Female Dental Practitioners and Care of Special Needs Children

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ABSTRACT

Increased numbers of female pediatric and general dentists are considered in terms of their potential to provide services for children (and adults) with special health care needs. Reviewed in this are: (1) practitioner work patterns; (2) increasing numbers of children in community residences; (3) the general need for dental services; (4) changing educational standards; and (5) practitioner willingness to provide care. (*J Dent Child*. 2004;71:218-221)

KEYWORDS: FEMALE DENTISTS, CHILDREN WITH DISABILITIES, ACCESS TO CARE

"*Women's entry into the dental workforce has been significant and has helped maintain the supply of dentist ...*"[1]

In 2003, 1,755 women graduated from dental school, 40% of the 4,443 total graduates. In the 2001-2002 academic year, one third of the total number of graduate general practice and specialty residents were women. Yet, women were the majority of the total residents (54%) in only 1 graduate program–pediatric dentistry.[2]

1. Between 1980 and 1990, there was a decrease in the number of pediatric dentistry programs (from 61 to 55 programs); by 2001, this number increased back to the 1980 level (Table 1).
2. Since the mid 1980s, there has been an increase in first-year enrollment in pediatric dentistry programs (from 157 to 234 residents; Table 2).
3. In addition to an increase in the total number of pediatric dentistry residents, since the mid 1990s there has been an increase in the proportion of Asian American residents and a decrease in the proportion of Hispanic residents (Table 3).
4. During the mid–1980s through the mid–1990s, there was an increase in the proportion of pediatric dentistry program graduates from foreign dental schools (32% in 1995). By 2001, the proportion had returned to the general level of 1980 (12%; Table 4).

WORK PATTERNS

An ongoing series of studies have sought to document the different work patterns of female dentists and their impact on the practice of dentistry and the delivery of needed services.[1,4-9] Most emphasis has been on comparative male/female work and output, work-setting patterns, and how female family needs and general desires may affect the delivery of services.

1. "Men work more hours and work part-time less frequently (than women)."[1]
2. "(Women) are more likely to be employees rather than solo practitioners."[1]

Limited attention, however, has been directed to whether there may be any particular differences in the type of care and/or patients treated by female dentists. For example, in one study of gender differences regarding the characteristic of dental services, females were:

1. more likely to treat younger patients;
2. less likely to do comprehensive orthodontic treatment;
3. more likely to use physical restraints than their male counterparts.[5]

In particular, minor attention has focused on the question of whether the major increase in the number of female dentists will have any impact on improving services for children with intellectual and other developmental disabilities. In the past, most dental practitioners reported inadequate preparation for and provided limited services for children with special health care needs (CSHCN).[10-12] "Only about

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Table 1. Accredited Pediatric Dentistry Programs: Selected Years 1980–2001[2]

Year	Dental school-affiliated	Nondental school-affiliate	Total
1980	40	21	61
1990	37	18	55
2001	38	23	61

Table 2. First-year Enrollment in Pediatric Dentistry Programs: Selected Years 1985–2001[2,3]

Year	Dental school-affiliated	Nondental school-affiliate	Total
1985	119	38	157
1990	118	43	161
1995	132	49	181
2001	170	64	234

Table 3. Total Enrollment in Pediatric Dentistry Graduate Programs by Selected Demographic Characteristics: 1995, 2001[2]

	No.		%	
	1995	2001	1995	2001
Gender				
Male	169	223	44	47
Female	214	257	56	54
Race/ethnicity				
White	249	308	65	64
AfricanAmerican	20	25	5	5
Hispanic	47	38	12	8
Native American	2	3	1	<1
Asian American	65	106	17	22
Total	383	480	100	100

10% (of practitioners) see CSHCN often or very often, and only 1 in 4 (in a national survey of general practitioners) had hands-on experience with these patients in dental school."[13]

The 3 types of general practitioners more likely to provide care to CSHCN include "dentists practicing in small communities, dentists who take Medicaid children without special needs, and older dentists."[13] The investigators expressed concern that "... younger dentists, heavily in debt, will not see Medicaid patients or those who might displace patients who can afford care and require less effort."[13]

Table 4. Foreign Graduates Occupying Place in US Pediatric Dentistry Programs: Selected Years: 1980–2001[2]

Year	%
1980	9
1985	19
1990	31
1995	32
2000	19
2001	12

NUMBERS

Times have changed. The overwhelming majority of children and adults who previously would have been placed in an institutional setting are now residing in small community group homes or staying with their families. They are dependent upon local health practitioners for their needed services.

In addition, increasing numbers of children with intellectual and developmental disabilities are surviving to adulthood. In the 2000-2001 academic year, 6.3 million children (ages 3 to 21 years) with disabilities (compared to 3.7 million in 1976-1977) were served in federally supported programs for the disabled.[14] Today, approximately 2% of school-age children have a serious developmental disability, such as intellectual disability or cerebral palsy, and need special education services or supportive care.[15] Approximately 17% of US children under 18 years have a developmental disability. In 2000, US births included:

1. 12,500 children with cerebral palsy;
2. 5,000 children with hearing loss;
3. 4,400 children with vision impairment;
4. 5,000 children with heart malformations;
5. 5,500 children with other circulatory/respiratory anomalies;
6. 800 children with spina bifida/meningocele;
7. 3,300 children with cleft lip/plate;
8. 8,600 children with a variety of musculoskeletal/integumental anomalies.[16]

NEED FOR CARE

"... dental care access (is) a major concern of parents of children with special health care needs in this country ..." [17]

The US Surgeon General has identified CSHCN among those groups who are experiencing difficulty gaining access to dental care.[18] Reports about the general population indicate that there are a significant number of children with unmet health needs, "... but more striking is that the leading unmet need for dental care is reported more commonly than the next 3 reported needs combined (medical care, eyeglasses, and medication) ."[19,20]

Studies that have examined the oral health status of children (and adults) with disabilities generally have reached the same conclusion. "Of the examined individuals (with disabilities) who experienced dental decay, many received extractions as the treatment of choice, typically at a much higher frequency than would be anticipated in a nondisabled population."[20]

In addition:

1. Results from the 1997 National Health Interview Survey concluded that "developmentally disabled children

from low-income families were significantly less likely to have seen a dentist than were children from non-low income families."[20]

2. The Special Smiles program of the Special Olympics conducts annual oral screenings for thousands of Special Olympic athletes (persons with intellectual disability ages 8 and over), in conjunction with games at local, state, national, and international levels. The data reflect high levels of tooth loss, soft-tissue infection, and periodontal disease. The dental caries levels, however, appear to be similar to that of the general population (unpublished program data, 2000).[21]
3. The National Center for Health Statistics reported that, in 2002, the proportion of children with unmet dental needs among children with fair/poor health was more than 3 times greater than for children with excellent/ good health (18% vs 5%).[22]

ACCREDITATION STANDARDS

PREDOCTORAL EDUCATION

The Commission of Dental Accreditation (CODA) has recognized the need to modify dental curricula to prepare new practitioners to meet the needs of children (and adults) with special health needs. In July 2004, CODA adopted the standard that "(dental school and dental hygiene school) graduates must (sic) be competent in assessing the treatment needs of patients with special needs."[23]

PEDIATRIC GRADUATE PROGRAM EDUCATION

CODA has repeatedly emphasized the need for graduate pediatric dentistry programs to prepare residents for the care of CSHCN. "Instruction must be provided at an in-depth level in ... the epidemiology of oral disease encountered in pediatric patients, including those pediatric patients with special health care needs ... (the) formulation of treatment plans for patients with special health care needs ... (the) management of the oral health of patients with special health care needs ... hospital and adjunctive experiences ... to broaden the advanced specialty education of students' overall knowledge and skills in the evaluation and management of pediatric patients with special health care needs ..."[24]

DO PEDIATRIC DENTISTS PROVIDE NEEDED CARE?

A survey of American Academy of Pediatric Dentistry (AAPD) members indicated that almost 70% of respondents reported "... that their undergraduate dental education had not prepared them well to treat special needs patients ..."[25] The attitude toward treating autistic children was related to the number of children with special needs they treated per week and how well they felt their undergraduate and graduate education had prepared them to treat children with special needs. AAPD members who did not treat autistic children "... were more likely to be male ... white ... (and agreed less strongly with the statement) 'graduate education prepared me well to treat autistic children."[25]

A study of pediatric dentistry program graduates practicing in Texas indicated that one of the major reasons reported for not treating CSHCN was that there were "... not many special needs patients in my geographic area."[26] According to the 2000 census, however, there are nearly 200,000 children with disabilities in Texas.[27]

FEMALE PEDIATRIC AND GENERAL DENTISTS AND CSHCN

Will the growing female dentist population result in an equal or increased availability of dental services for CSHCN?

1. Typical financial arrangements for new practitioners may involve being paid on a percentage of production. Considering that some female practitioners work fewer hours than their male counterparts, will they seek patients who are easier and more profitable to treat?
2. Does the increase in female dentists obviate the responsibility of male dentists to provide services?

Ultimately, the question must be asked: is it enough to anticipate increased care by just adding new CODA standards to ensure dental school and dental hygiene school didactic and clinical curricula experiences for the care of special-needs individuals?

Unfortunately, if the results from past studies are any future indication, the answers to these (and other similar) questions would range from "no" to possibly "uncertain."

Earlier dental literature has suggested increased levels of:

1. third-party reimbursement;
2. education loan forgiveness, with the stipulation that general and specialist practitioners must treat CSHCN in their practices;
3. improved educational opportunities in dental school and specialty programs.[20]

"Finding a single solution to improve the oral health of special needs children is highly unlikely, since the causes of poor access and utilization of dental services are multifactorial." [20]

Despite this belief, marked growth in the numbers of female general and pediatric dentists may be part of the solution. Perhaps past suppositions are inaccurate. Nevertheless, that does not obviate the responsibilities of male practitioners.

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