

Garden2Plate: a 12-week food literacy intervention program for preschoolers in structurally disadvantaged families.

BACKGROUND

Food literacy, broadly defined as the ability to plan, select, prepare, and eat foods that support health¹. Key themes of food literacy include skills and behaviours, food/health choices, culture, knowledge, emotions, and food systems² Development of these components begins in early childhood through an interplay of modeling and exposure in the home environment. Structurally vulnerable families may experience poorer nutrition profiles which may be a result of various factors including reduced food literacy.³ The objective of this study was to explore the impact of a 12-week food literacy program in a preschool-parent population.

Methods

This study was informed by a social ecological model and followed a concurrent nested mixed methods design that included preschool-parent dyads. In a 12-week curriculum, preschool-parent dyads engaged in an inclusive group gardening program facilitated by a trained horticultural therapist (45 minutes) followed by a nutrition-education and food skills program (45 minutes) facilitated by a registered dietitian. Qualitative inquiry was based on weekly observations, semi-structured interviews, and photo elicitation tours with preschoolers. Quantitative assessment entailed measuring nutrition risk with NutriSTEP as well as vegetable acceptance and eating patterns utilizing "focus on veggies" and children's eating behaviour questionnaire (CEBQ) tools.

RESULTS

Participants

• 29 preschool-caregiver dyads (93% mothers/ 55% male child)

NutriSTEP

- decreased (t=3.45; df=28; p=0.002)
- 40% reduction in moderate and high risk scores (t=3.01; df=28; p=0.005)

Focus on Veggies

• significant increase (t=4.40; df=28; $p \le 0.001$)

CEBQ

no change

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RESULTS

Figure 1: Semi-structured interviews revealed relationship building as the foundation of change that resulted in health related behaviour changes in the home.



REFERENCES

- 1. Vidgen HA, Gallegos D. Defining food literacy and its components. *Appetite*. 2014;76:50-59. doi:10.1016/j.appet.2014.01.010
- 2. Truman E, Elliott C. Barriers to Food Literacy: A Conceptual Model to Explore Factors Inhibiting Proficiency. Journal of Nutrition *Education and Behavior.* 2019;51(1):107-111. doi:10.1016/j.jneb.2018.08.008
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Agency

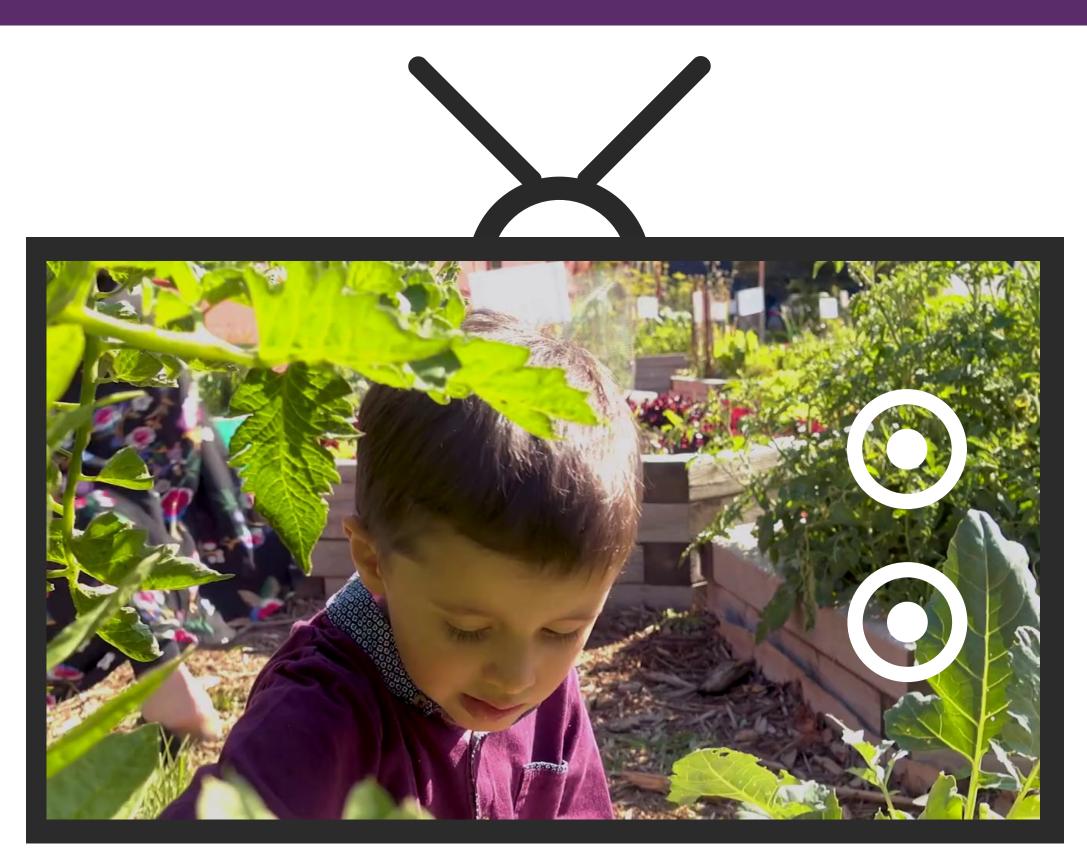


Figure 2: Short video description of the Garden2Plate project https://rebrand.ly/Garden2Plate

DISCUSSSION

Relationship in this study reflected food literacy themes of culture and emotions. Within this context, parents identified this as a pivotal dimension that facilitated motivation, engagement, and the "seeds of change". Children were curious to connect their accomplishments in the garden to the food they prepared. This transitioned to home life where children expressed interest in grocery shopping, choosing vegetables, and meal preparation. The results from this study suggest that preschool-parent dyad participation in a food literacy program within a structurally vulnerable population can improve attitudes and preferences for vegetables and willingness to try new foods.

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