is important to educate parents on the causal role of ETS exposure in dental caries.

Author Keywords

dental caries; environmental tobacco smoke (ETS) exposure; prevalence; risk factors

Index Keywords

child, cross-sectional study, dental caries, female, human, male, passive smoking, prenatal exposure, preschool child, prevalence, risk factor; Child, Child, Preschool, Cross-Sectional Studies, Dental Caries, Female, Humans, Male, Prenatal Exposure Delayed Effects, Prevalence, Risk Factors, Tobacco Smoke Pollution

Chemicals/CAS

Tobacco Smoke Pollution

ISSN: 23009020

PubMed ID: 38668708

Language of Original Document: English

Abbreviated Source Title: Dent Med Probl

2-s2.0-85191525906

Document Type: Article

Publication Stage: Final

Source: Scopus

