

Objectives: Assess the individual risk of dental caries and associated oral health behaviors in a sample of sex-year-old children.

Methods: A cross-sectional observational epidemiological study was carried out in a sample of 221 six-year-old children of the Group of Schools Diogo Cão, Vila Real. An intra-oral observation was performed and a self-administered questionnaire about the children oral health behaviors was applied to the parents. To determine the association between the risk of dental caries and oral health behaviors the Chi-square test, with a significance level of 5% was applied.

Results: It was found that 61.1% of the children had a high risk of dental caries. The decayed, missing and filled index for deciduous teeth (dmft index) was 1.93 and 52% of the children were caries free. Statistical significant associations were found between the risk of dental caries and the level of education completed by fathers/mothers of children ($p < 0.001$), consumption of cariogenic foods ($p < 0.001$) and poor oral hygiene ($p < 0.001$). Only 14.9% of children brushed their teeth at school after lunch and only 48.4% learned to brush their teeth at school.

Conclusions: It seems important that schools develop more projects and practical activities of oral health, with special emphasis on the daily toothbrushing at school. Progress in terms of oral health, has been very little. Thus, if there isn't a turn around, we will hardly reach the appointed value prescribed by the World Health Organization for the year 2020 in Europe, which is 80% of children free of caries at 6 years of age.

Keywords: Carie-risk assessment. Oral health. Children. National Program for the Promotion of Oral Health.

ORAL MICROFLORA AND ORAL DISEASES IN A SAMPLE OF PORTUGUESE CHILDREN

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Introduction: The knowledge of the prevalence of dental caries in children leads us to adopt an increasing set of preventive measures allowing control not only of the etiological factors of the disease, but also to decrease its incidence. Knowledge of oral microflora and exploitation of alkalizing potential of some oral bacteria are a promising strategy with regard to the prevention of dental caries.

Objectives: This study aims to assess the behavior and oral health status of children participating by studying the association between oral health status of children and the presence of *Streptococcus mutans*, *Streptococcus gordonii* and *Streptococcus salivarius*.

Methods: An observational cross-sectional epidemiological study was conducted with 189 children aged 6 to 10 years old. A questionnaire was given to parents regarding oral hygiene behaviors of participating children. We conducted an intraoral observation to determine the decayed, missing and filled deciduous and permanent teeth indexes (dmft/DMFT indexes). Finally, the collection and molecular analysis of oral biofilm was accomplished.

Results: From the 70 participating children, 36.8% have a dmft index = 0, 44.2% a dmft index between 1-3 and 18.4% more than 3. We verified that 71.6% of children has a DMFT index = 0, 24.7% a DMFT index between 1 and 3 and 3.7% more than 3. This study also demonstrated that children who have dental caries are colonized by *Streptococcus mutans* 80% of the time. However, 85.7% of the children who did not have dental caries were colonized by *Streptococcus gordonii* and *Streptococcus salivarius*.

Conclusions: This study establishes a possible association between the absence of dental caries and the colonization by *Streptococcus gordonii* and *Streptococcus salivarius*.

Keywords: Dental caries. Oral biofilm. *Streptococcus gordonii*. *Streptococcus salivarius*. *Streptococcus gordonii*.

PREVALENCE OF DENTAL CARIES AND FISSURE SEALANTS IN A PORTUGUESE SAMPLE OF ADOLESCENTS

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Introduction: The use of fissure sealants is an effective intervention for the primary prevention of pit and fissure dental caries in children and adolescents.

Objectives: The aims of this study were to assess the prevalence of dental caries, as well as the distribution pattern of pit and fissure sealants on permanent teeth in a Portuguese sample of adolescents. **Methods:** A cross-sectional study was designed with a sample of 447 adolescents aged 12 to 18 years old, attending a public school in Sátão, Portugal. A self-administered questionnaire was answered by adolescents in the classroom. Clinical examination of oral health status and assessment of fissure sealants were accomplished.

Results: We obtained a DMFT index of 3.32 ± 2.92 , which indicates a moderate level of prevalence of dental caries. When considering a DMFT = 0, we found significant statistical differences between the parents' level of education (\leq 4th grade = 26.3 vs 5th-12th grade = 18.8 vs $>$ 12th grade = 43.3; $p = 0.001$), gender (male = 27.3 vs female = 19.6; $p = 0.04$) and presence of fissure sealants (yes = 30.6 vs no = 13.5; $p = 0.001$). When analyzing the prevalence of fissure sealants, we verified that 58.8% of adolescents had at least one fissure sealant applied. Significant statistical differences were found when analyzing the presence of fissure sealants related with parents' educational level ($>$ 9th grade, OR = 1.56 CI95% = 1.05-2.54), gender (female, OR = 1.86 CI95% = 1.19-2.98) and presence of dental caries (yes, OR = 0.35 CI95% = 0.19-0.65).

Conclusions: The moderate level of caries prevalence found in this study reveals the need of improvement of primary prevention interventions among Portuguese adolescents. The establishment of a more targeted preventive program with better and more effective oral health education is essential.

Keywords: Dental caries. Fissure sealants. Oral health. Adolescents.

THE INFLUENCE OF PARENTS' EDUCATIONAL LEVEL IN CHILDREN'S ORAL HEALTH BEHAVIORS

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Introduction: The impact of oral health in people's quality of life has received an increasing attention by health professionals. Prevention should begin, preferentially, within the family aggregate and continue at school, in order to teach children and adolescents adequate oral health behaviors.

Objectives: To assess children's oral health status and analyze the association with their parents' educational level.

Methods: We conducted an epidemiological, observational, cross-sectional study in a sample of 499 children aged between 3 and 11 years old from nursery and primary schools of Nelas, Portugal. Data was collected in two phases: firstly, by questionnaires directly applied to parents about their children and the household's oral hygiene habits and then, through an intraoral observation that