Discrete Choice Experiment Evaluating Parental Procedural Sedation Choices in Children CONTRACT OF CONTRACT

Children's Hospital Colorado





University of Colorado Anschutz Medical Campus

Rosas G^{*1}, Vigil M², Lee W¹, Bothwell S³, Chin K⁴, Puranik C⁴ University of Colorado, Aurora, CO

*Presenting Author, ¹Pediatric Dental Resident, Children's Hospital Colorado, ²Doctoral Student, School of Dental Medicine, ³Research Instructor, Research Outcomes in Children's Surgery, ⁴Associate Professor, Pediatric Dentistry, Children's Hospital Colorado and School of Dental Medicine

Background

- children with limited cooperation Most and comprehensive treatment needs may require mild, moderate, or deep sedation for delivery of dental care.
- Discrete choice experiment (DCE) was defined as a preference elicitation technique asking respondents to make choice from two or more alternatives where at least one attribute is systematically varied, and a series of choice tasks can elicit preferences.
- There are no studies evaluating the parental preferences for selecting a sedation regimen.
- The objective of the study was to evaluate parental preferences with discrete choice experiment (DCE) for selecting sedation regimen for their child's dental treatment and evaluate factors affecting parental preferences for the sedation regimen for their child's dental treatment.

Methods

- An electronic postcard consent and survey participation was provided to the English- or Spanishspeaking caregivers of pediatric patients at Children's Hospital Colorado.
- Caregivers were asked to select one of the two sedation regimens based in a DCE format with six parameters (pre-operative fasting time, postoperative recovery time, mode of drug administration, adverse reaction, depth of sedation, and use of protective stabilization). Demographic information and survey responses were anonymously collected for data analysis.

Parameter

Parent Age <20 years

20-30 years

30-40 years >40 years

Parent Sex

Male

Female

Not Report

Parent Race Caucasian

African Am

Hispanic Asian

American

Hawaiian

Mixed

Preferred L

English

Spanish

Table 1. S De

Results

A total of 98 caregivers completed surveys while three caregivers declined survey participation.

Out of the six parameters included in the DCE, the only parameter that was important to any caregiver for selecting sedation regimen was 'pre-operative' fasting time' (P=.006).

~	Counts(%)	Parameters	OR	95% CI	<i>P</i> -value
		Fasting Time			
		No Fasting Time +			
old	5 (5.1%)	2hrs Solids	0.42	0.23, 0.78	0.005 *
s old	11 (11.2%)	6hrs Solids	0.33	0.21, 0.52	<0.001 **
s old	46 (46.9%)	Recovery Time			
	36 (36 7%)	10 Minutes			
	30 (30.778)	30 Minutes	1.27	0.64, 2.51	0.439
		90 Minutes	0.85	0.49, 1.47	0.988
	20 (20.4%)	Sedation Route			
	77 (78.6%)	Inhalation	—		
ed	1 (1.0%)	Intranasal or oral	0.78	0.41, 1.49	0.629
e/Ethnicity		Intravenous	0.54	0.33, 0.90	0.156
	13 (13 3%)	Incidence of Adverse Reaction			
		0%	—		
erican	16 (16.3%)	5%	0.92	0.48, 1.75	0.988
	55 (56.1%)	15%	0.61	0.37, 1.02	0.354
	4 (4 1%)	Depth of Sedation			
		Minimal (Awake)	—	—	
ndian	1 (1.0%)	Moderate (Drowsy)	1.28	0.61, 2.67	0.440
	1 (1.0%)	Deep (Asleep)	1.29	0.69, 2.38	0.193
		Protective Stabilization			
	8 (8.2%)	No PS		—	
anguage		Loose PS	0.92	0.48, 1.79	0.988
<u> </u>	61 (62 2%)	Secure PS	-0.37	0.41, 1.17	0.621
	37 (37.8%)	95%CI=95 percent confidence interval, * P<0.05, ** P<0.001, + Preferred option, OR odds ratio, PS- protective stabilization			
Survey Respondent		Table 2. The conditional logistic regression model with False			
emographics		Discovery Rate adjustments for the six DCE parameters.			

Discussion

- DCE can be used in helping providers gain insight on patients' understanding of proposed treatment, and what factors influence their decision-making process.
- DCE have been used to evaluate the appreciation of parents towards conscious sedation on children in China, but no research has been done on parental preferences for sedation regimens for pediatric dental treatment in the US.
- In recent years, studies have shown that parents are taking on a more active role in their child's dental care and are being faced with making difficult treatment decisions for their child.
- From this study a different approach can be taken when discussing treatment options with parents that take into consideration these preferences and foster an environment of shared clinical decision making.

Conclusions

- This survey based DCE study revealed that fasting time is critical for caregivers for choosing a sedation regimen for their child in a pediatric dental clinic.
- No fasting time prior to dental procedures can be more convenient and better accepted for both parents and children, possibly due to ease and need for less vigilance on part of child and parent, respectively.
- New studies involving parents of children who had previous experiences with sedation procedures will add more value to survey results.