

Pediatric Dentists' Willingness to Perform or Refer Advanced Dental Procedures

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ABSTRACT

Purpose: To assess pediatric dentists current management of advanced dental procedures and determine factors that contribute to a decision to perform or refer these procedures to another practitioner or specialist.

Methods: A survey consisting of 27 questions was sent via SurveyMonkey to 6,885 active members of the AAPD. The mailing list was obtained from the American Academy of Pediatric Dentistry membership. The data was collected over a 6-week period.

Results: Six hundred fifty responses were collected (response rate = 9%). Respondents referred the following procedures: prosthodontic (91%), endodontic (85%), oral surgical (68%), orthodontic (64%), periodontic (49%), sedation (32%), dental trauma (26%), extractions (25%), and special needs (17%). The most common age group referred was 11-15 years old (46%) followed by 16-20 years old (42%). Seventy four percent of respondents attended pediatric dental residency immediately following dental school. Of the remaining 26% (N=170), 71% (N=121) had completed a GPR/AEGD. Of those advanced procedures that were referred out, the most common reason was due to level of training (74%), followed by lack of enjoyment with performing procedure (66%), and time required to complete them (51%). Other factors determining referral patterns are age, years of practice, geographic location, type of practice, and further post graduate training.

Conclusion: Pediatric dentists refer out advanced procedures to a varying degree depending on specialty area. The primary reasons for referral were lack of sufficient training in that specialty, lack of enjoyment with performing the procedure, and the time it takes to complete that procedure. Demographics and level of training were factors in the decision to refer.

INTRODUCTION

The pediatric and special needs population rely on pediatric dentists to provide preventative and therapeutic oral health care. As defined by the American Academy of Pediatric Dentistry (AAPD), pediatric dentists function as both a primary care and specialty care provider¹. Pediatric dentists receive a unique education in behavior management. Therefore, it is crucial for children and individuals with special needs to receive comprehensive dental care, especially when specialists are unable to treat cases where behavior may be a barrier to care.

Dental care is recognized as one of the greatest unmet healthcare needs facing persons with disabilities.² Many general dentists or specialists lack training in behavior management for children or individuals with special needs. As a result, they refer these cases to specialties equipped to handle them.

In some cases, younger patients require advanced treatment such as extractions, other types of oral surgery, dental trauma management, or sedation. Patients may also require additional advanced dental procedures like periodontic, orthodontic, prosthodontic, or endodontic therapy on permanent teeth. If access to a pediatric dentist is limited, a general dentist must be confident in their ability to use behavior management techniques to provide appropriate care.³

The primary objective of this study is to determine how comfortable pediatric dentists are treating advanced dental procedures on the pediatric patient. While pediatric dentists have extensive knowledge in behavior management and can treat a diverse range of children and special needs with behavioral challenges, the question arises when a child or special needs patient requires procedures that are not routinely performed by the pediatric dentist. In such cases, where general dentists and specialists may feel uncomfortable treating these patients, it is the responsibility of the pediatric dentist, as both a primary care provider and specialist, to be well-versed in all aspects of their field.

MATERIALS AND METHODS

A survey was sent via Survey Monkey to 6,885 active pediatric dentists of the AAPD. The mailing list of members was obtained from the American Academy of Pediatric Dentistry. Data was collected over a 6-week period from participants who were active members of the American Academy of Pediatric Dentistry. Institutional Review Board (IRB) approval was obtained from the Albert Einstein College of Medicine prior to survey distribution. Along with the survey, a cover letter was sent via email stating the purpose of the survey and that completion was completely voluntary and with minimal risk to participants. The survey consisted of a series of questions to gather information on demographics, residency training experience, and types of procedures in different specialties competed.

The data was analyzed by conducting a series of chi-squared test to determine factors influencing referral patterns.

RESULTS

Six hundred fifty responses were collected (response rate = 9%). Respondents referred the following procedures: prosthodontic (91%), endodontic (85%), oral surgical (68%), orthodontic (64%), periodontic (49%), sedation (32%), dental trauma (26%), extractions (25%), and special needs (17%).

Demographic data was collected and compared to referral patterns in each specialty procedure group as found in Table 1. Trends in referral patterns were analyzed. Pediatric dentists who have been practicing for 0-10 years were more likely to refer out specialty procedures than other age groups compared. Respondents aged 36-45 were more likely to refer, along with those located in the Northeast, in suburban areas, those practicing in a small or solo practice setting, and those who saw more patients per day (31-40+ patients).

Referral patterns were also compared to those who completed additional training beyond pediatric dentistry residency. Seventy four percent of respondents only attended pediatric dental residency immediately following dental school. Of the remaining 26% (N=170), 71% (N=121) had completed a GPR/AEGD or other residency program/fellowship. Trends in post graduate training and referral patterns per specialty procedures can be found on Figure 1. Those respondents who referred prosthodontic procedures, 67% completed only pediatric dentistry residency, and 24% completed additional training like a GPR/AEGD or other residency/fellowship, the results were statistically significant ($P=.000$). Similar trends were observed in referrals of other specialties: endodontic (62% vs. 23%, $P=.000$), oral surgical (50% vs. 18%, $P=.000$), orthodontic (48% vs 16%, $P=.000$), periodontic (36% vs. 13%, $P=.000$), sedation (24% vs. 8%, $P=.000$), dental trauma (20% vs. 6%, $P=.000$), extractions (19% vs. 6%, $P=.000$), and special needs (12% vs. 5%, $P=.000$).

The most common age group referred was 11-15 years old (46%) followed by 16-20 years old (42%). Those advanced procedures that were referred out, the most common reason was due to level of training (74%), followed by lack of enjoyment with performing procedure (66%), and time required to complete them (51%).

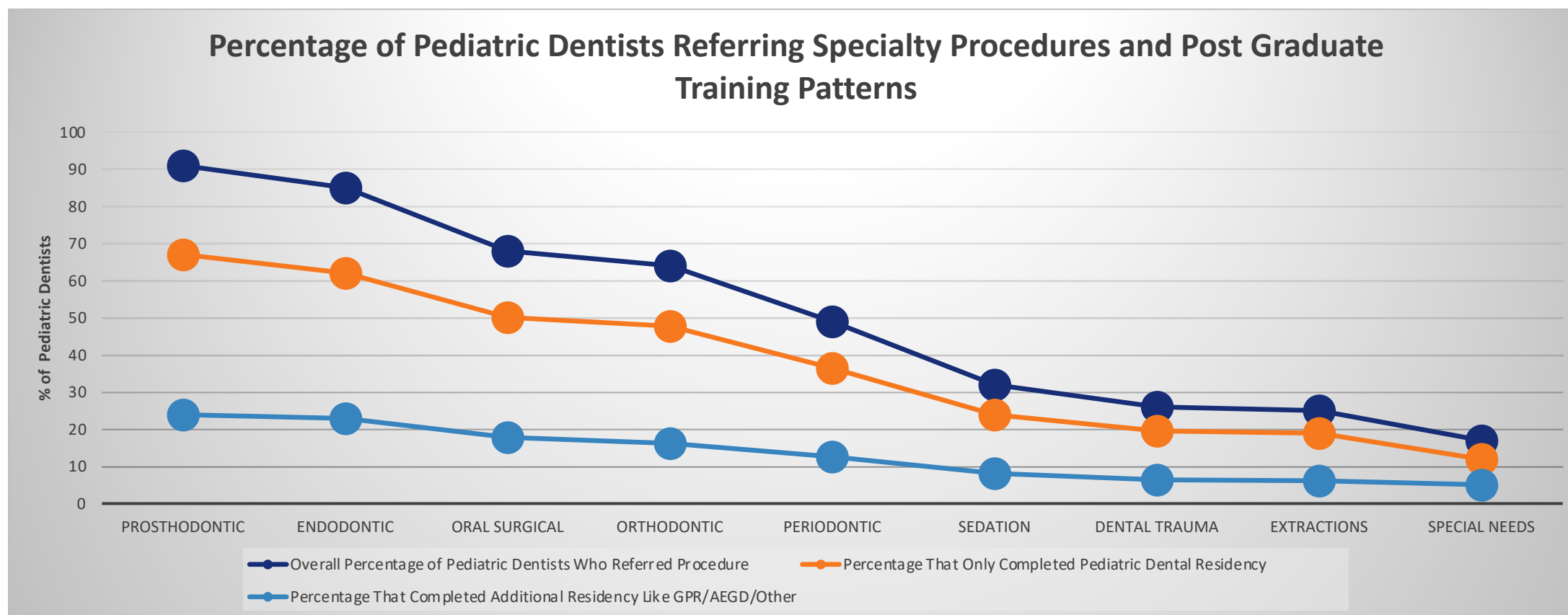


Figure 1. Percentage of pediatric dentists referring specialty procedures and comparing referral patterns in post graduate training

Procedure Referred:	Prosthodontic	Endodontic	Oral Surgical	Orthodontic	Periodontic	Sedation	Dental Trauma	Extractions	Special Needs
Years Practicing									
0-10	43%	42%	42%	44%	43%	40%	42%	40%	46%
11-20	18%	19%	19%	19%	18%	18%	18%	20%	20%
21-30	23%	23%	23%	22%	23%	25%	22%	23%	20%
31-40	10%	10%	9%	9%	9%	9%	10%	9%	10%
41+	7%	7%	7%	7%	7%	9%	7%	8%	4%
Age									
26-35	23%	23%	23%	24%	23%	22%	22%	23%	24%
36-45	28%	28%	28%	28%	29%	27%	29%	26%	29%
46-55	22%	22%	22%	22%	22%	21%	21%	22%	25%
56-65	16%	16%	16%	15%	15%	17%	16%	15%	14%
66+	12%	12%	12%	11%	12%	13%	13%	13%	9%
AAPD District Location									
Northeast	24%	25%	25%	25%	26%	31%	24%	28%	24%
Northcentral	18%	18%	18%	18%	18%	20%	19%	18%	19%
Southeast	23%	23%	23%	23%	23%	21%	22%	21%	22%
Southwest	15%	15%	15%	15%	15%	14%	16%	15%	16%
Western	20%	19%	20%	20%	19%	13%	19%	19%	20%
Practice Location									
Rural	11%	11%	11%	12%	12%	11%	11%	8%	11%
Urban	26%	26%	26%	26%	26%	27%	25%	26%	30%
Suburban	63%	63%	63%	62%	63%	63%	64%	66%	59%
Practice Setting									
Solo or small practice	69%	69%	69%	69%	69%	72%	69%	70%	68%
Large group practice	11%	11%	11%	11%	11%	10%	12%	12%	12%
Community health clinic	4%	4%	4%	4%	4%	4%	4%	4%	5%
Hospital setting	6%	5%	5%	6%	5%	4%	5%	3%	6%
University setting	4%	4%	4%	4%	4%	4%	4%	4%	4%
Other	6%	7%	7%	7%	7%	7%	7%	7%	5%
Average # Patients/Day									
0-10	6%	6%	6%	7%	6%	6%	6%	5%	9%
11-20	18%	18%	18%	19%	18%	22%	18%	18%	18%
21-30	26%	26%	26%	26%	26%	27%	27%	30%	23%
31-40	49%	49%	50%	49%	50%	46%	49%	47%	50%

Table 1. Demographic data and its relation to percentage of respondents who referred specific specialty procedures

CONCLUSIONS

Pediatric dentists refer out advanced procedures to a varying degree depending on specialty area. Demographics such as years practicing pediatric dentistry, age of practitioner, district, geographical area, type of practice setting, and the average amount of patients seen per day all have an influence on referral patterns. Those pediatric dentists who had completed postgraduate training other than pediatric dental residency were less likely to refer out advanced procedures. The primary reasons for referral were lack of sufficient training in that specialty procedure, lack of enjoyment with performing the procedure, and the time it takes to complete that procedure.

BIBLIOGRAPHY

References available upon request.