Dental Provider Attitudes Are a Barrier to Expanded Oral Health Care for Children ≤3 Years of Age

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Abstract

Purpose. To describe the perspectives of general dentists regarding oral health care for children ≤3 years.

Methods. Mailed survey of 444 general dentists in Michigan.

Results. Although most dentists were aware of recommendations for early dental visits, only 36% recommended their own patients begin dental visits by 1 year of age. Only 37% of dentists felt that screening for oral health problems can be done by medical providers, whereas 34% agreed administration of fluoride varnish by medical providers would be effective in preventing dental problems in young children.

Conclusions. Dentists’ failure to recommend 1-year dental visits is due neither to lack of awareness nor to capacity problems. The limited enthusiasm for involving children’s medical providers in oral health promotion signals attitudinal barriers that must be overcome to improve children’s oral health. Primary care providers should identify and refer to dentists in their community who are willing to see young children.

Keywords
access to care, oral health

Introduction

Since 1997, the American Academy of Pediatric Dentistry (AAPD)¹ and the American Dental Association² have recommended that the first dental examination occur at the time of the eruption of the first tooth and no later than 12 months of age. However, prior reports suggest that many general dentists are either unaware of, or not in agreement with, this recommendation.³⁻⁵

Less than half of children under age 3 have seen a dentist⁶; in contrast, nearly all young children receive routine well-child care from a medical provider. Thus, involving primary care physicians is essential to early detection of dental problems, risk assessment, and early intervention. In support of this position, the American Academy of Pediatrics has recommended that all well-child visits incorporate examination of children’s teeth, anticipatory guidance regarding tooth care, and application of fluoride varnish, when appropriate.⁷

The purpose of this survey was to document the perspectives of general dentists practicing in Michigan regarding initiation of dental care at age 1 year and involvement of medical personnel in oral health prevention—2 key strategies for expansion of oral health care for young children—to determine if attitudes have changed since earlier studies.

Methods

We conducted a cross-sectional mailed survey of a sample of general dentists practicing in Michigan. Our sample was drawn from the Michigan Dental Association’s membership list. We excluded dentists who were older than 65, and those with out of state addresses. In order to focus the survey on general dentists without easy access to specialty pediatric dental care, we excluded dentists practicing in the same cities as Michigan’s 2 dental schools (Ann Arbor, Detroit). The final sample included 444 general dentists.

We developed a brief survey instrument based on prior studies³⁻⁵ and from the awareness-to-adherence

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model for adoption of clinical guidelines. A draft survey was pilot tested by a convenience sample of practicing dentists; additional response choices were added based on pilot test comments. The final 1-page survey included questions on age at which the AAPD recommends beginning dental visits (write in age); recommendation to own patients about when to begin dental visits (write in age); capacity to see all children ≤3 years for routine preventive care, in their practice, and in their community (Likert-type scale of agreement); agreement that screening for oral health problems can be done by medical providers, and that fluoride varnish administration by medical providers would be effective in preventing dental problems (Likert-type scale of agreement); description of their own dental practice for children ≤3 years (general dental care, emergency care only, none); and acceptance of Medicaid patients.

In June 2011, we mailed a survey packet to each of the 444 general dentists in the sample. The packet included the 1-page survey instrument, a cover letter explaining the purpose of the study, and a $5 cash incentive. Only one survey mailing was conducted.

Frequency distributions were generated for all variables, and χ² analyses were performed to assess the association between key practice characteristics (acceptance of Medicaid, level of care for young children) and attitudinal variables. The study was approved by the University of Michigan Medical School Institutional Review Board (Ann Arbor, MI).

Results

Completed surveys were received from 229 general dentists, for a response rate of 52%. Most respondents (75%) reported providing general dental care for children ≤3 years of age; 18% limited their care to dental emergencies; and 17% provided no dental care to this group. Nearly half of respondents (47%) were not accepting any Medicaid patients.

Comparison of AAPD and General Dentist Recommendations

Most dentists reported that the AAPD recommends routine dental care to begin at 1 year of age; in contrast, less than half of dentists recommended that their own patients begin routine dental care at or before 1 year of age (Table 1). The majority (76%) of dentists who provide general dental care to children ≤3 years recommended beginning care prior to 3 years, compared to only 21% of dentists who provide emergency care or no care to young children (P < .001). Medicaid acceptance was not associated with recommended age to begin dental care.

Table 1. Dentists’ Knowledge of AAPD Recommendations Versus Their Own Patient Recommendation for Beginning Dental Visits.

| Age at Which AAPD Recommends Beginning Routine Dental Care | Age at Which Respondent Recommends Patients Begin Routine Dental Care |
|------------------------------------------------------------|---------------------------------------------------------------------|
| Less than 1 year                                           | 5%                                                                  |
| 1 year of age                                              | 69%                                                                 |
| 1.5 to 2.5 years                                           | 6%                                                                  |
| 3 years                                                    | 3%                                                                  |
| 4 years                                                    | 0%                                                                  |
| Don’t know                                                 | 17%                                                                 |

Abbreviation: AAPD, American Academy of Pediatric Dentistry.

Attitudes About Capacity of Dental Care

Over two thirds of dentists reported having sufficient capacity, in their own practice and in their community, to see all young children for routine preventive care (Table 2). Neither dentists’ practice patterns for young children nor acceptance of Medicaid was associated with capacity.

Attitudes About Role of Medical Providers

Most dentists disagreed that medical providers can screen children for oral health problems and that having medical providers apply fluoride varnish would be effective in preventing dental problems (Table 2). Dentists who provide emergency care or no care to children ≤3 years, compared to those who provide general dental care, were more likely to agree that oral health screening can be done by medical providers (55% vs 30%, P < .001). Dental practice patterns were not associated with attitudes toward fluoride varnish administration by medical providers. Dentist acceptance of Medicaid was not associated with either question about the role of medical providers.

Discussion

This brief survey of general dentists in Michigan reveals several attitudes that impede the expansion of oral health care for young children. The most significant finding is that while most general dentists correctly report that the AAPD recommends the first dental visit occur at age 1 year, only 36% recommend an early visit for their own patients. This confirms the anecdotal reports from primary care providers who attempt to refer young patients for early initiation of a dental home, only to be told by parents that the dental provider advised them to wait until the child is older. In response, primary care providers should identify dentists in their community who are willing to see children at 1 year, advise parents that not
all dentists offer visits for young children, and refer parents to those who do.

Survey findings dispute anecdotal reasons for why dentists do not provide dental visits to young children. One such reason is that dentists might be concerned about their practice’s ability to accommodate the increased patient load related to visits with very young children; however, less than 30% of general dentists in this survey reported insufficient capacity, either in their practice or in their community, to see all children ≤ 3 years for routine preventive care. Nonacceptance of children covered by Medicaid, due in large part of low reimbursement, is another oft-cited reason for not offering early dental visits, yet acceptance of Medicaid patients was not associated with dentists’ recommended age to begin routine dental care, nor with their perceptions of their own or their community’s capacity to see all children ≤ 3 years. Whether respondents assume that other providers will see sufficient numbers of Medicaid patients, or are simply not considering the Medicaid population in their responses, is unclear.

Survey findings seem a bit paradoxical regarding the involvement of medical providers in delivering oral health to young children. Essentially, although most dentists do not seek to provide dental care to children at age 1, they demonstrate little belief in the ability of children’s medical providers to offer oral health prevention to this age group. This is consistent with at least one previous report. Although Michigan Medicaid allows reimbursement for the administration of fluoride varnish by medical providers who have participated in a certification program, and although programs to teach pediatricians to apply fluoride varnish programs have been shown to decrease the incidence of caries-related treatments, most dentists did not view this as an effective strategy to prevent oral health problems. Overall, the survey findings offered no evidence that general dentists view pediatricians and other child health providers as partners in ensuring that all young children have good oral health. Child health providers will need to continue to support efforts to promote meaningful collaboration between medical and dental providers, in the hope of eventually establishing an interprofessional approach to enhancing oral health for children.

**Limitations**

There are several limitations to this study. First, 2 cities with dental schools were excluded, so the results do not represent the entire state. Response bias is an issue; although the 52% response rate compares quite favorably to other studies, it is possible that respondents are more interested or involved with providing dental care to young children. Finally, we did not verify self-reported dental practices.

**Conclusion**

This survey of general dentists highlights several challenges to ensuring that all children ≤ 3 years of age receive recommended oral health care. First, the low proportion of dentists recommending the age 1 visit to patients is due neither to a lack of awareness of the AAPD recommendation nor to a lack of capacity to see young patients. Second, general dentists express limited enthusiasm for involving children’s medical providers in screening for dental problems and administering fluoride varnish. Primary care providers should identify and refer to dentists in their community who are willing to see young children and support efforts to promote meaningful collaboration between medical and dental providers.

**Authors’ Note**

The survey instrument can be accessed by contacting the corresponding author.
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