

## Low knowledge of Brazilian pediatric doctors about fluoride toothpaste for children, pacifier use and child's first visit to the dentist field research.

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### Abstract

**Objective:** To investigate the knowledge of pediatric doctors about the prescription of toothpaste in children, about the recommendation of using a pacifier and about the recommendation of the child's first visit to the dentist

**Study design:** Through a questionnaire approved by the national ethics committee, confidential interviews were conducted with 546 pediatric doctors through visits to private offices, hospitals and through interviews at a congress in the area.

**Results:** The 546 pediatric doctors, only 176 voluntarily participated in the study. 35 doctors (19.9%) do not recommend fluoride toothpaste for children, 18 (10.2%) recommend only after the age of 6, 41 (23.3%) recommend only after the age of 2, 72 doctors (40.9%) recommended fluoride toothpaste since the first tooth eruption in children and 10 doctors (5.7%) did not respond. Regarding the recommendation of using a pacifier, 103 doctors (58.5%) do not provide any kind of guidance, 46 (26.1%) recommend using up to 3 or 4 years old, 4 (2.3%) recommend use until the age a child wishes and 23 (13.1%) did not answer 139 (79%) recommend that the first visit to the dentist should be after first tooth eruption, 35 (19.9%) that first visit at the age of 1 to 2 years, 2 (1.1%) only in need of treatment or pain.

**Conclusion:** Only 40% of Brazilian pediatric doctors recommend using fluoride toothpaste since the first eruption of the baby tooth. Most doctors do not give any guidance about the use of pacifier. Most doctors recommend that first visit to the dentist should be when first tooth eruption

**Keywords:** Toothpastes, Pacifiers, Pediatricians.

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### Introduction

The scientific literature reports that the earlier the child's first visit to the pediatric dentist, the less likely it is to develop the caries disease [1-4]. Although it is recommended that children be taken to the dentist when they are one year old in order to that parents are given guidance on care related to the maintenance of your oral health, it is very most likely that a pediatrician will be the first professional health professionals to have the opportunity to address this issue a child's family [5]. Thus, it is essential that pediatricians have correct and up-to-date information on main problems that can compromise oral health of children and ways to prevent them. Caries is a common disease in early childhood and regular use fluoridated toothpaste plays a substantial role in its prevention [6,7].

The European Academy of Pediatric Dentistry (EAPD) makes recommendations and supports the use of fluoride toothpaste due to its efficiency in anti-cariogenic effects. Affirms that its use is safe through correct use supervised by parents and or guardians, which is the amount of toothpaste similar to 1 grain of rice for children up to 3 years of age, and above this age the amount similar to 1 grain of pea [8]. As well as numerous studies stand out in the prevalence of malocclusions and it is of great relevance for the execution of preventive actions and identification of these abnormalities. The pacifier suction acts as a mechanical impediment, altering the eruption of the

anterior teeth, which can later cause anterior open bite, unilateral or bilateral cross bite, maxillary atresia and increased over jet [9-11]. The objective of this study is to demonstrate the importance to disseminate information about the use of fluoride toothpaste and the use of pacifiers among pediatric doctors and encourage other surveys on this topic to be done around the world.

### Study Design

546 approaches were made to Brazilian pediatric doctors through visits to private practices, basic health units (UBS), hospitals, pediatric congresses and e-mail. A questionnaire composed of 3 multiple-choice questions was used, which were:

- When do you recommend fluoride toothpaste for children? Alternatives: do not recommend fluoride toothpaste for children; from the first deciduous tooth; from the age of 2 years; from the age of 6 years; none of the options.
- Do you recommend pacifier use? Alternatives: I do not issue guidance; I allow use until the age of 3 or 4 years; I allow use until the age of 6 years; allow use until the child's decision; none of the options.
- At what age does the doctor recommend the child's first visit to the dentist? Alternatives: When the first tooth

erupts; aged 1 to 2 years; aged 3 years or more; in case of pain or trauma.

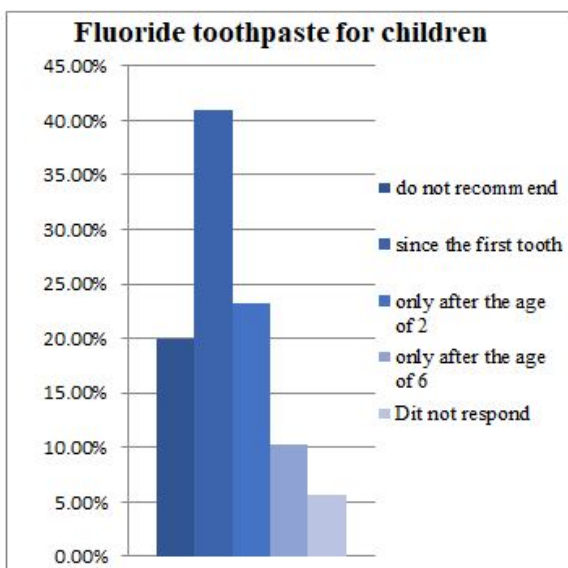
The inclusion criteria were pediatric doctors enrolled in the federal council of medicine and who agreed to participate and the exclusion criteria were doctors who are not specialists in pediatrics, doctors who did not agree to participate or were not regulars in the federal council of medicine. Doctors were informed that participation was voluntary and confidential by means of a free and informed consent form. Among the interviewees, 176 pediatricians agreed to participate in the research (32.2%). The study was previously approved by the local ethics and research committee.

**Recommendation**

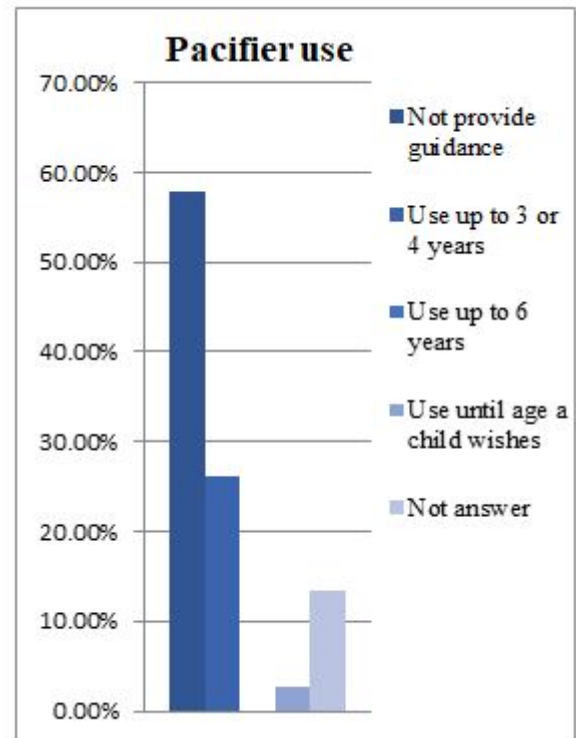
The 546 pediatric doctors, only 176 (32.2%) voluntarily participated in the study. Regarding the recommendation of Brazilian pediatric doctors of fluoride toothpaste for children, 35 (19.9%) doctors do not recommend fluoride toothpaste for children, 72 doctors (40.9%) recommended fluoride toothpaste since the first tooth eruption in children, 41 (23.3%) recommend only after the age of 2, 18 (10.2%) recommend only after the age of 6 and 10 doctors (5.7%) did not respond (Figure 1).

Regarding the recommendation of using a pacifier, 103 doctors (58.5%) do not provide any kind of guidance, 46 (26.1%) recommend using up to 3 or 4 years old, 4 (2.3%) recommend use until the age a child wishes and 23 (13.1%) did not answer (Figure 2).

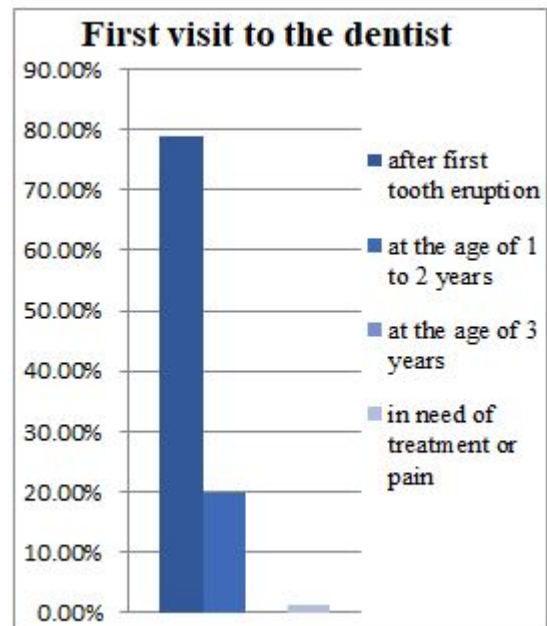
About first visit: 139 (79%) recommend that the first visit to the dentist should be after first tooth eruption, 35 (19.9%) that first visit at the age of 1 to 2 years, none responded from the age of 3 years and 2 (1.1%) only in need of treatment or pain (Figure 3).



**Figure 1.** Pediatric doctor’s recommendation about fluoride toothpaste for children.



**Figure 2.** Pediatric doctor’s recommendation about use of pacifier.



**Figure 3.** Pediatric doctor’s recommendation for the child's first visit to the dentist.

**Discussion**

Despite the great achievements and significant improvements about health, the oral health is still a major public health problem, with emphasis on the population of low

socioeconomic status, which is usually the most affected [12]. Even with a significant drop in the prevalence of caries in preschoolers in recent decades, this number is still large. Brazilian children have one of the highest rates of premature extractions due to tooth decay, resulting in a worsening of the quality of life of these [13]. We must consider as one of the causal factors of this condition the low knowledge of Brazilian pediatric doctors about the importance of fluoride dentifrice since the first deciduous tooth.

The pediatric doctor has an important role related to oral health, as it is this professional who has the first contact since birth with the child and establishes a close and continuous relationship. This imposes a fundamental role in preventing caries disease both by prescribing fluoride toothpaste and by advising on a healthy diet with low sugar levels as well as providing information about use of pacifiers and the prevention of harmful oral habits for malocclusion prevention [10,14].

A follow up study about caries prevention demonstrate that there was association between the number of dental visits and caries incidence. Children who had a smaller number of visits had higher incidence of disease during the 11 years of follow-up and 3 decades studied. A higher incidence of dental caries was associated with a longer interval between dental visits and children who had a follow-up interval greater than 12 months had an 18 times higher risk of caries compared to children with a maximum interval of 8 months [1].

Based on the results of this study, we consider the need to adopt strategies to provide for pediatric doctors more accurate information about the importance of using fluoride toothpaste on the child's since the first primary tooth and be able to provide guidance about the use of pacifier.

## Conclusion

Only 40% of Brazilian pediatric doctors recommend using fluoride toothpaste since the first eruption of the baby tooth. Most doctors do not give any guidance about the use of pacifier. Most doctors recommend that first visit to the dentist should be when first tooth eruption.

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