

EVALUATION OF PARENTS' KNOWLEDGE ABOUT CHILDREN'S ORAL HEALTH

AVALIAÇÃO DO CONHECIMENTO DOS PAIS SOBRE SAÚDE BUCAL INFANTIL

EVALUACIÓN DEL CONOCIMIENTO DE LOS PADRES SOBRE LA SALUD BUCAL DE LOS NIÑOS

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ABSTRACT

Evaluate parents' knowledge about children's oral health in Quixadá-CE and produce a local epidemiological survey. This study is a field research of the descriptive and quantitative type. Non-probabilistic convenience sampling was used, and data were collected from March 14 to July 19, 2022, through a printed questionnaire. There was a predominance of mothers in the children's monitoring, and a good part of child oral health care is misapplied. Most participants reported not receiving any oral hygiene guidelines and said they had difficulties applying child oral health care. Oral health promotion contributes to knowledge and the adoption of appropriate practices in health care and should be disseminated to families so that incorrect habits and future pathologies are avoided.

Descriptors: *Oral Health; Knowledge; Child; Health Education.*

RESUMO

Avaliar o conhecimento dos pais sobre saúde bucal infantil em Quixadá-CE e produzir um levantamento epidemiológico local. Este estudo é uma pesquisa de campo, do tipo descritivo e quantitativo. Utilizou-se de amostragem não probabilística por conveniência e os dados foram coletados no período entre 14 de março a 19 de julho de 2022 através de questionário impresso. Notou-se uma maior predominância das mães no acompanhamento das crianças e que boa parte dos cuidados com a saúde bucal infantil são aplicados de forma incorreta. A maioria dos participantes relatou não ter recebido quaisquer orientações de higiene bucal e afirmou sentir dificuldades em aplicar os cuidados com a saúde bucal infantil. A promoção em saúde bucal contribui para o conhecimento e a adoção de práticas adequadas nos cuidados com a saúde e deve ser difundida nas famílias para que sejam evitados os hábitos incorretos e patologias futuras.


Descritores: *Saúde Bucal; Conhecimento; Criança; Educação em Saúde.*


RESUMEN


Evaluar el conocimiento de los padres sobre la salud bucal infantil en Quixadá-CE y elaborar una encuesta epidemiológica local. Este estudio es una investigación de campo descriptiva y cuantitativa. Utilizamos un muestreo no probabilístico por conveniencia con datos recolectados del 14 de marzo al 19 de julio de 2022 a través de un cuestionario impreso. Hubo un predominio de las madres en el seguimiento de los niños y que buena parte del cuidado de la salud bucal infantil no se aplica adecuadamente. La mayoría de los participantes informaron no haber recibido ninguna guía de higiene bucal y dijeron que tenían dificultades para aplicar el cuidado de la salud bucal infantil. La promoción de la salud bucal contribuye al conocimiento y la adopción de prácticas adecuadas en el cuidado de la salud y debe ser difundida en las familias para evitar malos hábitos y futuras patologías.


Descriptorios: *Salud Bucal; Conocimiento; Niño; Educación en Salud.*

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INTRODUCTION

Dental procedures in children have been occurring more frequently, primarily due to the prevalence of cavities. This disease manifests aggressively and progresses rapidly during early childhood¹. This life stage is an ideal time to instill good habits, as children tend to develop them effortlessly in their daily routines and carry them into adulthood². Moreover, it is a crucial period to prevent deleterious habits such as finger-sucking and pacifier use, which can interfere with the development of oral bone structures, potentially leading to open bites and/or crossbites.

The first dental appointment for a baby should take place even before the eruption of the first deciduous tooth, aiming to prevent early cavity formation. It also serves to condition the child and instruct parents on routine oral health care. Additionally, this initial contact allows the Dentist to assess the gums, frenums, the absence of anomalies, or the presence of natal and neonatal teeth³.

During routine pediatric check-ups, which encompass the correct development of infants, assessments are made regarding growth, development, and guidance is provided to mothers on breastfeeding, hygiene, and care⁴. These check-ups should involve a multidisciplinary team to enhance maternal knowledge and promote comprehensive care for infants⁵.

Among the multidisciplinary team members, the presence of a dental professional is crucial. According to Oliveira et al.⁶, dental care for child health should commence during pregnancy through prenatal dental care. This preventive approach during gestation is essential for ensuring children grow free from oral health issues, such as cavities and periodontal disease, which are common in these patients¹.

The most common periodontal disease affecting children is gingivitis, caused by the accumulation of dental biofilm on the tooth surface. Therefore, emphasizing oral health education for parents is essential in promoting their children's health².

Health education actions in dentistry are significant from pregnancy onwards, as mothers initiate concerns for their babies' well-being during this period. It leads to the development of healthy habits that directly influence children's health. It is the responsibility of the Dentist to guide parents regarding appropriate breastfeeding duration, judicious use of bottles and pacifiers, low sugar consumption, and proper fluoride use, factors crucial for the adequate growth and development of the craniofacial complex³.

Given the presented facts, the issue of childhood dental caries should be addressed with parents and/or guardians as early as possible. Children developing this condition before the age of three, in their deciduous dentition, have a higher risk of developing it in their permanent dentition as well⁷. Removal of deleterious habits in this age group can naturally correct dental arch issues⁶.

Several factors contribute to achieving proper oral hygiene, including family income level, educational attainment of guardians, adequate availability of dental services, among others. Factors such as parental age, place of residence, family habits, as well as lack of knowledge on the subject, can be related to oral health².

Promoting oral health is fundamental for implementing good oral hygiene practices. Therefore, it is crucial that correct guidance is provided by health professionals to parents and guardians, ensuring the maintenance of their children's health, preventing diseases such as cavities⁸, gingivitis², and the avoidance of deleterious habits².

As presented, despite the crucial importance of caring for and promoting childhood oral health, there is currently no study addressing the level of parental knowledge regarding their children's oral health in the city of Quixadá-CE. Similar studies exist with this theme, but in other cities, such as the work of Macambira⁹. Thus, this study aims to fill this gap and draw attention to this important issue.

This study has the potential to collect and identify the degree of parental knowledge regarding child oral hygiene. Consequently, the findings can be used not only for scientific dissemination and advancing the state of the art but also to assist health care teams in providing better services, guide policymakers in defining public health policies, and improve parental knowledge regarding their children's oral health.

In this context, this study aims to assess parental knowledge of child oral health during consultations at the Primary Health Care Unit (PHCU) Centro and the Early Stimulation Center (ESC) in the municipality of Quixadá, Ceará. Additionally, it seeks to produce a local epidemiological survey regarding parental knowledge on the addressed topic.

METHODS

The present study is characterized as field research, descriptive and quantitative in nature. The research was conducted in Quixadá, a municipality with an estimated population of 88,899 inhabitants¹⁰, located in the Sertão Central region of the state of Ceará, Brazil. Non-probabilistic convenience sampling was employed, and data were collected in-person through printed questionnaires from March 14, 2022, to July 19, 2022.

Participants included parents/guardians attending pediatric check-ups at the Primary Health Care Unit (PHCU) Centro and routine appointments at the Early Stimulation Center (ESC), hosted at the Polyclinic Dr. Francisco Carlos Cavalcante Roque. Those who agreed to respond to the questionnaire and provided signed informed consent were included in the study. Exclusions comprised parents/guardians who did not attend the consultations, those who attended but declined the informed consent, and those who had previously participated, either in periodic check-ups or appointments with another child under the care of the same guardian. The selection of data collection sites was based on their initial suitability for the study's target population.

Following a detailed presentation of the research's objectives, participants who agreed to take part received the informed consent form for signature to formalize their involvement as study subjects. Subsequently, a questionnaire adapted from Macambira's⁹ work was administered, consisting of closed-ended questions covering socioeconomic profile, education level, age group of parents/guardians, and oral health of the children. Oral hygiene instructions were provided to participants after completing the questionnaire.

This study posed minimal risk to participants in terms of altering self-esteem, social embarrassment, psychological, or intellectual discomfort. However, it offered the benefit of promoting oral health through the provided hygiene instructions. The study ensured confidentiality, privacy, and protection of participants' images, with restricted access to the collected information, aiming to minimize any risks to the research participants.

The obtained data were analyzed descriptively, categorized, and dichotomized using Microsoft Excel to generate graphs and tables. The study adhered to the norms and guidelines of Resolution 466/2012 of the National Health Council (CNS), was submitted to the Research Ethics Committee (CEP) of the School of Public Health of Ceará (ESP/CE) and received approval under opinion number 5,284,570.

RESULTS

The sample consisted of a total of 26 participants (N), whose responses were deemed valid and hence included in the study. The age range of the interviewed parents/guardians varied from 20 to 53 years, with the majority having completed high school (53.8%) and a monthly family income of up to 1 minimum wage (80.8%). The complete list of participants' socioeconomic characteristics is presented in Table 1.

Table 1 – Socioeconomic characteristics of research participants (N = 26).

Variables	N	%
Relationship with the child		
Mother/Father	24	92,4%
Grandmother/Grandfather	1	3,8%
Others	1	3,8%
Age of the responsible individual		
20 a 29 years	6	23,1%

30 a 39 years	12	46,1%
40 a 53 years	8	30,8%
Education level of the responsible individual		
Incomplete Elementary	6	23,1%
Incomplete High School	2	7,7%
Complete High School	14	53,8%
Complete College	4	15,4%
Family income		
Up to 1 minimum wage	21	80,8%
1 to 2 minimum wages	2	7,7%
More than 2 minimum wages	3	11,5%

Source: Authors' elaboration, 2023.

Table 2 presents the characteristics of the children attended during the interviews conducted by the participants. These children ranged in age from 1 to 8 years, with 53.9% being male and 46.1% female.

Table 2 – Characteristics of the profiles of consulted children (N = 26).

Variables	N	%
Age of the child		
1 a 2 years	10	38,5%
3 a 4 years	14	53,8%
7 a 8 years	2	7,7%
Child's gender		
Female	12	46,1%
Male	14	53,9%

Source: Authors' elaboration, 2023.

Participants also responded to questions related to children's oral health, aiming to assess their knowledge on the investigated topic. The majority of respondents reported never receiving guidance on children's oral health (80.8%). When asked about the initiation of mouth cleaning for children, 46.2% considered it important to start immediately after the baby's birth, 42.3% after the eruption of the first tooth, and 11.5% at another age.

For most participants, it is not possible for a child to grow without cavities (57.7%), and 61.5% believe it is not possible to transmit them. Regarding the perceived frequency necessary for oral hygiene, 46.1% consider twice a day sufficient – typically after waking up and before bedtime – while 23.1% believe once a day is enough, the same percentage for three times a day, and 7.7% consider no hygiene necessary.

Concerning the daily practice of oral hygiene, 84.6% claimed to clean their child's mouth, 88.5% use fluoride toothpaste, and 73.1% use less than half the toothbrush bristles. When asked if they had taken their child to the dentist, only 26.9% answered affirmatively. Of the respondents, 53.8% claimed to have difficulty implementing oral hygiene care.

Table 3 shows the percentage data related to parents/guardians' knowledge and practices regarding children's oral health as presented earlier.

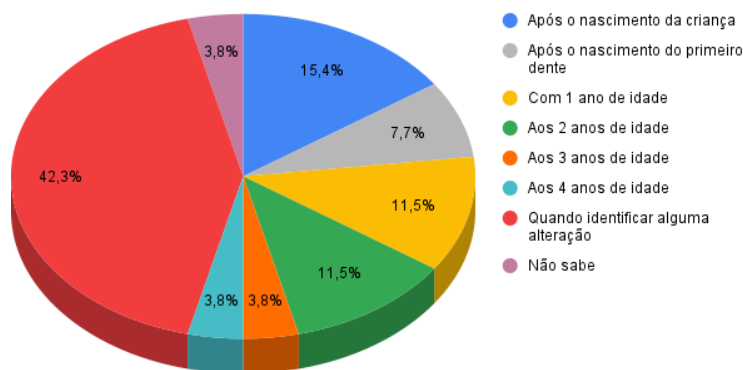
Table 3 – Knowledge and practices of parents regarding children's oral health (N = 26).

Questions	N	%
Have you received guidance on the oral hygiene care of the child(ren)?		
Yes	5	19,2%
No	21	80,8%
When to start cleaning the child's mouth?		
After the child's birth	12	46,2%
After the eruption of the first tooth	11	42,3%
Others	3	11,5%
Do you think a child can grow without cavities?		
Yes	11	42,3%
No	15	57,7%
Do you think cavities can be transmitted?		
Yes	9	34,6%
No	16	61,5%
Don't know	1	3,9%
How many times a day should the child's mouth be cleaned?		
None	2	7,7%
Once	6	23,1%
Twice	12	46,1%
Three times	6	23,1%
Practices adopted by parents/guardians		
Do you clean the child's mouth?		
Yes	22	84,6%
No	4	15,4%
Does the toothpaste used contain fluoride?		
Yes	23	88,5%
No	3	11,5%
How much toothpaste is placed on the toothbrush bristles?		
Less than half	19	73,1%
Half	5	19,2%
Covers all	2	7,7%
Have you taken the child to the dentist?		
Yes	7	26,9%
No	19	73,1%
Do you have difficulty implementing oral health care for the child?		
Yes	14	53,8%
No	12	46,2%

Source: Authors' elaboration, 2023.

Participants were asked about the correct age for the child's first dental visit (Figure 1). The ideal age for 15.4% is immediately after the child's birth, 7.7% after the eruption of the first tooth, 11.5% after completing the first year of life, the same percentage for those who believe the right time is at two years. For 3.8% of participants, the correct age is at three years, the same percentage who did not know, and an equal percentage who think four years is the appropriate age. The majority, represented by 42.3%, stated that the first visit should only occur when any oral alteration is identified.

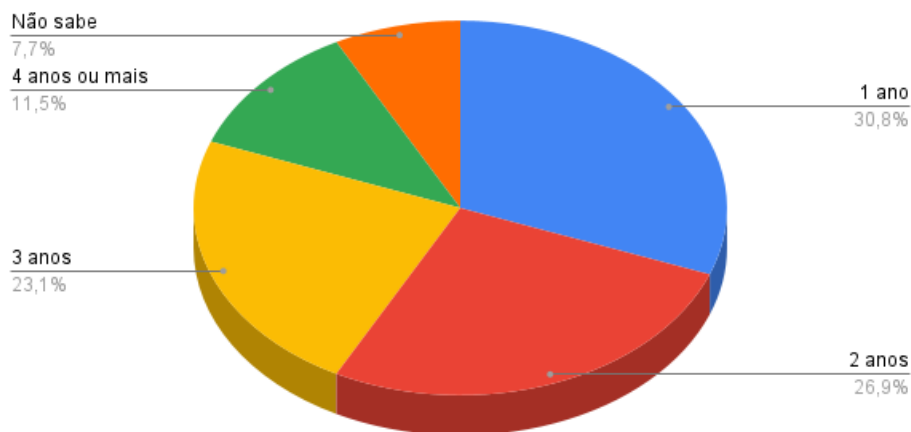
Figure 1 – Percentage of responses to the question: When should the first dental visit occur?



Source: Authors' elaboration, 2023.

When asked about the ideal age for children using pacifiers and/or bottles to stop this habit (Figure 2), 30.8% of participants said it should be 1 year, 26.9% said 2 years, 23.1% said 3 years, 11.5% chose 4 years or more, and 7.7% could not offer an opinion.

Figure 2 – Percentage of responses to the question: What is the ideal age for a child to stop using a pacifier and/or bottle, to avoid harming the dentition?



Source: Authors' elaboration, 2023.

DISCUSSION

The present study aimed to assess the knowledge of parents/guardians regarding child oral health. Due to the importance that parents play in children's health, several studies have evaluated their knowledge on this subject^{1, 4, 7, 8, 11}. Data collected from such research can contribute to the improvement of healthcare services and highlight the significance of health education. The discussion of the results is divided into two groups: (I) analysis of the socioeconomic profile and (II) knowledge and practices adopted in the daily lives of the respondents.

Socioeconomic data obtained from the research show a predominance of mothers accompanying their children to appointments (92.4%), a aspect already noted in the literature⁸, which reported 90.8% maternal presence and suggests that mothers are primarily responsible for their children's health care demands. Indeed, parents influence children's habits, with mothers playing a crucial role in adopting oral hygiene practices⁴. Another observed factor is a lower presence of young mothers aged 20 to 29 years (23.1%), and Ministry of Health data indicates a decreasing trend in births among young mothers¹².

The data reveal that the majority of respondents have completed high school (53.8%), followed by incomplete primary education (23.1%) and incomplete secondary education (7.7%). In other words, only 15.4% of participants have completed a university degree. This indicates a higher demand for public health services among individuals with lower education levels. This fact is easily understood when analyzing the participants' income, as only 11.5% have a monthly income exceeding two minimum wages. Once again, the results align with the literature, as shown in Brandão et al.'s work¹.

Analyzing the participants' data regarding knowledge of child oral health, there is a lack of correct information, with 80.8% stating they have not received any guidance. This highlights a gap to be filled in healthcare services, as health promotion is a valuable tool in preventing future diseases^{11, 13}. Dentists can play a crucial role in public health promotion, but they must have the support of public policies¹³. Regarding the proper initiation of child mouth hygiene, only 46.2% of participants provided the correct information. According to Brandão et al.¹, oral hygiene should start right after the baby's birth.

The majority of participants (57.7%) believe it is not possible for a child to grow without cavities, which is a misconception. With the adoption of preventive habits and proper nutrition, the occurrence of cavities can be minimized^{8, 14}. Regarding the possibility of cavity transmission, 34.6% claimed it is a

transmissible disease, despite literature suggesting otherwise⁴. Almost half of the participants (46.1%) believe brushing should occur only twice a day, while only 23.1% said three times a day would be ideal. The literature points to a lack of public knowledge in this aspect⁸.

Data obtained on the daily practices of the participants indicate correct habits, although not always performed correctly. For example, 84.6% clean the child's mouth, 88.5% use fluoride toothpaste, and 73.1% use the correct amount of toothpaste. However, only 23.1% clean the child's mouth three times a day. This information emphasizes the importance of health promotion in guiding proper oral hygiene practices.

Only 26.9% of participants had taken their child to a dentist, and 53.8% find it challenging to implement oral health care for the child. A significant number of participants (42.3%) stated that the first dental appointment should only occur when some alteration in the child's mouth is identified. This indicates a lack of understanding regarding the importance of preventive dental visits. Most participants (30.8%) mentioned that one year would be the ideal age for removing detrimental habits (bottle/pacifier), with only 23.1% stating that three years would be the correct age. The literature suggests that removing these habits by age three can lead to the natural correction of the dental arch^{5,6}.

CONCLUSION

Oral health promotion contributes to knowledge and, consequently, the adoption of appropriate practices in healthcare. The dissemination of this knowledge within families is important to prevent incorrect habits and future pathologies. The results obtained in this study show a greater predominance of mothers in overseeing children's oral health, making mothers a priority audience for health education. It was observed that although some oral health care practices are carried out, a significant portion of these practices is applied incorrectly, once again highlighting the importance of health education. The majority of participants reported not receiving any oral hygiene guidance and expressed difficulties in implementing oral health care for children.

It is important to note some limitations faced during data collection that hindered the participation of a larger number of respondents. These limitations include the context of the Covid-19 pandemic, which led to the suspension of some services, such as well-child visits¹⁴. Such visits have a target audience entirely aligned with the focus of this research. Additionally, even after the resumption of these visits, many parents/guardians did not feel secure about taking their children to healthcare facilities. These factors resulted in a lower participation of respondents..

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