



FITY: Food Insecurity and Thriving Among Youth

How does food insecurity affect flourishing in children aged 6–17?

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Introduction

Food insecurity occurs when individuals or households lack reliable access to sufficient and nutritious foods necessary for a healthy lifestyle. Despite the abundance of food production in the United States, food insecurity is a large issue. It is driven by economic hardships such as low income, unemployment, and increasing living costs resulting in often forcing families to make difficult trade-offs between food and other essential needs such as housing, healthcare, and utilities (Hales, 2024).

According to a 2023 national survey, approximately 86.5% of U.S. households (114.6 million) were food secure, meaning they had consistent access to enough food for an active and healthy life. However, 13.5% of households (18 million) experienced low food security, highlighting a large number of families who were struggling to meet basic nutritional needs (Rabbitt, Hales, & Reed-Jones, 2025).

Access to nutritious food is important for early childhood development, influencing factors such as sleep quality, fatigue, and risk of malnutrition (Busse, 2022). Malnutrition linked to food insecurity is associated with increased medical visits and adverse health outcomes (Cook et al., 2005). It also negatively impacts child development, including school performance, prenatal undernourishment, behavioral issues, and language development delays (Chilton, Chyatte, & Breaux, 2007).

Many children experiencing food insecurity remain under-identified due to feelings of embarrassment, lack of awareness, or ineligibility for assistance programs, in addition to other similar factors (Gundersen & Kreider, 2009). Beyond healthy eating, establishing positive relationships with food and fostering good eating habits is essential for an individual's long-term wellbeing (Landerfeld, 2021).

Aim:

- To investigate the relationship between food insufficiency and rates of flourishing among children.

Hypothesis:

- Children living in food-insecure households will exhibit lower levels of flourishing compared to children living in food-secure households.

Methods

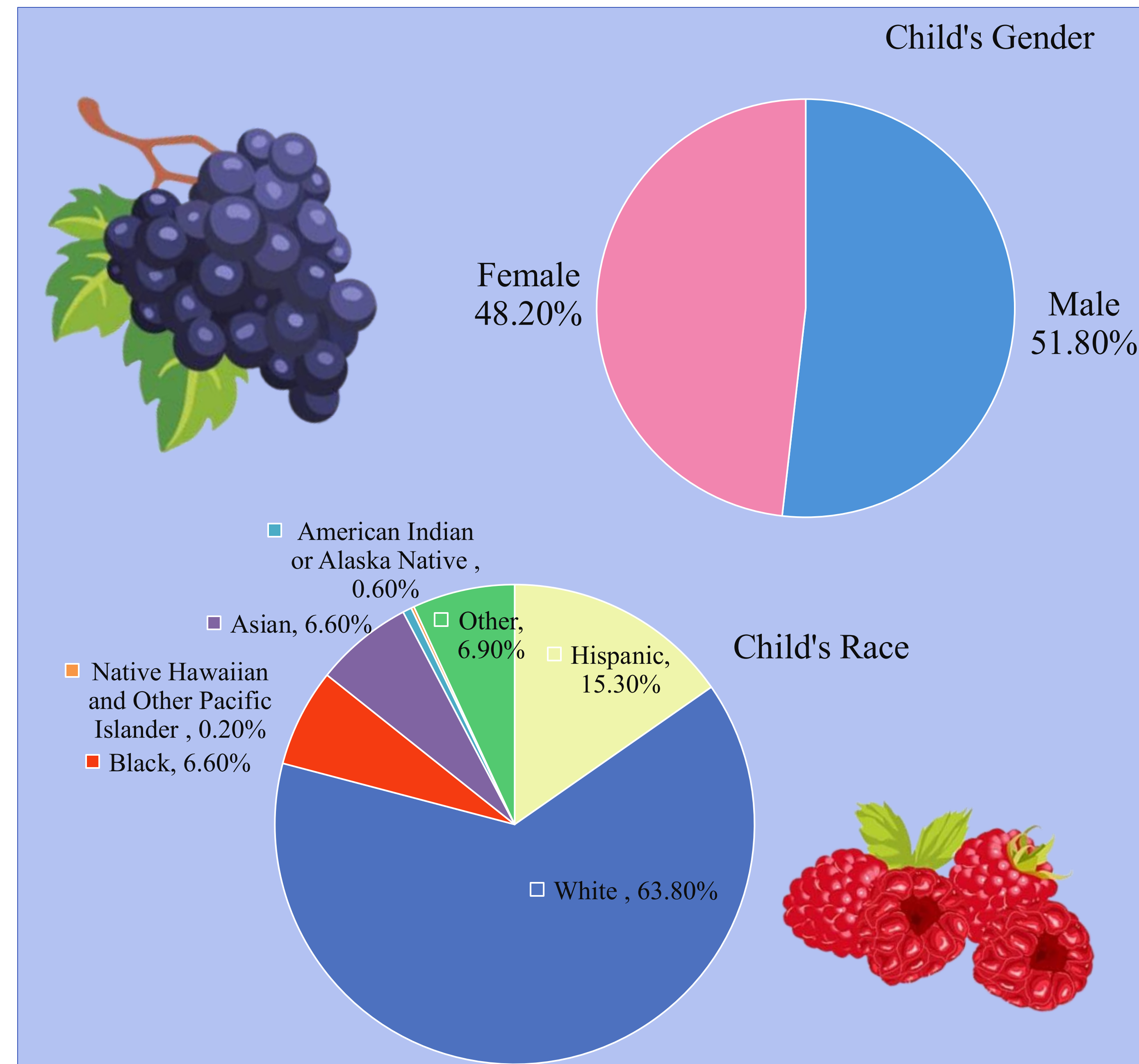
This study utilized data from the 2023 National Survey of Children's Health (NSCH), a nationally representative, cross-sectional survey conducted by the U.S. Census Bureau and sponsored by the Health Resources and Services Administration. The survey collected responses from over 55,000 parents and caregivers of children ages 0 to 17 across the United States. For this analysis, we focused on children aged 6 to 17 years.

Measures:

Food Insufficiency. Household food security was assessed using a single item from the 2023 National Survey of Children's Health (NSCH): "Which of these statements best describes your household's ability to afford the food you need during the past 12 months?" Response options ranged from "We could always afford to eat good nutritious meals" to "Often we could not afford enough to eat." Responses were recoded into four categories (1 = high food security, 4 = severe food insufficiency)

Flourishing. Child flourishing was measured for participants aged 6–17 using three items: (1) curiosity about learning new things, (2) persistence in completing tasks, and (3) emotional regulation when faced with challenges. Responses for items were coded as "Always" (1), "Usually" (2), "Sometimes" (3), or "Never" (4). A composite variable was derived by counting the number of items a child met at the "Always" or "Usually" level. Final categorization included: (1) meets 0–1 flourishing items, (2) meets 2 items, or (3) meets all 3 items.

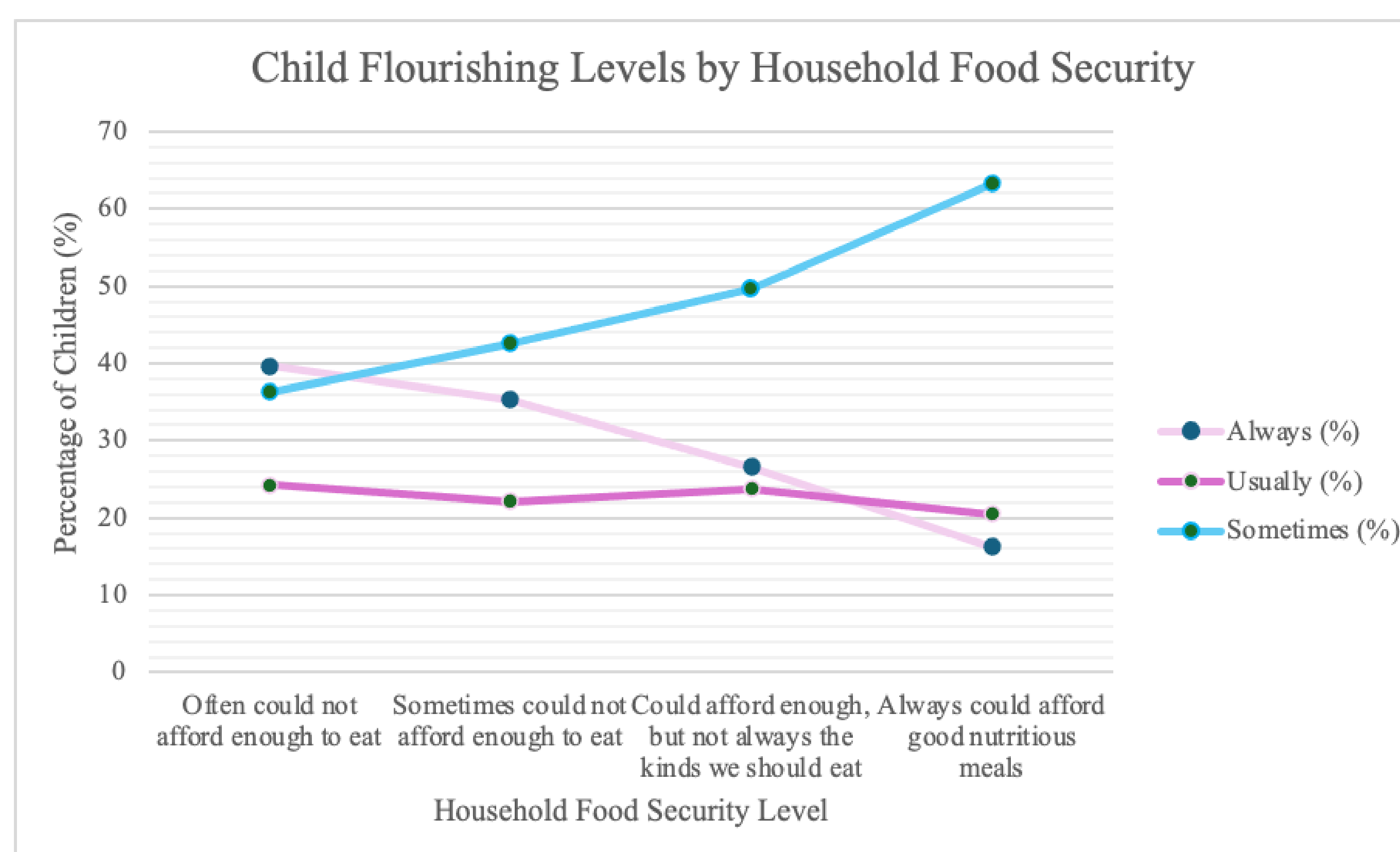
Sample Demographics



Results

A simple linear regression was conducted to examine the relationship between food situation at home and flourishing. The model was statistically significant, $F(1, 32,743) = 800.46, p < .001$, and accounted for approximately 2.4% of the variance in flourishing scores ($R^2 = .024$).

The regression coefficient indicated a significant negative relationship, $B = -0.216, SE = 0.008, \beta = -0.154, t = -28.29, p < .001$. This suggests that as food situation worsens (i.e., food insecurity increases), flourishing scores decrease slightly. While the effect size is small, the relationship is statistically reliable.



Discussion

•This study explored the relationship between household food insecurity and child flourishing. As per our hypothesis, children in food-insecure households were less likely to show key flourishing behaviors such as curiosity, persistence, and emotional regulation. The results indicated a negative relationship between worsening food situations and lower levels of flourishing.

•Although the strength of the relationship was modest, this is common in social science research, where human behavior is influenced by many overlapping factors. Even small but consistent patterns can offer valuable insight, especially when observed across large, diverse populations (Hamilton et al., 2015; Ozili, 2022).

•These findings align with existing research showing that food insecurity is linked to emotional stress, behavioral challenges, and developmental risks in children (Nemours, 2023). Reduced flourishing may affect a child's academic performance, mental health, and long-term well-being. Addressing food insecurity—through improved food access and economic support for families—could help promote more positive developmental outcomes (Wagner, 2024).

•Future research should examine other factors that may influence flourishing and consider broader definitions that include social, academic, and emotional dimensions of child well-being.

Limitations

• The large sample size ($N \approx 32,000$) increases the likelihood of finding statistically significant results, even for very small effects. As a result, while the relationship between food insecurity and flourishing is statistically significant, the effect size is modest, and we cannot make strong claims about its practical or clinical significance.

• This study uses cross-sectional data, which captures information at only one point in time. However, food insecurity can have long-term effects that this type of data cannot fully capture.

• Flourishing was measured using only three items focused on behavior and emotional regulation. This may not fully capture the broader concept of child flourishing, which can include physical health, life satisfaction, relationships, and resilience.

• Both food insecurity and flourishing were reported by parents or caregivers, which means the answers might not be completely accurate or could be affected by personal opinions or memory.

Acknowledgements

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