



ORIGINAL ARTICLE

**Preventive techniques for an adequate oral care in children of the Julio Moreno School Espinosa, Ecuador**

Técnicas preventivas para un adecuado cuidado bucal en niños de la escuela Julio Moreno Espinosa, Ecuador

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**ABSTRACT**

**Introduction:** good oral health is important from the important from the first years of a child's life. This consists in having a correct hygiene, periodical controls, adequate nutrition, not consuming sweets in excess, this will help to avoid oral problems in adolescence and adulthood.

**Objective:** to evaluate the level of knowledge of parents with children from three to five years old about oral hygiene and preventive techniques.

**Methods:** an observational, descriptive cross-sectional, descriptive, observational and cross-sectional study of parents with children from 3 to 5 years of age children from three to five years of age on oral hygiene and preventive techniques, from September to November 2022. The universe was constituted by 50 parents, the sample was constituted by 39, obtained by simple random sampling and the inclusion and exclusion criteria. The data were obtained from a survey elaborated for this purpose. The data were tabulated using Microsoft Excel in percentages.

**Results:** It was found that 62 % of the parents know which toothpastes are suitable for their children, 21 % do not know which toothpastes are suitable for their children, 21 % do not know what toothpastes are suitable for their children, and 18 % do not know much about and 18 % do not know much about it. Ninety-five percent of the parents recognize that it is important to visit the dentist periodically and 5 % do not think it is necessary at such an early age. necessary at such an early age. It was found that 74 % of the parents supervise their children's brushing parents supervise the brushing of their children three times a day, 3 % do not do it and 23 % do it sometimes.

**Conclusions:** educating children towards good oral health is paramount to prevent caries and other diseases. With proper guidance, they will progressively adopt habits and behaviors health-oriented habits and behaviors as part of their daily routine.

**Keywords:** Oral Health; Prevention; Caries; Techniques.

## RESUMEN

**Introducción:** tener una buena salud bucal es importante desde los primeros años de vida del niño, esto consiste en tener una correcta higiene, controles periódicos, alimentación adecuada, no consumir dulces en exceso, esto ayudará a evitar problemas bucales en la adolescencia y la adultez.

**Objetivo:** evaluar el nivel de conocimiento de padres con niños de tres a cinco años sobre higiene bucal y técnicas preventivas.

**Métodos:** se realizó un estudio observacional, descriptivo y de corte transversal en padres con niños de tres a cinco años sobre higiene bucal y técnicas preventivas, período septiembre a noviembre de 2022. El universo estuvo constituido por 50 padres, la muestra quedó constituida por 39.

**Resultados:** Se obtuvo que el 62 % de los padres conoce cuáles son las pastas dentales adecuadas para sus hijos, el 21 % no conoce y el 18 % no sabe mucho del tema. Un 95 % de los padres reconoce que es importante acudir periódicamente a consulta de odontología y un 5 % no cree que sea necesario en edades tan tempranas. Se pudo constatar que el 74 % de los padres supervisan el cepillado a sus hijos tres veces al día, un 3 % no lo hace y un 23 % lo hace a veces.

**Conclusiones:** educar a los niños hacia una buena salud bucal es primordial para prevenir caries y otras enfermedades. Con la orientación adecuada, adoptarán progresivamente hábitos y conductas encaminadas hacia la salud como parte de su rutina diaria.

**Palabras clave:** Salud Bucal; Prevención; Caries; Técnicas.

## INTRODUCTION

Having a good oral health is important from the first years of a child's life, this consists in having a correct hygiene, regular dental checkups, adequate nutrition, not consuming sweets in excess, this will help to avoid oral problems in middle and adult ages, in children it is easy to accustom them to acquire habits of hygiene that will last a lifetime, since being the age in which they can be better trained it is easy to instill healthy habits, Nowadays we can see that there is a large number of children who have problems with cavities and gums, this is due to poor oral hygiene and neglect by parents, since they are responsible for their children to acquire these habits of cleanliness and carry out measures of prevention and oral protection, since bad habits can cause serious pathologies and even the loss of teeth.<sup>(1)</sup>

The mouth is one of the most important organs of the digestive system, since it is where the process begins, the components of the mouth: teeth, gums, tongue are important to process the food we eat is for this reason that we must take care of this part of the body to prevent the onset of oral diseases. Educating children for a good oral health is essential to prevent cavities and other diseases for this reason children should be made aware from an early age and start with good oral hygiene habits because as they are small as they grow into adulthood these habits

will last, we must be aware that the lack of oral hygiene in children is due to the lack of information that exists in society.<sup>(2,3)</sup>

It is worth mentioning that the stages of child development are important for the development of oral hygiene tips, which include stage 1 (four-24 months), to notice the accumulation of plaque, a soft and viscous layer in which bacteria are deposited that accumulates on the teeth and causes tooth decay, parents normally clean the gums of their newborn with a damp cloth after breastfeeding or bottle feeding. When a child's first tooth comes in, brush the teeth for two minutes twice a day and start using a special soft-bristled toothbrush for children with a cushioned head and a small amount of fluoride-free toothpaste. Concerning stage 2 (2-4 years), children older than two years should use fluoride toothpaste to prevent caries as their teeth continue to develop.<sup>(4,5)</sup>

Even so, as a parent's duty, you should continue to supervise them and brush them again to make sure they are clean, in stage 3 (five-seven years), even if young children think they can brush themselves, most do not develop the manual dexterity to brush their teeth properly until they are seven years old, so parental supervision and, if needed, flossing is needed, and stage 4 (ages eight and older), as children start to grow up and go to school, parents no longer control what they eat during the day. Set an example for your child by following a healthy, balanced and varied diet and a regular oral hygiene routine that includes brushing twice a day and flossing daily.<sup>(6)</sup>

Children's dental health is very important and this is taken care of through proper dental hygiene habits such as those which are recommended: good brushing with a good technique, brushing their teeth with fluoride-based toothpaste that is appealing to children and that they take the initiative to care for themselves, inspecting their brushing, as this helps them to correct any brushing mistakes, and flossing from the age of seven. Teaching children good oral hygiene habits at an early age can translate into a lifetime of healthy smiles and a lifetime of beautiful smiles. Techniques you do to improve good technique in proper oral hygiene start cleaning your baby's mouth during the first few days after birth; wipe the gums with a clean, damp gauze or washcloth. As soon as teeth appear, tooth decay may appear.<sup>(7,8)</sup>

Teeth are the first thing you see when you smile, and if brushing is not done properly, decay is likely to develop and teeth will be affected. This can create a sense of embarrassment when showing teeth and affect behaviors in the child's environment. If this persists throughout their growth, there is the possibility of generating low self-esteem and this can lead to something more serious. A low child self-esteem is a very serious problem that develops in a very negative way as an adult. As parents, it is our duty to educate our children in proper oral hygiene so that, throughout their lives, the psychological problems derived are minimal and they can develop healthy and happy relationships.<sup>(9,10)</sup>

There are many factors that develop low self-esteem at an early age, but we should not underestimate those derived from dental health. We all like to see a good smile and we are happy to be able to smile in the same way. The diseases caused by poor oral health care in the oral cavity appear due to many factors, the main one being poor oral health care, poor diet and these same factors cause caries, gingivitis, periodontitis, halitosis, these affectations often lead to psychological and social problems such as lack of self-esteem, social rejection or depression.<sup>(11)</sup>

Therefore, it was decided to carry out a study to evaluate the level of knowledge of parents with children from three to five years old who attend the "José Luis Riofrio" school, located in the city of Santo Domingo, about oral hygiene and preventive techniques.

## METHODS

An observational, descriptive and cross-sectional study was carried out in parents with children from three to five years old, attending the "José Luis Riofrio" school, located in the city of Santo Domingo, Ecuador, on oral hygiene and preventive techniques, from September to November 2022. The universe was constituted by 50 parents, the sample was constituted by 39, obtained by simple random sampling and the inclusion and exclusion criteria. The data were obtained from a survey prepared for this purpose. The data were tabulated using Microsoft Excel in percentages.

### Inclusion criteria

Parents with children aged three to five years, of both sexes, who agreed to participate in the study.

### Exclusion criteria

Parents with children from three to five years of age, of both sexes, who do not agree to participate in the study.

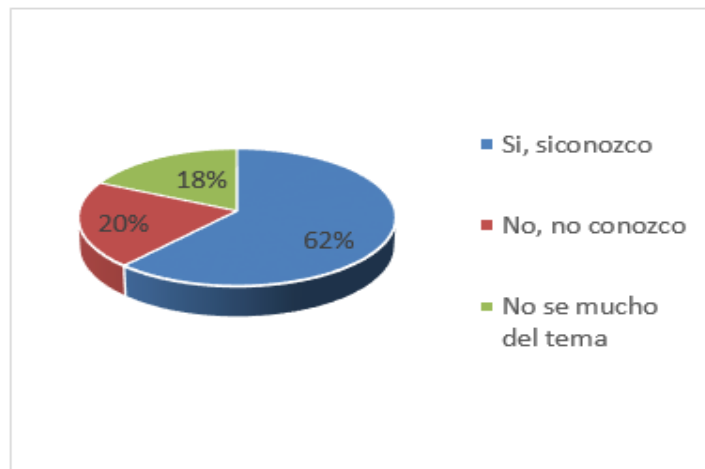
The variables used were: parental knowledge of toothpastes, parental knowledge of the importance of visiting the dentist, control of brushing by parents of their children.

The survey technique was used for data collection, where the opinions, attitudes and behaviors of the parents when it comes to oral care of their children can be known, with a high level of consistency, which demonstrates the reliability of the instrument. For the realization of the survey and its analysis, the technique and the Google Form instrument were used, where the answers of each person were determined and analyzed upon completion of the survey.

The principles of medical ethics and the aspects established in the Declaration of Helsinki were complied with. It was explained to the patients that the data obtained would only be used for research purposes.

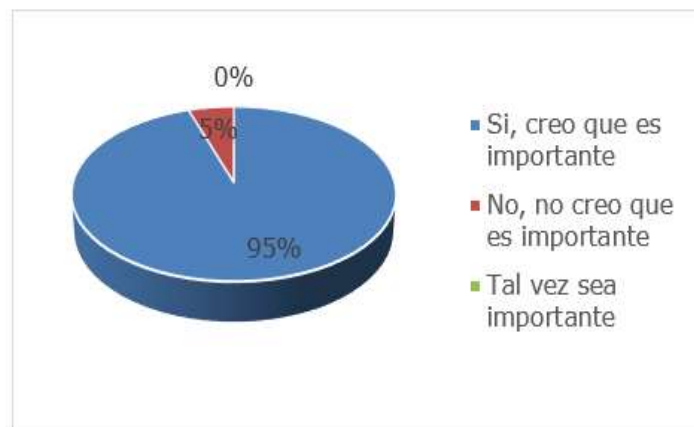
## RESULTS

It was obtained that 62 % of the parents know which toothpastes are suitable for their children, 21 % do not know and 18 % do not know much about the subject, taking into account that the population that does not know about the subject is 34,10 % is a worrying and striking figure (Graph 1).



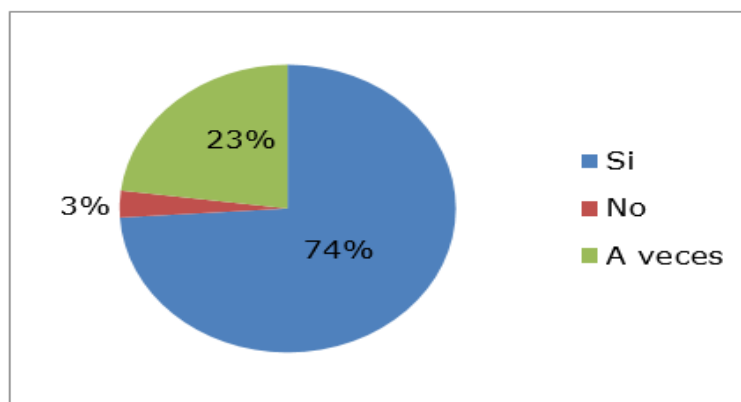
**Graph 1.** Parents' knowledge of toothpastes.

95 % of the parents recognize that it is important to visit the dentist periodically and 5 % do not think it is necessary at such an early age. (Graph 2).



**Graph 2.** Parents' knowledge of the importance of visiting the dentist.

It was found that 74 % of the parents supervise their children's brushing three times a day, 3 % do not do it and 23 % do it sometimes. This is a fundamental issue that requires attention, and more so in this issue regarding the oral care of their children (Graph 3).



**Graph 3.** Parents' control of brushing their children's mouths

## DISCUSSION

From this research and obtaining the necessary data to establish which are the important points that the population should take into account regarding the oral hygiene care of their children, we can say that there is a large number of parents who know about the subject, the risks and their responsibility but the percentage who do not know or know but do not do it is also significant, so we understand that there is a large number of children who do not have the necessary care and preventive measures to help them have a good oral health.

We were able to get an idea that parents have a knowledge based on the care of their children's mouths, however we cannot be lucky enough to talk about all parents, since education comes from home and sometimes they do not have the education and do not know how the proper oral care should be given to children who are the future, in them the healthy smile is shaped.

In the "Isla de Pinos" Popular Council of the Cruces Municipality (Cuba), a quasi-experimental intervention study was carried out in order to favorably modify the oral health knowledge of mothers with preschool children living in the area, from January 2006 to November 2007. Radical changes were observed in the mothers' attitude towards their children's oral health. The initial evaluation also showed deficient levels of knowledge, which ostensibly improved after the educational intervention.<sup>(12)</sup>

Another study carried out in the city of Medellin (Colombia), with the objective of identifying the frequency of dental caries in children under six years of age and describing the knowledge and oral care practices of their mothers, showed that 42 % of mothers in the medium-high socioeconomic level and 50 % in the low socioeconomic level stated that they had not received information on oral care for their children.<sup>(13)</sup>

Another team of researchers evaluated, also in Medellin, the level of knowledge after an educational intervention, in which it is highlighted that the level of knowledge increases ostensibly without reporting the initial or final figures of the same. A total of 178 mothers participated in the program and stood out in the questions on the time of initiation of oral hygiene and the consequences of prolonged pacifier use. They demonstrated that the educational talks are effective as a tool to raise the level of knowledge of mothers and caregivers of children under six years of age. Thus, 70,9 % of the participants with babies aged 10-12 months had a good level of knowledge; in the group of mothers of children aged seven to nine months the frequency was 66,6 %.<sup>(14)</sup>

## CONCLUSIONS

Preventive techniques for proper oral care in children are important to help prevent caries and other diseases that are caused by inadequate oral hygiene. Oral hygiene consists of taking care of the teeth, gums, tongue and the entire oral cavity. This is achieved by adopting proper oral hygiene habits such as brushing, flossing, regular visits to the dentist and not consuming excessive foods high in sugars, since the consumption of these can lead to tooth decay and other diseases caused by poor oral hygiene. The results of this survey showed that the guardians of the infants are not always aware of the oral care of the children and that most of them did not know how a dental abnormality in the infant can cause low self-esteem leading to depression, isolation and poor academic performance.

### Conflicts of interest

The authors do not declare conflicts of interest in relation to this research.

### Financing sources

The authors do not declare that they have received funding for the development of this research.

### Declaration of Authorship

All authors participated in the conceptualization, research, writing - initial draft, writing - revision and editing.

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