

Background

- Approximately four million children undergo procedures with anesthesia yearly.
- For children and parents, this can be anxiety-provoking.
- Level and timing of pre-anesthesia anxiety in children are not adequately studied; associated factors are largely unknown.
- Preparing for anesthesia may cause parental worry, and little is known about effects of anesthesia and related parental factors on school-age children in the weeks following a procedure.

Purpose

The purpose of this study was to explore longitudinal peri-anesthesia factors of anxiety and behavior in children ages 7-12 scheduled for a procedure with anesthesia

Methods

- Consenting Spanish and English-speaking dyads completed the Zero to Ten visual analog scale for child anxiety and the adult State Anxiety scale at visit #1 (Pre-Anesthesia Clinic).
- Also at visit #1 was a question exploring parent preparedness for their child's anesthesia.
- The child scale was repeated on visit #2 (procedure day).
- The Post Hospitalization Behavior Scale for Ambulatory Surgery (PHBS-AS) was administered by phone to parents two and four weeks after the procedure.
- Medical record review of participants for anesthesia duration.

Results

Preliminary Results of First 61 Participants

Variable	n	Median (IQR)	Min	Max
Gender n(%)				
Male	36 (59%)			
Female	25 (41%)			
Age (years)	61	9 (7-10)	7	12
Visit #1 Anxiety Scale	61	3 (2-5)	0	10
Visit #2 Anxiety Scale	53	5 (3-8)	0	10
Behavior Score Visit 3	27	14 (12-15)	11	32
Behavior Score Visit 4	23	13 (11-16)	11	25
Duration of GA (min)	61	47 (40-73)	19	242
Parent State Anxiety				
English-Speaking	44 (72%)	35.5 (27-45.5)	20	57
Spanish-Speaking	17 (28%)	46 (35-54)	26	67

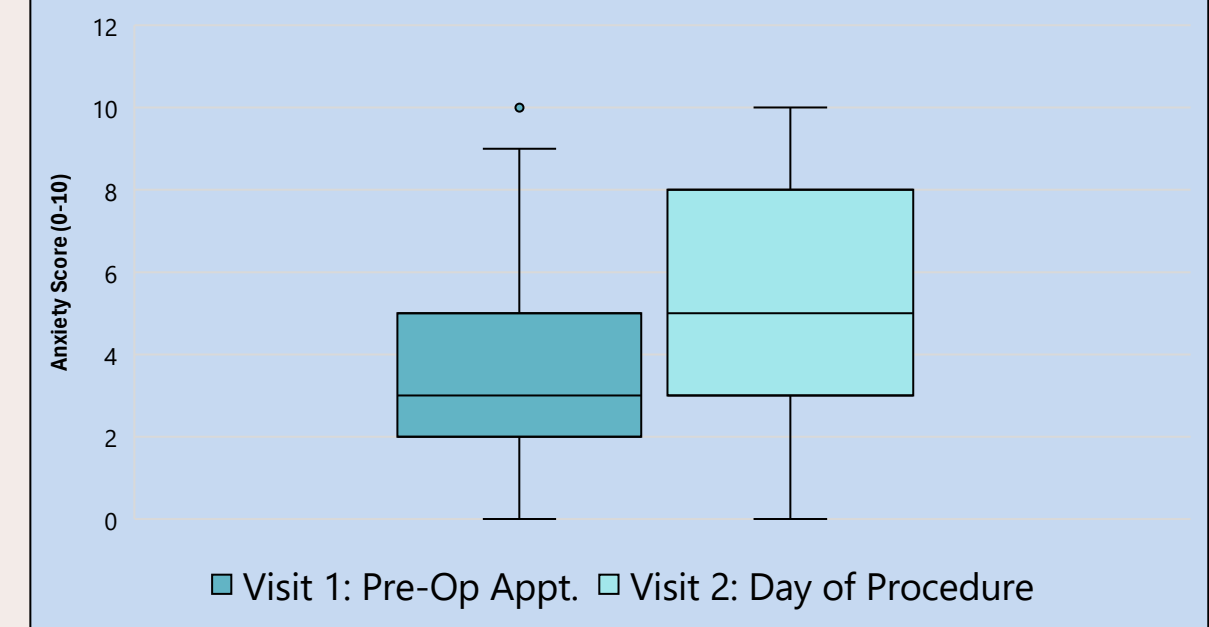
- Child anxiety scores significantly higher at visit 2 vs 1 with a weak correlation to parent-state anxiety
- Spanish-speaking parents felt significantly less prepared for their child's anesthesia ($p < .001$) and had significantly higher anxiety vs. English-speaking ($p < .005$).
- Posthospitalization Behavior scores were low (median 14-13) compared to min/max scores possible (11-55) on PHBS-AS
- PHBS-AS scores were not significantly related to anesthesia duration

Zero to Ten Child-Report Anxiety Scale

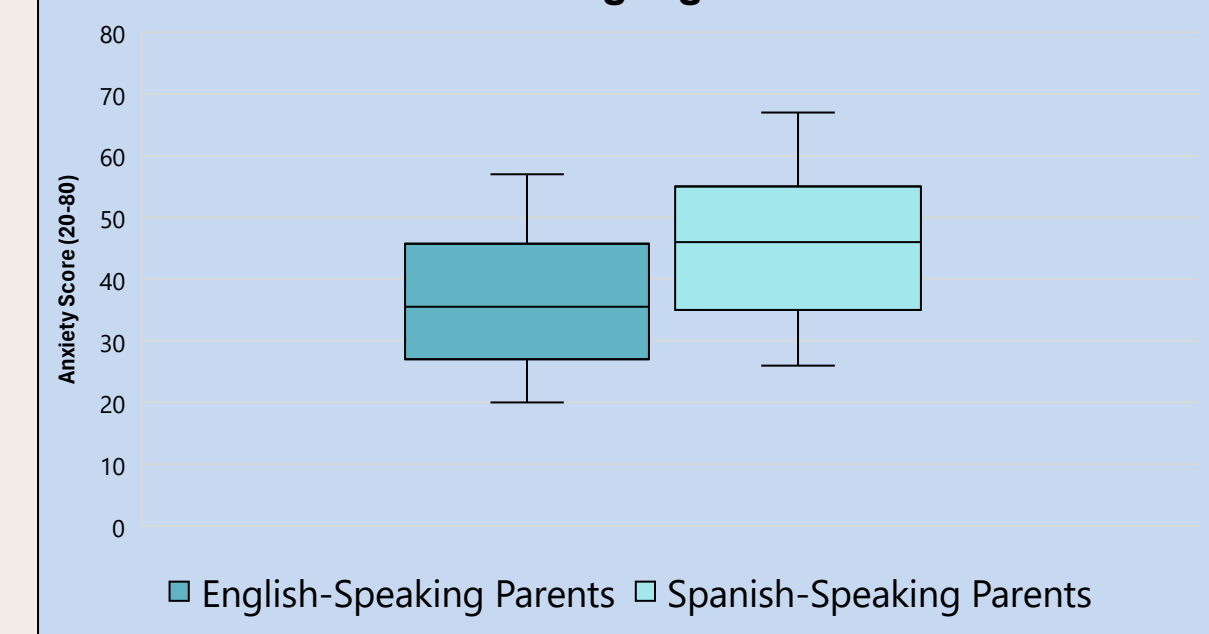
"How nervous or worried do you feel today?"



Comparison of Child Anxiety Scores at Pre-Op Appt. and Day of Procedure



Comparison of Parent State Anxiety Scores by Language



Conclusions

- Pre-anesthesia anxiety exists in 7 to 12-year-olds, particularly on the day of their procedure.
- Parental anxiety has little effect on child pre-anesthesia anxiety, however, lack of knowledge and higher state anxiety in the Spanish-speaking parent subset is concerning.
- Anesthesia duration has no significant effect on post-anesthesia behavior.
- Evidence for mild, resolving post-anesthesia behavior difficulties is reassuring and can be incorporated into parent education.

