BRIEF COMMUNICATIONS

Oral Health in the Pediatric Practice Setting: a Survey of Washington State Pediatricians

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Abstract

Background: *Pediatric health care providers may be the only source of preventive oral health education for families of young children who lack access to professional dental care.* ***Objective:*** *We surveyed Washington State pediatricians in order to characterize their oral health-related educational needs and anticipatory guidance practices.* ***Methods:*** *A 38-question survey was mailed to all 606 general pediatricians in Washington State. Topics included anticipatory practices and confidence in oral health-related activities.* ***Results:*** *Of 483 eligible participants, 271 returned completed surveys (response rate: 57%). A median of 30 percent of the well-child visit was devoted to providing anticipatory guidance. A majority (83.7%) of respondents reported providing anticipatory guidance on oral health.* ***Conclusion:*** *Washington State pediatricians are already involved in providing oral health anticipatory guidance. Certain factors are identified that should be addressed to allow pediatricians to promote oral health more effectively. [J Public Health Dent 2004;64(2):111-14]*

Key Words: oral health, anticipatory guidance, pediatrician.

Dental decay is the most common chronic disease of childhood and affects a disproportionate number of low-income children and minority children. These vulnerable children have more dental caries than other pediatric patients and encounter greater difficulty accessing timely and appropriate dental care (1). Although the American Academy of Pediatric Dentistry (AAPD) recommends that the first dental visit occur at no later than 12 months of age (2), children at greatest risk for early childhood caries are those least able to access dental care early in life. Pediatricians and other pediatric health care providers may be the only source of preventive oral health education and assessment for very young children and for those who are unable to access other sources of dental care. Acknowledging this, the American Academy of Pediatrics (AAP), Section on Pediatric Dentistry, released a policy statement in May 2003 recommending that pediatricians and other pediatric health care providers begin regular oral health anticipatory guidance and risk assessment before their patients are 6 months old (3).

This policy adds oral health to the long list of preventive activities, ranging from injury prevention to immunizations to breast feeding, that pediatricians are charged with addressing during well-child visits. Until recently, there have been few oral health resources to guide pediatricians in the provision of oral health anticipatory guidance and assessment. Where available, their content was generally limited to fluoride supplementation and timing of dental referral. Although pediatricians reported that they discuss oral health preventive topics and examine their patients' teeth at well-child care visits (4), we know little about how oral health anticipatory guidance is provided or about barriers to participating in oral health activities in the pediatric office setting. We surveyed Washington State pediatricians in order to characterize their oral health-related educational needs and anticipatory guidance practices. Insight into these areas can inform and enhance collaborative efforts between public health, dental, and pediatric professionals to promote pediatric oral health.

Methods

The institutional review board of the University of Washington approved all study activities. Using the American Medical Association (AMA) Master File, we identified all 606 general pediatricians in Washington State who were in clinic- or hospital-based practice. The AMA Master File is considered to be the most inclusive list of licensed physicians in the United States. After the first mailing to the entire list, two subsequent mailings were made to nonrespondents.

Survey Instrument. There were 38 questions. Survey recipients were asked to estimate their time spent on a well-child care visit, the percentage of the visit devoted to anticipatory guidance, and about their current general and oral health anticipatory practices. Inquiries also were made about anticipatory guidance format and preferences. Finally, survey recipients were asked about their confidence in addressing certain oral health issues and the perceived barriers to successful delivery and implementation of oral health-related activities.

Data Analysis. All statistical analysis was performed on SPSS for Windows, Version 10.0 (SPSS, Chicago, IL). For continuous variable, medians were reported when the value differed

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by more than 2 from the mean value. Chi-square analysis and odds ratios were generated when comparing categorical variables.

Results

Of the 606 surveys distributed, 49 were returned without forwarding address and 74 recipients reported no longer being in practice or not providing well-child care. Of the remaining 483 eligible participants, 271 returned completed surveys giving a response rate of 57%. Respondents had been in practice for a mean of about 13 years and saw an average of 91 patients per week (Table 1).

Of the 20 minutes, on average, spent on the well-child care visit, a median of 30 percent of the visit was devoted to providing anticipatory guidance. However, only 39 percent of respondents felt they had adequate time to cover anticipatory guidance, and more than half said they excluded certain topics because of limited time. Pediatricians valued anticipatory guidance materials for their patients that were easy to read, self-explanatory, comprehensive, and culturally appropriate, in that order (Table 2).

A majority (83.7%) of respondents reported providing oral health anticipatory guidance. While 59.7 percent of respondents relied on verbal means to provide general anticipatory guidance, significantly more respondents (83.7%) reported that they provided oral health anticipatory guidance verbally (McNemar chi-square $P<.001$). Perceived level of confidence with providing oral health anticipatory guidance and assessment varied by the topic (Table 2). Less than two-thirds were confident they could identify children at risk for dental decay. Respondents were even less confident that they could identify early caries lesions or manage dental trauma. They had the least confidence that patients could obtain timely dental appointments. Pediatricians whose patient panel consisted of more than 25 percent Medicaid beneficiaries (compared to those who saw less than 25%) were significantly more likely to lack confidence that their patients could obtain timely dental appointments (odds ratio=2.4; 95% CI=1.4, 3.9).

Discussion

Until recently, pediatricians have been a largely untapped resource to promote oral health at well-child care visits. The Surgeon General's report on oral health, published in 2000, emphasized the importance of collaborative efforts between medical and dental professionals to improve children's oral health (5). Now, with the release of the AAP oral health policy statement (1), the number of pediatricians who address oral health is expected to increase further. Rather than supplant dental professionals, the goal of increased physician involvement in oral health is to: (1) reinforce the importance of oral health and of professional dental care, and (2) provide a source of regular oral health preventive education and assessment, particularly for those children who lack consistent access to dental care. Results of this survey indicate that Washington State pediatricians are already participating in oral health preventive activities. However, certain factors are apparent that may limit their ability to effectively promote oral health in their practices.

One of the pediatricians' chief concerns is the limited time allocated to each well-child care visit. This is a systemic problem driven, in large part, by decreasing reimbursement rates that have forced physicians to increase the number of patients seen in a given period of time. Although beyond the scope of this project, it is within this context that pediatricians are asked to expand their involvement in oral health. In this survey, pediatricians acknowledged their limited time often prevents them from providing all of the anticipatory guidance that they would like. This is not surprising, given the number of anticipatory topics pediatricians are asked to discuss at each well-child care visit.

As we contemplate how to increase pediatrician involvement in oral health, two potential solutions emerge from this survey that may address some of these time concerns. First, only a minority of pediatricians in this survey consistently used a pre-visit questionnaire to assess a family's need for anticipatory guidance. Incorporating such a questionnaire into more pediatric offices with questions on medical, social, developmental, and behavioral concerns, as well as an assessment of risk for injuries, dental problems (e.g., caries, malocclusion), obesity, and other problems would help practitioners to hone in on those anticipatory guidance topics most likely to benefit an individual patient and family. For example, an infant identified from the pre-visit questionnaire as having older siblings with early childhood caries could receive more intensive attention to preventive oral health topics. These question-

TABLE 1
Characteristics of Survey Respondents and Their Practices

Characteristics	Response
No. of years in practice, mean (SD)	13.6* (8.4)
Patients seen per week, mean (SD)	90.8* (56.4)
Hours seeing outpatients per week, mean (SD)	33.4* (11.7)
Medicaid patients, mean % of total patients (SD)	30.5 (25.0)
Median	25
Patients with limited English skills, mean % of total patients (SD)	14.0 (19.8)
Median	5.0
Length of well-child care visit in minutes for child 36 months or younger, mean (SD)	21.6 (6.1)*
Time spent on anticipatory guidance at well-child care for child 36 months or younger, mean % of total visit (SD)	37.2 (21.7)
Median	30.0
Use of previsit questionnaire to assess family's need for anticipatory guidance	
Yes	15.6%
No	70.6
Sometimes	13.7

*Median and mean were similar (within 2 percentage points).

TABLE 2
Characteristics of Anticipatory Guidance Provided and Confidence Level in Oral Health Topics and Care

Characteristics	Response (%)
General anticipatory guidance	
Anticipatory guidance format used most often to deliver general anticipatory guidance	
Verbal	59.7
Written	14.8
Other (including video, combo written/verbal)	25.5
Level of agreement with following statements about general anticipatory guidance	
Parents understand content (agree/strongly agree)	80.5
Because of limited time, respondent deletes/excludes certain topics (agree/strongly agree)	52.5
Parents implement recommendations made (agree/strongly agree)	44.6
There is adequate time to fully cover guidance during well-child care visits (agree/strongly agree)	39.0
Top-ranked attributes of anticipatory guidance material (% who ranked in top 3)	
Materials are easy to read and understand	97.2
Materials are self-explanatory	77.2
Materials are comprehensive (i.e., provide all information for a given age at one time)	46.5
Materials are culturally appropriate	38.8
Oral health anticipatory guidance	
% providing anticipatory guidance on oral health topics	
Yes	80.7
No	2.3
Sometimes	16.7
Of those who provide oral health anticipatory guidance, format most often used:	
Verbal	83.7
Written	5.7
Other	8.3
Of those providing guidance, % satisfied what currently doing (satisfied/very satisfied)	80.3
How confident did respondent feel with following topics (% confident/very confident)	
Determining need for fluoride supplementation	93.7
Prescribing right fluoride dose	93.7
Counseling families on prevention of cavities	82.5
Identifying a child at risk for decay	62.7
Ability to identify untreated caries	58.7
Demonstrating tooth cleaning for a child	54.8
Identifying early decay	38.4
Managing dental trauma	33.9
That patients who want to see a dentist can obtain a timely appointment	31.5

naires, however, may have limited usefulness for families who lack literacy or English skills.

Second, most pediatricians report relying on verbal means to communicate oral health anticipatory guidance. Use of well-designed written or video educational materials would not only save time for the practitioner, but would reduce variation in the content of the oral health message that is delivered. On a systemic level, expanded reimbursement for physicians to provide oral health-related assessment and anticipatory guidance or increased levels of reimbursement overall for well-child care visits could also alleviate some time concerns and constraints within pediatric and other medical practices.

An important part of pediatrician involvement in oral health is to promote the importance of professional dental care visits. Pediatricians' confidence that they could identify conditions that would require something other than routine referral to a dental provider was low. Perhaps more importantly, pediatricians' lack of confidence that their patients will be seen by a dental professional in a timely manner poses a substantial barrier to fully involving pediatricians in the oral health of their patients.

Certain limitations of this study bear mentioning. As with any survey, there exists the possibility of responder bias. Those who responded may represent the group most aware of oral health. In addition, our survey was limited to pediatricians in Washington State. Results may not be entirely generalizable to other regions. Family physicians and pediatric nurse practitioners also care for children and should be included in future surveys and in efforts to increase primary care provider involvement in pediatric oral health. Lastly, this survey inquired only about providers' perceptions of their patients' anticipatory guidance needs and experiences. Future research should focus on understanding patient and families' needs and experiences, as well.

Results of this survey indicate three main factors that will be important in promoting a successful increase in pediatrician involvement in preventive oral health, in keeping with the recent AAP oral health policy statement. Development of oral health materials, both for assessment and patient education, that specifically address physicians' preferences and time concerns may help to reduce barriers to their involvement. Physicians also require additional training to allow them to provide evidence-based oral health education to families and to identify early problems requiring professional

dental intervention. Finally, to effectively promote oral health, pediatricians must be assured that all of their patients, including Medicaid-insured and uninsured, can receive timely preventive and restorative dental care. Pediatricians can expand their involvement in oral health prevention, but they can never replace the care that dental professionals provide. Continued attention to disparities in dental care access is important.

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