AGE AT AND REASONS FOR THE FIRST DENTAL VISIT

Stanimira P. Mileva, Veselina K. Kondeva
Department of Pediatric Dentistry, Faculty of Dentistry, Medical University, Plovdiv, Bulgaria

ABSTRACT

INTRODUCTION: The ideal time for the first dental visit of a child as recommended by many professional dental organizations across the world is by the age of one year. The aim of this study was to survey the age and the most common causes for the first visit to the dental office, as well as the recommendations of dentists regarding this visit.

PATIENTS AND METHODS: The present study included 289 children visiting a dentist for the first time. The children were divided into 5 age groups and the reasons for the visit were categorized into 9 groups. The variables we assessed were the percentages of children in each age group and the reasons for the first visit to the dentist.

Respondents to a questionnaire were 145 dentists. The survey included questions on gender, years of professional experience, specialty, ability to work with children and recommendations concerning the age of the first visit to the dentist.

RESULTS: The greatest number of children making their first dental visit were in the 3-6 year-olds (51.90 percent) and the smallest number were the children younger than 1 year (1.73%). The most common reason for making this visit was caries and its complications (59.86%). The second most common reason was parents’ decision to have a prophylactic examination of their child (26.99%).

The number of dentists in this country that recommended that the first visit should be before the age of 1 year is small (17.93%). 39.31% of the respondents recommended that the first dental visit should take place between 1 and 2 years of age, and 31.03 percent - between 2 and 3 years. It was only pediatric dentists that recommended a dentist appointment in the first year of life - 47.37%. This study found that it was the female dentists that predominantly admit and treat children in their dental practices.

CONCLUSIONS: The results of the study show that in this country there is no established practice for children to make their first dental visit before they turn one year of age. The predominant cause to make the first visit is caries and its complications. It is necessary to work out recommendations on the age for the first visit to the pediatric dentist and related prophylactic measures.

Key words: first dental visit, pediatric age, tooth caries, prophylactic check-up

INTRODUCTION

Worldwide it is recommended that the first visit to the pediatric dentist should take place within the first age of life.1-7

A timely first visit of a child to the dental office is an essential part of the children’s health care. These early visits recommendations aim at detecting and controlling the various dental pathology and in particular the caries - a disease widespread among children and sometimes occurring immediately after teeth eruption.2

The main objective of the early first dental visit is to lay the foundations of preventive education and dental care in order to ensure optimal oral health during childhood.1 This visit should allow a dentist to detect early lesions, to evaluate craniofacial and dental development, to advise parents on hygiene, nutrition and behaviour in possible traumas and to motivate them for preventive-oriented events.8

This strategy establishes the practice of prevention leading to long-term benefits for the child and warrants that children will be free from caries9 because age is a significant determinant for early childhood caries10.

The age of the first preventive dental visit has a significant positive effect on costs related to dental health. 11

Prevention of caries in the youngest children is
possible if they have their visit to the dentist before or soon after the eruption of the first teeth. For this reason, in the UK parents are offered to make an appointment for their children with the dentist immediately after the breaking out of the first deciduous teeth, i.e. about 6 months of age.

The importance of an early visit to the dental office is highlighted by reports of oral colonization of Streptococcus mutans in six-month-old predentate infants with their mothers as a source of the infection. Some authors even advise that the first visit concerning the dental health of the child should take place during 4th month of the pregnancy. As a major source of Streptococcus mutans, the mother’s oral health is a risk factor for the oral health of the newborn. A visit before birth is essential for the establishment of the first contact between the dentist and the parents and to acquire information and trust between both parties. The time is adequate to teach the pregnant mother the principles of health education and to explain to her that the first teeth of her baby begin to form during this stage of pregnancy. Visits to the dental office can provide the mother with information what care must be taken to ensure the normal eruption of the teeth of her child, and how to maintain dental health after teeth eruption. It also makes it possible for hazardous situations to be identified and to prescribe caries-preventive agents such as fluoride. This visit is also suitable to plan the first visit of the future child at about the age of 6 months. This health strategy is easily realisable, economically viable and efficient. Thus a positive, conscious and responsible behaviour is achieved providing for the oral health of the child.

Regarding the recommendations of professional organizations for the first appointment of children with the dentist before the age of 1 year, some universities have develop public health programs associated with the oral health of the youngest population. Studies on the awareness of dentists on the importance of early first dental visit show different data on the number of those familiar with the recommendations that children visit dental offices before the age of 1 year.

There has been no study of the first dental visit and the reason for it in Bulgaria which motivated the conduction of the present study.

**AIM**

1. To survey the age and the most common reasons for the first visit to the dentist;

2. To study the recommendations of dentists for the first visit to the dental office.

**PATIENTS AND METHODS**

This study was planned and conducted at the Department of Pediatric Dentistry at the Faculty of Dentistry, Medical University - Plovdiv. It included 289 children who visited the department between 2008 – 2010 for their first dental visit. The children were divided into 5 age groups: up to 1 year, 1-2 years, 2-3 years, 3-6 years and over 6 years. The reasons for the first visit were categorized as follows: prophylactic examination; dental caries/complications; pain, discoloration of teeth/unaesthetic depositions/bad breath; trauma; malocclusion; missing/ supernumerary tooth: bad habits/other. The proportions of children in each age group and the reasons for the first dental visit have been assessed.

145 dentists answered the anonymous direct questionnaire. The survey included questions on gender, work experience, specialty, ability to work with children and recommendations concerning the age for the first visit to the dentist. The percentages of respondents giving different responses to the questions were calculated.

The results were analysed using the alternative analysis, \( \chi^2 \) criterion and the Student’s t-test. The level of significance for the null hypothesis was \( p \leq 0.05 \).

**RESULTS**

Only 1.73% of the children had their first dental visit before the age of one year, 15.92% - between 1 and 2 years, and 22.84% - between 2 and 3 years (Fig. 1). The largest number of children made their visit to the dentist at age 3 - 6 years (51.90%). The first appointment with a dentist for 7.61% of the study contingent was after the age of 6 years.

The distribution of children by reason for the first visit to the dental office is presented in Table 1. Statistically significant is the highest proportion of children who have visited a dental surgery because of caries and its complications (59.86%; \( p < 0.001, t = 5.99 \)). The next most common reason is the desire of parents to have prophylactic examination of their child (26.99%). In 16.26% of the children the predominant cause for the visit was pain. Relatively small is the number of patients with trauma (2.77%), unaesthetic staining (2.42%), malocclusion (1.04%), missing tooth or supernumerary teeth (0.69%). Other reasons for the first dental visit (7.61 percent) were aphthous stomatitis, physiologic replacement of teeth and...
for the first dental examination. The largest is the proportion of dentists with another specialty that are of the opinion that the first visit should be between 2 and 3 years of age (44.26%) (Fig. 3).

**DISCUSSION**

A change in the prospective from seeing only the healing aspect of dental care to the evaluation of its preventive and informative value will lead to improvement of the oral status of the child. A change in the prospective from seeing only the healing aspect of dental care to the evaluation of its preventive and informative value will lead to improvement of the oral status of the child. A change in the prospective from seeing only the healing aspect of dental care to the evaluation of its preventive and informative value will lead to improvement of the oral status of the child. A change in the prospective from seeing only the healing aspect of dental care to the evaluation of its preventive and informative value will lead to improvement of the oral status of the child.

Dental treatment is stressful for all ages but especially it is so for children. To minimize the unpleasant moments during treatment it is important

---

**Figure 1.** Distribution of children by age at their first visit to the dentist.

**Table 1.** Reasons for the first visit of children (n = 289) to a dentist

<table>
<thead>
<tr>
<th>Reasons</th>
<th>n</th>
<th>%</th>
<th>Sp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prophylactic examination</td>
<td>78</td>
<td>26.99</td>
<td>2.61</td>
</tr>
<tr>
<td>Tooth caries/complications</td>
<td>173</td>
<td>59.86</td>
<td>2.88</td>
</tr>
<tr>
<td>Pain</td>
<td>47</td>
<td>16.26</td>
<td>2.17</td>
</tr>
<tr>
<td>Trauma</td>
<td>8</td>
<td>2.77</td>
<td>0.97</td>
</tr>
<tr>
<td>Stains/unaesthetic deposits/bad breath</td>
<td>7</td>
<td>2.42</td>
<td>0.90</td>
</tr>
<tr>
<td>Malocclusion</td>
<td>3</td>
<td>1.04</td>
<td>0.60</td>
</tr>
<tr>
<td>Missing/above-the-number tooth</td>
<td>2</td>
<td>0.69</td>
<td>0.49</td>
</tr>
<tr>
<td>Bad habits</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>7.61</td>
<td>1.56</td>
</tr>
</tbody>
</table>

---

complications during teeth eruption.

Characteristic features of the surveyed dentists are presented in Table 2. The proportion of female dentists who treat children is significantly higher (90.22%), while for males the percentage of those who do not work with children is slightly higher. As a whole, the number of dentists who receive children in their practices remains roughly the same regardless of their work experience.

Only 17.93 percent of the dentists are familiar with the recommendation the first visit to be before the age of 1 year (Fig. 2). 39.31% of the respondents recommend the first dental visit to take place between the age of 1 and 2 years, and 31.03% - at the age of 2 to 3 years. There are doctors who prefer to examine children after the age of 3 years (11.72%) (Fig. 2).

The majority of pediatric dentists recommend the first visit to take place before the age of one (47.37%) or two years (42.11%) (Fig. 3). There is not a significant percentage of dentists without recognised specialty who recommend a specific age

**Table 2.** Characteristics of the surveyed dentists

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n = 145 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53 (36.55)</td>
</tr>
<tr>
<td>Female</td>
<td>92 (63.45)</td>
</tr>
<tr>
<td><strong>Work experience</strong></td>
<td></td>
</tr>
<tr>
<td>Up to 10 years</td>
<td>67 (46.21)</td>
</tr>
<tr>
<td>Above 10 years</td>
<td>78 (53.79)</td>
</tr>
<tr>
<td><strong>Specialty</strong></td>
<td></td>
</tr>
<tr>
<td>Without any specialty</td>
<td>65 (44.83)</td>
</tr>
<tr>
<td>Pediatric dentistry</td>
<td>19 (13.10)</td>
</tr>
<tr>
<td>Other specialty</td>
<td>61 (42.07)</td>
</tr>
<tr>
<td><strong>Treatment of children</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>110 (75.86)</td>
</tr>
<tr>
<td>No</td>
<td>35 (24.14)</td>
</tr>
<tr>
<td><strong>Consultation of pregnant women on the oral health of their children</strong></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>100 (68.97)</td>
</tr>
<tr>
<td>No</td>
<td>45 (31.03)</td>
</tr>
</tbody>
</table>
Age at and Reasons for the First Dental Visit

that there is trust between the child and the dentist. Trust-building is a tough and gradual process. A timely first visit to the dental office without the need for treatment, and regular contacts between child and dentist, would facilitate the conduct of treatment, if necessary in future.

The results of this study indicate that in this country most parents take their children for the first time to the dental office between 3 and 6 years of age. These data do not match those reported for India. The average age at which children there see the dentist for the first time is over 6 years. Between 6% and 8% of Indian children had their first visit before the age of 3 years. Data for Australia show that most children do not see the dentist before starting pre-school, i.e. about 5 years of age. In the USA the children who have visited the dental surgery at the age of 2-4 years is 32%. Slayton et al. report that only 2% of children under the age of 3 visit the dentist during their first year of life. Similar figures are available for Bulgarian children with a first dental visit by the age of 1 year (1.73%). These data suggest that there is still no established practice for parents to take their children to an early visit to the dentist.

In this country, as shown by literature data, the most common reason that prompts the first dental visit is caries. Despite the high percentage of caries and its complications, only in 16.26% of the children the leading cause was pain. This can be explained by decreased sensitivity of deciduous teeth due to changes that have occurred in the pulp. This means that the pain should not be regarded as an objective signal for the severity of the lesions. Age should be the criterion, which requires the preliminary examination and the dental care.

However, there are authors who report results different from ours. Study of the population in Brazil shows that in most cases the reason that prompts the first dental visit is prophylactic examination and prevention. This encouraging result may be due to the fact that this study followed an educational program conducted at a clinic for newborn in the dental school in Aracatuba.

The analysis of the questionnaire results shows that in our country the number of dentists who recommend the first visit to be before the age of
1 year is low (17.93%). The percentage of their counterparts in Canada is higher (58%)\textsuperscript{14} and also in Iowa, the USA (76%)\textsuperscript{15}, who are well aware of the recommendations of the professional organisations for first dental appointment before the age of 1 year. Although informed, only 11% of dentists in Iowa\textsuperscript{15} and 12% of general practitioners in Virginia\textsuperscript{16} assume that the first visit to the dentist should be between the age of 0 and 11 months. The majority of them (66%)\textsuperscript{15} as well as predominant number of Canadian dentists\textsuperscript{14} think that children must visit a dentist before the age of 2 years. In this country also the highest is the percentage (39.31 percent) of respondents recommending the first dental visit between the age of 1 and 2 years, followed by those (31.03%) who considered age 2-3 years as more appropriate. Only pediatric dentists most often recommend a dentist appointment in the first year of life - 47.37% in Bulgaria and 100% of respondents in Virginia, USA.\textsuperscript{16}

The proportion of respondents who answered positively to the question whether they advise pregnant women on the oral health of their children is high. This result is inconsistent with the rest of the results. The question arises whether such consultations are meaningful and purposeful. There is the routine practice pregnant women to attend the dentist in relation to their own oral status. These visits should be directed to inform expectant mothers on the preventive oral health care of their children.

Questionnaires conducted among pediatricians, including questions on the oral health of their patients, show that they believe that the first dental visit should be about the age of 3 years\textsuperscript{21}\textsuperscript{21} and only 5% of them recommend it to be done before 1 year of age.\textsuperscript{16} The authors of these surveys conclude it is necessary to increase the knowledge of pediatricians about oral health, risk factors and oral pathology of early childhood.\textsuperscript{16,21,22} The need for collaboration between all specialists in the field of health (pediatricians, obstetrician, gynecologists, general dental practitioners) is emphasized in order to promote timely first visit to the dental office and prevention aimed at the oral health of children.\textsuperscript{7,22}

The present study found that the number of female dentists who see and treat children in their dental practices is predominant. Wolfe et al.\textsuperscript{15} reached a similar conclusion. Their analysis shows that dentists who see young children in their offices are younger, recent graduates and very often female. However, we found no correlation between experience of dentists and their willingness to treat children.

Examination and treatment of young children poses a challenge for any dentist, even for professionals. Hardwick describes a detailed technique for the first examination.\textsuperscript{23} The author focuses on the conversation between the dentist or their assistant with parents and clarification of the procedures that lie ahead. Another point is the examination itself that is easiest to perform in position knee-to-knee.\textsuperscript{23}

**CONCLUSIONS**

Respondent dentists are not likely to recommend to parents early visit to the dental office, which is confirmed by the high percentage of children who have visited the dentist for the first time after the age of 3 years. Leading cause for the first visit is caries and its complications, which shows that parents do not seek prevention of dental diseases, and respond only if there is a visible problem.

Many dentists see and treat children in their practices, which requires them to be informed and in turn acquaint parents with the importance of the early first visit to the dental office.

Unfortunately, there is no professional debate on the age of the first visit of children to the dental surgery. Professional organizations in Bulgaria do not recommend any age for the first dental visit.

Given the lack of sufficient information to general dental practitioners, pregnant women and parents, it is desirable to have recommendations for the right age of the first visit to the pediatric dentist, techniques for carrying out the first screening and the preventive measures to safeguard the dental health of adolescents.

**REFERENCES**

К ВОПРОСУ О ВОЗРАСТЕ И ПРИЧИНАХ ПЕРВОГО ВИЗИТА ДЕТЕЙ В КАБИНЕТ ДЕНТАЛЬНОГО ВРАЧА

С. Милева, В. Кондева

РЕЗЮМЕ

ВВЕДЕНИЕ: Ряд профессиональных дентальных организаций в мире рекомендуют осуществлять первое посещение детей в кабинет детального врача до исполнения первого года жизни.

ЦЕЛЬ: Работа ставит себе цель установить возраст и самые частые причины первого посещения детей в кабинет стоматолога, как и рекомендации врачей относительно времени первого визита.

МАТЕРИАЛ И МЕТОДЫ: Исследование охватывает 289 детей, впервые посещающих зубного врача. Дети разделились на 5 возрастных групп, а по причинам визита - на 9 групп (отмечено процент детей по отношению к возрасту и к причинам визита).

Анкетировано 145 врачей. Анкета содержит вопросы относительно пола, трудового стажа, специальности, возможности работать с детьми, как и относительно рекомендаций, относящихся к возрасту первого визита к зубному врачу.

РЕЗУЛЬТАТЫ: Самый высокий процент детей, посещающих впервые врача, наблюдается среди возрастной группы 3 - 6 лет (51.90%), а самый низкий - среди детей до первого года жизни (1.73%). Самая частая встречающаяся причина визита - это зубной карies и его осложнения (59.86%), за ней следует желание родителей провести профилактический осмотр их ребенка (26.99%).

У нас процент дентальных врачей, рекомендующих осуществлять визит к стоматологу до исполнения первого года жизни, незначителен (17.93%). Большинство анкетированных врачей (39.31%) рекомендуют осуществлять визит в возрасте 1 - 2 года, а 31.03% - в возрасте 2 - 3 года. Единственным детальным дентальным врачам рекомендуется осуществлять первую встречу детей с врачом в течение первого года жизни (47.37%).

Настоящее исследование установило, что преимущественно дентальные врачи женского пола занимаются лечением детей.

ЗАКЛЮЧЕНИЕ: Полученные результаты показывают, что у нас не наблюдается практика раннего первого визита (до первого года жизни) в кабинет стоматолога. Зубной карies и его осложнения являются основной причиной посещения врача. Вот почему необходимы рекомендации со стороны дентальных врачей относительно подходящего возраста для первого визита в кабинет врача, как и рекомендации относительно профилактических мероприятий.