

## PURPOSE

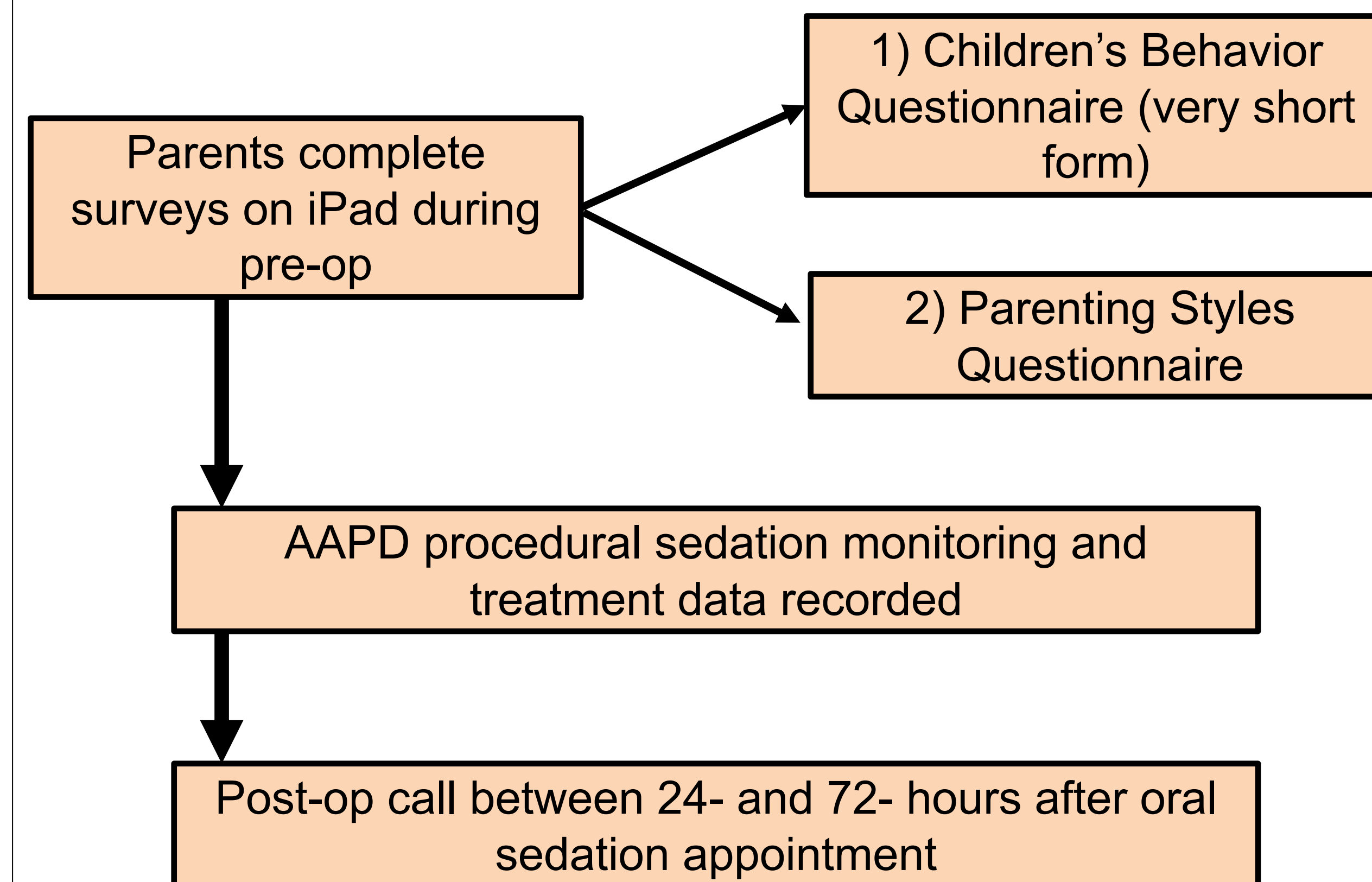
- To determine the relationship between child temperament and oral sedation effectiveness.
- To describe oral sedation post-discharge events.
- To compare provider-reported sedation effectiveness with parent-reported sedation experience.

## BACKGROUND

- Oral sedation is a common method of behavior management to treat the pediatric dental patient safely and effectively.
- Historical effectiveness of oral sedations is approximately 70% and varies based on numerous factors.
- Need for more information on factors that could predict effective sedations.
- Risk of adverse events from sedation medications.

## METHODS

- Prospective cross-sectional study
- Patients aged 2-18 years undergoing oral sedation at Nationwide Children's Hospital, Columbus, OH
- Various oral sedation regimens including: midazolam, triazolam, hydroxyzine, demerol
- English speaking patients/parents recruited and enrolled at oral sedation visit



- Descriptive statistics, pairwise correlation, and chi-square tests of independence formed the basis of data analysis

## RESULTS

### Patient Level Demographics

N = 124	
Age (years)	
Mean (SD)	8.67 (6.36)
Sedation Level Achieved	
Minimal	67%
Moderate	33%

Table 1: Patient demographics and sedation level

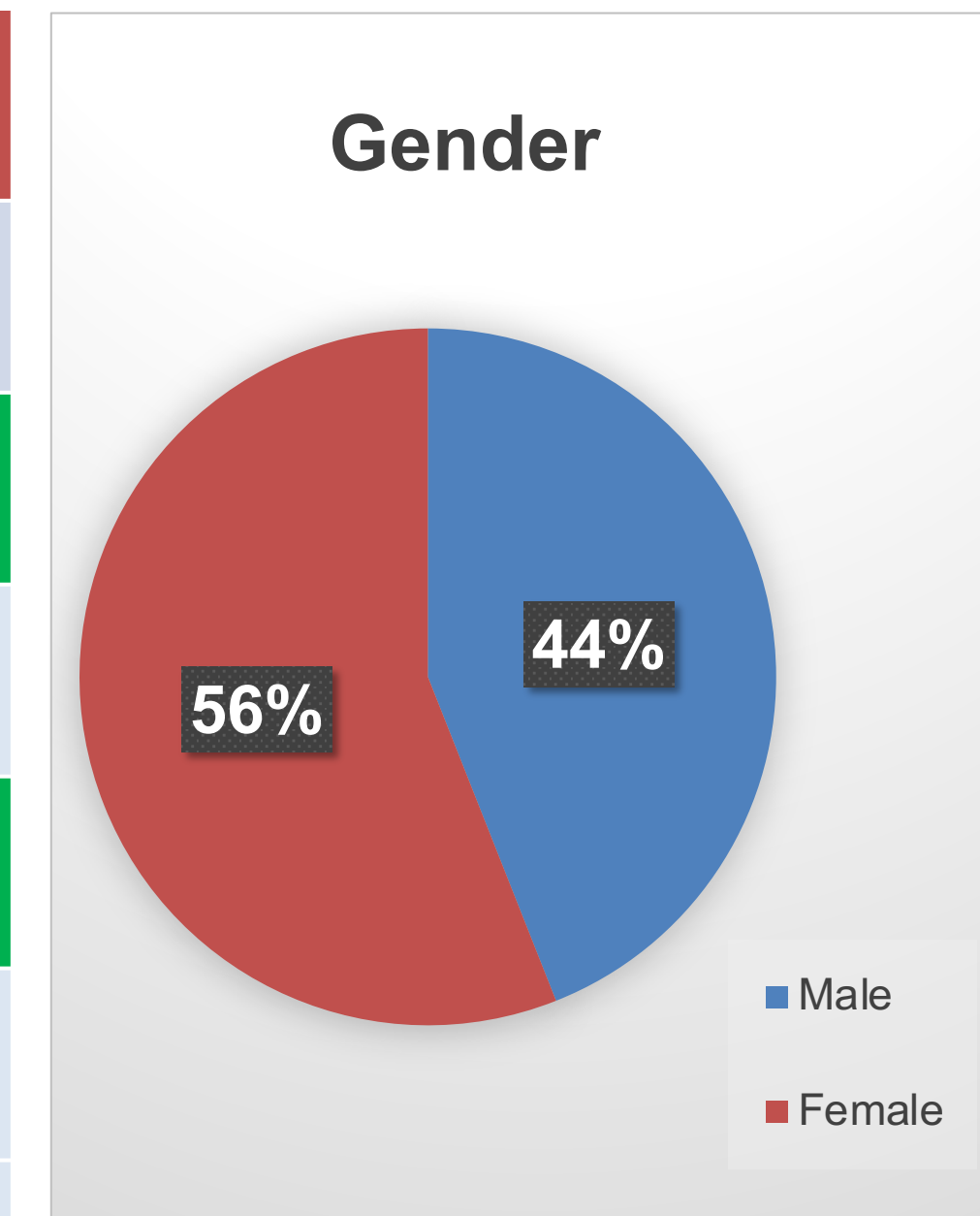


Figure 1: Gender distribution

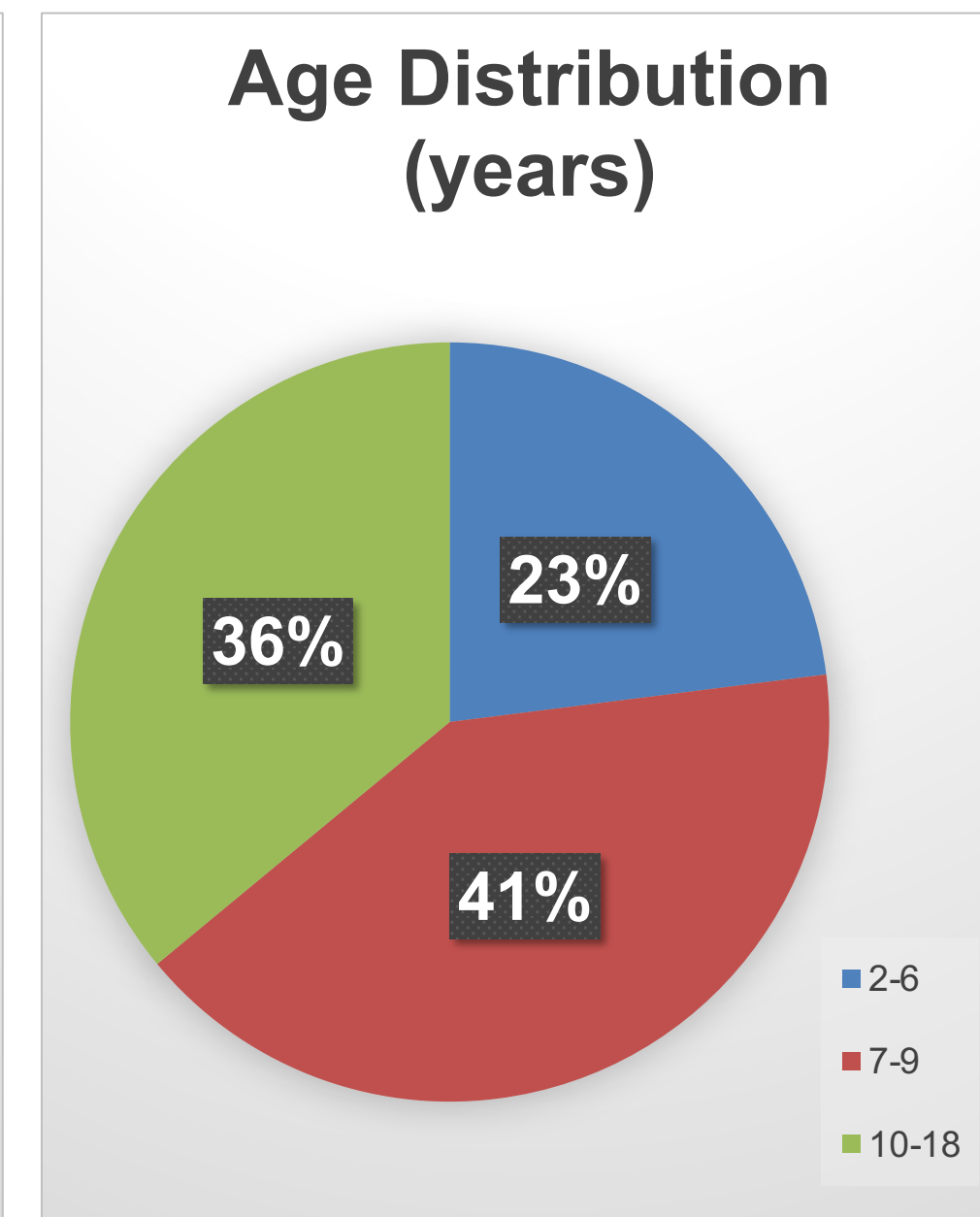


Figure 2: Age distribution

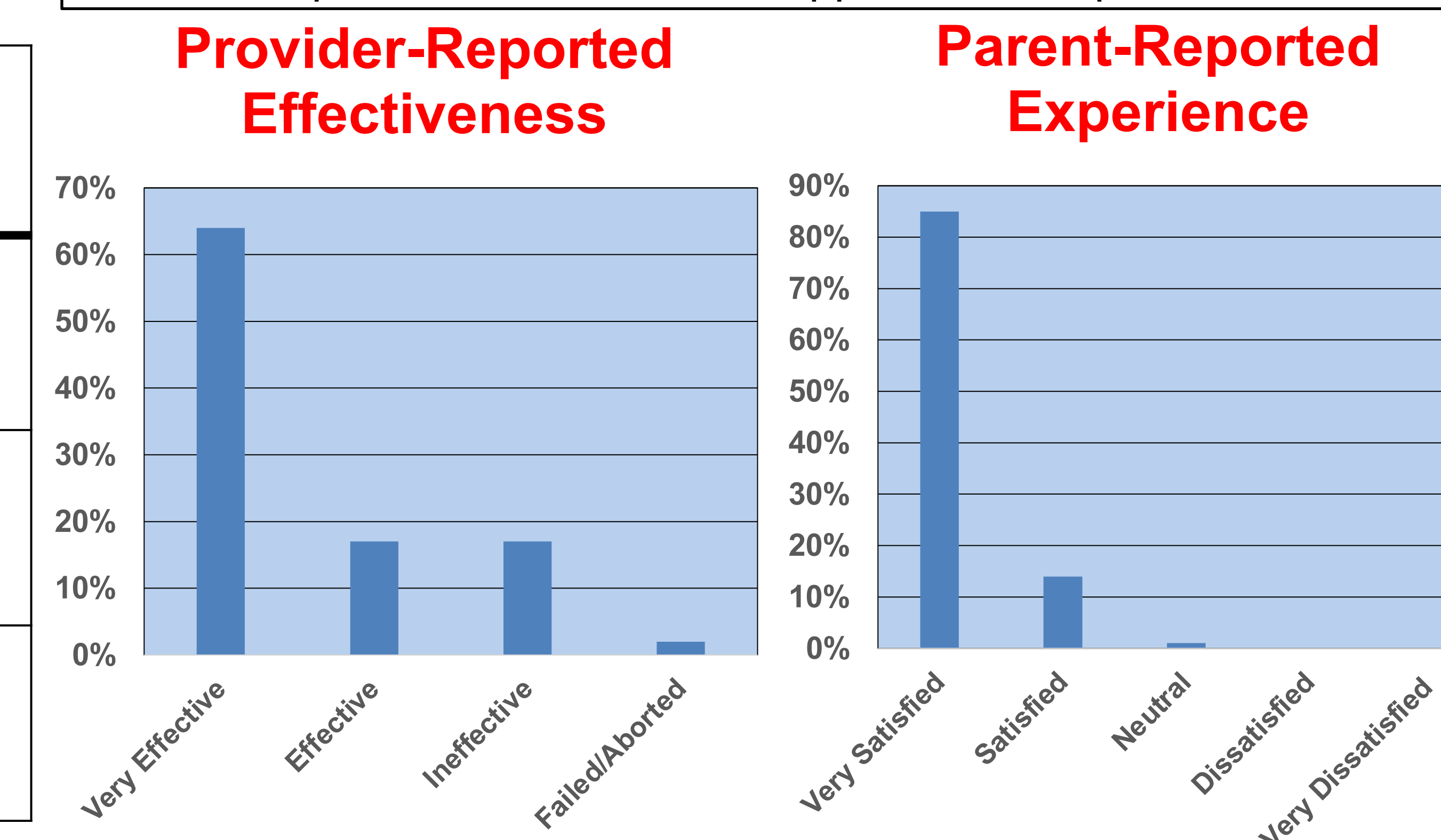
Slept on the way home	33%
Dizziness	22%
Amnesia	21%
Difficulty walking	13%
Slurring of speech	12%
Inconsolable crying	9%
Vomiting	3%

Table 3: Most common parent-reported post-discharge events

Table 2: Results of data analysis with the three domains of Children's Behavior and sedation effectiveness. Kruskal-Wallis test used to obtain P-values

	Failed Mean (SD)	Ineffective Mean (SD)	Effective Mean (SD)	Very Effective Mean (SD)	P-Value
<b>Surgency</b>	4.00 (1.04)	4.63 (0.60)	4.39 (0.60)	4.27 (0.85)	0.22
<b>Negative Affect</b>	4.30 (0.75)	4.49 (0.66)	4.12 (0.65)	3.99 (0.89)	0.29
<b>Effortful Control</b>	3.98 (0.93)	5.29 (0.82)	4.95 (0.52)	4.91 (0.80)	0.22

Figures 3 & 4: Provider-reported sedation effectiveness and parent-reported overall sedation appointment experience



## DISCUSSION

- Three domains of children's behavior not significantly associated with sedation effectiveness.
- The amnestic effects of benzodiazepines were experienced by few patients.
- No significant difference between provider-reported sedation effectiveness and parent-reported sedation experience.

**Strengths:** a prospective study with larger than previously noted sample sized describing pre-op factors

**Limitations:** long pre-op questionnaires, various sedation regimens could be confounding variable

## CONCLUSIONS

- Unable to detect relationships between child behavior domains and sedation effectiveness.
- Adverse events following oral sedation varies based on regimens and patient factors.
- Parents tended to rate the sedation experience more positively than providers rated its effectiveness.
- Questionnaire fatigue and social desirability bias likely hamper validity of the results.
- Evaluation of other factors may influence effectiveness of pediatric oral sedations and need further investigation.

## REFERENCES

- AAPD Procedural Sedation Record.
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- Rothbart MK, Ahadi SA, Hershey KL, Fisher P. Investigations of temperament at three to seven years: the Children's Behavior Questionnaire. *Child Dev. 2001 Sep-Oct;72(5):1394-408. doi: 10.1111/1467-8624.00355. PMID: 11699677.*