Examining Comfort Levels and Barriers Among Dental Students and Pediatric Dentistry Residents in Addressing Food Insecurity

Brian Hwangpo, DDS, Courtney Chinn, DDS, MPH, Daniella Babayev, Lavannia Raguthu, Atrin Ardjmand, Melanie Nektalov
Department of Pediatric Dentistry, New York University College of Dentistry, NY

Introduction

Food insecurity disproportionately impacts low-income families and has been linked to health issues, including a higher risk of dental caries in children. Pediatric dental providers are in a unique position to identify families in need and connect them to resources. Although nutrition and oral health are closely connected, there's still limited research on how dental students and pediatric residents see their role in addressing food insecurity.

This purpose of this study was to assess pre-doctoral (DDS) and post-doctoral (PG) students' comfort levels and perceived barriers in asking about food insecurity and possible associations with student familiarity with federal nutrition programs (e.g., WIC, SNAP, Medicaid) and socioeconomic background.

Methods

This study was approved by the NYU Washington Square IRB (FY2024-8797). Voluntary self-completed questionnaires were distributed via QR code to post-doctoral pediatric dental trainees as well as D3 and D4 students completing the end of their pediatric dentistry rotation during the time period of 08/2024 and 12/2024.

Questionnaires included demographic items such as parental education and Pell Grant eligibility, knowledge of federal assistance programs (WIC, SNAP, Medicaid, TANF), perceptions of the impact of food insecurity on oral health, and comfort and frequency of discussing FI before and after clinical experience. Students were also asked to select barriers to engaging families on FI such as time constraints, language differences or financial discomfort. Data were grouped and analyzed using chi-square tests.

Table 1: Completed student surveys by level of training

Program and training year	*n*
1st year Pediatric Dentistry PG Student	8
2nd year Pediatric Dentistry PG Student	8
3rd year DDS Student	57
4th year DDS Student	41
Total	**114**

Figure 1: Percentage of student reporting time as the primary barrier to engaging parents about food insecurity by level of training and socioeconomic status (n=114)

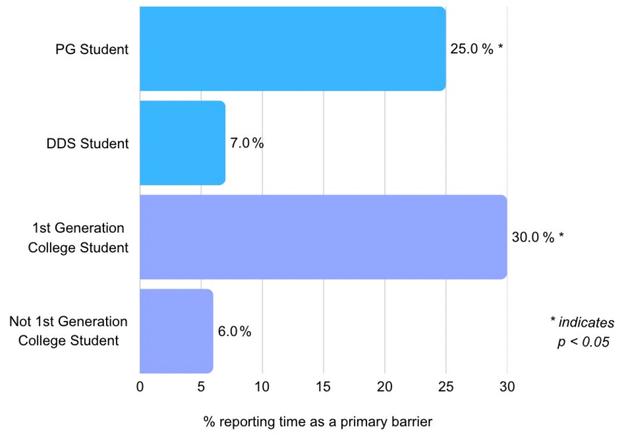
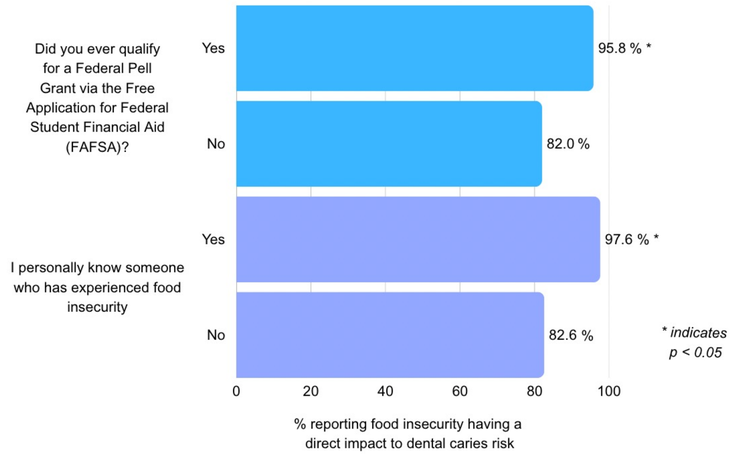


Figure 2: Percentage of students who report food insecurity as having a direct impact to dental caries risk by FAFSA eligibility and familiarity with food insecurity (n=114)



Results

Of the 145 responses collected, 114 met the inclusion criteria. Students' perceptions and behaviors related to food insecurity varied significantly by socioeconomic background and level of training. Overall, student familiarity with public assistance programs was limited: 22.8% (n=26) were familiar with Medicaid, 12.3% (n=14) with WIC, 26.3% (n=30) with SNAP/Food Stamps, and only 1.7% (n=2) with TANF. The top reported barriers to asking about food insecurity included discomfort (47%, n=54), inability to follow up (23%, n=26), language barriers (14%, n=16), and time constraints (9.6%, n=11).

Students whose responses reflected proxies for lower socioeconomic status were significantly more likely to perceive a link between food insecurity and dental caries risk, and to consistently screen patients for food insecurity.

- 27% of students from higher socioeconomic backgrounds reported discomfort initiating follow-up after positive food insecurity screenings, compared to 5% from lower socioeconomic backgrounds (p = 0.035).
- 85.1% of students who did not grow up in a family-owned home reported consistently screening for food insecurity, compared to 54.2% who did (p = 0.004).
- 20.8% of students whose parents had lower educational attainment cited time as the primary barrier, compared to 6.9% of their peers (p = 0.045).
- 30% of first-generation college students cited time as the primary barrier, compared to 5.6% of non-first-generation students (p = 0.001).

Conclusions

- Common barriers included discomfort discussing finances, language differences, and uncertainty about follow-up.
- Clinical experience increased comfort with addressing food insecurity, highlighting the value of exposure and practice.
- Students from lower socioeconomic backgrounds were more aware of the oral health impact and more comfortable discussing food insecurity.