

## Purpose

- To identify common caregiver misconceptions regarding pediatric oral health.
- To evaluate associations between misconceptions and SDOH (education, income, demographics).
- Inform the development of educational strategies that address caregiver misconceptions and support the prevention of pediatric dental caries.

## Introduction

- Health literacy and socioeconomic determinants of health (SDOH) influence caregiver understanding of pediatric oral health.
- Misconceptions can lead to delayed dental visits, untreated caries, and poor oral health outcomes.
- Primary teeth are essential for development, function, and proper eruption of permanent dentition.
- Gaps in caregiver knowledge contribute to preventable disease burden in children.

## Methods

- Study Design**
- Cross-sectional survey study conducted at BronxCare Health System, Bronx, NY. Data collection period: June 1, 2025 – October 30, 2025.
- Participants & Recruitment**
- Legal guardians of pediatric patients (ages 0–14) presenting to:
    - Pediatric Clinic (1775 Grand Concourse)
    - ACN Clinic (1650 Grand Concourse)
  - Paper questionnaires distributed in clinic waiting areas.
  - Participation was voluntary with no financial incentives.
  - Responses were collected anonymously.
- Inclusion Criteria**
- Legal guardians of pediatric patients aged 0–14 years.
  - Ability to read and understand English or Spanish.
- Exclusion Criteria**
- Inability to understand English or Spanish.
  - Incomplete questionnaires.
  - Refusal to participate.
- Data Collection & Measures**
- Paper-based questionnaire assessing pediatric oral health beliefs and misconceptions.
  - Responses recorded using a 3-point Likert scale (Yes / No / Unsure).
  - Questionnaires Q1-15 included the following:
    - Q1-6: age, gender, ethnicity, education level, relationship to the child, and household income
    - Q7-14: oral health knowledge related to early dental care, diet and caries risk, clinical signs of oral disease.
    - Q15: source of dental information
- Validity & Data Handling**
- Questionnaire validated by two pediatric dentists.
  - All responses were anonymous and not linkable to participants.
  - Data stored securely and destroyed 2 years after study completion in accordance with HIPAA guidelines.

## Results

- A total of 302 caregivers participated in the study. Overall, 77% (n = 233) demonstrated a high misconception burden (≥4 incorrect responses), while 23% (n = 69) had lower misconception scores (Figure 2). The mean misconception score was 5.3 ± 1.3.
- Misconception prevalence varied across individual questions (Figure 1), ranging from 58.6% to 80.5%. The highest rate was observed for Q7 (80.5%), related to the timing of the first dental visit, while the lowest was observed for Q11 (58.6%), related to gingival health. Notably, over half of caregivers demonstrated misconceptions across all domains.
- The most frequently misunderstood topics included the timing of the first dental visit, the cariogenicity of juice, and recognition of early caries, whereas fewer misconceptions were observed in basic oral hygiene practices.
- Education level, household income, and caregiver age were not significantly associated with overall misconception burden. However, caregivers with a high school education or less demonstrated increased odds of misconceptions regarding the timing of the first dental visit (OR = 1.6–2.0; p = 0.01).
- Caregivers most commonly relied on informal sources of oral health information, including Google, social media, family and friends, and personal experience, with minimal reliance on formal education. Information-seeking patterns varied by age, with younger caregivers more likely to use social media and older caregivers relying on personal experience (Figure 5)

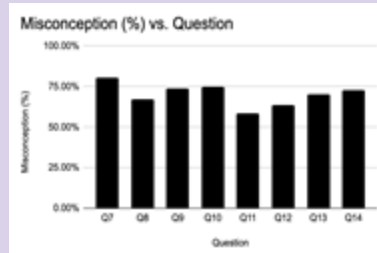


Figure 1. “Prevalence of Caregiver Oral Health Misconceptions by Question”

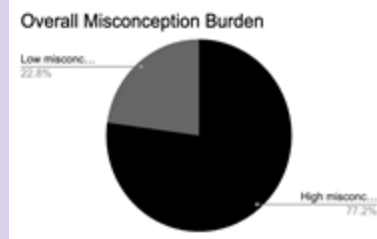


Figure 2. Misconception Burden (%)

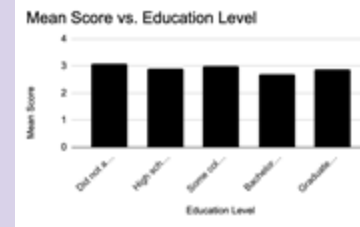


Figure 3. Misconception burden vs. Education level



Figure 4. Misconception Burden by Household Income

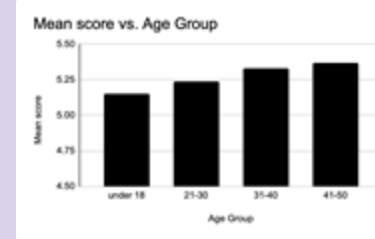


Figure 5. Age vs. Misconception Score

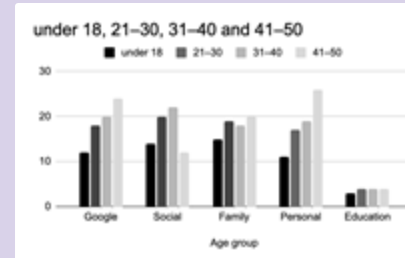


Figure 6. Source of Dental Knowledge/Information by Different Age Group

## Discussion

- Caregiver oral health misconceptions were highly prevalent across multiple domains, with the highest rates observed for the timing of the first dental visit (Q7), indicating a gap in early preventive care understanding.
- No statistically significant associations were found between misconception burden and education level, household income, or age, suggesting that knowledge gaps for dental knowledge specifically tested on the survey are widespread across the BronxCare caregiver population.
- Overall, modest domain-specific differences were observed among caregivers with lower educational attainment. Caregivers primarily relied on informal information sources, with patterns varying by age.

## Conclusion

Caregiver oral health misconceptions are highly prevalent in this urban safety-net population and not limited to specific socioeconomic groups. Education level and household income were not associated with misconception burden, indicating widespread knowledge gaps. These findings support the need for universal, accessible oral health education strategies to improve caregiver knowledge and promote preventive pediatric oral health.

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