

Children's Temperament and Parenting Styles' Effect on Oral Sedation Acceptance

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Background

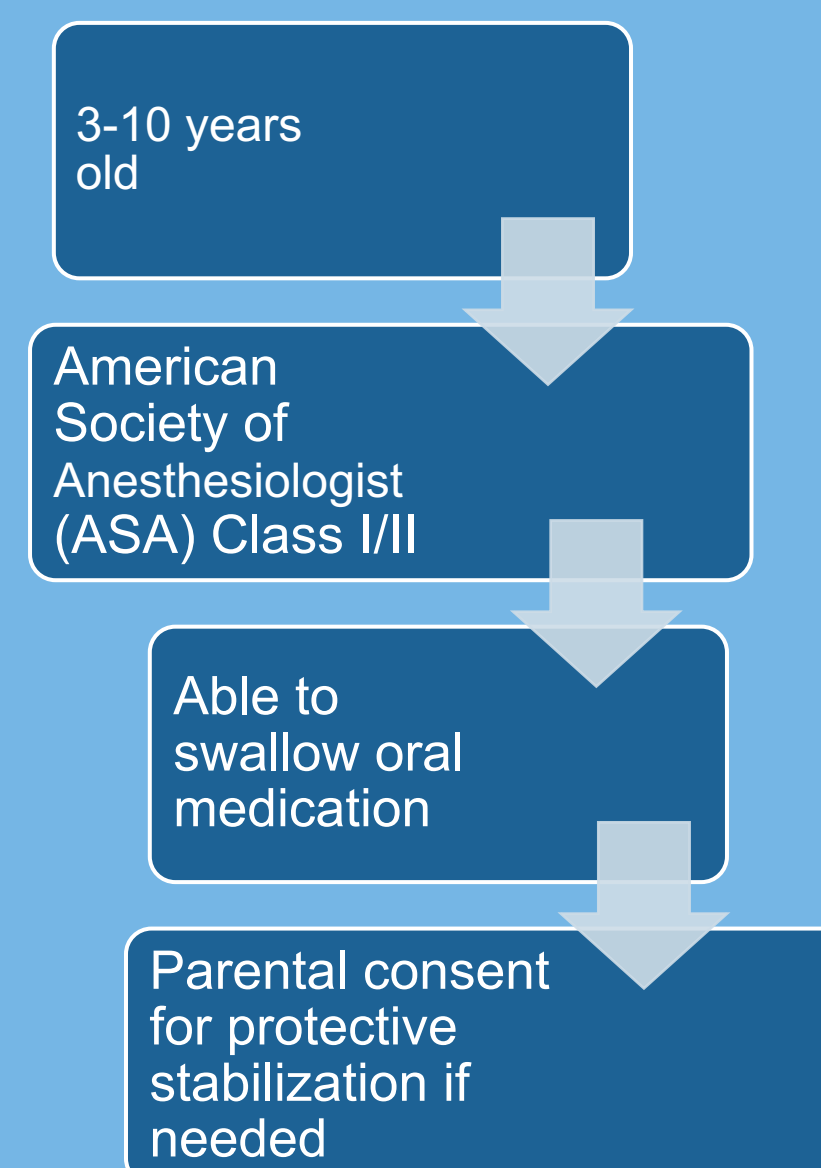
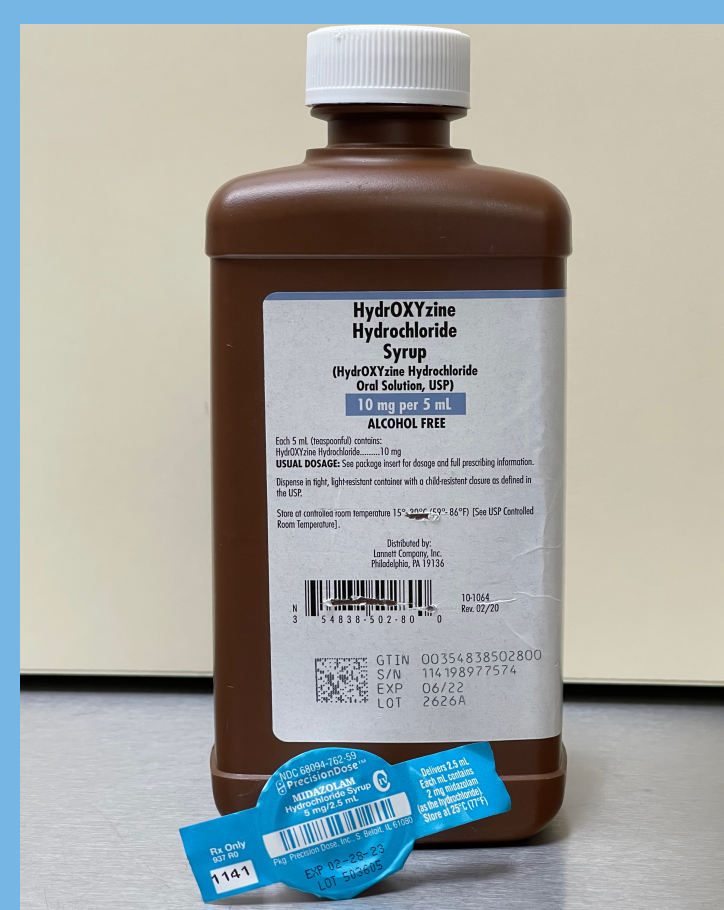
- Many children with **early childhood caries (ECC)** will fall into the pre-cooperative age range and and their dental treatment may be best completed under oral sedation.
- Oral sedation utilizes medication agents that have **sedative** and **amnesic** effects that minimize the patient's **distress, fear, and anxiety**.
- Different **parenting styles** and **children's temperament** may influence patient's behavior in dental setting and acceptance of oral sedation.

Aim of the Study

- To establish if there is a correlation between **children's temperament** in the pediatric patient and their acceptance of oral sedation.
- To determine if **parenting styles** play a role in the pediatric patient's acceptance of oral sedation.

Methods

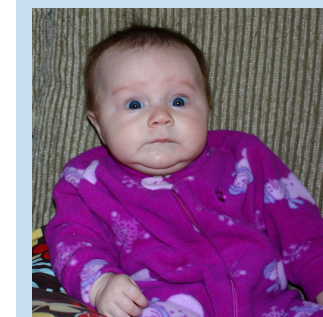
- Parents of patients of record seen at Geisinger Medical Center Pediatric Dentistry signed up for oral sedation
- Day of sedation: parents fill out two validated questionnaires: **Children's Behavior Questionnaire (very short form)** (CBQ-VSF) and **Parenting Styles & Dimensions Questionnaire** (PSDQ)



Types of Children's Temperament

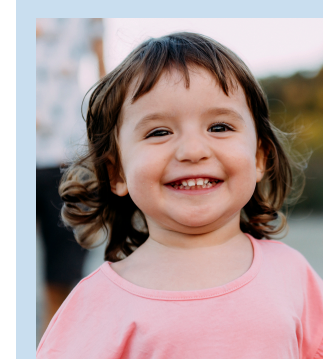
Negative Affectivity:

Experiences and expresses negative emotions including frustration, fear, discomfort, and sadness



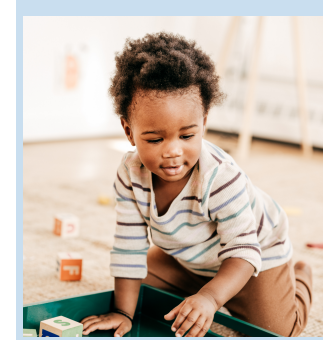
Extraversion/Surgency

- Expresses impulsivity, high intensity pleasure (situations with high stimulus and novelty), low shyness
- Enjoys high activity level, smiling, and laughter

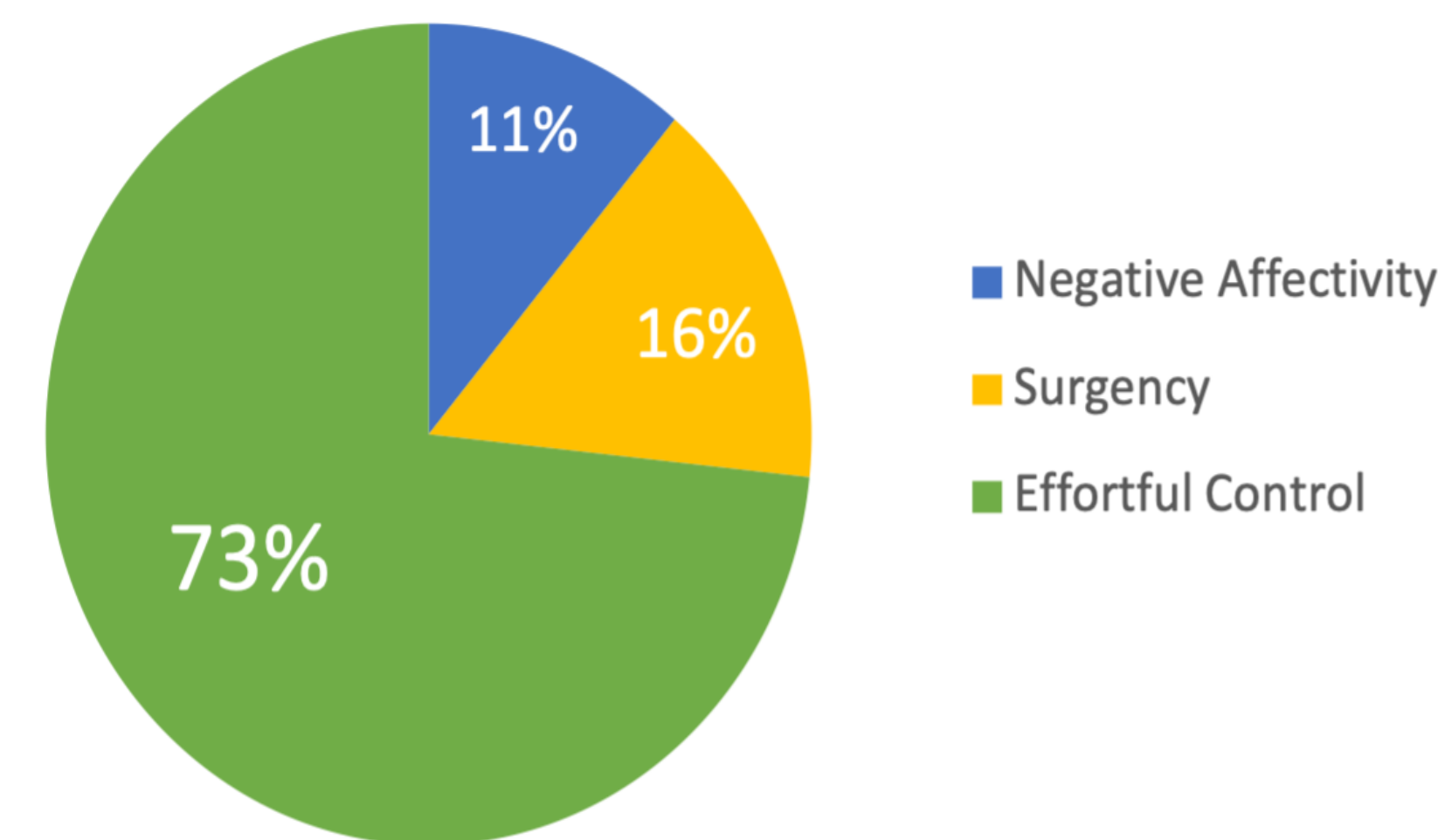


Effortful Control

- Practices willful control of attention and behavior
- Low stimulus induced pleasure
- Able to suppress inappropriate responses under instructions in novel or uncertain situations



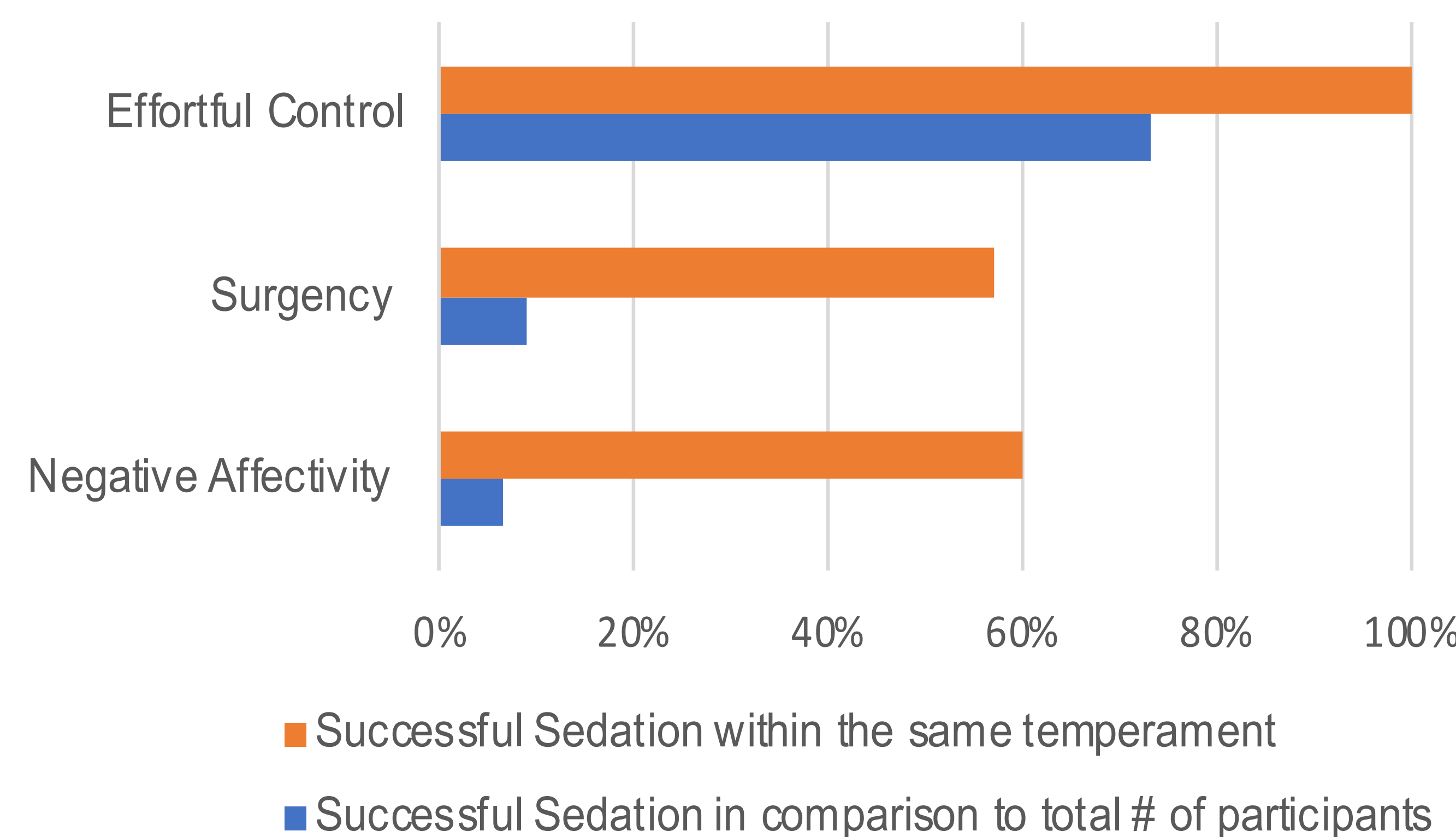
Breakdown of Children's Temperament Style (n=45)



Participant's Gender	N	%	Parent's Gender	N	%
Male	21	46.7%	Male	11	24.4%
Female	24	53.3%	Female	34	75.6%
Temperament Style			Parent's Education		
Negative Affectivity	5	11.1%	Less than High School Diploma	2	4.4%
Extroversion/Surgency	7	15.6%	High School Degree	26	57.8%
Effortful Control	33	73.3%	Associate Degree	7	15.6%
Failure of Sedation			Bachelor Degree	6	13.3%
Male	9	52.4%	Graduate Degree	4	8.9%
Female	11	37.5%			

Table 1. Demographic Data

Successful Sedation (%)



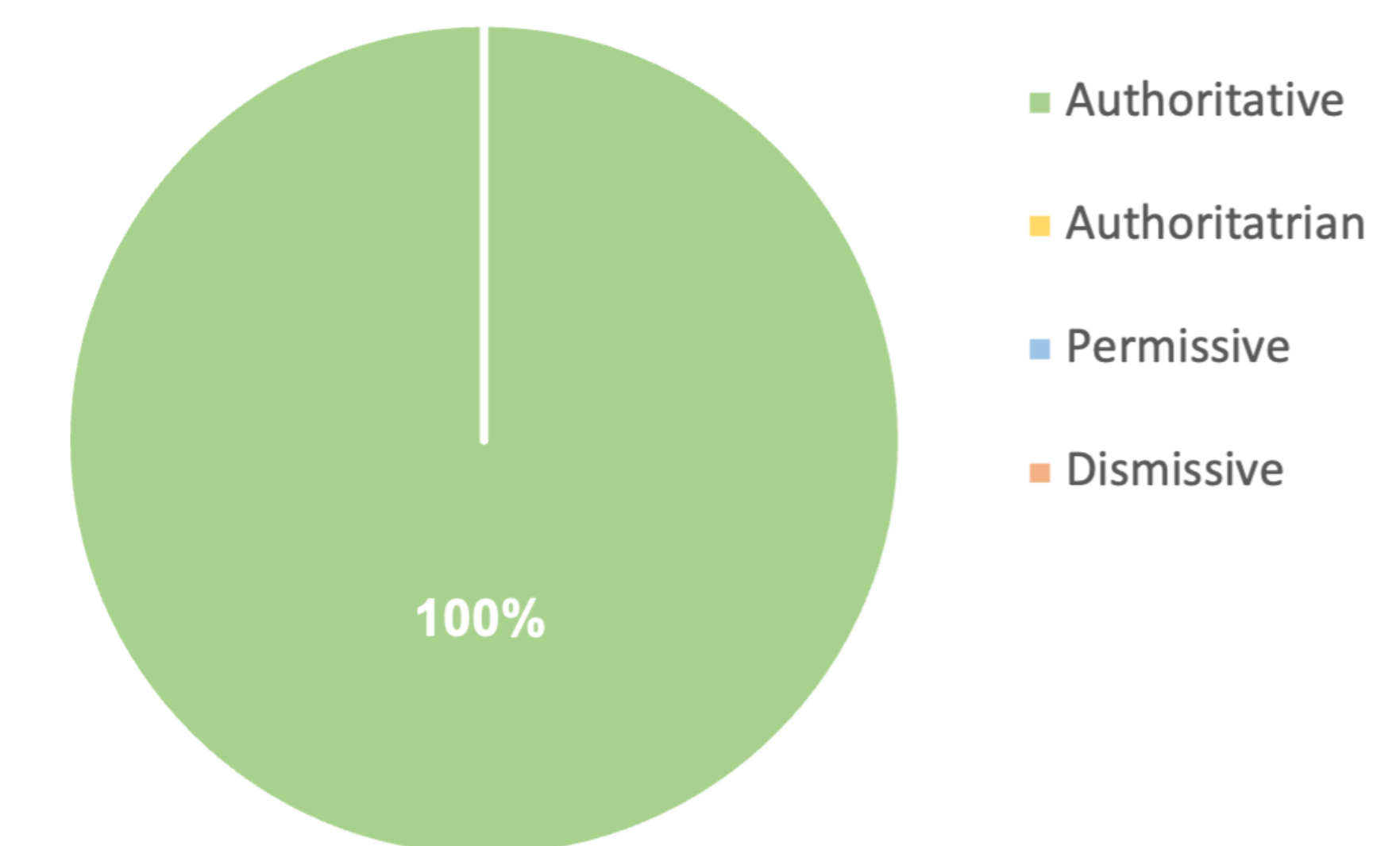
Key Findings

- Study is currently on-going and the sample size is less than the statistical power calculation (n=78).
- Difference in gender and success of sedation seen in inhibitory control, which is a temperament trait associated with effortful control (p values: 0.0183 and 0.0048 respectively).
- Due to parents self-reporting in the questionnaires, there may be bias associated with the results.
- No significant difference associated with gender or success of sedation with authoritative parenting style.
- Parents self-reported: high authoritative scores, moderate permissive scores, low authoritarian scores

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Parenting Styles

Breakdown of Parenting Style (n=45)



Authoritarian Low Warmth, High Control
Authoritative High Warmth, High Control
Permissive High Warmth, Low Control
Dismissive Low Warmth, Low Control

	Male (N=21)	Female (N=24)	Total (N=45)	P-value	Successful Sedation	Unsuccessful Sedation	Total	P-Value
Mean (SD)	4.2 (1.15)	5.1 (1.19)	4.7 (1.24)	0.0183	4.1 (1.32)	5.1 (0.98)	4.7 (1.24)	0.0048

¹Two sample t-test; ²Equal variance two sample t-test

Table 2. Inhibitory Control (Effortful Control) by Gender and Sedation Result

	Male (N=21)	Female (N=24)	Total (N=45)	P-value	Successful Sedation	Unsuccessful Sedation	Total	P-Value
Mean (SD)	4.2 (0.36)	4.0 (0.44)	4.1 (0.41)	0.2476	4.1 (0.39)	4.1 (0.44)	4.1 (0.41)	0.7894

¹Two sample t-test; ²Equal variance two sample t-test

Table 3. Authoritative Parenting Style by Gender and Sedation Result

Conclusion

- Parents self-reported the highest scores on questions associated with authoritative parenting styles
- Children that fall under effortful control temperament group accept and have successful sedation
- Additional collection of this data may provide a larger sample size and greater distribution among the three temperament groups
- Another method of assessing parenting styles that does not rely on self-report may be beneficial to explore