The Impact of Dental GA Wait Times on OHRQoL

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BACKGROUND

Children with severe early childhood caries (S-ECC) often require complete oral rehabilitation under general anesthesia (GA). However, hospital-based surgical capacity limitations create **prolonged wait times**, during which children may experience ongoing dental pain, disruption in eating and sleeping, and behavioral changes.

Oral health–related quality of life (OHRQoL) captures the functional, psychological, and social impact of oral conditions on children and their families. While prior research has examined GA outcomes and it's impact on OHRQoL, few studies have investigated the **impact of the waiting period itself** on OHRQoL.

OBJECTIVES

(1) To evaluate the association between the length of time children spend waiting for their complete oral rehabilitation GA appointment and their OHRQoL.
(2) To characterize the impact of complete oral rehabilitation GA delays on pediatric patients and their families.

MATERIALS & METHODS

Study Design: Cross-sectional survey of caregivers of children scheduled for complete oral rehabilitation under GA at a hospital-based pediatric dental clinic.

Instrument: OHRQoL assessed using the Early Childhood Oral Health Impact Scale (ECOHIS), a 13-item caregiver-reported measure with child impact (9 items) and family impact (4 items) domains. Higher scores indicate poorer OHRQoL.

Data Collection: Surveys administered in English and Spanish via REDCap (N = 42). Measures included demographics, dental pain history, emergency care utilization, antibiotic and analgesic use, and OHRQoL. Additional information collected from the patient's EHR.

Statistical Analysis: Descriptive statistics, one-way ANOVA (ECOHIS by wait time group), bivariate analysis: Spearman's correlation and chi square, and multiple linear regression. *IRB approved -UIC IRB Protocol STUDY2025-0413. Analyses performed in SPSS.*

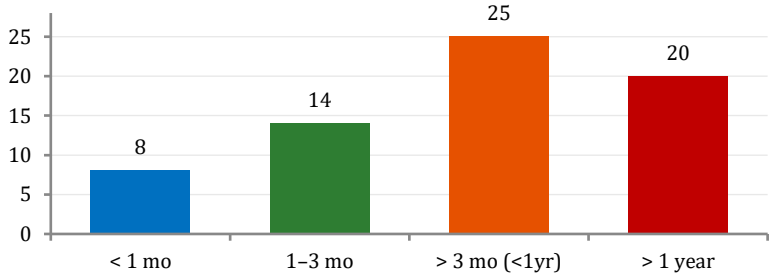
RESULTS

Sample Characteristics (N = 42)

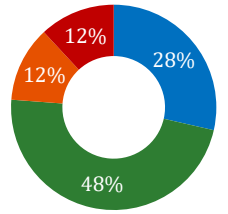
Variable	n / %
Survey completed in English	88%
Child experienced dental pain	73%
Pain duration > 3 months	59%
Analgesic use reported	48%
Antibiotic use reported	43%
≥ 1 urgent care visit	60%
Child hospitalized	1

14.1	9.7	0-38
Mean	Standard Deviation	Score Range

Mean ECOHIS Score by GA Wait Time Category



GA Wait Time Distribution



■ < 1 month ■ 1–3 months ■ >3 mo (< 1 yr) ■ > 1 year

48% of patients waited 1-3 months

One-Way ANOVA: ECOHIS by Wait Time Group

Source	df	F	p	η^2
Wait Time	3, 38	**4.41**	**.009***	**.258**

**p < .01. Large effect size (η^2 = .258).*

Spearman Rank-Order Correlation

Relationship	ρ	p
Wait Time × ECOHIS	**.391**	**.011***

**p < .05. Moderate positive correlation.*

Multiple Linear Regression (R^2 = .510)

Predictor	Result	p-value
Wait Time	**Strongest predictor**	**< .005***
Emergency Visits	Significant	< .012*
Site (B vs A)	Not Significant	< .389*

CONCLUSIONS

Prolonged wait times for dental surgery under GA are significantly associated with poorer OHRQoL in pediatric patients. **The regression model explained 51% of the variance in ECOHIS scores, with wait time as the strongest independent predictor.** Children experience sustained pain, disrupted functioning, and behavioral impacts, while families bear emotional strain, guilt, and practical burden. These findings highlight the need for **system-level strategies to reduce surgical delays** and **optimize interim management** for children awaiting GA.

REFRENCES