

# Using Storytelling to Improve Plant-Forward Habits in Child-Caregiver Pairs

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## Introduction

### Background

- Pediatric obesity (~18% in PA K-12) increases metabolic, cardiovascular, and mental health risks, exacerbated in food-insecure, low-literacy households.

### Clinical Context

- AAP 2023 Clinical Practice Guidelines on Obesity call for early, family-centered care with community partnerships; an approach directly aligning with osteopathic principles of patient centered care

### Gap

- Most interventions target diet/activity, neglecting nutrition literacy and caregiver-child modeling and integrative approach of mind-body-spirit

### Rationale

- Story-based learning improves engagement, comprehension, and behavior change across home and clinic settings.

### Preliminary Insight

- Early feedback: stories spark curiosity and caregiver-child discussions, suggesting scalable nutrition literacy potential.

### Objective

- Evaluate story-based nutrition education for children and caregivers in food-insecure households.
- Determine feasibility, acceptability, and early impact to extend clinical nutrition guidance into the home.



## Methods

### Participants

- 35 child-caregiver dyads from Cay Galgon Life House Shelter
- Cay Galgon Life House Shelter
  - both residential program (7 moms) & community program (Greater Lehigh Valley area)
  - 2025 Data
    - On initial intake, one food insecurity question
      - Question: "Are you currently experiencing food insecurity?"
      - 13% answered yes (n = 550 families)
    - 95%+ participate in SNAP and/or WIC
      - 60% Allentown, PA, 20% Bethlehem, PA, 10% Easton, PA, and 10% Greater Lehigh Valley area
    - Predominantly Spanish-speaking caregivers and children
- Small sample enables rapid testing

### Intervention

- Resident-led bilingual storytelling in a women's shelter using an evidence-based children's book ("Tayo and the Super Produce Pals," PI-authored) modeling affordable plant-forward eating and produce access over 4 week period.

### Activities

- Story reading & 4 weekly follow-ups
- Children record choices (drawings/photos)
- Surveys: children (familiarity, preference, confidence); caregivers (household choices, barriers, self-efficacy)

### Framework: Social Cognitive Theory (modeling) + Narrative Transportation Theory (story immersion)

- Evaluation: Engagement, completion, and early improvements in child nutrition familiarity & caregiver self-efficacy
- Integrity: Data collection and analysis follow predefined protocols



## Results

**Feasibility & Engagement:** Story-based sessions are designed to be **low-burden and easy to integrate** into clinic visits and home routines; child-centered activities (drawings/photos) expected to support engagement.

**Baseline Expectations:** Children may have limited familiarity with whole plant-based foods; caregivers may report low confidence offering plant-forward meals due to financial constraints and food insecurity.

### Expected Impact:

- Engaging historically resource-limited communities
- Increased child interest in fruits and vegetables
- More frequent caregiver-child discussions about food
- Practical application of plant-forward strategies at home

**Evaluation Plan:** Pre-post assessments of nutrition literacy, food preferences, and caregiver self-efficacy will determine directional changes and inform scalable clinic-to-home interventions.

## Conclusion

**Feasible & acceptable:** Engages food-insecure child-caregiver dyads.

**Extends clinic counseling:** Supports practical plant-forward behaviors and fosters a positive home food environment.

**Knowledge translation:** Caregiver tips enable actionable adoption of evidence-based practices.

**Scalable impact:** Replicable in community settings, aligning with American Academy of Pediatrics priorities for early, family-centered obesity prevention.



## References

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