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April Litchford
Utah State University, april.litchford@usu.edu

Jenna Dyckman
Utah State University, jenna.dyckman@usu.edu

Cindy Jenkins
Utah State University, cindy.jenkins@usu.edu

Andrea Schmutz
Utah State University, andera.schmutz@usu.edu

Carrie Durward
Utah State University, carrie.durward@usu.edu

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Outcomes of Virtual Diabetes Cook Along Classes

April Litchford, Jenna Dyckman, Cindy Jenkins, Andrea Schmutz, Carrie Durward

Abstract

USU Extension Diabetes Cook Along classes provide diabetes education to the public while removing barriers to participation. These classes teach relevant topics through hands-on activities to increase participants' ability to effectively self-manage their diabetes symptoms. Evaluation results show that participants experienced high satisfaction (86%) and substantial knowledge gain (92%) after the classes.

Introduction

In 2021, it was reported that 8% of the adult population in Utah, or 187,000 people, have been diagnosed with diabetes (American Diabetes Association (ADA), 2021), while an estimated 51,000 adults in Utah have undiagnosed diabetes. Currently, about 20,000 Utah adults are diagnosed with diabetes each year (ADA, 2021).

A diagnosis of diabetes requires significant lifestyle changes, including learning to self-manage diabetes symptoms. Self-management can improve quality of life and reduce the risk of severe disease complications (Chrvala et al., 2016; Powers et al., 2016). Diabetes self-management classes are typically poorly attended due to cost, availability, and length of travel to classes (Allory et al., 2020; CDC, 2022, 2022; Graves et al., 2019; Javan-Noughabi et al., 2022). Research also indicates that interactive educational methods in a class setting effectively teach individuals critical diabetes self-management skills (Hawley et al., 2021; Metcalfe et al., 2022; Shrodes et al., 2021).

Response & Target Audience

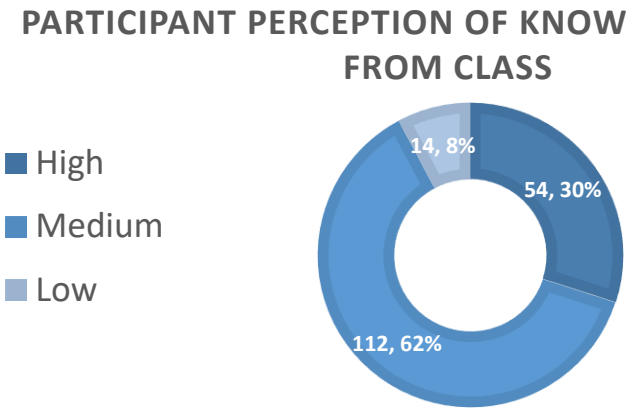
Two USU Extension County faculty and an Extension Nutrition Specialist developed a five-class Virtual Diabetes Cook Along series. The series was offered six times between January 2022 and March 2023. Each hour-long class focused on specific diabetes self-management topics and included interactive activities. These activities included cooking a diabetes-appropriate meal, Zoom polls, and Zoom chat discussions. A shopping list for recipe ingredients and other instructions were emailed to participants before the class so that participants could cook along with the instructor. The classes were conducted via Zoom and were recorded for those who could not attend in real-time or who desired to view it again later.

The diagnosis of type 2 diabetes in adult populations continues to increase, with most individuals diagnosed at 45 years of age or older. However, diagnosing younger individuals is becoming common (Lascar et al., 2018). Therefore, the target audience included adults 18 years or older with diabetes or prediabetes. Of the participants who completed an evaluation (n=181), 82% were white, and 87% were female. A total of 433 individuals attended the live Zoom classes, and 226 individuals viewed the class recording for 659 hours of virtual education.

Outcomes & Impact

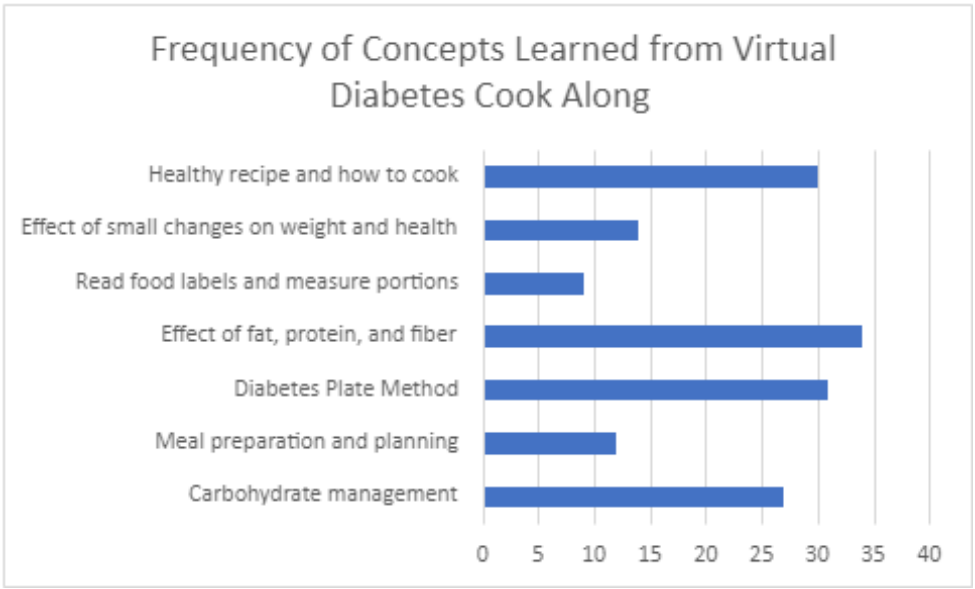
The evaluation survey yielded a response rate of 27% (*n*=181). Survey participants resided in 15 Utah counties, 25 states, and 5 countries. The evaluation indicated that 86% of participants were very satisfied with the information shared in the classes. Results also showed that 77% of participants were very likely to use information from the class to change their behavior. Most class participants (92%) also reported a medium to high knowledge gain from course content.

Figure 1: Participants' Knowledge Gain



Of those responding, 11% noted that they chose to cook along with the instructor during the live class. Lastly, responses to open-text questions indicated that participants learned key concepts that directly addressed the problems associated with poor diabetes symptom control. Figure 2 details the concepts learned by participants as a direct result of course content.

Figure 2: Concepts Learned by Participants in the Classes



A few notable comments from participants show that the classes provided increased understanding and knowledge to address the critical needs of this population. One participant said, “I appreciated your approach of simple, moderate changes. You aren’t pushing a strange diet.” Another participant said, “I don’t need to avoid carbs, just moderation!” Someone else commented, “I have been diabetic for two years, and no one has ever explained carbs to me like was explained in the cook-along.” These comments demonstrate knowledge gain that will be critical in helping individuals better manage their diabetes symptoms.

Public Value & Next Steps

The results of this pilot study indicate that the Virtual Diabetes Cook Along successfully taught affected individuals important diabetes self-management skills. The knowledge gained, with the reported intention to change behaviors, may result in better diabetes management in participants through diet, improved blood sugar regulation, and reduced risk of disease complications.

The USU Extension’s Virtual Diabetes Cook Along pilot resulted in increased diabetes knowledge, improved culinary skills, and a strong intention to change dietary habits positively. These changes should result in improved public health, benefiting society by decreasing the burden on the healthcare system and improving economic outcomes for individuals and communities. Improving participants' overall health and quality of life means they can participate more fully in their communities, families, and the workforce.

Based on evaluation results from the pilot program, USU Extension plans to continue offering the Virtual Diabetes Cook-Along class series to provide accessible diabetes self-management education to individuals in all areas of Utah, including individuals who face barriers to attending in-person events. Future evaluation efforts should examine medium- and long-term outcomes, including dietary changes and health outcomes such as Hemoglobin A1c (a measure of blood sugar management) and weight management.

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