
Survey of pediatric dentists, 1991: a preliminary report on demographics and opinions

Subcommittee on Trends and Implications of Women in Pediatric Dentistry,
American Academy of Pediatric Dentistry

Introduction

One of the most significant changes in the demographics of dentistry is the increasing number of women in the profession.¹ The American Academy of Pediatric Dentistry (AAPD) has been aware of the changing gender ratio in the specialty of pediatric dentistry for some time. In 1989, more than half the positions in postdoctoral training programs were occupied by women,² and, in 1991, women accounted for 16% of the membership of the AAPD.³

In 1990, the AAPD established a subcommittee of the Strategic Planning Committee of the Board of Trustees to address the implications of the increasing number of women in pediatric dentistry. The Subcommittee on Trends and Implications of Women in Pediatric Dentistry was charged with examining the characteristics of pediatric dentists in the United States, both AAPD members and nonmembers, to gain an understanding of the diversity and needs of the specialty population.

To gather data on the specialty, the subcommittee surveyed the population of pediatric dentists in the United States. The purposes of the survey were to identify personal and professional practice characteristics of the population, and to determine attitudes toward professional membership and expectations for satisfaction in dentistry as a career. This report describes selected demographic and attitudinal findings of the subcommittee survey.

Materials and Methods

A two-part, eight-page questionnaire was developed and piloted with members of the subcommittee and officers of the AAPD, revised, and mailed to 4950 pediatric dentists on January 31, 1991.

The sample comprised the pediatric dentists in the United States known to the AAPD whose names were maintained on a list in membership services within the headquarters office. The sample comprised 3109 AAPD members and 1841 nonmembers.

The Subcommittee on Trends and Implications of Women in Pediatric Dentistry was chaired by Dr. Mary Hayes and included Drs. Elizabeth Barr, Suzanne Berger, Mary Concilio, Lois Jackson, Marilyn Murphy, Linda Nelson, N. Sue Seale, Paulette Spencer, and Patti Werther. Dr. Martha Ann Keels served as a consultant.

Questionnaires were sent under a cover letter from the president of AAPD explaining the purpose of the survey and encouraging participation. A follow-up reminder card was sent approximately five weeks after the initial mailing to encourage response. A two-month response period, from the time of initial mailing, was established for receipt of questionnaires; after that, responses were not included in the tabulation of results.

Responses were collected and analyzed by DataShop, Janesville, Wisconsin, using descriptive statistics, and provided to the subcommittee. Partially completed questionnaires were included in the analysis.

Results

Questionnaires were returned by 1882 AAPD members and 480 nonmembers, for response rates of 61 and 26%, respectively, and an overall response of 2362, or 48% of the total sample.

Data are presented according to gender and AAPD membership status for comparison. The respondents are subdivided further into all respondents and a subgroup younger than 40 years of age, for some of the data sets presented. The rationale for these divisions is based on future use of data to direct strategic planning and membership activities. In addition, preliminary analysis suggested that the gender shift has been more recent and that grouping of data in a younger-than-40 year-old cohort might reveal important differences.

Personal and Professional Characteristics

Male AAPD members, older than 40 years of age, accounted for the largest group of respondents, as seen in Table 1 (next page). Women respondents were typically younger than 40 for both members and nonmembers. The second largest age cohort included male members, 30–39 years of age, followed by male members, 50–59 years of age.

Table 2 (next page) shows the location of pediatric dentists in terms of city size and urban versus rural location. Male and female pediatric dentists tend to be found in or around larger cities, regardless of their AAPD membership status. The urban/suburban proportions remain relatively constant for those in smaller cities, under 500,000 capita. Fewer women pediatric dentists tended to practice in rural sites.

Table 3 (page 96) shows the primary occupation of pediatric dentists is private practitioner, followed by full-time academician and armed services employee, both at a significantly lower frequency. Few dentists, of either gender, are not currently in practice and the retired dentists were primarily male rather than female, and older than 40 years of age.

Solo practitioners dominate pediatric dentistry, irrespective of age, gender, or membership status, but males were more likely to be so when compared with females (Table 4, page 97). This tendency is supported when the annual net income is considered for each subgroup, with males earning substantially more than females. The discrepancy lessens when those dentists younger than 40 years of age are separated from all pediatric dentists, but remains sizable (Table 5, page 97).

In Table 6 (page 98), the occupation of the spouse is reported and the data indicate that women dentists tend to marry other dentists or physicians; more than 42% of the member females reported a dentist or physician spouse. These proportions remain stable for each category of female pediatric dentist reported in the table. Male respondents reported other health professionals as the predominant category for spouse.

Opinions and Attitudes

The second portion of the questionnaire assessed attitudes and opinions utilizing a series of questions and a five-point Likert-type scale with 1 indicating agreement and 5 indicating disagreement.

Table 7 (page 98) portrays opinions regarding income for all respondents, distributed according to gender and membership status. Women tended to rate their income less adequate than the male respondents, both in terms of its ability to meet their needs and in comparison to other professionals. There was no clear membership or

gender difference for the realization of the business requirements of pediatric dentistry or for how well financial achievement had met expectations.

Table 8 (page 99) addresses the portion of the questionnaire that assessed career satisfaction. Interestingly, in this battery of responses, nonmember males emerged as distinct from both female categories and the male Academy members, with less satisfaction overall. On five of the eight questions designed to determine career satisfaction, their responses differed from the other three groups of respondents. The nonmember male was the most likely to state that pediatric dentistry would not be his choice if he had the chance to choose a career again.

Table 1. Respondents by age, gender, and American Academy of Pediatric Dentistry membership status

Age	Members		Nonmembers		Row Totals					
	Male %	Female % (#)	Male %	Female % (#)	Male %	Female % (#)				
< 30	3.9	(62)	19.9	(59)	0.9	(3)	11.7	(9)	5.8	(133)
30-39	27.3	(429)	59.9	(178)	20.9	(77)	63.6	(49)	31.7	(733)
40-49	43.3	(678)	12.1	(36)	30.4	(112)	18.2	(14)	36.4	(840)
50-59	17.3	(272)	3.4	(10)	22.8	(84)	2.6	(2)	15.9	(368)
60-69	5.2	(82)	1.3	(4)	19.8	(73)	2.6	(2)	6.9	(161)
70+	1.7	(27)	1.0	(3)	4.7	(17)	0.0	(0)	2.0	(47)
No answer	1.3	(21)	2.4	(7)	0.5	(2)	1.3	(1)	1.3	(31)
Column Totals	100.0	(1571)	100.0	(297)	100.0	(368)	100.0	(77)	100.0	(2313)

Table 2. Distribution of respondents by geographic location, gender, and American Academy of Pediatric Dentistry membership status

	Members		Nonmembers		Male		Female	
	Male %	Female % (#)	Male %	Female % (#)	Male %	Female % (#)	Male %	Female % (#)
Metropolitan area 500,000+								
Central city	15.8	(249)	28.6	(85)	19.0	(70)	31.2	(24)
Suburban	22.4	(352)	18.9	(56)	20.9	(77)	22.1	(17)
Metropolitan area 100,000 - 500,000								
Central city	11.7	(184)	13.8	(41)	8.2	(30)	5.2	(4)
Suburban	16.3	(256)	9.1	(27)	11.7	(43)	13.0	(10)
City								
50,000 - 99,999	13.4	(210)	13.8	(41)	13.6	(50)	5.2	(4)
City								
20,000 - 49,999	12.9	(203)	7.1	(21)	12.2	(45)	5.2	(4)
Rural	3.3	(52)	2.4	(7)	4.6	(17)	1.3	(1)
No answer	4.1	(65)	6.4	(19)	9.8	(36)	16.9	(13)

n = 2313

Discussion

The availability of the list of pediatric dentists from AAPD membership services provided the subcommittee with a sample that very closely approximated the actual number of pediatric dentists in the United States. The AAPD has been accumulating the list through membership records, component rosters, and other sources for several years. In addition, since gender changes have occurred more in recent years, and accurate program data for graduates are available through the American Dental Association, it is reasonable to believe that the list includes most pediatric dentists. The survey should have reached a representative sample

of women pediatric dentists. The response rate, though lower than desirable for nonmembers, is acceptable overall.

The survey revealed that the gender ratio has distinct characteristics with implications for the AAPD and the delivery of pediatric dental care services. The majority of male dentists are older than 40 years of age and more likely to be solo practitioners in private practice. Women pediatric dentists were less likely to be sole proprietors, more often being partners or associates. This trend is supported by a lower annual income, both overall and in the younger-than-40-year-old group. Other data obtained in this survey but not reported

indicate that hourly income for women also is less than that of men. The income differences between genders has been reported previously.⁴ More recent studies of women in dentistry and practice patterns suggest that women tend to practice more as they age.⁵ The preponderance of younger women in the sample, as well as the large representation of males in the age group most commonly associated with maximum earning ability may have influenced the pay differentials to some degree. Future studies should look at the income gap as the ratio of genders shifts to determine whether incomes will shift.

The data reported here do not provide clear explanations for gaps in income, but suggest that the age of the female pediatric dentist sample and a higher representation in the associate/salaried employee category as well as in academic and hospital settings all play a role. Further analysis of responses should provide additional information and allow matching of genders for date of graduation to clarify the role of gender in these findings.

Male and female dentists are similar in regard to prac-

Table 3. Total respondents and respondents younger than 40 years of age by primary occupation, gender, and American Academy of Pediatric Dentistry membership status

Primary Occupation	Members				Nonmembers			
	Male %	Female %	Male (#)	Female (#)	Male %	Female %	Male (#)	Female (#)
All pediatric dentists								
Private practice	78.5	57.6	(1234)	(171)	74.7	67.5	(275)	(52)
Dental school faculty	9.6	18.5	(151)	(55)	6.0	15.6	(22)	(12)
Armed forces	3.4	1.7	(54)	(5)	0.5	0.0	(2)	(0)
Other federal services	0.3	1.0	(5)	(3)	0.0	1.3	(0)	(1)
State/local government	0.2	0.3	(3)	(1)	1.6	2.6	(6)	(2)
Hospital dentist	3.4	11.1	(53)	(33)	2.4	6.5	(9)	(5)
Other health/dental organizational staff	0.8	0.7	(13)	(2)	1.4	0.0	(5)	(0)
Total	96.2	90.9			86.6	93.5		
Not in practice	1.1	3.7	(18)	(11)	1.1	6.5	(4)	(5)
Retired	2.4	1.3	(38)	(4)	9.2	1.3	(34)	(1)
Occupation unrelated to dentistry	0.2	1.0	(3)	(3)	1.4	1.3	(5)	(1)
No answer	1.0	4.4	(15)	(13)	2.7	1.3	(10)	(1)
Dentists younger than 40*								
Private practice	74.9	56.5	(368)	(134)	90.0	65.5	(72)	(38)
Dental school faculty	10.4	18.1	(51)	(43)	2.5	13.8	(2)	(8)
Armed forces	4.9	1.3	(24)	(3)	1.2	0.0	(1)	(0)
Other federal services	0.2	1.3	(1)	(3)	0.0	1.7	(0)	(1)
State/local government	0.4	0.0	(2)	(0)	0.0	1.7	(0)	(1)
Hospital dentist	5.7	13.1	(28)	(31)	2.5	6.9	(2)	(4)
Other health/dental organizational staff	0.8	0.4	(4)	(1)	0.0	0.0	(0)	(0)
Not in practice	2.2	4.2	(11)	(10)	2.5	8.6	(2)	(5)
Occupation unrelated to dentistry	0.0	0.4	(0)	(1)	1.2	1.7	(1)	(1)
No answer	2.3	1.4	(20)	(7)	5.1	1.2	(12)	(1)

n = 2340; *Subsample of dentists younger than 40 = 893.

tice location and primary occupation, with most pediatric dentists choosing private practice in larger cities or their suburbs. Patterns of practice of both males and females have implications for the availability of care. Few pediatric dentists select rural sites or small cities, yet these sites often are unfluoridated and have at-risk populations.

More women than men proportionally, in their respective gender groupings, were in academic positions and hospital dentistry positions. These positions tend to pay less than private practice careers, but may allow practice with academic licensure and have the advantage of being more amenable to a mobile professional population than is private practice. It remains to be seen whether women dentists seek these positions preferentially or as second choices. It is interesting to note that females (members and nonmembers) tended to feel that their incomes were much lower than desired when compared with other dentists' incomes (Table 7), while male dentists did not share this feeling. All groups were generally satisfied, and further analysis according to age, gender, and practice type is indicated.

The opinion portion of the questionnaire revealed differences between male and female respondents, but more notably, between male nonmembers and the other three groups of respondents. Female nonmembers tended to share views more in line with AAPD members of both genders, while male nonmembers expressed a differing, less satisfied view of their careers. Although not reported here, this outlying tendency of male nonmembers extended to include less positive feelings about organized dentistry. It may be that attitudes and opinions of women

dentists are more in line with mainstream pediatric dentists than are those of nonparticipatory males of the specialty. Perhaps recruitment and retention activities should be directed more at the former than the latter group.

This report provides only a small portion of the data obtained in this survey and further analysis is indicated to identify trends and relationships which will help in strategic planning for the AAPD.

Table 4. Total respondents and respondents younger than 40 according to type of employment, by gender and American Academy of Pediatric Dentistry membership status

	Members		Nonmembers	
	Male %	Female %	Male %	Female %
All pediatric dentists				
Sole proprietor	36.9	29.6	44.8	29.9
Partner	7.6	10.1	6.3	5.2
Shareholder/Inc.	28.5	5.4	18.8	9.1
Employed: salary, %, associate	11.0	24.2	10.9	26.0
Independent contractor	3.5	8.1	3.8	7.8
No answer	12.5	22.6	15.5	22.1
Dentists younger than 40*				
Sole proprietor	43.2	25.7	56.3	25.9
Partner	6.9	10.5	11.2	5.2
Shareholder/Inc.	13.0	3.4	10.0	6.9
Employed: salary, %, associate	19.8	28.3	15.0	27.6
Independent contractor	6.9	9.7	6.3	8.6
No answer	10.2	22.4	1.2	25.9

n = 2313; *Subsample of dentists younger than 40 = 866.

Table 5. Mean, median annual income, with standard deviation, for respondents according to gender and American Academy of Pediatric Dentistry membership status

	Members		Nonmembers	
	Male	Female	Male	Female
All pediatric dentists				
Mean	\$127,140	\$68,887	\$104,904	\$64,276
Median	108,004	50,002	92,002	47,001
SD	88,417	74,225	63,993	77,343
Dentists younger than 40				
Mean	88,756	68,087	93,879	69,606
Median	73,002	47,001	89,502	45,001
SD	61,433	81,009	58,315	90,412

n = 2313.

Table 6. Total respondents and respondents younger than 40 years of age according to occupation of spouse

	<i>Members</i>				<i>Nonmembers</i>			
	<i>Male</i> %	<i>(#)</i>	<i>Female</i> %	<i>(#)</i>	<i>Male</i> %	<i>(#)</i>	<i>Female</i> %	<i>(#)</i>
All pediatric dentists								
Dentist	3.2	(50)	30.3	(90)	2.7	(10)	26.0	(20)
Physician	1.1	(18)	12.5	(37)	0.8	(3)	11.7	(9)
Other health professional	25.4	(399)	3.7	(11)	23.4	(86)	0.0	(0)
Nonhealth professional	21.6	(340)	18.5	(55)	18.8	(69)	22.1	(17)
Nonhealth other occupation	14.4	(227)	7.7	(23)	12.5	(46)	9.1	(7)
Student	1.6	(25)	1.0	(3)	0.8	(3)	1.3	(1)
Other	20.6	(324)	1.3	(4)	26.4	(97)	2.6	(2)
No answer	12.0	(188)	24.9	(74)	14.7	(54)	27.3	(21)
Dentists younger than 40*								
Dentist	4.9	(24)	28.7	(68)	7.5	(6)	25.9	(15)
Physician	1.6	(8)	13.9	(33)	2.5	(2)	10.3	(6)
Other health professional	29.1	(143)	1.7	(4)	23.7	(19)	0.0	(0)
Nonhealth professional	20.2	(99)	19.8	(47)	15.0	(12)	22.4	(13)
Nonhealth other occupation	10.4	(51)	8.4	(20)	10.0	(8)	8.6	(5)
Student	3.1	(15)	1.3	(3)	1.2	(1)	1.7	(1)
Other	14.5	(70)	0.8	(2)	25.0	(20)	1.7	(1)
No answer	16.3	(80)	25.3	(60)	15.0	(12)	29.3	(17)

n = 2313; *Subsample of dentists younger than 40 = 865.

Table 7. Respondent opinion about income and finances according to gender and American Academy of Pediatric Dentistry membership status*

	<i>Members</i>		<i>Nonmembers</i>	
	<i>Male</i> (\bar{x})	<i>Female</i> (\bar{x})	<i>Male</i> (\bar{x})	<i>Female</i> (\bar{x})
My income allows me to provide very well for my family	2.0	2.8	2.2	2.8
Compared to other dentists, my total earnings are much lower than I desire	3.5	2.8	3.3	2.9
My income compares favorably to that of other professionals	2.6	3.2	2.7	3.1
I didn't realize when I graduated that so much of dentistry was business oriented	2.4	2.5	2.4	2.6
I truly thought that I would be better off financially by now than I am	3.1	2.9	2.9	2.9

n = 2313; *1-5 scale, with 1 = agree and 5 = disagree.

Table 8. Opinions of respondents regarding career satisfaction according to gender and American Academy of Pediatric Dentistry membership status*

	<i>Members</i>		<i>Nonmembers</i>	
	<i>Male (\bar{x})</i>	<i>Female (\bar{x})</i>	<i>Male (\bar{x})</i>	<i>Female (\bar{x})</i>
Dentistry fulfills my earliest career aspirations	2.2	2.3	2.5	2.3
Dentistry fulfills my current career aspirations	2.2	2.1	2.5	2.1
If my child was interested in dentistry, I would encourage him/her	2.5	2.5	2.9	2.5
Knowing what I know now, I would go into dentistry again	2.5	2.5	2.7	2.7
I am very likely to change careers in the next five years	4.2	4.2	3.9	4.2
Overall, I am extremely satisfied with my career	2.0	2.0	2.3	2.3
I feel trapped in my current position	3.8	4.0	3.7	3.7
If I could choose again I would not go into pediatric dentistry	4.1	4.2	3.7	4.1

n = 2313; *1-5 scale, with 1 = agree and 5 = disagree.

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