

Pediatric Guide to Tonsillectomy and Adenoidectomy

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ABSTRACT

- The purpose of this scholarly project was to increase the knowledge base of the ADU SRNA 2019 cohort regarding multimodal pain management techniques for pediatric T&A's.
- The population most likely to require T&A are children with OSA who are at highest risk for morbidity and mortality.
- An educational Power Point addressing evidence based preoperative, intraoperative, and postoperative pain management techniques for children undergoing a T&A was devised.
- Involvement in the pretesting and posttest assessment was voluntary.
- For statistical analysis, paired samples t-tests were conducted to analyze the data with a P value < .001 which is statistically significant. It can be concluded that the average scores increased significantly.

PROBLEM

- Currently, however, there is no set standard for perioperative pain management for the pediatric T&A patient in either ambulatory or inpatient settings, which has led to respiratory compromise.

PICOT Questions

- In pediatric patients undergoing a tonsillectomy and adenoidectomy (P), how do narcotic medications (I) compare to other modalities of analgesia (C) affect pain management and respiratory depression (O) within the perioperative period (T)?
- Educational innovation is addressed in the second question: In Adventist University student nurse anesthetists (P), does a 30-minute (T) PowerPoint presentation regarding multimodal pain management approaches for pediatric T&A patients (I) result in an increase in the knowledge base (O)?

- The potential to improve efficiency with multi-modal analgesia is advocated for management of pediatric perioperative pain by concurrently targeting different analgesic mechanisms and reducing the dose requirements of single agents, therefore, minimizing dose-dependent adverse effects (St. John-Green, St John-Green, & Wong, 2013).

Table 5. Pediatric Obstructive Sleep Apnea Screening: "TM SLEEPY" Questionnaire (Parent Version)*

I: Is your child often irritated or angry during the day?	☐ Yes ☐ No
M: Body mass index >85%?	☐ Yes ☐ No
S: Does your child usually snore?	☐ Yes ☐ No
L: Does your child sometimes have labored breathing at night?	☐ Yes ☐ No
E: Ever noticed a stop in your child's breathing at night?	☐ Yes ☐ No
E: Does your child have enlarged tonsils and/or adenoids?	☐ Yes ☐ No
P: Does your child have problems with concentration?	☐ Yes ☐ No
Y: Does your child often yawn or is he or she often tired/sleepy during the day?	☐ Yes ☐ No

*A score of 0 to 2 indicates a low risk of obstructive sleep apnea (OSA); high risk is indicated by a score ≥ 3 (sensitivity, 82%; specificity, 50%; negative predictive value, 85%). This questionnaire has not yet been validated in larger studies
From Ref. 59.

Wolfe et.al., 2016

RESULTS

- The paired samples t-test was conducted to compare the pre-test and post-test average scores. The obtained t is -5.676 (p < .001) which is statistically significant. It can be concluded that the average scores increased significantly (from pre-test 60.77% to post-test 93.08%).

CONCLUSIONS

- The implementation of an educational Power Point on a pediatric guide to tonsillectomy and adenoidectomy showed that the knowledge base of the nurse anesthesia students belonging to the ADU cohort class of 2019 increased substantially from baseline.
- This demonstrates a potential positive impact that a power point lecture can have in the development of the nurse anesthesia students.

REVIEW OF LITERATURE

- The incidences of perioperative respiratory complications have been proven to be ten times higher for children with OSA compared to those without OSA (Lauder and Emmott 2014).

