Preparing the Future Nutrition Professional: A Summer Internship Case Study Examining Food Systems

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**Objective:** Evaluate the effectiveness of a pilot 14-week virtual internship to enhance professional skill development.

**Use of Theory or Research:** Program evaluation of experiential learning theory with reflection and application of knowledge.

**Target Audience:** Upper-level undergraduate/graduate nutrition students

**Program Description:** Students were introduced to the pre-farm to consumer food system broadening their understanding of the role of nutrition in food production using legumes and pulses. Academic and industry presenters provided an overview of the food system relative to their roles and function within the production of food and processing of legume and pulse ingredients. Each week, students participated in facilitated dialogue to critique presenters, communicate research findings and project progress. In addition, students submitted weekly reflections on how the materials and presentation influenced development of their transferable skills in the areas of communication, project management/leadership, interpersonal and intrapersonal skills, and self-management.

**Evaluation Methods:** A thematic analysis of written reflections, presentation critiques, pre and post skills assessment surveys, and observations were used to measure outcomes.

**Results:** Five students participated in a 14-week internship via Zoom. Students were enrolled in undergraduate (one male and three female) and graduate (one female) nutrition programs. Students evaluated presentation styles to support development of their skills through exposure to agriculture, business, consumer, and regulatory topics. Students submitted food system maps weekly to demonstrate their knowledge of the functions presented. Students engaged in independent project-work and research culminating in student-led seminars to address nutritional barriers and opportunities in the legume and pulses food production system.

**Conclusion:** Student reflections identified skill development themes for confidence, communication, working towards collective goals, and appreciation for the flexibility of virtual formats. A broader understanding of food production was evidenced by the level of detail portrayed in the food systems map at week 1 versus week 4 of the bean processing function. The virtual format allowed students to network with experts from across the US and to work together toward collective solutions.

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Process Evaluation of a Theory-Informed eHealth Intervention Through "Healthy Online Parental Education (HOPE)" Study

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**Background:** Most parent-centered nutrition education interventions for childhood health promotion target older children and require regular face-to-face contact which limits low-income parents who may have time and resource constraints.

**Objectives:** This pilot study explored the feasibility, acceptability, and adherence of a theory-based eHealth intervention, called Healthy Online Parental Education (HOPE), in low-income parents of children aged between one and three years.

**Study Design, Settings, Participants:** This was a process outcome assessment of the HOPE study through a two-arm, 8-week pilot randomized controlled trial. Social Cognitive Theory informed the development of lesson plans and activities to enhance parental knowledge, self-efficacy, and behavioral capabilities in cooking and feeding healthy meals for their children. Multicomponent strategies were integrated into the intervention approach, including online educational videos, cooking activities, journals, and reminder text messages.

**Measurable Outcome/Analysis:** A 5-point Likert scale asked parents to rate the acceptability of each intervention component. Individual interviews were conducted to understand parents’ perceptions of the intervention. The adherence rate was measured based on watch time (average view duration) and view counts from YouTube’s Creator Analytics. R version 4.1.1. and MAXQDA software was used for data analysis.

**Results:** Participants (n = 37) were 86.49% mothers, 45.95% Hispanic, 56.76% obese, and 72.98% low-income. Overall, 93.50% of participants reported that the HOPE intervention provided them with valuable learning experiences. Most parents (87.10%) found the length of educational videos optimal. Many parents mentioned that they were able to study educational videos while their children went to sleep and re-watched some of the videos to internalize knowledge. Almost all (96.80%) found online cooking activities strongly helpful in improving child dietary intake. The average percentage viewed was 80.60%, and 13 educational videos yielded total 518 view counts.

**Conclusion:** Participants reported high levels of adherence and acceptability to online learning. Early childhood health promotion using theory-based eHealth interventions has the potential for widespread application. Further investigation with a larger sample size and follow-up measurements is warranted.

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