



BACKGROUND

Parental dental anxiety affects 10–20% of adults worldwide and represents a significant yet underexplored barrier to timely pediatric dental care². The AAPD recommends a child's first dental visit by age 1 or within 6 months of first tooth eruption¹; however, many children present substantially later, increasing risk for early childhood caries (ECC) and lifelong oral health avoidance. While socioeconomic and logistical barriers are well-characterized, the specific contribution of parental dental anxiety to delayed care-seeking remains poorly defined. This study quantifies that relationship using the validated Modified Dental Anxiety Scale (MDAS)² in a community pediatric dental setting.

OBJECTIVES

- Evaluate the association between parental dental anxiety (MDAS) and age at the child's first dental visit.
- Identify barriers to care that differ by parental anxiety category.
- Examine relationships between parental anxiety, perceived oral health importance, and self-reported impact on timing of the child's first visit.

METHODS

Study Design: Cross-sectional survey study at Children's Dental Specialists of Hazel Park, metro Detroit, MI.

Participants: Parents/guardians of children 1–6 years presenting for first dental visit (N=91)

Instrument: Anonymous paper survey: validated 5-item MDAS (range 5–25; Low 5–9, Medium 10–18, High ≥19), demographics, barriers to care, and perceived oral health importance.

Statistics: Descriptive statistics, chi-square/Fisher's exact tests, Pearson correlations

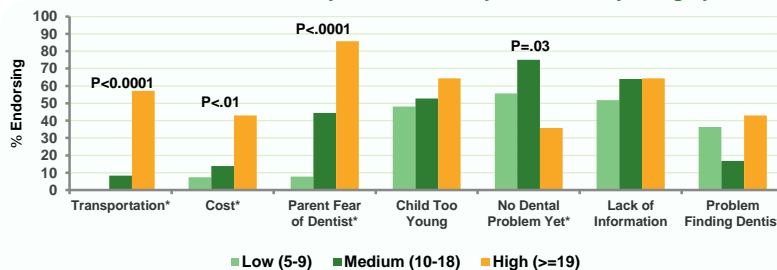
RESULTS

TABLE 1. Demographic Characteristics (N=91)

Variable	Mean ± SD	% / Range
Parent Age (yrs)	32.2 ± 6.8	22–60
Child Age (yrs)	3.1 ± 1.5	1–6
MDAS Score (continuous)	11.4 ± 5.4	5–25
Variable	N	%
MDAS Categorical: Low (5–9)	36	39.6
Medium (10–18)	40	44.0
High (≥19)	15	16.4
Education:		
≤8th Grade	15	16.5
High School	36	39.6
College/Grad	40	43.9
Income:		
<\$50k	36	39.6
\$50k–\$100k	26	28.6
>\$100k	17	18.7

RESULTS

FIGURE 1. Reasons for Delayed Dental Visit by MDAS Anxiety Category*



*Results of chi-square/Fisher's exact test

TABLE 2. Correlations of MDAS Score with Key Variables

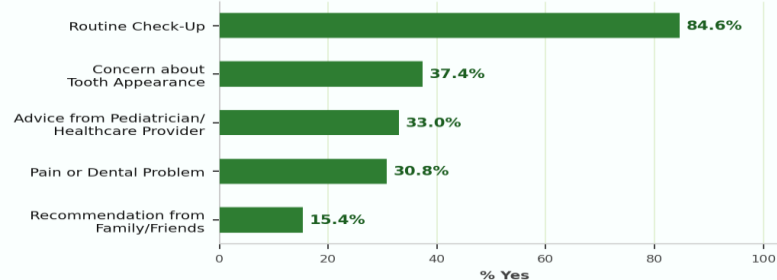
Variable	Pearson r	p-value
Child's Age at First Visit	.26	.01*
Importance of Oral Health Rating	-.24	.02*
Agreement: Own Fear Affected Child's Visit Timing	.42	<.0001*

TABLE 3. Unadjusted Correlations with Child's Age at First Visit (N=91)

Variable	r	p-value
MDAS Score	.26	.01*
Education	-.19	.08
Income (n=78)	-.23	.04*
Parent Age	.18	.08
Importance of Oral Health	.06	.56
Own Fear Affects Timing of Child's Visit	.16	.12

Results of Pearson correlations.

FIGURE 2. Motivators for Child's First Dental Visit (N=91; multiple responses permitted)



RESULTS

- Almost 20% of parents had high dental anxiety; and 40% had low dental anxiety (Table 1).
- Higher parental dental anxiety was significantly associated with older age of child at first dental visit ($p=.01$), confirming parental fear as a contributor to delayed pediatric preventive care (Table 2)
- MDAS score was negatively correlated with perceived importance of oral health ($p=.02$) and positively correlated with self-reported fear-driven delay ($p<.0001$). (Table 2)
- Highly anxious parents were significantly more likely to cite **transportation ($p<.0001$)**, **cost ($p=.01$)**, and **personal fear of the dentist ($p<.0001$)** as reasons for delaying their child's first visit (Figure 2).
- Higher income was associated with earlier first dental visits ($p=.04$), underscoring socioeconomic determinants of oral health access.(Table 3)
- Results highlight the need for targeted, anxiety-reducing interventions at the primary care-pediatric dental interface to promote AAPD-recommended timely first dental visits.
- Most common motivator for child's first dental visit was **routine check-up (84.6%)**, followed by concern about tooth appearance (37.4%) and provider advice (33.0%),(Figure 2), suggesting that proactive anticipatory guidance from pediatricians is critical for promoting timely dental visits.

LIMITATIONS & STRENGTHS

- Limitations: Small sample size (N=91) limits statistical power; Single site limits generalizability; cross-sectional design limits causal inference
- Strengths: Examined the contribution of parental dental anxiety, a less well-characterized predictor, to delay of dental care for children and perception of importance of child's oral health

CONCLUSIONS & CLINICAL IMPLICATIONS

- Routine caregiver screening for dental anxiety—integrated into pediatric medical and dental visits—can identify at-risk families and prompt earlier referrals.
- Anxiety-targeted communication strategies (e.g., motivational interviewing, desensitization) may reduce fear-driven delays and improve access to preventive care.
- Multilevel interventions addressing transportation, cost, and psychological barriers are especially warranted for lower-income, higher-anxiety populations.

REFERENCES

- AAPD. Policy on the Dental Home. *Pediatr Dent*. 2023.
- Peretz B, Efrat J. Dental anxiety in young patients. *Int J Paediatr Dent*. 2000.

Acknowledgments: Thank you to Dr. Basam Shamo, DDS, Dr. Helen Yuan DDS, Dr. Kristen Ponichter, DMD, and Dr. Donna Kritz-Silverstein, PhD for their continuous support with this research. This project was made possible by funding provided by Children's Hospital of Michigan Foundation.