

Factors Influencing African American/Black Women's Choice into Pediatric Dentistry: Diversity of the Dental Workforce

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Introduction

It has been shown, through various studies, underrepresented minorities are more likely to serve low income and underserved communities. Also, individuals from rural or underserved areas are more likely to go back and work in these areas after medical and dental training. Though certain professions have grown in diversity, this however is not the case in dentistry. Currently African American/Black individuals make up only 3% of the current dental workforce though representing 14% of the nation's population. Though, the overall dental workforce does not reflect the diversity of the country, pediatric dentistry is one on the forefront, reflecting to be the most diverse in gender and race in comparison to the other dental specialties. Pediatric dentistry has seen a significant increase in diversity of race and gender, more than any other dental specialty. Current dental workforce trends show an increase in African American/Black individuals, especially women, pursuing pediatric dentistry. It is important to assess the factors that are leading African American/Black females selecting this career, as an exemplar for other specialties and programs to follow and to help address the nation's health disparities in healthcare provider diversity.

Purpose/Aims

The purpose of the study was to determine the personal, social, and policy factors influencing African American/Black women's choice to specialize in pediatric dentistry and serve children insured by Medicaid.

Aim 1: To evaluate and describe the current dental workforce trends in pediatric dentistry related to race and gender diversity.

Aim 2: To assess the factors that have led to an increase in African American/black females pursuing pediatric dentistry, more than other dental specialties.

Methods

This study is an observational study using qualitative and quantitative mixed methods design. This study consists of two components. The first component is analysis of previous research studies and data on the research topic, using publicly available data sources. The second component consists of, by the use of snowball sampling, participants being interviewed regarding their lived experiences and their decision to pursue pediatric dentistry and treat children insured by Medicaid. African American/Black women pediatric dentists and residents will be identified by using the databases from three professional organizations, ADA, NDA, and AAPD.

Inclusion Criteria

- African American/Black female pediatric dentist or resident
- English speaking
- Able and willing to consent and complete interview

Exclusion Criteria

- Does not identify as African American/Black
- Not a pediatric dentist or resident
- Non-English speaking
- Unable to complete interview

		Provider Type						Overall								
		Primary Care (UGD)		Pediatric (PGD)		Primary Care (PGD)		Specialist (PGD)								
Foreign trained providers excluded.		row %	col %	N	row %	col %	N	row %	col %	N	row %	col %	N	row %	col %	N
Gender	F	59.3	23.8	23691.0	6.6	51.3	2644.0	21.3	37.3	8515.0	12.7	20.8	5079.0	100.0	26.3	39929.0
	M	67.7	76.2	75897.0	2.2	48.7	2512.0	12.8	62.7	14294.0	17.3	79.2	19343.0	100.0	73.7	112046.0
	#Totals			99588			5156			22809			24422			151975
Race	White	66.8	65.9	65635.0	2.9	55.9	2880.0	13.5	58.3	13306.0	16.7	67.4	16454.0	100.0	64.7	98275.0
	African American/Black	59.2	3.6	3608.0	4.7	5.5	284.0	22.5	6.0	1373.0	13.6	3.4	828.0	100.0	4.0	6093.0
	Hispanic	64.5	2.9	2906.0	4.7	4.1	211.0	17.0	3.4	766.0	13.8	2.5	620.0	100.0	3.0	4503.0
	Asian	64.1	9.9	9830.0	4.1	12.2	628.0	17.5	11.8	2683.0	14.3	9.0	2196.0	100.0	10.1	15337.0
	Other	62.4	1.0	1031.0	5.0	1.6	82.0	16.9	1.2	279.0	15.7	1.1	259.0	100.0	1.1	1651.0
	Not Reported	63.5	16.6	16578.0	4.1	20.8	1071.0	16.9	19.3	4402.0	15.6	16.6	4065.0	100.0	17.2	26116.0
	#Totals			99588			5156			22809			24422			151975

Table 1: Table showing raw data from ADA Masterfile and ADA Survey of Advanced Dental Education providing demographic information concerning the dental workforce categorized based on gender, race, and type of dentistry.

		HRSA Post-doc program						Overall								
		No		HRSA Sponsored												
Gender	F	row %	col %	N	row %	col %	N	row %	col %	N	row %	col %	N	row %	col %	N
	M	28.6	45.6	45.6	71.4	755.0	71.4	54.0	1889.0	100.0	51.3	2644.0				
	#Totals	35.8	54.4	900.0	64.2	46.0	1612.0	100.0	48.7	2512.0			5156			
Race	White	36.1	62.8	1040.0	63.9	52.6	1840.0	100.0	55.9	2880.0						
	African American/Black	26.8	4.6	76.0	73.2	5.9	208.0	100.0	5.5	284.0						
	Hispanic	28.9	3.7	61.0	71.1	4.3	150.0	100.0	4.1	211.0						
	Asian	24.0	9.1	151.0	76.0	13.6	477.0	100.0	12.2	628.0						
	Other	37.8	1.9	31.0	62.2	1.5	51.0	100.0	1.6	82.0						
	Not Reported	27.6	17.9	296.0	72.4	22.1	775.0	100.0	20.8	1071.0						
	#Totals			1655			3501			5156						

Table 2: Table showing data from ADA Masterfile and ADA Survey of Advanced Dental Education providing information on HRSA Sponsored Post-doc programs and non sponsored programs.

Results

The demographics of the dental workforce are provided below. When looking at other specialties and general dentistry, dentistry is still a male dominated profession where males make up 79.2% of specialists and 73.7% of general dentists, but when looking at pediatric dentistry, males make up only 48.7%. Within pediatric dentistry, African American/Blacks represent 5.5% of the overall specialist population and only 3.4% of all other dental specialists combined.

Regarding the subject of race, negative racial factors and events occurred at all stages in one's career and was a common occurrence in residency. From underlying bias and unfair treatment to outright racism from patients, families, or faculty, barriers were faced that their white counterparts did not have to endure. This has led to a constant fear about being enough or how one will be perceived in the workforce

Gender - Male (ref. Female)	0.39***
Race:African American/Black (Ref. White)	1.20*
Hispanic	1.30***
Asian	1.15**
Other	1.34*
Race Not Reported	1.21***
White Male (Ref. White Female)	0.37***
AA Female	1.19+
AA Male	0.44***
Hispanic Female	1.25*
Hispanic Male	0.50***
Asian Female	1.08
Asian Male	0.46***
Other Female	1.44*
Other Male	0.44***
Female - no r/e reported	1.10+
Male - no r/e reported	0.49***

Table 3: Odd ratios of pediatric dentistry compared to other PGD programs

Conclusion

There are positive predictor factors and negative predictor factors that influence one to pursue pediatric dentistry. It was found that being male and an older individual at time of graduation were a negative predictor for one going into pediatric dentistry. Positive predictors include being any other race/ethnicity (African American/Black, Asian, Hispanic) besides White and being female. When having white females as the comparison group, African American/Black females are more likely to pursue pediatric dentistry than any other specialty. This was found to be statistically significant.

Discussion

Overall, pediatric dentistry tends to bring in more diversity regarding both race and gender. The common theme of mentorship exhibits the weight and power it can have in the trajectory of one's dental career. Many of the minority pediatric dentists stated regardless of their past with mentorship, they have all taken steps to mentor the next generation of African American/Black dentists whether pursuing pediatric dentistry or not. Also, the concept of giving back to the minority community was also significant in the analysis of the interviews. Many individuals whether growing up in an underserved area or not, expressed their desire to give back to communities that look like them.

Because of the various factors, all have expressed at one point in their career or even now, the need and responsibility to serve children insured by Medicaid and have accepted such insurance in their dental practice.

REFERENCES

1. Atchison, K. A., Bibb, C. A., Lefever, K. H., Mito, R. S., Lin, S., & Engelhardt, R. (2002). Gender differences in career and practice patterns of PGD-trained dentists. *Journal of dental education*, 66(12), 1358-1367.
2. Practice patterns of postgraduate trained dentists in the United States. *J Dent Educ.* 2022 Sep; 86(9):1133-1143. Mertz EA, Bates T, Kottek A, Jura M, Werts M, Munson B, Vujcic M. PMID: 36165262.
3. Sullivan, L. W. (2004). *Missing persons: Minorities in the health professions, a report of the Sullivan Commission on Diversity in the Healthcare Workforce.*
4. Surdu, S., Mertz, E., Langelier, M., & Moore, J. (2021). Dental workforce trends: A national study of gender diversity and practice patterns. *Medical Care Research and Review*, 78(1_suppl), 30S-39S.
5. Trends in postgraduate dental training in the United States. *J Dent Educ.* 2022 Sep; 86(9):1124-1132. Bates T, Jura M, Werts M, Kottek A, Munson B, Vujcic M, Mertz EA. PMID: 36165263.