

## 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

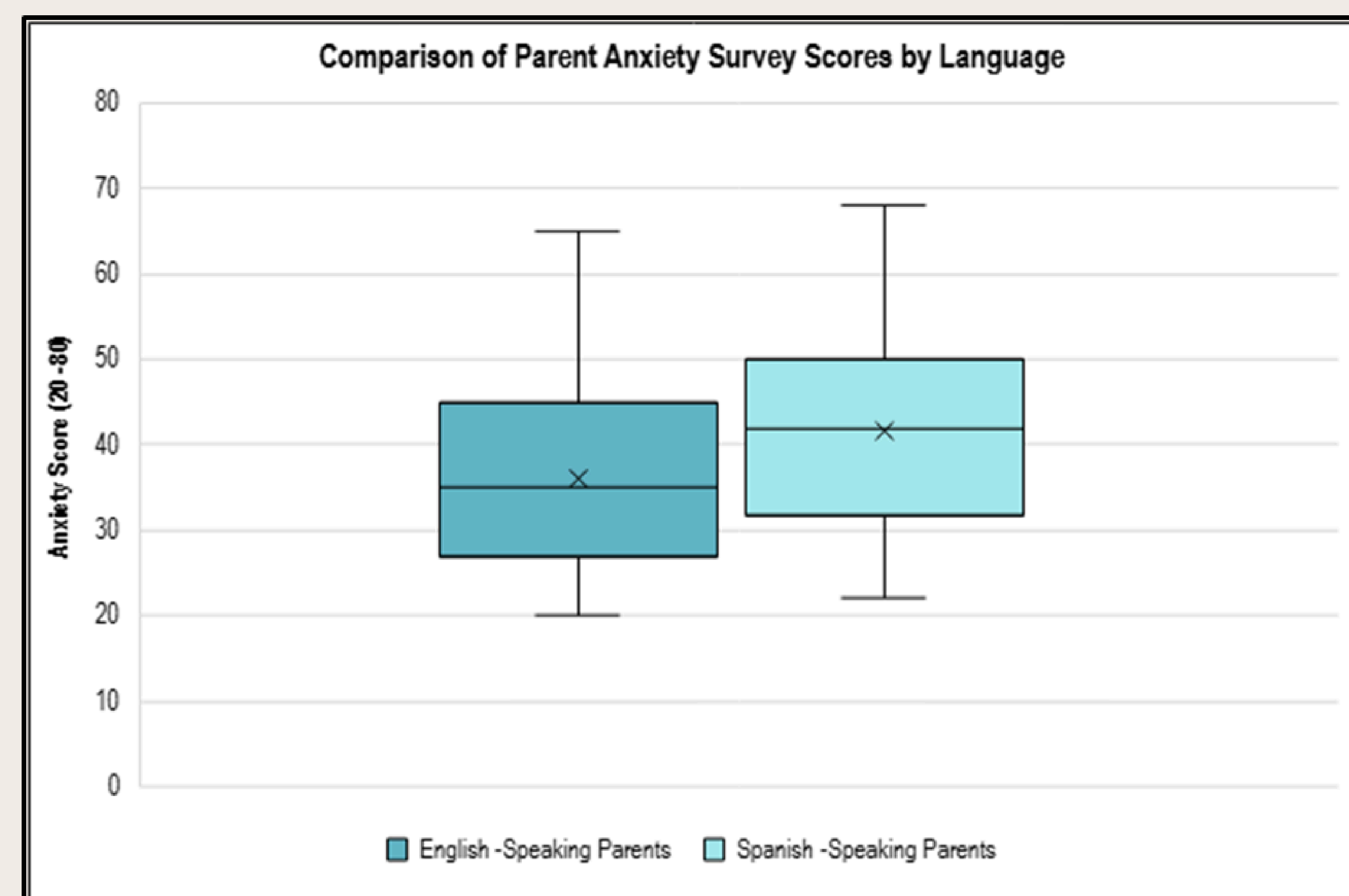
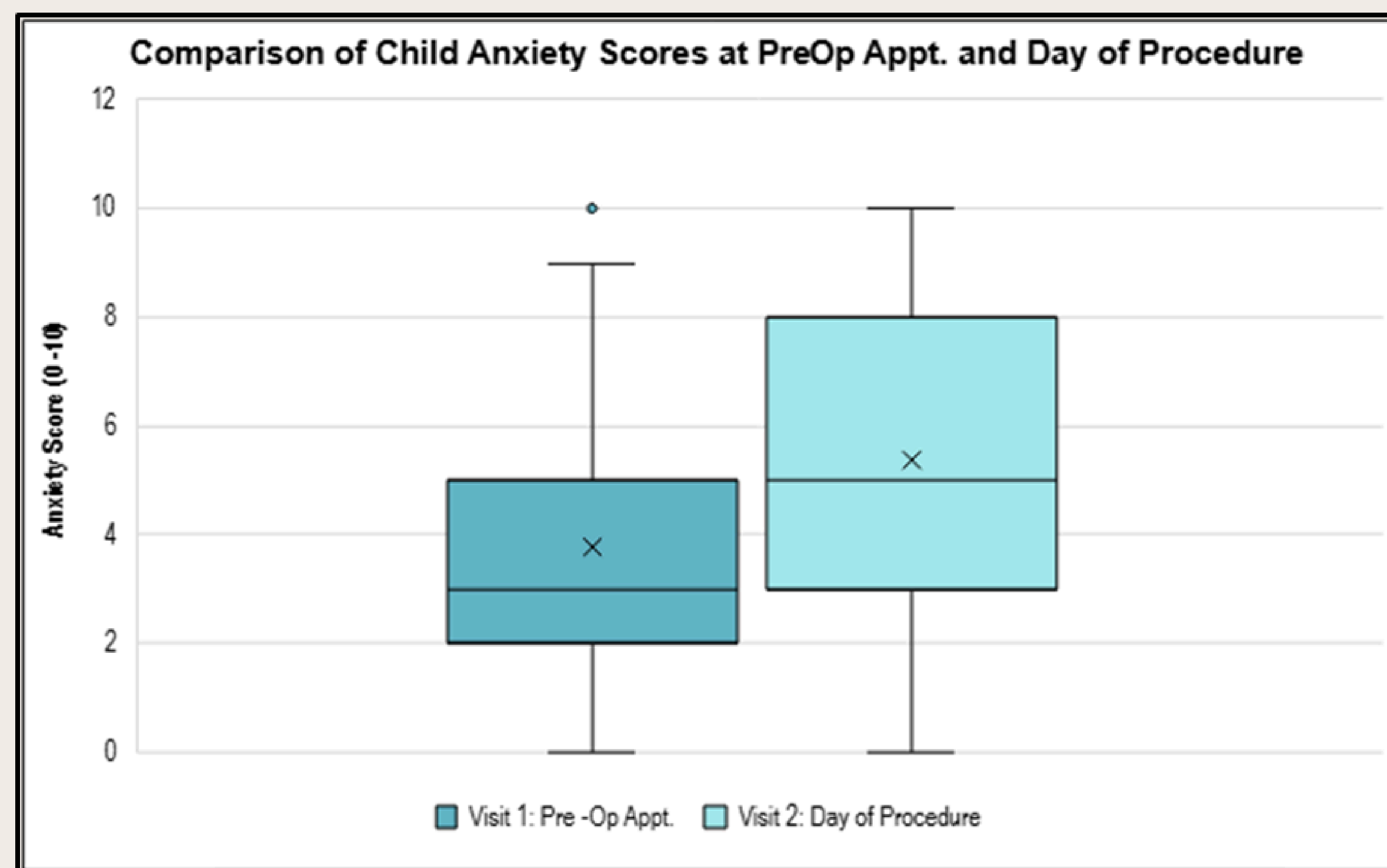
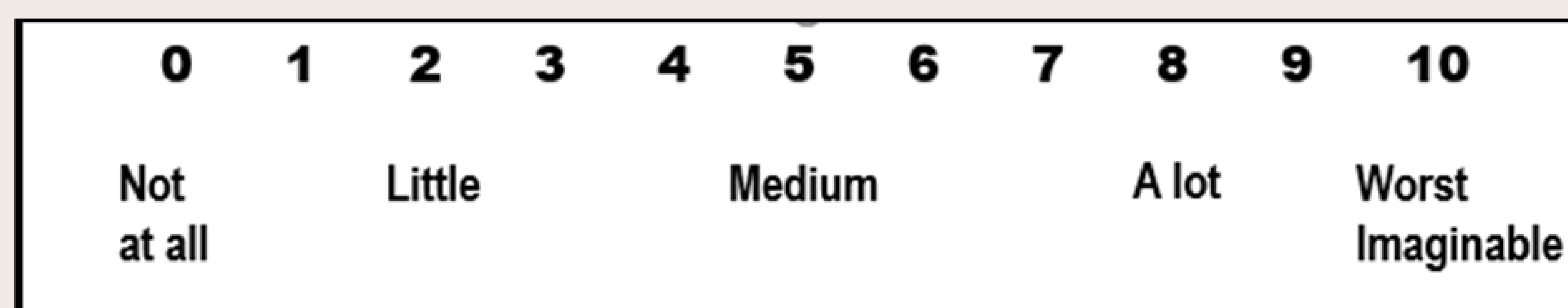
- Consenting Spanish and English-speaking dyads completed the Zero to Ten visual analog scale for child anxiety and the adult State Anxiety scale at visit #1 (Pre-Anesthesia Clinic).
- Also at visit #1 was a question exploring parent preparedness for their child's anesthesia.
- The child scale was repeated 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

Variable	n	Median (IQR)	Min	Max
Gender n(%)				
Male	57 (56%)			
Female	45 (44%)			
Age (years)	102	9 (8-11)	7	12
Visit #1 Anxiety Scale	100	3 (2-5)	0	10
Visit #2 Anxiety Scale	88	5 (3-8)	0	10
Behavior Score Visit 3	45	13 (11-15)	0	32
Behavior Score Visit 4	44	12 (11-15)	11	27

- Child anxiety scores significantly higher at visit 2 vs 1 with no significant correlation to parent-state anxiety in both English and Spanish-speaking.
- Range of possible parent scores 20 - 80
- Spanish-speaking parents felt significantly less prepared for the child's anesthesia ( $p < .001$ ) and had significantly higher anxiety vs. English-speaking ( $p < .05$ ).
- Posthospitalization Behavior scores were low (median 13, 12) compared to min/max scores possible (11-44) 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?"



## Conclusion

- 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 does not significantly affect post-anesthesia behavior through 4 weeks post-anesthesia.
- Evidence for mild, resolving post-anesthesia behavior difficulties is reassuring and can be incorporated into parent education.

SCAN ME