

ABSTRACT

Introduction: Dental caries are one of the most common childhood chronic diseases. The prevalence and severity of dental caries are high among preschool children with primary dentition. Oral health behaviours play a significant role in the development of dental caries among preschool children. Parents' personal and socio-environmental factors are known to have an influence on children's oral health behaviours and dental health outcomes; however, the process through which each factor influences oral health behaviours and how this affects young children's dental caries remains unclear. The purpose of this study is to develop an explanatory model of factors underlying inequality in dental caries in young children aged 2–6 years in Surabaya, Indonesia, in relation to oral health behaviours.

Methods: This study used a mixed-methods approach with a sequential explanatory mixed-methods design. During the first phase, a randomly selected sample of 1,606 preschool children aged 2–6 years in 62 preschools in Surabaya, participated, with their parents, in a cross-sectional study. The decayed, missing, or filled teeth (dmft) index was used to assess the prevalence (dmft>0) and severity of dental caries (dmft mean score) among children. A questionnaire was completed by the parents to assess the impact of dental caries on the quality of life of the children and their families, and to assess the association between oral health behaviours and dental caries. During the second phase, 16 parents from the caries group and 15 parents from the caries-free group were interviewed to explore and explain the parents' personal and socio-environmental factors that influence children's oral health behaviours and dental caries outcomes.

Results: The prevalence of dental caries in children aged 2–6 years in Surabaya was high (79.8%), and negatively impacted on the quality of life of children and their families. Dental caries was significantly associated with sugar snacking, bedtime bottle habits, and dental visits. There appeared to be a difference in parents' personal and socio-environmental factors, which influenced oral health behaviours between children in the caries and caries-free group. The results also indicated a dynamic interaction between parents' personal and socio-cultural factors as a pathway through which these factors influenced oral health behaviours and dental health outcomes in children.

Discussion: Oral health-related parenting practices played an important role in the establishment of oral health behaviours in preschool children and have a likely implication on children's dental health outcomes. In addition to oral health knowledge and skills, parenting skills are needed, particularly to overcome any personal and socio-cultural-related barriers that may emerge whilst adopting appropriate oral health behaviours for children.

Conclusion: Factors influencing children's oral health behaviours and dental health outcomes are complex and require multilevel interventions, involving individuals (parents), family, social and structural levels.