

Sleep Disordered Breathing: Screening and Implications in Pediatric Patients

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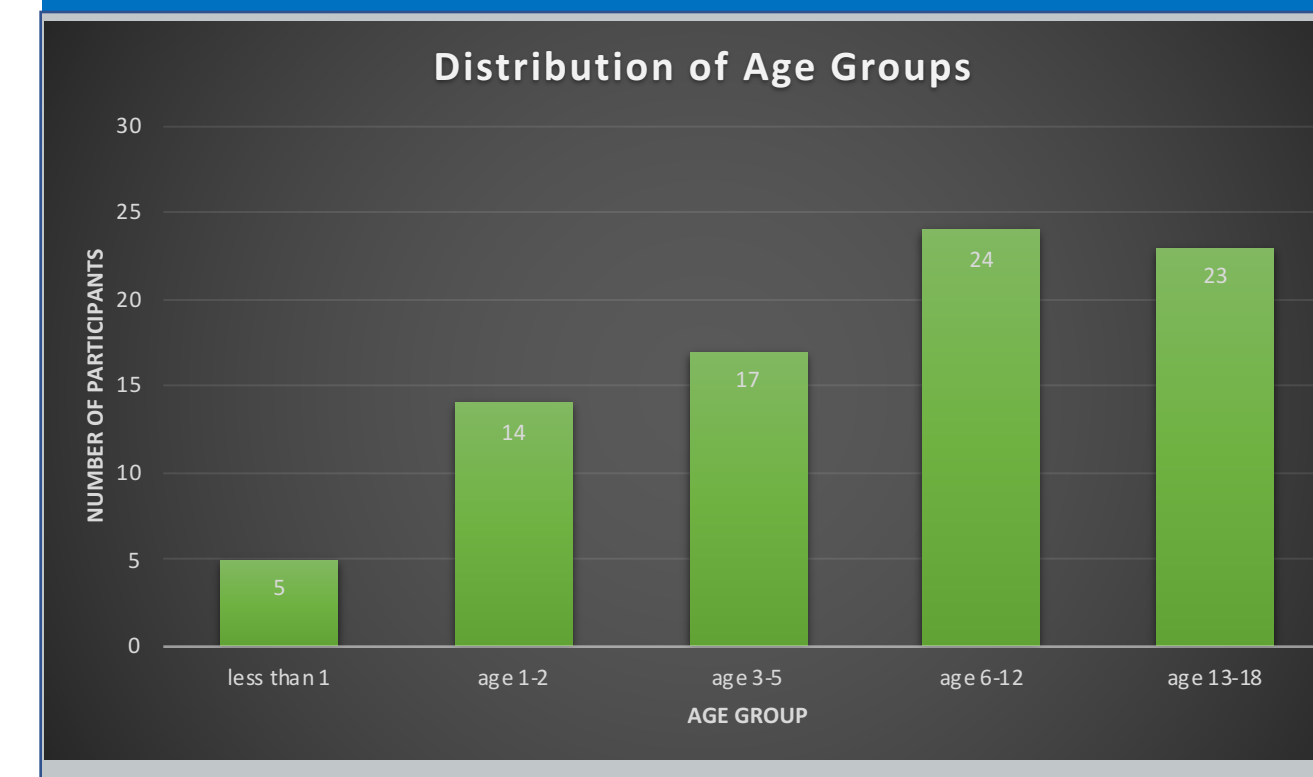
Problem

- Sleep disordered breathing (SDB) is understudied and underreported in children
- Children with diagnosed and undiagnosed SDB have more perioperative complications per child than their non-SDB counterparts
- Most reported postoperative respiratory adverse event (PRAE): oxygen desaturation to <91%

Methods

- Needs assessment
- Desired sample size of 204 children and a desired power of .90
- Preoperative screening of willing participants presenting for surgery using STBUR tool
- Follow-up of willing participants for any signs of postoperative maladaptive behavior through use of single postoperative question

Illustration



Discussion & Implications

- Ambulatory surgery center may play a role in lack of statistical significance due to healthier nature of patient population and rigorous admission standards
- Short implementation period combined with global pandemic may have affected sample size and significance

Literature Review

- Widespread lack of screening for SDB among anesthesia providers despite recommendations from multiple professional organizations
- Lack of agreement on a defined tool used to identify SDB; polysomnography is costly and inconvenient to administer
- Children with diagnosed and undiagnosed but probable SDB may experience an increased number of PRAEs

Results

- Final sample size of 83 participants
- Smaller than predicted sample size resulted in the restructuring of originally planned statistical analyses and the inability to make a generalization
- The mean age of all participants was 7.6 years.

More Results

- 9.64% of participants answered “yes” to one or two of the five STBUR questions. None screened positive; Prevalence= 0%
- None of the participants answered “yes” to the post-operative question. None screened positive for POMB. Incidence= 0%
- 22.89% population loss to follow up

Conclusions

- Recommendation to reimplement project in larger facility over prolonged period to ensure accurate representation of selected population

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Illustration

