

Abstract

Objective: A childhood obesity prevention (COP) graduate course taught online (Canvas) at 3 universities as part of HomeStyles was designed to build skills in developing effective COP programs. Students met virtually and synchronously for 1 hour/week for lectures and discussions on topics designed to build COP expertise: HomeStyles project as a case study, systematic literature reviews related to COP topics, behavior change theory and motivational interviewing application to weight-related behaviors, mission of land grant institutions, Cooperative Extension obesity prevention programs, and skills for reporting research findings at professional meetings. **Methods:** The primary assignment was a systematic literature review assignment including searching PubMed using MESH terms, identification of pertinent articles, and extracting and summarizing findings. Enrolled students (n=14, 79% MS) completed a 39-item post-course evaluation. **Results:** Only 1 student (PhD) had taken a COP course previously. All students agreed or strongly agreed this course increased their understanding of HomeStyles' goals, federal nutrition programs, the role of land-grant institutions, and systematic review procedures (searching, MESH terms, data extraction, critical evaluation, and data summarization). Most (86%) students reported gaining a better understanding of behavior change theory, motivational interviewing, and how these are used in research. More than two-thirds felt they better understood Adult Learning Theory. Nearly all reported they gained a better understanding of the usefulness of qualitative data, how to present research findings to peers, conduct focus groups, analyze qualitative data, and write abstracts for research presentations. Students reported feeling more comfortable and prepared to discuss COP programming, community needs for and benefits of collaborative COP programs, and how to clarify misconceptions surrounding COP. Students were less comfortable making decisions or leading a COP team. The interaction with other universities and using Canvas were gauged by students as beneficial. **Conclusion:** Graduate students gained knowledge and confidence in skills needed to participate as a COP researcher. Student feedback will guide refinement of the course.

Methods

Sample

- 14 graduate students: 4 doctoral, 10 masters
- From universities in Florida, New Jersey, and West Virginia

Childhood Obesity Prevention (COP) Graduate Course Designed To Build COP Expertise

- Taught online via Canvas web-based learning platform
- Students met virtually for ~1 hour/week for COP lectures
- Primary assignment was a systematic literature review

Data Collection

- 39 item post-course evaluation survey
- Open-ended and Likert scale (1-5) questions

Funding

United States Department of Agriculture, National Institute of Food and Agriculture, Grant Number 2017-680001-26351

Results

Childhood Obesity Prevention Course

Obesity Prevention/ Nutrition Programs

- 100% reported a better understanding of the goals of HomeStyles, SNAP, and other federal nutrition programs
- 92% achieved at least a moderately better appreciation for COP programming and it's use of theory-based and evidence-based research
- 92% felt more comfortable discussing COP, the need for COP programs in the community, expectations for their role in COP
- 79% reported greater comfort in COP decision making
- 71% increase their comfort level in COP leadership
- 86% felt more able to clarify misconceptions with peers and other professionals about their role in COP

Behavior Change Theory/Motivational Interviewing

- 86% felt more knowledgeable about the Social Cognitive Theory
- 86% increased knowledge of motivational interviewing
- 86% developed greater understanding of how theories are used in nutrition education research
- 71% increased understanding of Adult Learning Theory

Land Grant Universities/Cooperative Extension

- 100% increased their knowledge of the role of land-grant institutions

Conducting, Analyzing and Presenting Research

- 92% gained better understanding of the usefulness of qualitative data
- 92% felt better prepared to conduct focus groups and analyze the findings



“ I enjoyed getting to know professionals and students from other universities and learning about childhood obesity prevention programming. ”

Systematic Literature Review of Obesity-related Topics

100% reported being more comfortable/better prepared to:

- conduct a step-wise search of evidence-based literature
- use mesh terms when conducting a literature review
- critically evaluate evidence-based literature
- extract data from research articles
- summarize the research findings from a group of articles
- present research findings to peers

What did you find most beneficial in this course?

- *Data extraction and presentation.*
- *Learning about MESH terms was extremely useful! I have already used this skill in my other courses.*

Web-Based COP Course Delivery using Canvas

- 50% found the interaction with other universities or the Canvas platform beneficial
- *It took a while to get the Canvas lectures started and class often didn't begin on time. There were a lot of audio issues during the lectures as well.*
- *Canvas works, but I would rather have more of an in-person experience.*
- *Canvas worked relatively well. I wish there were video recordings of the lectures—it is difficult to feel a part of the class without ever seeing our instructors [in person].*
- *Didn't feel the need for this platform*
- *Canvas was good and easy to use.*
- *The canvas platform worked fine and was user friendly.*



“ *This course was highly beneficial. The step-by-step walk throughs of everything make it easy to carry [course content] with me into the future.* ”

More thoughts about the course...

- *I loved getting to interact with the student from the other schools. Would it be possible to do more interaction with the other students? Maybe joint projects teaching us how to communicate over conference calls. It would allow us to build relationships with other students.*
- *The course was a great learning environment.*



Conclusions

- Graduate students gained knowledge and confidence in skills needed to participate as a COP researcher.
- Student feedback will guide refinement of the course, especially the web-based delivery.