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provided a deeper understanding of the disease process. Students identified wearing an insulin pump and “living with diabetes” were their best learning experiences.

Conclusions: This study adds to the limited body of knowledge concerning dietetics students’ experiential learning at diabetes camps. The study’s greatest contribution is the ability for educators to understand how experiential learning opportunities at diabetes camp provide in-depth education and how these learning experiences can be incorporated into dietetics curricula.

Funding: None.

Nutrition Education Program Design Implementation and Evaluation

P74 A Community-Based Intervention Reduces Diabetes Risk in a Low-Income Community

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Objective: Promote diabetes prevention in a low-income community by offering Cooking Matters (CM) in coordination with the Diabetes Prevention Program (DPP).

Use of Theory or Research: Reducing food insecurity is important for reducing chronic disease rates. DPP is a validated and effective intervention that reduces progression to type 2 diabetes. However, there is an outcome disparity for DPP in low-income communities. Our research aims to improve DPP outcomes in low-income communities.

Target Audience: Pre-diabetic participants ≥ 18 years old in low-income communities in Detroit, Michigan.

Program Description: This study represents partnerships between Gleaners Community Food Bank (GCFB), National Kidney Foundation of Michigan (NKFM), and Wayne State University. DPP, administered by NKFM, is a community-based intervention that significantly reduces diabetes risk. CM, locally administered through GCFB, is another effective community program that teaches food skills, and provides food provisions. We hypothesize that combining DPP and CM in a low-income setting will improve program completion, and thereby reduce the risks for progressing to type 2 diabetes.

Evaluation Methods: Over 12 months, low-income individuals participated in the study. Demographics were collected at the onset of the study. Survey information was collected for diet and physical activity at 4 time-points throughout the study. Body weight was collected at every session, and HbA1C was collected at the onset and conclusion of the program.

Results: Combining DPP and CM resulted in a 79% completion rate, compared to the $<50\%$ completion rate observed for DPP alone in low-income communities. Mean HbA1C dropped 10.6% (paired t-test, $P < .01$), from pre-diabetic to normal levels, and every participant demonstrated lower post-test HbA1C values. Participants experienced a mean weight loss of 7.6% (paired t-test, $P < .01$), and $>75\%$ of participants exceeded 5% weight loss at 12 months.

Conclusions: Combining DPP and CM is effective at reducing diabetes risk in low-income communities. Food bank services, which already serve low-income vulnerable communities, can be coupled to existing chronic illness prevention programs to improve disease risk in vulnerable populations.

Funding: Gleaners Community Food Bank of Southeastern Michigan.

Nutrition Education Research Methods

P75 Successes and Challenges of Using a Peer Mentor Model for Nutrition Education Within a Food Pantry: A Qualitative Study

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Background: Delivering nutrition education within an emergency food pantry (EFP) is a valuable and sustainable approach to target the food insecure and underserved populations. However, little is known about using a peer mentor model, “Community Cooks,” as a modality to deliver nutrition education within this setting.

Objective: This research aimed to identify the successes and challenges of using a peer mentor model within an EFP to better understand the best approaches to deliver nutrition education among community residents.

Study Design, Setting, Participants: In spring 2018, semi-structured interviews were conducted with 11 peer mentors after they delivered a series of nutrition workshops to community members of the EFP.

Measurable Outcome/Analysis: Interviews were audio-recorded and transcribed verbatim. Qualitative content analysis was used to analyze the data.

Results: All peer mentors were women over 40 years-of-age, recruited from the EFP community; most were high school graduates and received some form of federal nutrition assistance. All peer mentors reported that the “Community Cooks” nutrition education program offered many benefits. Key successes of the program included the

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use of nutrition education sessions that were appropriately tailored to a food insecure population, recipes included ingredients often found at the EFP, and serving as a peer mentor was an empowering experience. Peer mentors reported a sense of community, purpose, and camaraderie. Key challenges of the program were the lack of community member engagement in the nutrition education workshops.

Conclusions: Challenges continue to exist when delivering nutrition education within a community EFP setting. While the use of peer mentors to deliver nutrition education messages is promising, more research is needed to quantify the impact of using a peer mentor model in underserved and food insecure communities.

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P76 CUPS: A Teaching Unit Integrating Nutrition and Mathematics to Improve Primary School Children's Portion Size Estimation

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Background: Nutrition education programs at schools have improved children's dietary knowledge and behavior. However, crowded curricula mean teachers find it challenging to implement nutrition education as a stand-alone subject. Therefore, addressing this barrier by integrating nutrition with core subjects across the curriculum may be helpful.

Objective: The current study aimed to investigate the impact of a teaching unit on portion size estimation skills when nutrition is integrated within mathematics involving volume and capacity.

Study Design, Setting, Participants: A pilot randomised, controlled trial in 4 primary schools ($n=72$ children in Year 3 and/or 4) was conducted. The intervention group ($n=46$) received six 40-minute lessons about portion size, food groups, volume, and capacity utilising experiential learning with mathematics cubes and food replicas. The wait-list control group ($n=26$) continued their usual lessons on volume and capacity. Outcome measures were taken pre-intervention, immediately post-intervention and 4 weeks after intervention completion.

Measurable Outcome/Analysis: Relative estimation errors (%) for portion size estimation of several food replicas were calculated to compare students' answers to the actual volumes expressed as cubes. Linear mixed models were used to determine the impact of treatment group, time, and the group-by-time as fixed effects.

Results: Preliminary results showed a decrease in relative estimation error for the intervention group ($M=11.35$, $SE=9.90$), whereas the control group increased slightly ($M=2.48$, $SE=13.39$). This difference was not found statistically significant.

Conclusions: This trial uses a novel approach to teach students about serving sizes and estimation skills while incorporating learning outcomes from the NSW k-6 Mathematics Syllabus. The findings indicate that this integrated curriculum improved portion size estimation skills. However, significance of this result was not established in this small sample. Future cross-curricular nutrition education interventions and strategies targeting these skills should be conducted with a larger study population to further explore its potential impact.

Funding: None.

Nutrition Education Program Design Implementation and Evaluation

P77 Development and Validation of a Tool to Assess Top Campus Health Priorities of College Students

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Background: College campuses can provide students with a supportive environment for health behavior development. Thus, it is important to understand campus health priorities of students to ensure effective programming.

Objective: The purpose of this study was to develop a survey which college administrators can use to identify campus health priorities.

Study Design, Setting, Participants: The survey was developed as part of the larger Get Fruved project and included college community input, content experts, and college students.

Measurable Outcome/Analysis: Town hall meetings provided campus health priorities of college communities. A steering committee of health behavior researchers refined the priorities. Content and face validation were conducted using cognitive interviewing methods. A convenience sample of students from 60 colleges and universities was collected to measure reliability and provide top priorities.

Results: Twenty-nine campus health priorities were compiled from the town hall meeting attendees. The steering committee modified the list and added 7 additional priorities. A write-in option was added during content validation, and face validation revealed no major changes. A pilot sample ($n=8215$) took the final 31-item survey which provided high reliability ($\alpha=0.93$). The priority rated most important regardless of school geographic region, type, setting, or size was that free water should be available in all campus facilities. Other top campus health priorities included safe and accessible walking and