Subjective Correlates of Obstructive Sleep Apnea Among Children Undergoing Adenotonsillectomy

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Introduction
Childhood obstructive sleep apnea (OSA) has significant impacts on quality of life (QOL). However, the nature of that impact has not been well studied.

Objective
To assess the correlation of different subjective measures of disease burden among children undergoing adenotonsillectomy for OSA

Methods
Study Design: Cross-sectional analysis of prospective cohort study data

Subjects: Pediatric patients aged 5-18 years undergoing adenotonsillectomy for OSA. Questionnaire data collected at initial clinic visit between 5/1/2015 and 10/1/2017

Subjective Measures:
- Pediatric Sleep Questionnaire (PSQ)
  - Scored 0-1, >0.33 → positive OSA screen
- OSA-18 Sleep-Related Quality of Life questionnaire (OSA18)
  - Scored 18 (best QOL) to 126 (worst QOL)
  - >60 → at least moderate impact on quality of life
- Epworth Sleepiness Scale (ESS)
  - Scored 0-24
  - >10 → significant daytime sleepiness
- Child Health Questionnaire (CHQ) - generic QOL measure with two summary scores:
  - Physical Summary Score (PHS)
  - Psychosocial Summary Score (PSS)
  - Both scored 0 (worst QOL) to 100 (best QOL)
  - 50 represents mean in US reference population

Analysis: Pearson correlation analysis

Results
N = 179 pts
Age in Years (Median [IQR]): 9.6 [8.1, 12.5]
Female 51%
Obese 59%
Recurrent tonsillitis 19%
Allergic rhinitis 16%
Asthma 8%
Down syndrome 7%
ADHD 7%

Questionnaire Responses (Mean ± SD):
PSQ 0.60 ± 0.19
OSA18 65 ± 23
Epworth Sleepiness Score 7.9 ± 5.1
Physical Summary Score 45 ± 14
Psychosocial Summary Score 41 ± 13

Discussion
Findings may not be generalizable to younger age group. Future directions include domain correlations, subgroup analysis, and assessing correlations of response to treatment

Conclusions
- The PSQ and OSA18 have a strong correlation, reflecting similarity in content
- Daytime sleepiness is a small contributor to sleep-related QOL in school-aged children
- Sleep-related QOL is associated with psychosocial impact but not physical functioning