

---

# The experiences of women pediatric dental residents: a survey

Elizabeth S. Barr, DMD N. Sue Seale, DDS, MSD William F. Waggoner, DDS, MS

## Abstract

*A survey of 430 female pediatric dentists in the United States determined concerns and experiences they had during their advanced training programs. The return rate was 54%. Up to 83% (24) of the women who were pregnant during their residencies asked not to be exposed to certain environmental hazards during pregnancy and the postpartum period. They requested that program directors establish policies on known environmental hazards. Eighty-eight women (41%) commented that programs should offer flexible, pre-established and preannounced maternity leave policies. Survey respondents also expressed concerns about personal safety (5%), the lack of female role models (9%), and the need for more information on business management (30%). When the women were analyzed according to age, the following were significant ( $P < .05$ ): professional acceptance was of greatest concern to women ages 41–48; pregnancy and maternity leave, and balancing career with parenthood, significantly concerned women 25–32; and women ages 33–40 said business management was the issue causing the greatest frustration as a practicing pediatric dentist. While most respondents felt that they have the same professional opportunities as men, their greatest frustrations are a lack of acceptance by the professional and lay communities and trying to balance a career and motherhood. (Pediatr Dent 14:100–4, 1992)*

## Introduction

The number of women entering pediatric dentistry over the past decade has increased significantly. Slightly more than one-half of residents entering pediatric dentistry training programs in 1991 were women. Currently, women comprise about 8–10% of the total number of all pediatric dentists, but with large numbers entering training, and with almost all pediatric dentists near retirement being male, the percentage of women in the specialty can be expected to increase dramatically over the next two decades.

Even though this gender shift of the specialty has been recognizable for several years, there is very little information about female pediatric dentists. Little is known about their practice patterns, their professional involvement, or their experiences during their advanced training programs.

Several studies have examined male and female non-specialists and found several gender differences.<sup>1–3</sup> Waldman summarized several of these differences.<sup>4,5</sup> One third of all female dentists report taking a leave of absence from their dental careers for child rearing; few male dentists report such a leave. Female dentists spend slightly less time in the dental office, but slightly more time treating individual patients than their male colleagues. In spite of only minor differences in numbers of patients treated, female dentists average only 62% of the net income of their male counterparts. The average income of a female specialist was 57.5% of that of the average male specialist.

In the medical literature, gender issues arising in residencies, such as pregnancy, child care, lack of female role models, and academic and administrative

productivity all have been addressed,<sup>6–8</sup> but there is no similar information in the dental literature.

Training programs represent the entry of dentists into the specialty. These programs have been predominantly male until recently, and frequently, potential gender issues have not been addressed until they arise. For example, many programs have not had a written maternity leave policy until a pregnancy necessitated one. Questioning women about their experiences in the programs might provide program directors with valuable information for revising and planning future programs to better meet the needs of the changing population of residents. In addition, this information could help in recruiting qualified candidates of both genders.

The purpose of this survey was to gain insight into women's experiences in advanced pediatric dental training programs. The survey was designed to determine concerns and problems experienced by women during their residencies and to ask the women for program modifications which might benefit their successors.

## Methodology

An 18-item, two-part questionnaire using a yes/no response, a five-point Likert scale, and short answer/comments was designed to collect descriptive data about women pediatric dentists, and their opinions and perceptions concerning their graduate school/residency experiences. The first section dealt with demographic data and included questions about age during residency, years out of residency, membership status in the American Academy of Pediatric Dentistry, source of primary income, and distribution of time devoted to

professional activities. The second section contained questions regarding pregnancy and environmental hazards, maternity leave, child care, and professional opportunities. Women also were asked to relate any personal experiences with discrimination and/or sexual harassment during the program. Comments were solicited concerning issues and frustrations related to being a woman dental professional. Finally, open comments were invited about any issues not addressed in the survey, but which respondents felt were important.

A list of all female pediatric dentists was obtained from the American Academy of Pediatric Dentistry, and included 430 members and nonmembers. Survey participants were provided a questionnaire and a stamped, addressed envelope for the return of the completed instrument. Respondents were asked not to identify themselves to ensure confidentiality.

The returned surveys were analyzed using Chi-square and descriptive analyses.

## Results

### Return Rate

Twenty forms were returned as undeliverable, reducing the original sample to 410. In all, 222 forms were returned for a return rate of 54%. Six forms were not usable, resulting in a final sample of 216.

### Demographic Data

The respondents ranged in age from 26 to 79 years with an average age of 37. The average age upon completion of the advanced training was 28 years. The average number of years out of the program was nine.

Most of the respondents (94%) are members of the American Academy of Pediatric Dentistry, and 92% derive their primary income from pediatric dentistry. The women were asked about the amount of time spent in different areas of the specialty. Three-quarters (157) of the women spend 75% or more of their time in private practice; 38 (18%) report that they do not practice privately. Also, 82 (39%) of the women are involved in teaching. Of those women who teach, half spend 20% or less of their time doing so. Research and administration were cited infrequently as professional activities. Only 27 (13%) of the respondents reported any involvement, and then, as 10% or less of their time.

### Advanced Training Program Experiences

Information about pregnancy, maternity leave and child care was obtained in part II of the questionnaire. Twenty-nine women (14%) reported that they were pregnant and delivered during their residency. Five (17%) of these women reported complications associated with pregnancy and delivery.

Twenty-one (10%) of the female pediatric dental residents had children before entering their postdoctoral

programs. Three-fourths of the children were younger than 10 years old.

Questions were asked concerning the issue of exposure to infectious diseases, environmental hazards, and combative patients during pregnancy or the postpartum period. Of the 29 women who reported pregnancies during their residencies, 10 (34%) of these women had requested not to be exposed to hepatitis and HIV patients, 16 (55%) asked not to be exposed to nitrous oxide/oxygen, 24 (83%) asked not to be exposed to general anesthesia agents and X-rays, and seven (24%) asked not to be exposed to combative patients. When the women responded to open comments on these topics, they requested that program directors establish policies concerning known, documented risks.

Maternity leaves ranged from 0 to 12 weeks with a mean of five weeks. Fourteen (51%) of the women took between three and six weeks leave. This section elicited many comments concerning the wish to have flexible, pre-established and preannounced maternity leave policies that would not impose a hardship on fellow residents. The women also expressed concern that their time away from the program should be made up so that their educational experiences would not be compromised. One-fourth of the respondents (52, 25%) wanted their male counterparts to be given equal consideration for family needs.

In the next section, respondents were asked to express their opinions about a variety of issues related to experiences and perceptions during advanced training. Five statements were presented, each calling for a reply on a five-point Likert scale from strongly agree to strongly disagree (Table 1, next page). When asked to respond to the statement, "I would have liked to have had children during my residency, but postponed them because of program inflexibility," 130 (62%) disagreed or strongly disagreed, and 17 (8%) agreed or strongly agreed. When asked whether their programs allowed flexibility for child care when the need arose, 34 (16%) agreed that the programs were flexible, and 103 (49%) disagreed or strongly disagreed.

The statement "I was sexually harassed during my residency," elicited the following responses: 168 (80%) disagreed or strongly disagreed, 23 (11%) agreed or strongly agreed, and 19 (9%) were neutral. For those 23 (11%) who reported sexual harassment, the individuals mentioned most often were the faculty and fellow residents. Least involved were assistants and staff who were cited equally.

The statement "I was discriminated against because I was: 1) female; 2) had children; 3) was on maternity leave; and 4) had problems with child care, elicited the following responses: 143 (68%) disagreed or strongly disagreed that being female had caused them discrimination while 44 (21%) agreed or strongly agreed; of the

**Table 1. Experiences and perceptions during advanced training**

	<i>Strongly Agree/ Agree</i>		<i>Neutral</i>		<i>Disagree/ Strongly Disagree</i>	
I would like to have had children during my residency, but postponed them because of program inflexibility	17	(8%)	63	(30%)	130	(62%)
My program allowed flexibility for child care when the need arose	34	(16)	73	(35)	103	(49)
I was sexually harassed during my residency by:						
faculty	17	(74)				
assistants	13	(57)				
staff	13	(57)				
fellow residents	16	(70)				
I was discriminated against because I was:						
female	44	(21)	23	(11)	143	(68)
had children	13	(6)	46	(22)	151	(72)
was on maternity leave	13	(6)	54	(26)	143	(68)
had problems with child care	13	(6)	46	(22)	151	(72)
Women have the same professional opportunities in pediatric dentistry as men do	134	(64%)	27	(13%)	48	(23%)

women who had children during their programs, 151 (72%) disagreed or strongly disagreed that having children or problems with child care during their residency caused them discrimination, while 13 (6%) agreed or strongly agreed. One hundred and forty-three (68%) disagreed or strongly disagreed that being on maternity leave had caused them discrimination, while 13 (6%) agreed or strongly agreed.

The final question, based on the Likert scale, read, "Women have the same professional opportunities in pediatric dentistry as men do." While 134 (64%) agreed or strongly agreed that women have equal opportunities, 48 (23%) disagreed or strongly disagreed. A number of women (25, 12%) commented that females have an advantage over males because of a perceived rapport that women have with children. They feel that this perception affects a parent's (usually the mother's) choice of a pediatric dentist for a child.

The final portion of the survey requested general comments. When queried on how pediatric dental residency programs could best meet the needs of women residents, the following issues were the most frequently mentioned: more exposure to practice management (64, 30%), the need for female role models (19, 9%), part-time programs (18, 8%), personal safety (11, 5%), hu-

manization of the educational process (3, 1%), and dress code (2, 1%).

To identify issues of continued concern for women in private practice and for which educators could help prepare them, the respondents were asked to comment on their greatest frustration as practicing women pediatric dentists. The responses fell into three categories. The first and most common frustration cited was issues related to acceptance in their professional and lay communities (92, 44%). The second most common area was phrased as "being a superwoman" (65, 31%) and defined as juggling practice, family, and personal life. The third category was related to practice management and general business issues (63, 30%).

The last area asked for additional open comments on issues the survey did not address. This section elicited 21 responses (10%) that the programs had been fair to them as women, and 23 (11%) additional responses that the women were happy with their career choices.

### Analysis by Age Groups

The 216 respondents were divided into four arbitrary age groups: 26–32 years ( $N = 64$ ), 33–40 years ( $N = 111$ ), 41–48 years ( $N = 28$ ), and 49+ years ( $N = 13$ ) to determine correlations between age and issues of concern. The written comments for all sections of the survey, both open and solicited, then were pooled and tabulated according to age groupings. These are summarized in Table 2 on the next page, in order of frequency of occurrence. A Chi-square test of independence was performed to determine differences in the importance of issues related to the age of the respondent, with  $P < .05$  selected as a significance level. Four of the eight categories of comments revealed significant differences in importance as a function of the age grouping of the respondents. Professional acceptance was mentioned significantly more often as a problem of group 3 (41–48 years) when compared to the other three age groups. Groups 1 and 3 were significantly more likely to view pregnancy and maternity leave issues as

problems than were groups 2 or 4. The desire for equal treatment appeared to be an issue significantly less often for group 1 than for groups 2 and 3. The category describing concerns about the lack of business management skills and knowledge was mentioned significantly less often by group 2 than by groups 1 or 3. There were no significant differences between the groups for the issues of superwoman, "I'm happy," child care, and role models.

## Discussion

The sample size and distribution appear to be representative of a full spectrum of ages, experiences, and perceptions. The survey indicated that most women are very pleased with their career choices, and look back favorably on their experiences during their advanced training programs. They offered several suggestions for program modifications which may better meet the needs of women in these programs.

Pregnancy, environmental hazards, and maternity leave were the most commonly mentioned areas of concern and should be acknowledged and addressed by advanced training program directors. Though the sample is small and no attempt was made to obtain specific information on types of complications, nearly one in five of the women who were pregnant during their training reported complications. This deserves note. As more women are involved in pediatric dental residencies during their prime childbearing years, some will choose to become pregnant during their programs. Program directors must develop policies on pregnancy, potential hazards to pregnancy, and maternity leave. Respondents asked for these policies without bias toward themselves or compromise to the quality of their educational experience. Child care and the impact it has

on both male and female residents also must receive careful consideration.

The subject of sexual harassment elicited both strong positive and negative feelings, with few neutral responses. Most women surveyed felt sexual harassment was not a problem during their advanced training education. However, program directors need to be aware that it is an issue, and as such, deserves ongoing monitoring. The same can be said for discrimination, with nearly one-quarter believing that they were discriminated against because they were female. This area of concern also was cited frequently in the general comments section, with many women asking to be treated equally with male colleagues. Since pediatric dentistry is the most popular specialty chosen by women, it was not surprising that most women surveyed felt that they had the same professional opportunity as men.

Additional areas of concern to women were not addressed specifically by the survey document. Women voiced concern about their personal safety, especially when taking night calls. Since most programs are located in large metropolitan areas, this concern is one which might be applied to both male and female residents. The second additional area of concern was a request for increased numbers of female role models. Programs should encourage women to consider an academic career, and assist them in their career advancement. Those women who choose private practice as their primary career should become involved in community and professional organizations to advance the specialty of pediatric dentistry.

Some of the most interesting information was provided in response to the inquiry about frustrations related to being a practicing female pediatric dentist. Two of the three main categories of frustration, practice

management/general business issues, and acceptance in the professional and lay communities, both could be addressed through modifications in programs. Increasing the curriculum related to practice management and business skills would be beneficial to better prepare all students to cope with the frustrations commonly encountered in managing a private practice. This might include practice alternatives which would allow women more career flexibility. Awareness by program directors of the

**Table 2. Distribution of issues\* by age**

	<i>Age in Years</i>			
	25-32 <i>N</i> = 64	33-40 <i>N</i> = 111	41-48 <i>N</i> = 28	> 49 <i>N</i> = 13
Professional acceptance	28	45	19 <sup>†</sup>	4
Pregnancy/maternity leave	30 <sup>†</sup>	28	19 <sup>†</sup>	1
Super woman	17 <sup>†</sup>	33	14	3
Equal treatment	11	34	14	5
Business management	23	22 <sup>†</sup>	13	3
I'm happy	14	20	3	3
Child care	4	12	6	0
Role models	3	15	2	1

*N* = Number of respondents in each age group.

\* These were the eight most often mentioned categories of comments by the respondents when all the comments, both solicited and open, were pooled.

<sup>†</sup> Significant at  $P < .05$ .

---

need to encourage and promote acceptance of women dental professionals by staff, faculty, fellow residents, and parents of patients would address this problem — cited more frequently than any other.

In analyzing the women's comments according to age groupings, it is not surprising to find that professional acceptance was of significantly greater concern to women ages 41–48 than to women ages 25–40. The two younger age groups were entering the specialty in greater numbers, and thus were less of a minority. It is surprising that the women in group 4 (> 49 years) seemed the least concerned with professional acceptance of all the groups. Though few in number, they appeared to be accepting of their position as minorities and expressed concern that the younger groups were "rocking the boat" by bringing up such distinctly female issues as sexual harassment and maternity leave. They expressed the view that they had been trailblazers who had earned respect.

Pregnancy and maternity leave significantly concerned the youngest group of women, females of child-bearing age. We aren't sure why women in group 3 (41–48) listed pregnancy and maternity leave as problems significantly more often than women in age group 2 (33–40).

The fact that the women in group 1 were not as concerned about being treated as equals with their male colleagues as women in groups 2 and 3 is encouraging. This may indicate that the large increase in the numbers of women in pediatric dentistry is beginning to solve the problem of equal treatment.

The numerous, lengthy, and thoughtful answers provided in response to the request for comments show that women are willing to speak out on issues of concern. The fact that so many respondents used this survey as a forum to relate experiences both during their training, and now as they practice, causes the authors to believe that more such opportunities should be made available.

## Conclusions

1. Environmental hazards during pregnancy and the need to establish written, formal policies regarding these issues were the most frequent

concerns expressed. The respondents recommended flexible, pre-established and preannounced maternity leave policies which do not compromise the educational experience or impose a hardship on fellow residents.

2. Child care and family obligations are concerns which should be addressed by programs for male and female residents alike.
3. Most women (approximately 70%) felt they were neither discriminated against nor sexually harassed during their residencies.
4. Personal safety, lack of female role models, and the need for more exposure to business and practice management courses were cited most frequently as issues when respondents were asked for comments.
5. Most women felt that they have the same professional opportunities as men.
6. The most common frustrations were a lack of acceptance by the professional and lay communities, and trying to balance a career and motherhood.

Dr. Barr is in private practice, Westminster, CO. Dr. Seale is professor and chairperson, Department of Pediatric Dentistry, Baylor College of Dentistry, Dallas, TX. Dr. Waggoner is associate professor, Department of Pediatric Dentistry, Ohio State University, College of Dentistry, Columbus, OH.

1. Niessen LC, Kleinman DV, Wilson AA: Practice characteristics of women dentists. *J Am Dent Assoc* 113:883–88, 1986.
2. Price S: A profile of women dentists. *J Am Dent Assoc* 120:403–7, 1990.
3. Dolan TA, Lewis CE: Gender trends in the career patterns of recent dental graduates. *J Dent Ed* 51:639–45, 1987.
4. Waldman HB: Pediatric dentistry in a period of decreasing numbers of dentists. *ASDC J Dent Child* 56:121–24, 1989.
5. Waldman HB: There really are differences between female and male dentists. *Ohio Dent J* 63:52–55, 1989.
6. DeAngelis C: Women in medicine. Fantasies, dreams, myths and realities. *Am J Dis Child* 145:49–52, 1991.
7. Balk SJ, Christoffel KK, Bijur PE: Pediatricians' attitudes concerning motherhood during residency. *Am J Dis Child* 144:770–77, 1990.
8. Klevan JL, Weiss JC, Dabrow SM: Pregnancy during pediatric residency. Attitudes and complications. *Am J Dis Child* 144:767–69, 1990.