Scientific Article

Advocacy Training in US Advanced Pediatric Dentistry Training Programs

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Abstract: ***Purpose:*** *This study: (1) assessed pediatric dentistry residency program directors' attitudes toward and involvement in advocacy training; and (2) identified types and extent of advocacy training in U.S. pediatric dentistry programs.* ***Methods:*** *Between October 2005 and February 2006, all 66 pediatric dentistry residency program directors were invited to complete a 62-item online questionnaire. The survey investigated: (1) directors' attitudes toward advocacy training; (2) nature of advocacy training offered during residency; (3) extent of resident involvement in different settings; and (4) directors' involvement in advocacy.* ***Results:*** *Forty-two program directors responded (64%). Overall, respondents agreed that advocacy by pediatric dentists for children beyond the dental office was important and that residency programs should provide advocacy training. Most programs did not routinely offer advocacy opportunities in nonclinical settings. Over half of programs required community outreach clinic rotations for all residents. One third offered didactic curriculum in the legislative process. Over 50% of program directors reported personal involvement in legislative oral health lobbying within 3 years, but fewer than a third were involved with professional political action committees (PACs).* ***Conclusions:*** *Advocacy is seen as an important in pediatric dentistry, but variation in attitudes of program directors and program offerings exists in US training programs.* *(Pediatr Dent 2008;30:141-6) Received April 20, 2007 / Last Revision August 10, 2007 / Revision Accepted August 14, 2007.*

KEYWORDS: ADVOCACY, PROGRAM DIRECTORS, ATTITUDES, CURRICULUM, EDUCATION, RESIDENCY PROGRAM, PEDIATRIC DENTISTRY

Pediatric dentistry is the dental specialty primarily responsible for promoting oral health of all children.[1] The American Academy of Pediatric Dentistry (AAPD) strongly encourages all its members to be involved in advocacy efforts to enhance the oral health care of children and persons with special health care needs.[2] Despite this emphasis, few pediatric dentists receive formal advocacy training about the complex health care system and social factors that complicate the well-being of children.

Pediatric medicine has long recognized the need to train physicians who act both as clinicians and child advocates. In 1996, the Pediatric Residency Review Committee (**RRC**) of the Accreditation Council for Graduate Medical Education (**ACGME**) required residency programs to incorporate structured educational experiences into existing curricula to prepare future physicians for their roles as advocates within the community.[3-9] The Ambulatory Pediatric Association also includes community-based education in its residency curriculum guidelines. According to Shope et al, "Both documents strongly emphasize community-based clinical and nonclinical experiences, such as involvement in schools and day care centers, interaction with community organizations, participation in child health promotion and advocacy, and exposure to public health and prevention activities."[4]

Educational models in pediatrics have included:

1. community-based block rotations and cultural-immersion experiences where residents learn firsthand about the health and social needs of children and families in their community;
2. rotations working with a variety of medical and nonmedical professionals at community-based organizations;
3. participation in community health conferences and cultural competency training;
4. training in basic public health principles and practices;
5. workshops introducing core concepts in child/community/legislative/policy advocacy;
6. completion of child advocacy projects; and
7. seminars on leadership skills.[3,5,10,11]

In contrast to pediatrics, no pediatric dentistry literature discusses advocacy curricula for residents. Although the Commission on Dental Accreditation (**CODA**) has no standard for formal advocacy training during advanced education

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in pediatric dentistry, the nature of training and the advocacy emphasis of the specialty offer a unique opportunity to integrate structured curricula related to community-based experiences, advocacy skills, and leadership development into programs. Indeed, many pediatric dentistry residencies offer residents opportunities for training in community dentistry, health promotion, and advocacy, but these vary in content, setting, and length. In view of the commitment of the specialty to advocacy by its members at all levels, a review of the nature of advocacy training seemed relevant.

The purposes of this study were to: 1) assess pediatric dentistry residency program directors' attitudes toward and involvement in advocacy training; and 2) identify types and extent of advocacy training in advanced pediatric dentistry programs in the United States.

Methods

This study was approved by the Institutional Review Board at Columbus Children's Hospital in Columbus, Ohio. Between October 2005 and February 2006, pediatric dentistry residency program directors were invited via e-mail to participate in a 62-item, Web-based questionnaire. Two follow-up requests targeting nonrespondents were done electronically by the study investigators. The AAPD's listserv for program directors was used to solicit participation by all US program directors. A survey was designed using information from the AAPD Mission and Vision Statements[1] and relevant curriculum data from pediatric educational literature. Survey content was designed by a group of pediatric dentists actively involved in child advocacy. The questionnaire was pilot tested for content and understandability with 5 pediatric dentists. The survey solicited information from program directors in 7 domains, which were derived from the AAPD mission and vision statement and other advocacy literature:

1. attitudes toward advocacy and training as part of pediatric dental specialty;
2. attitudes toward specific training models for preparing pediatric dentists to be effective advocates;
3. frequency of advocacy and policy Web sites utilization within past year;
4. topics and types of advocacy experiences offered during the residency program;
5. topics covered as part of didactic advocacy curriculum;
6. extent of resident involvement in different advocacy settings; and
7. engagement in AAPD-sponsored advocacy activities.

In addition, information such as program name, type of residency program, and years in current position as program director was gathered.

For this study's purpose, advocacy was defined as "a course of action that involves determination of children's needs and development of strategies to meet them."[12] Advocacy is "to speak up, to plead, or to champion for a cause while applying professional expertise and leadership to support efforts on individual (family or patient), community, and legislative/policy levels, which result in the improved quality if life for individuals, families, or communities."[4]

Descriptive statistics were used to characterize attitudes toward advocacy training and describe the extent and spectrum of topics taught in the participating programs. Not all respondents answered all questions, and percentages were calculated based on the total who responded to each question. Chi-square analysis was used to test for certain associations regarding the program director's attitudes and experiences. Analysis was conducted using SPSS software (v. 11.5, SPSS, Inc, Chicago, Ill). A P-value ≤.05 was considered significant.

Table 1. PEDIATRIC DENTISTRY RESIDENCY PROGRAM DIRECTOR ATTITUDES ABOUT ADVOCACY AND ADVOCACY TRAINING

Questions	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
	Reported as N (% rounded)				
Advocacy for children beyond the dental office by pediatric dentists is an appropriate part of the specialty of pediatric dentistry	4 (10)	0 (0)	1 (2)	6 (14)	31 (74)
Pediatric dentists who participate in advocacy efforts are better pediatric dentists than those who don't	10 (24)	5 (12)	10 (24)	10 (24)	7 (16)
Pediatric dentistry postdoctoral programs should provide advocacy training to residents as part of their pediatric dentistry postdoctoral training	1 (2)	0 (0)	6 (14)	10 (24)	25 (60)
Advocacy training should be a required experience in the ADA-Commission on Dental Accreditation standards for postdoctoral pediatric dentistry programs	4 (9)	7 (17)	10 (24)	8 (19)	13 (31)
If a standard on advocacy training was added to the ADA standards, your program would be able to comply	2 (5)	6 (14)	5 (12)	10 (24)	19 (45)
My program provides specific training in advocacy	2 (5)	8 (19)	7 (17)	14 (33)	11 (26)

Results

Of the 66 US pediatric dentistry training programs, 42 directors completed the survey, yielding a 64% response rate. Of those responding, 10 (24%) were dental school-based, 15 (36%) were hospital-based, and 17 (40%) combined dental school and hospital programs. Seven (17%) program directors were in their current position less than a year, 15 (36%) less than 5 years, 8 (19%) less than 10 years, and 12 (28%) 10 or more years. Twenty-eight (two thirds) of the responding directors reported no educational or experiential background in public health or public policy or no advocacy organization leadership experience.

Program director attitudes and involvement. The program director's influence on curriculum and program content is strong, as established by CODA. Hence, we were interested in their attitudes and preparedness for advocacy training. Their responses are depicted in Table 1. Most (88%) respondents somewhat or strongly agreed that advocacy for children by pediatric dentists beyond the dental office was an appropriate part of the pediatric dentistry specialty. Thirty-five (83%) somewhat or strongly agreed that training programs should provide advocacy training, and 25 (59%) agreed that their program provided specific advocacy training. If advocacy training became a CODA standard, 29 (69%) agreed that they would be able to comply. Only 21 (50%) agreed, however, that advocacy training should be a required experience in CODA standards for postdoctoral pediatric dentistry programs.

When asked about what was required to prepare a pediatric dentist to be an advocate, an overwhelming majority (98%) believed personal motivation and interest was essential in preparing pediatric dentists to be effective advocates, followed by clinical experience (45%), formal training through AAPD (45%), and formal training during residency (38%). A few responding program directors (7%) believed formal training during residency was not particularly useful in preparing pediatric dentists for roles as effective advocates (Table 2). Just over half (52%) of responding program directors reported personal involvement in legislative oral health lobbying, and a third stated involvement with professional political action committees as either a member or a contributor. Utilization of major advocacy Web sites by the program directors was limited. The only Web site visited by all the program directors for advocacy or policy-related information during the previous year was the American Dental Education Association's Web site. The AAPD's Web site was seldom or not visited by about 50% of the directors in the past year. Only 14 (35%) of respondents reported occasional or frequent visits to the Children's Dental Health Project Web site in the past year for information related to advocacy or policy (Table 3).

A further statistical analysis of attitudes and experiences of program directors showed that those program directors who believed that advocacy was a part of pediatric dental practice also were more likely to believe that programs should train residents in advocacy (P=.001), and were currently providing advocacy training (P=.018). Those who were currently providing training were more likely to be able to comply if required by CODA (P=.011).

Types and extent of advocacy training. Most programs did not routinely offer advocacy opportunities in nonclinical settings (Table 4). In contrast, 27 (64%) programs required community outreach clinic rotations for all residents, and 21 (55%) required participation in interdisciplinary conferences. The nature of didactic advocacy curricula offered by responding residency programs is provided in Table 5. Most programs offered information on topics such as community public health programs, Medicaid, and oral health disparities as part

Table 2. ATTITUDES OF PEDIATRIC DENTISTRY RESIDENCY PROGRAM DIRECTORS ABOUT TYPES OF ADVOCACY TRAINING AND ACTIVITIES

How well do you believe each of the following prepares pediatric dentists for roles as effective advocates?

	Essential	Useful	Not particularly useful
	Reported as N (% rounded) *		
Formal training during residency	16 (38)	23 (55)	3 (7)
Formal training through AAPD	19 (45)	21 (50)	2 (5)
Formal training by state dental society	10 (24)	24 (59)	7 (17)
Personal motivation and interest	40 (98)	1 (2)	0 (0)
Political contacts and activism	15 (36)	27 (64)	0 (0)
Clinical experience	19 (45)	23 (55)	0 (0)
Intuition	14 (34)	27 (66)	0 (0)

* Not all respondents answered all questions; percentage reflects actual number of responses

Table 3. FREQUENCY OF ADVOCACY AND POLICY WEB SITES UTILIZATION BY PEDIATRIC DENTISTRY PROGRAM DIRECTORS IN THE PAST YEAR

How often have you contacted the following Web sites in the past year for advocacy or policy-related information:

Web sites	None	Seldom (1-5x)	Sometimes (6-10x)	Frequent (>10x)
	Reported as N (% rounded) *			
National MCH Oral Health Resource Center	17 (42)	7 (17)	12 (29)	5 (12)
National MCH Oral Health Policy Center	17 (41)	13 (32)	9 (22)	2 (5)
Children's Dental Health Project	11 (28)	15 (38)	9 (22)	5 (12)
Oral Health America	25 (64)	7 (18)	4 (10)	3 (8)
American Academy of Pediatric Dentistry	7 (17)	10 (24)	13 (31)	12 (28)
American Academy of Pediatrics	5 (13)	14 (35)	10 (25)	11 (27)
American Dental Association	7 (17)	16 (39)	12 (29)	6 (15)
American Dental Education Association	0 (0)	7 (17)	8 (20)	26 (63)

* Not all respondents answered all questions; percentage reflects actual number of responses

of the didactic curriculum. Child health disparities, access to social and family services in the community, and cultural competency didactic curricula were offered by less than two-thirds of the programs. Less than half of the programs offered

Table 4. TYPES AND EXTENT OF ADVOCACY OPPORTUNITIES OFFERED BY PEDIATRIC DENTISTRY RESIDENCY PROGRAMS

Description of experience	Allowable experience if they ask	Routinely offered elective	Required for all residents
Nonclinical experiences *Reported as N (% rounded) **			
Legislative lobbying on issues	38 (100)	0 (0)	0 (0)
Legislative fellowship (eg, AAPD, ADEA) during residency	36 (97)	1 (3)	0 (0)
Nonclinical public health or policy rotation	30 (79)	6 (16)	2 (5)
Dental society legislative day participation	34 (90)	2 (5)	2 (5)
Courses in policy, public health, health systems, or similar	22 (58)	4 (10)	12 (32)
Attend cultural sensitivity training	13 (34)	4 (11)	21 (55)
Academic experiences on policy/health system outside the program			
Community outreach clinic rotation	12 (31)	2 (5)	25 (64)
Head Start screening	15 (37)	10 (24)	16 (39)
Give Kids a Smile Day	10 (26)	10 (26)	10 (26)
Interdisciplinary conferences/ continuing education	7 (19)	10 (26)	21 (55)
Participate in interdisciplinary health task forces (eg, child abuse/neglect)	10 (44)	7 (18)	15 (38)
Teaching nondentists about oral health	10 (25)	11 (27)	19 (48)

* Not all respondents answered all questions; percentage reflects actual number of responses.

Table 5. TYPES OF DIDACTIC ADVOCACY CURRICULUM OFFERED BY PEDIATRIC DENTISTRY RESIDENCY PROGRAMS

As a part of your didactic curriculum for postdoctoral pediatric dentistry residents, do you offer information regarding any of the following to all residents? (Check all that apply)

	No	Yes
	Reported as N (% rounded) *	
The legislative and administrative process, including policy development	28 (67)	14 (33)
Community public health programs	9 (21)	33 (79)
Medicaid system	9 (21)	33 (79)
Oral health disparities	8 (19)	34 (81)
Child health disparities	19 (45)	23 (55)
Child and family services available in your local and state community	19 (45)	23 (55)
Cultural competency and diversity in health care	16 (38)	26 (62)
Role of pediatric dentists in nondental health issues	26 (62)	16 (38)

* Not all respondents answered all questions; percentage reflects actual number of responses

information regarding the legislative process, including policy development and the role of pediatric dentists in nondental health issues, in their didactic curricula.

Although most program directors reported that patient or family advocacy activities were performed by their residents during enrollment in the program, variations in activity by all, some, or none was evident. Engagement in AAPD-sponsored advocacy activities varied by the individual's position, with fewer involvements reported by the residents than faculty. Resident membership in AAPD after enrollment in the program was required by 63% of the programs, while 34% encouraged membership and 2% had no position on membership.

Discussion

Recent successes of the AAPD and its members in areas such as Title VII funding,[13] Medicaid reform,[14] general anesthesia legislation,[15] and Head Start[16] suggest that our specialty is fully engaged in both the care delivery and health policy systems of this country and that we will need a trained and competent corps of specialists to articulate and advocate for the oral health of children.

The concept of teaching advocacy to dentists is relatively new to dental education, and currently takes many forms, including community-based learning experiences, cultural competency, and provision of nondental services aimed at general health such as tobacco cessation at the predoctoral level.[17,18] The lack of a consistent definition or an accreditation standard makes it difficult to identify the nature and extent of advocacy training of entry-level pediatric dentistry residents. Today's dental student may or may not enter residency with a broader understanding of disparities, community and social issues related to oral health and care seeking, and a more sophisticated view of the oral health care system. Whether he or she has skills to effect changes in community health or to influence public oral health policy has not been shown. If these are expectations of a pediatric dentist, then it falls on the programs to impart these skills.

Although child advocacy is central to the AAPD's mission, this study's results showed that only 60% of responding programs provided specific advocacy training for residents, even though the importance of such training was recognized by most responding directors. It was interesting to note that half of the program directors agreed that advocacy training should be a required experience in CODA standards for postdoctoral pediatric dentistry programs. In contrast, for pediatric medicine, the ACGME mandated formal advocacy training in residency programs over a decade ago.[5,8] The medical specialty of pediatrics has recognized the importance of advocacy training for pediatric residents and developed educational curricula to meet the needs of pediatricians actively engaged in both patient care and advocacy.

In an era of faculty shortages, it is somewhat disturbing that few if any of our program directors (only 1 of 3) had any

relevant training or experience related to advocacy. Should our specialty determine that advocacy be a required standard in the future, we would need to consider the limited preparedness of program directors. As a group, the clear majority felt they could comply with a mandate for advocacy training. Consequently, it may be that a broad definition of advocacy training would trump the problem of program director lack of experience and training in this area. Fortunately, the AAPD has a strong history of advocacy and provides a host of opportunities for pediatric dentists to learn these skills. Programs might be able to tap into these activities or develop offshoots using the expertise of the AAPD to train future generations of pediatric dentists. The first step in making advocacy training an integral part of postdoctoral education may be to train program directors. In this study, we found that those program directors who believed in advocacy as an appropriate part of pediatric dentistry were also more likely to already have experiences directed toward advocacy for residents.

This study has a number of limitations. Although the response rate was over 64%, we do not have information on 36% of programs. This study did not look into systematic differences between respondents and nonrespondents. Therefore, the results may be skewed, as the nonrespondents may not be accurately represented by those who did respond. All study data were self-reported by the program directors and are subject to some bias. As with all surveys, information can only be gathered about questions asked. Thus, other factors related to advocacy training may exist, but were not explored or revealed. We used definitions and content areas that we believed best represent advocacy in dentistry. We recognize, however, that other topic areas and experiences other than those sponsored by AAPD may be considered advocacy for children.

Another limitation of this study was use of the AAPD Program Directors listserv to identify survey participants. The listserv represents the most current published list of program directors as identified by the AAPD at the time of survey. Although the listserv used in the survey was contemporary, some program directors may have departed by the time the questionnaire was administered. Thus, their programs were not represented.

Conclusions

US advanced training programs in pediatric dentistry have varied aspects of advocacy training currently available, and could adapt to a required standard for advocacy training. The program directors as a group reported no training or background in advocacy, but supported it as an essential part of the specialty of pediatric dentistry.

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Abstract of the Scientific Literature

Periodontal changes following loss of permanent incisors

This study aimed to quantify the degree of tissue resorption following the loss of a permanent incisor in a young population, as well as to assess gender as a factor in the degree of loss. The study group included 11 boys and 5 girls whose maxillary central incisors were extracted due to trauma-related sequelae. The mean age at tooth loss was 10.8 years, and the mean follow up period was 25 months. Alginate impressions were made at regular intervals following tooth loss and yellow stone casts were sectioned longitudinally through the mid-point of both the maxillary incisor socket and the contralateral incisor. Digital photographs of the sectioned surfaces were taken and image analysis software was used to quantify the surface areas for comparison. At 3 months post extraction, the periodontal structure of the edentulous area as measured by the surface area of the sectioned cast was 16% less than the non-extracted side. By 6 months this loss increased to 25%. Time points greater than 6 months showed the reduction stabilizing at 22%. This reduction was found to be statistically significant. This study also found that girls appeared to have a greater degree of tissue loss than boys at every time point.

Comments: *The esthetic success of long-term prosthetic replacement of maxillary central incisors depends heavily on the surrounding periodontal architecture. Efforts to prevent loss of periodontal tissue should be carried out at the time of extraction. Decoronation followed by intentional root replantation, socket grafting, guided bone regeneration, and other potentially bone-saving techniques should be considered by practitioners. To achieve the ideal long-term restorative result, referrals to a periodontist may be necessary for the extraction and the tissue preservation procedures.* ***RHH***

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