

INTRODUCTION

- Pediatric patients rely on their caregivers to make informed decisions about their health, and this is dependent on caregivers' perception of what constitutes as disease.
- Dental caries is a chronic complex disease of multifactorial etiology and is affected by proximal (biological) and distal (social determinants of health) factors (Anderson 2002; Lee and Divaris 2014).
- Studies on perception of oral health have largely focused on adults (Gift et al. 1998).
- Studies have suggested that caregiver perception of oral health is dependent on the presence of dental caries (Sohn et al. 2008; Talekar et al. 2005).
- Studies have shown that in low-resource settings, where caregiver perception may be more important, utilization of preventative dental services is low and treatment seeking behaviors are driven by pain (Goettems et al. 2012).
- No study, to the best of our knowledge, has explored the relationship between caregiver/child social determinants of health with caregiver perception of pediatric dental caries specifically.

OBJECTIVE

To examine the relationships among caregiver/child social determinants of health on self-reported caregiver perception of their child's dental caries status in the U.S.

METHODS

- Cross-sectional study utilizing 2021 survey data from the National Survey of Children's Health (NSCH).
- Multivariate logistic regression using R v.4.2.1.
- A total of number of 29,406 participants were included for data analysis of which 2,871 represented caregivers with perception in the unexpected direction.
- **Dependent variables:** Expected versus Unexpected caregiver perception (Figure 1.)
- **Independent variables** selected *a priori*: age of child, maternal age at birth, total number of adverse childhood events (ACE), child's race, special health care needs (SHCN) status, dental visits, highest level of education among caregivers, family structure, number of children in the household child health insurance, caregiver nativity, and mean family poverty ratio.

METHODS CONTINUED

Condition of Child's Teeth	Chronic Difficulties with Decayed Teeth or Cavities	Self-Reported Caregiver Perception
Excellent/Very Good/Good	Yes	Unexpected
Fair/Poor	No	Unexpected
Fair/Poor	Yes	Expected
Excellent/Very Good/Good	No	Expected

Figure 1. Self-reported caregiver perception (expected vs. unexpected) of pediatric dental caries status.

RESULTS

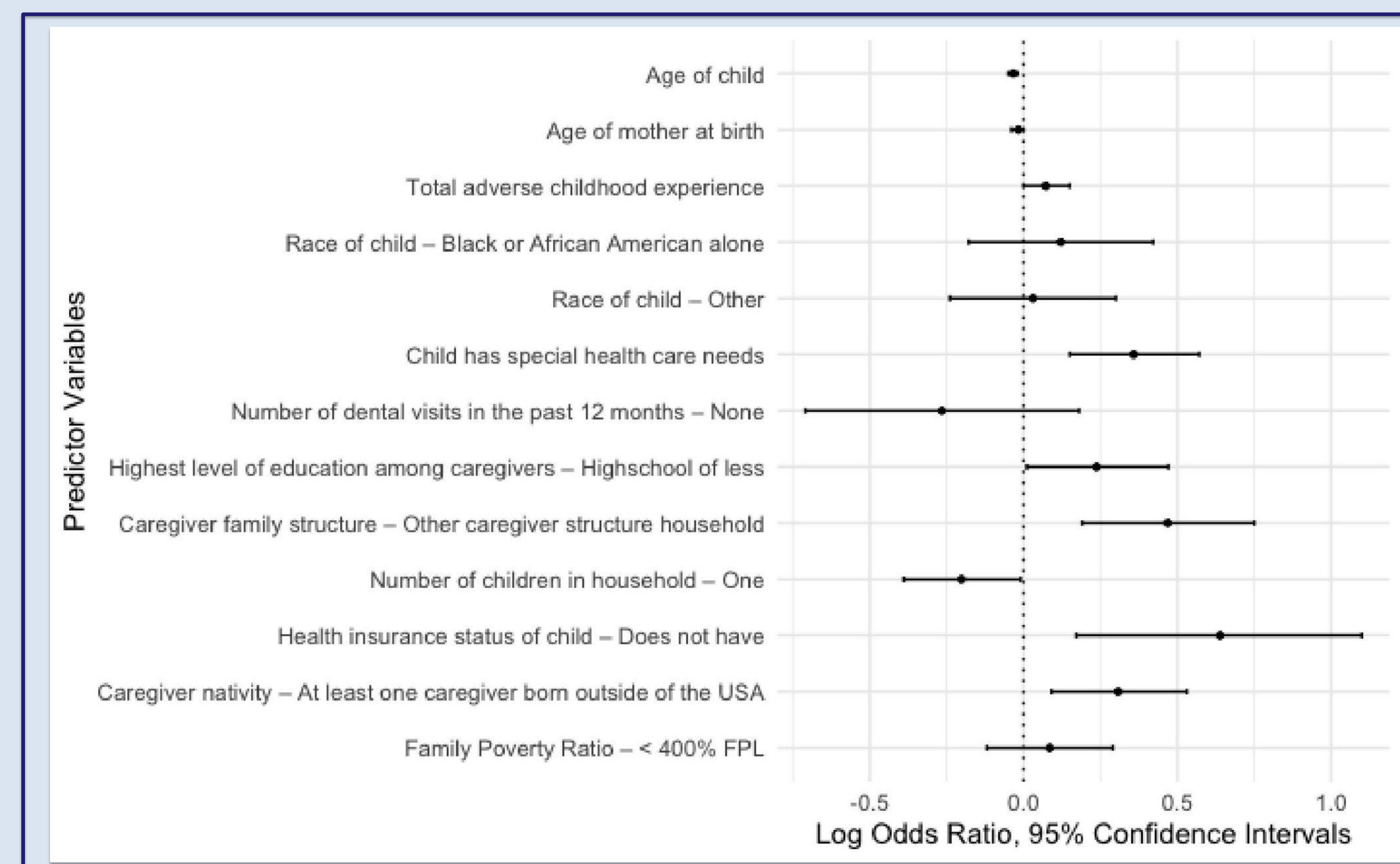


Figure 2. Adjusted associations between predictor variables and self-reported caregiver perception.

- Strongest predictor associated with unexpected caregiver perception of their child's dental caries status was the **lack of child health insurance** (AOR: 1.89, 95% CI: 1.19, 3.01).
- Followed by: caregiver family structure, SHCN status, caregiver nativity, and caregiver education.
- Child's age ($P < 0.001$) and having only one child ($P < 0.05$) were associated with statistically significant greater adjusted odds of demonstrating perception in the expected direction.
- No significant association: maternal age, ACE, child's race, dental visits, and family poverty ratio ($P > 0.05$).

CONCLUSION

- Certain caregiver/child social determinants of health variables significantly affect the odds of self-reported caregiver perception of their child's dental caries status in the unexpected direction.
- In our study of 12 independent variables, lack of child health insurance had the greatest impact.
- General practitioners and pediatric dentists must be aware that subjective caregiver perception of their child's dental caries experience is not intuitive and is complicated by a myriad of social determinants of health variables.
- Further studies can compare predictors against objective dental examinations to understand 'true' caregiver perception accuracy.
- Understanding the associations between social determinants of health variables and caregiver perception can improve oral health and dental care utilization in children in the US.

Limitations

- No causation, assumed dental caries not treated in past 12 months, could not account for shared decision-making, grouping categorical variables, non-response, recall, misreporting, and outcome misclassification biases

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