

Examination of Feeding Difficulties and Dysphagia in Children with and without Autism Who Present for Sleep Evaluation

Samantha Finkenstaedt¹, Ann H Johnson PhD, APRN, CPNP-PC^{1,2}, David Farbo PhD³, Andrea M Smith PhD, RN⁴, Lisa Bashore PhD, APRN, CPNP-PC, CPON^{1,2,3}

Anne Burnett Marion School of Medicine at Texas Christian University¹, Harris College Texas Christian University², Cook Children's Health Care System³, Sam Houston State University⁴

RESEARCH QUESTION

In children with and without Autism Spectrum Disorder (ASD), how does the presence of various feeding difficulties influence the spectrum of sleep difficulties?

BACKGROUND

Sleep is critical for typical synaptic development and brain maturation, whereas poor sleep can have detrimental effects on children's cognition and the areas of memory, attention, mood, and behavior. Limited research has been conducted to examine the intersection of patients with autism who had concurrent sleep and feeding difficulties.

METHODS

Data were filtered for ages 3-17 years and further filtered for the presence of an autism diagnosis.

Secondary data analysis of de-identified data from Nationwide Children's Hospital (NCH) Sleep DataBank, a collection of encounters with children referred for polysomnography.



- Children with ASD were 3.8 times more likely to develop feeding difficulties and 2.19 times more likely to develop dysphagia than children without ASD.
- In children with ASD, those with feeding difficulties were more likely to develop insomnia (OR = 2.12) and sleep disturbance (OR = 2.20) than those who are not diagnosed with feeding difficulties.
- In children with ASD, those with dysphagia were more likely to develop sleep apnea (R = 2.30) than children without dysphagia.

Figure 1. Percentage of children with and without ASD presenting with feeding difficulties or dysphagia

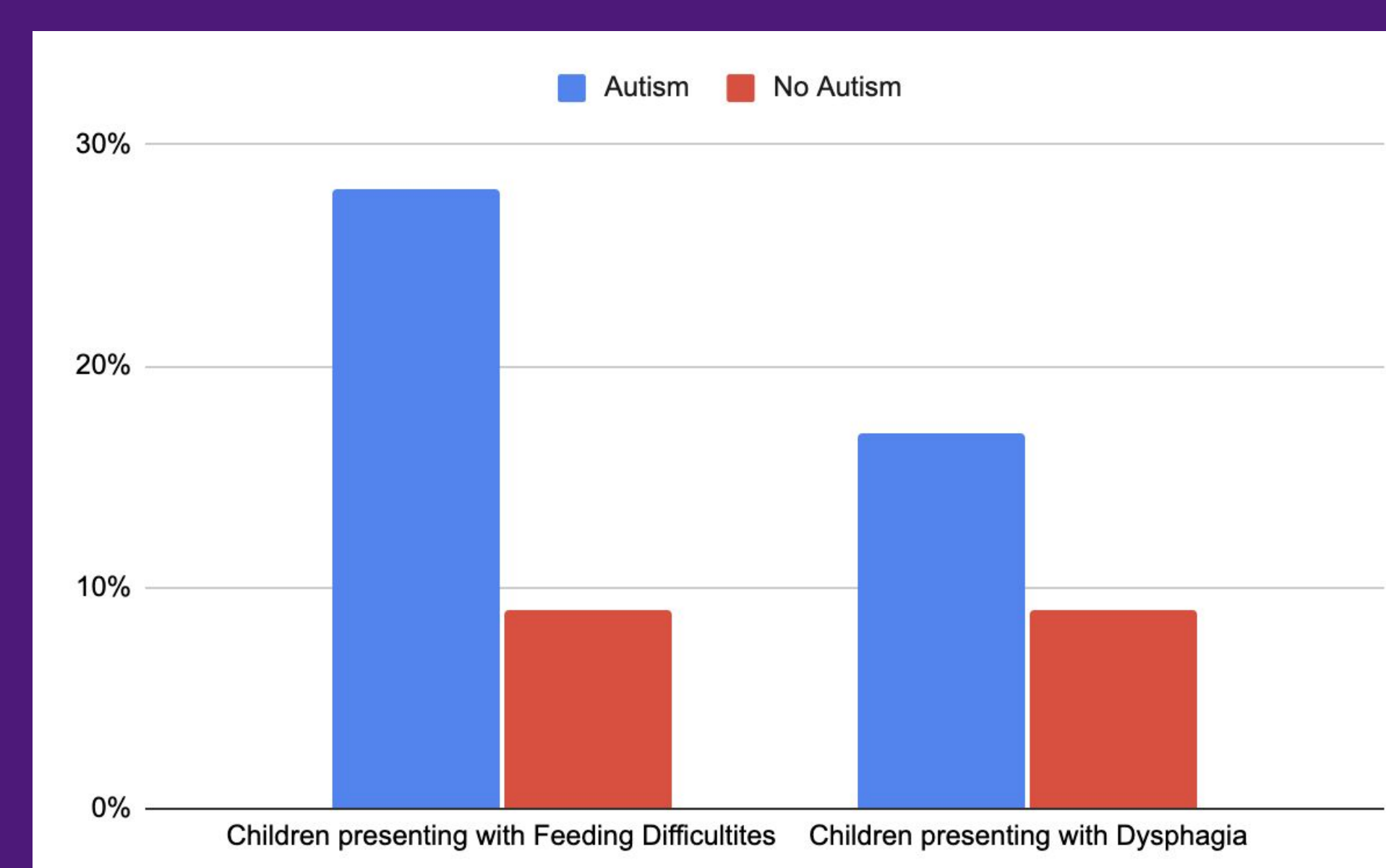


Figure 2. Percentage of ASD patients with and without feeding difficulties presenting with concurrent insomnia or sleep disturbance

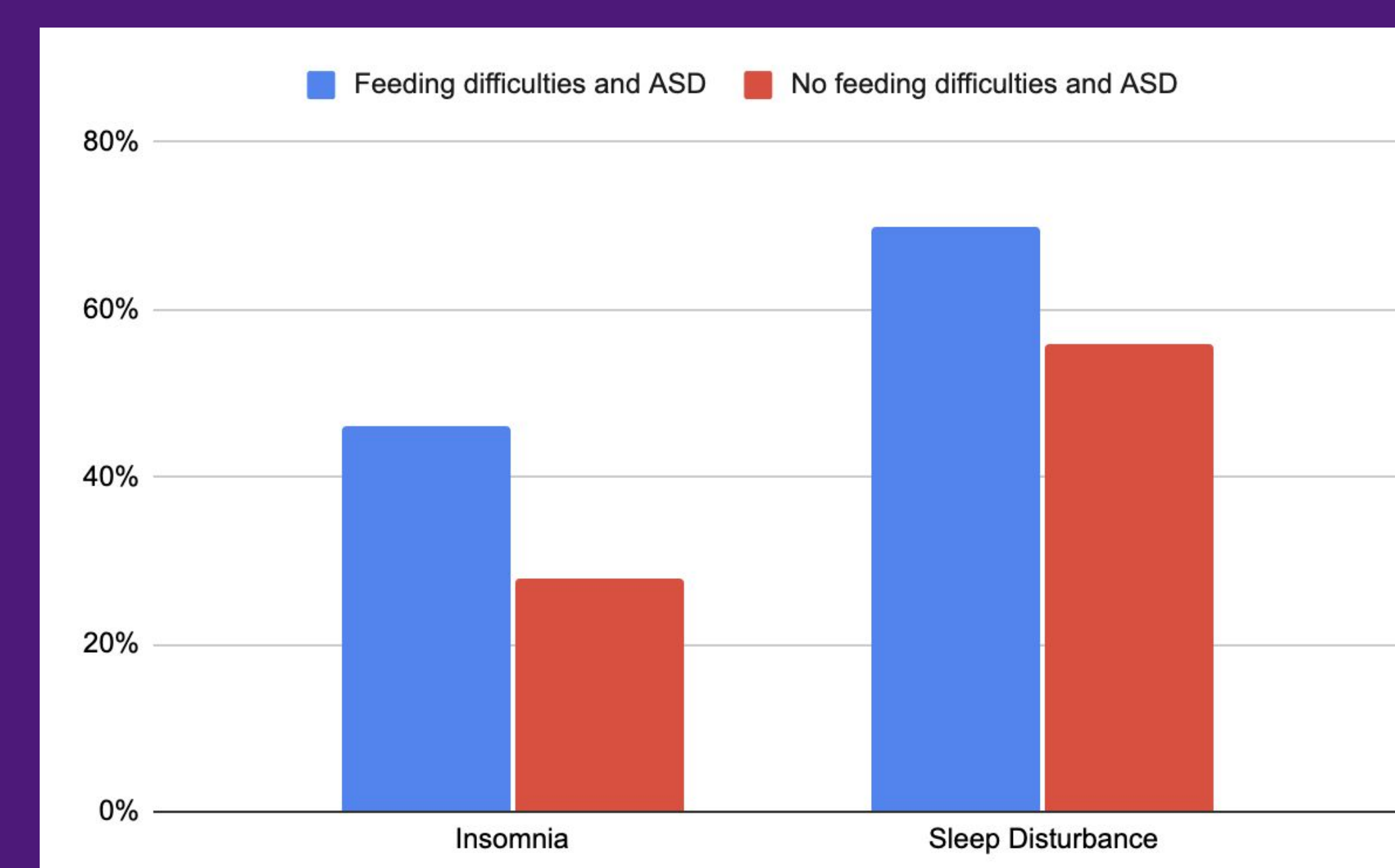
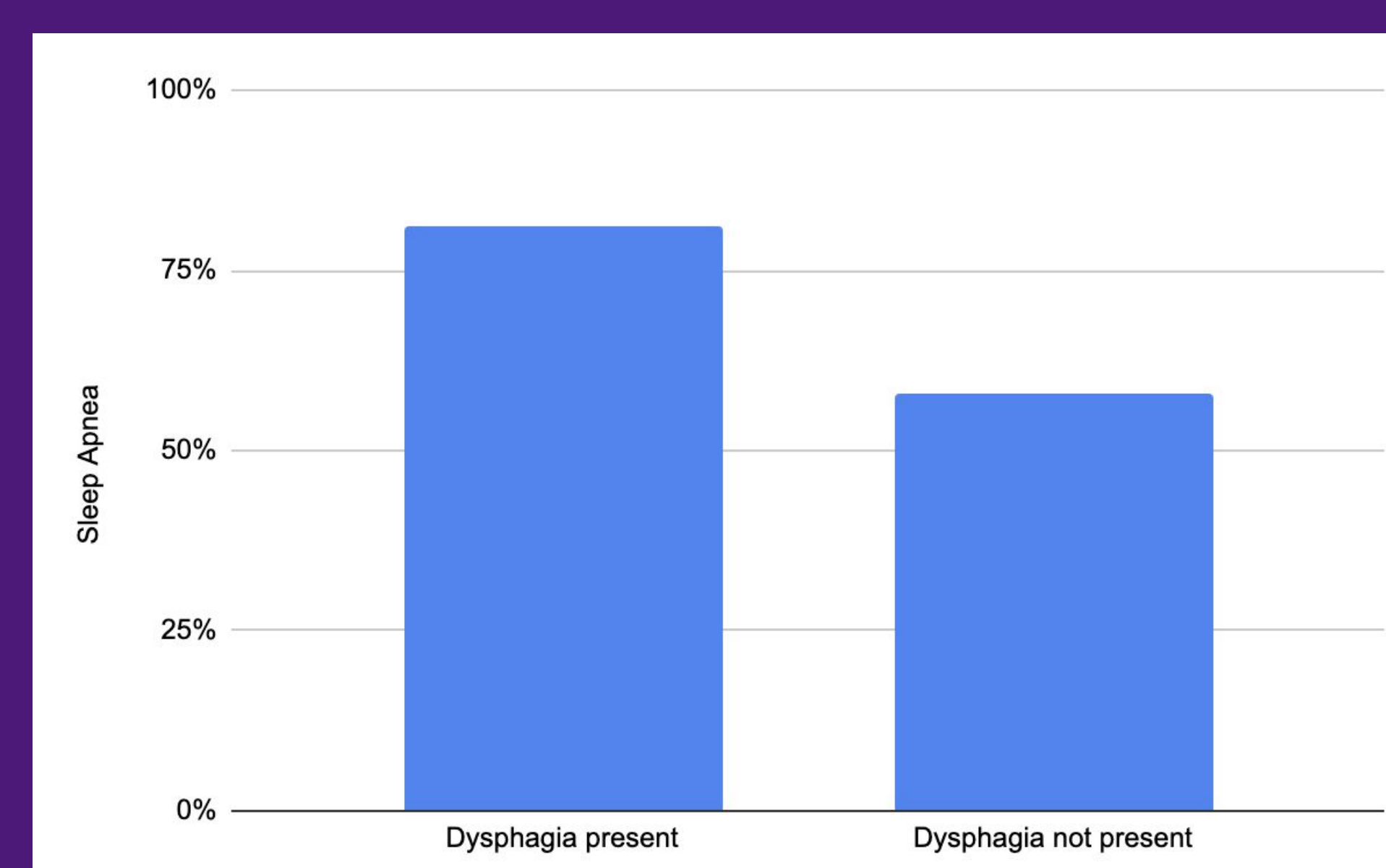


Figure 3. Percentage of ASD patients and dysphagia with concurrent sleep apnea



RESULTS

- 3,053 unique participants (M = 7.26 years)
- 83,045 encounters.
- 239 (8%) ASD, Asperger's Syndrome, or Pervasive Developmental Disorder
- 1709 (56%) male
- 2015 (66.0%) White, 620 (20.3%) Black, 229 Multiple Race, 78 (7.5%) Asian, 5 (0.1%) Native Hawaiian or Other Pacific Islander
- 2864 (93.8%) Not Hispanic or Latino

CONCLUSION

Feeding difficulties and dysphagia are likely to occur in children with ASD and may lead to inadequate or disrupted sleep. Early intervention and treatment of these disorders are necessary to improve sleep outcomes in children with ASD.

ACKNOWLEDGEMENTS

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ABSTRACT & REFERENCES

