Transdisciplinary Cross-Sector Collaborations to Evaluate Community-Based Food Access and Nutrition Interventions

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Objective: The objective of this research is to use transdisciplinary, cross-sector, collaborative approaches to develop and evaluate community-based programs serving individuals who are eligible to receive food assistance benefits.

Use of Theory or Research: Food and nutrition security are influenced by complex systems-level factors, and as such, a systems approach utilizing transdisciplinary models of collaboration are warranted to evaluate programs and interventions in these areas. The transdisciplinary partnership between Green Mountain Evaluation and the Figueroa Interdisciplinary Group (FIG) research laboratory utilizes a collaborative, implementation science, and participatory approach to evaluate community-based programs focused on improving food access and nutrition.

Target Audience: Participants include online shoppers who are income-eligible food assistance beneficiaries and clients at a food pantry in New York City.

Program Description: Programs include an online grocery shopping and meal kit platform for income-eligible food assistance beneficiaries and a food pantry-based community-supported agriculture (CSA) program.

Evaluation Methods: Mixed methods (qualitative and quantitative) evaluation approaches were used to inform and assess the development, implementation, and outcomes of these interventions. Data collection methods included interviews, pre- and post-program surveys, Veggie Meter assessments, and 24-hour dietary recalls.

Results: Formative evaluations informed the development and refinement of programs to ensure offerings were accessible and tailored to the target audiences. Process and outcome evaluations are ongoing. These evaluations are the result of transdisciplinary, cross-sector collaborations between Green Mountain Evaluation, the FIG research laboratory at Cornell University, and multiple other organizations across university, industry, community, and state agencies.

Conclusion: Addressing food and nutrition security requires expertise and collaboration across a variety of sectors including program evaluation, academic research, nutrition, food systems, education, policy, media, food assistance, and Cooperative Extension. Collaborative, cross-sector, transdisciplinary approaches are the most appropriate lens to address complex, systems-level public health and nutrition objectives and to strengthen the evidence base of community-based programs focusing on health and nutrition.

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involved multiple communities, had high retention, indicated improved health behaviors, and were well received by participants (n=600 families across two studies). Previous research on this program was guided by social cognitive and family systems theories.

Target Audience: The current program targeted Black-footed families with at least one child ages 3-8 years old.

Program Descriptions: The intervention was a kit mailed monthly into homes for 12 months. Kits targeted positive health behaviors related to nutrition, physical activity, emotional regulation, and screen time. Each kit contained printed adult-focused lessons, a children's book, support items (eg, recipes, apple corer, dreamcatcher kit, toothbrush), and family activity ideas. Program delivery was coordinated through Montana State University Extension/SNAP-Ed.

Evaluation Methods: Program outputs were tracked through recruitment and retention. Pre- and post-evaluation from participating adults utilized surveys included in previous program research: the Family Nutrition and Physical Activity Scale, Perceived Stress Scale, and Household Food Security Scale.

Results: Fifty-seven families enrolled and completed baseline surveys: 75% came from Facebook marketing, where 42% enrolled after initially expressing interest. Additional participants (n=14) were recruited in person by key partners. All 57 families received the full 12-month program. At baseline, participating families with more children had greater risk of food insecurity (r=0.333), and older caregivers reported a lower risk family environment (r=0.346). Additional analysis will explore change in outcomes over the 12-month participation period, self-reported engagement with kits, and significance of demographic controls.

Conclusion: These results will inform effective, sustainable delivery strategies as well as determine if adaptations are needed for different participants or partner organizations to maximize impacts of this program, which addresses a significant gap in SNAP-Ed interventions relevant to American Indian families.

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Understanding Perceptions, Knowledge, and Intention to Follow a Plant-Based Diet in Hypertensive Older Adults

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Background: Plant-based diets (PBD) are widely accepted as reducing the risk of cardiovascular diseases and could help older adults prevent and manage chronic conditions. However, more extensive PBD research is needed. Understanding their perspective is an important step to improving their dietary patterns.

Objective: To explore the perceptions, knowledge, and intentions of consuming a PBD among hypertensive older adults.

Study Design, Settings, Participants: Using a cross-sectional design, a total of n=187 older adults were recruited from local senior centers in Maryland. Standardized flyers with the inclusion criteria were sent to each senior center to advertise the study. Participants were screened and if qualified, were interviewed at each site.

Measurable Outcome/Analysis: A PBD was defined as a dietary pattern with increased consumption of plant-based foods and a reduced consumption of meat, eggs, and dairy. Using previously validated measures, the perceived barriers (10 items), benefits (10 items), knowledge (15 items), and intention to try a PBD (3 items) were examined. Additionally, a short food frequency questionnaire was administered to determine a PBD score. Descriptive statistics and Pearson’s correlation test were used for analysis.

Results: Of the n=187 participants, 51.8% indicated that they were or might be willing to follow a PBD for six months or longer. In terms of barriers to eating a PBD, 84.5% agreed that they needed more information about PBD. Secondly, 46% agreed that there are not enough plant-based choices when they eat out and 33.8% agreed that their family/partner would not eat a PBD. The top three perceived benefits were in regard to increased fiber intake (89.3%), helping them stay healthy (87.2%), and reducing saturated fat consumption (85.6%). The barriers were significantly negatively correlated with benefits (p=0.001), PBD knowledge (p <0.001), and PBD score (p=0.001).

Conclusion: Increasing awareness of PBD in older adults would help decrease barriers, and increase perceived benefits, and knowledge eventually shifting eating patterns toward PBD. The findings suggest a need for greater education about PBD in this population.

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User Satisfaction of a Nutrition Education Intervention to Teach Older Adults How to Use the "Start Simple With MyPlate App"

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Objective: Explore the feasibility of utilizing the USDA’s "Start Simple With MyPlate" app as part of an 8-week nutrition education program for community-dwelling older adults.

Use of Theory or Research: The theoretical lens for this study is Adult Learning Theory, which includes seven principles for teaching older adults how technology can better manage nutrition. The theory emphasizes creating an effective learning environment by basing learning objectives on the end user’s needs, skills, and interests.

Target Audience: Community-dwelling older adults 65 years or older recruited from the Rowan Family Medicine Office in Southern New Jersey.

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