Food Insecurity and Food Allergy in Children of an Urban Underserved Community: A Cross-Sectional Study

Rationale: Childhood food insecurity was exacerbated during the COVID-19 pandemic, with burdens falling disproportionately on racial and ethnic underserved children. Households with food-allergic children face unique challenges to access adequate food that is safe and nutritious. This study aims to describe the prevalence of food insecurity in food-allergic children of an urban underserved community and examine the association between food insecurity and food allergy.

Methods: We conducted a retrospective review of electronic medical records of all patients aged 6 months to 18 years seen in a primary care pediatric clinic at NYC Health + Hospitals/Kings County, from 10/2020 to 06/2022. Pediatricians at this clinic in Central Brooklyn routinely screen for food insecurity using the Hunger VitalSigns©, a validated screening tool recommended by the American Academy of Pediatrics. Data was collected based on ICD-10 diagnosis codes for food insecurity (Z59.41) and food allergy (Z91.01). Logistic regression was used for analysis.

Results: Among 7,856 children included in the study, 84.9% were Black or African American, 6.0% Hispanic/Latinx, 1.2% white, and 1.1% were Asian/Pacific Islander. Of 275 children diagnosed with a food allergy by a primary care pediatrician, 4.7% screened positive for food insecurity. Of 7,581 children without a diagnosed food allergy, 2.6% screened positive for food insecurity (p=0.029). Children with food allergy (adjusted odds ratio: 2.14, 95% confidence interval: 1.19-3.85) were significantly more likely to be food insecure than those without a food allergy, adjusted for age, gender, and race/ethnicity.

Discussion: Childhood food allergy is associated with increased odds of food insecurity. This study highlights the importance of assessing and addressing food insecurity in children with food allergies.