INTRODUCTION
Children with autism spectrum disorder (ASD) are a common patient population in the perioperative setting. They may exhibit behavioral challenges indicative of perioperative anxiety. However, little is known about their perioperative experiences. Most studies focus on pre-operative medication patterns, but there is no consensus on pre-operative characteristics that may predict premedication requirements. Patients with ASD are also observed by psychiatric community to have different pain sensitivity. However, their perioperative pain medication requirements have not been studied.

OBJECTIVE
Describe perioperative anesthetic requirements and outcomes in children with ASD who underwent a stimulating surgical procedure (tonsillectomy) as compared to healthy controls of a similar age.

MATERIAL & METHODS (2)
Exclusion criteria:
• Urgent/ Emergent tonsillectomy
• Severe OSA/Obesity
Data:
• Demographics
• Preoperative medications
• Intra and post-operative opioid
• PACU: length of stay, respiratory complication, nausea/vomiting, emergence excitement
• Hospital admission

Statistic analysis:
Bivariate analyses performed to compare demographic and perioperative variables.

RESULTS (2)
• Each group included 51 patients.
• Demographics: male dominance in ASD group, otherwise have similar age, weight, and ethnicity.
• ASD groups had higher rates of developmental delay, ADHD, sleep disorder, respiratory/ psychiatric/ neurologic diseases.
• ASD group had higher rates of home anti-epileptic, sedatives, antidepressants, and stimulants.

MATERIAL & METHODS (1)
Retrospective cohort study comparing 2 groups of patients between the ages of 1-21 years who underwent elective tonsillectomy. ASD Group:
• Formal diagnosis of ASD
• Elective tonsillectomy in 2003-2015
Control Group:
• ASA 1-2
• Elective tonsillectomy in 2015-2016

<table>
<thead>
<tr>
<th></th>
<th>ASD (N=51)</th>
<th>CONTROL (N=51)</th>
<th>P-VALUE</th>
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</thead>
<tbody>
<tr>
<td>DEMOGRAPHICS</td>
<td>n (%) or mean +/- SD</td>
<td>n (%) or mean +/- SD</td>
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<tr>
<td>Age</td>
<td>2-17 yo; 7.1 ± 3.8</td>
<td>2-17 yo; 7.1 ± 3.7</td>
<td>.97</td>
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<tr>
<td>Weight</td>
<td>30.3 ± 17.0</td>
<td>29.6 ± 16.5</td>
<td>.84</td>
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<tr>
<td>Male</td>
<td>42 (82)</td>
<td>25 (49)</td>
<td>.&lt;.001</td>
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<tr>
<td>Female</td>
<td>9 (18)</td>
<td>26 (51)</td>
<td></td>
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<tr>
<td>PRE-OP SEDATION REQUIREMENT</td>
<td>45 (88)</td>
<td>23 (45)</td>
<td>&lt;.001</td>
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<tr>
<td>PACU COMPLICATIONS</td>
<td></td>
<td></td>
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<tr>
<td>Nausea</td>
<td>2 (4)</td>
<td>3 (6)</td>
<td>.65</td>
</tr>
<tr>
<td>Emergence Excitement</td>
<td>4 (8)</td>
<td>4 (8)</td>
<td>1.0</td>
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<tr>
<td>Respiratory Complications</td>
<td>15 (29)</td>
<td>11 (22)</td>
<td>.15</td>
</tr>
<tr>
<td>PACU Time (min)</td>
<td>52.3 ± 94.8</td>
<td>58.2 ± 36.7</td>
<td>.68</td>
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<tr>
<td>Post-op Admission</td>
<td>19 (37)</td>
<td>4 (8)</td>
<td>&lt;.001</td>
</tr>
</tbody>
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REFERENCES

CONCLUSION
Youths with ASD have higher rates of pre-medications and post-operative scheduled admissions. However, it is not known whether these interventions are necessary or whether they change outcomes. Common home medications in kids with ASD (anti-epileptics, psychoactive medications) may also affect anesthetic requirements.

FUTURE DIRECTIONS
• Assessment of specific behaviors or characteristics that may help predict pre-operative medication requirements or influence outcome.
• Further assess pain medication requirements.