Service Learning to Develop Culturally Appropriate Nutrition Education

Teresa Buckner, RDN, PhD

Department of Kinesiology, Nutrition and Dietetics (KiND) | teresa.buckner@unco.edu



Equity Issue

- Registered Dietitians (RDs) deliver nutrition care to diverse populations
- Dietary practices are closely connected to cultural influences, so nutrition education must be delivered in a culturally competent way
- Nutrition and dietetics students must be trained in delivering culturally competent care to address health inequities
- The Academy of Nutrition and Dietetics has set "Embracing America's Diversity" as a priority in the 2017 Visioning Report for the Nutrition and Dietetics Profession⁸
- Health education
 materials are more
 effective if they are
 delivered in a culturally
 appropriate manner,
 including use of relevant
 language, acculturation
 levels, and cultural
 practices^{9 10}.

Overview

Background: Diet and culture are inextricably linked, and nutrition education should be culturally appropriate to be effective.

Communicating healthy eating principles to a diverse audience is a critical skill for future nutrition professionals.

Methods: For this project, we have partnered with Lutheran Family Services (LFS) in Greeley. We conducted a needs assessment and developed nutrition education materials to be delivered to clients of Lutheran Family Services. Undergraduate Nutrition and Dietetics students in the class FND 452 will be recruited to participate in a nutrition education and cooking demonstration service-learning project.

Undergraduate Nutrition and Dietetics students will be trained in cultural humility before creating materials, and we will measure pre- and post- levels of cultural awareness.

Significance: This program will train students in areas of diversity, equity, and inclusion, as future health professionals, and provide valuable nutrition education services to the community of Greeley. It is important for nutrition practitioners to have the skills to navigate cultures and backgrounds different from their own when discussing healthy eating behavior and delivering care.

Aim:

The goal of this project is to train students in cultural competency, develop culturally-appropriate nutrition education materials for a diverse audience, and deliver nutrition education to the community of Greeley, CO.

Stakeholders: KiND department, KiND students, Lutheran Family Services (LFS) in Greeley, CO

Primary Audiences: Undergraduate nutrition and dietetic students enrolled in FND 452, and LFS clients





Theoretical Model

The transtheoretical model (TTM) is the theoretical foundation. TTM is built on the theory that people move through stages during behavior change. TTM has been used widely in public health interventions³, including interventions aimed at dietary change⁴⁻⁷. A benefit of TTM is its adaptability to different scenarios¹¹. This model will be applied to the cultural competence training for undergraduate students involved in the service-learning project. We will also use TTM to develop nutrition education materials. The project framework has been adapted from Barrera et al¹

Project outline, adapted from Barrera et al1

Student training will include small and large group discussions and selfreflections covering:

- Project orientation
- Health disparities
- The influence of culture on diet
- Sources of bias

Learning Outcomes

- Learn principles of cultural humility
- Apply cultural humility to nutrition education
- Self-reflect on cultural influences/values on dietary choices
- Apply principles of cross-cultural communication to nutrition education

Assessment Protocol and Outcomes

- Qualitative theme analysis of needs assessment
- Cultural Competence Self-Assessment Checklist developed by the Central Vancouver Island Multicultural Center² will measure cultural competence of undergrad students pre- and post-service learning project

Project Review process

- Progress will be reviewed quarterly during Nutrition and Dietetics unit meetings
- Assessment results will be submitted as a poster to the Food and Nutrition Conference & Expo (FNCE)
- Funding for the next two years has been provided by the Faculty Research and Publications Board (FRPB)
 through a Research, Dissemination and Faculty Development award. A final report will be provided to the FRPB
- Student feedback will be gathered throughout the service learning project and incorporated

Findings from the Needs Assessment

- Translator services are available
- Desired topics include school lunch accommodations, water safety, hypertension, and pre-diabetes
- LFS Staff can incorporate materials during client orientations and grocery store tours
- LFS Staff encourage and facilitate use of SNAP benefits
- An initial nutrition education handout and script have been created

References

- 1. Castro FG, et al. The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. Prevention science 2004;5(1):41-45.
- 2. Argyriadis A, et al. Self-Assessment of Health Professionals' Cultural Competence: Knowledge, Skills, and Mental Health Concepts for Optimal Health Care. Int J Environ Res Public Health 2022;19(18)
- 3. Glanz K, et al. The role of behavioral science theory in development and implementation of public health interventions. Annu Rev Public Health 2010;31:399-418.
- $4. \ Glanz\ K,\ et\ al.\ Impact\ of\ work\ site\ health\ promotion\ on\ stages\ of\ dietary\ change:\ the\ Working\ Well\ Trial.\ Health\ Educ\ Behav\ 1998;25(4):448-63.$
- 5. Mastellos N, et al. Transtheoretical model stages of change for dietary and physical exercise modification in weight loss management for overweight and obese adults. Cochrane Database Syst Rev 2014(2):Cd008066.
- 6. de Freitas PP, et al. The transtheoretical model is an effective weight management intervention: a randomized controlled trial. BMC Public Health 2020;20(1):652.
- 7. Nakabayashi J, et al. Transtheoretical model-based nutritional interventions in adolescents: a systematic review. BMC Public Health 2020;20(1):1543.
- 8. Kicklighter JR, et al. Visioning Report 2017: A Preferred Path Forward for the Nutrition and Dietetics Profession. J Acad Nutr Diet 2017;117(1):110-27.
- 9. Broyles SL, et al. Cultural adaptation of a nutrition education curriculum for Latino families to promote acceptance. J Nutr Educ Behav 2011;43(4 Suppl 2):S158-61.
- 10. HornerPhD PS, et al. Adapting a nutrition education intervention for Latinos in the Midwest. Journal of Education and Human Development 2015;4(4):84-90.
- 11. Zare F, et al. The Effect of Educational Intervention Based on the Transtheoretical Model on Stages of Change of Physical Activity in a Sample of Employees in Iran. 2016;5(2):e24345.

Next Steps

- Initial implementation of service learning in Fall 2024
- Preliminary analyses in Spring 2025
- Dissemination of results planned for Spring of 2026

