

Adapting a nutrition education program targeting school-age children from in-person to virtual during COVID-19

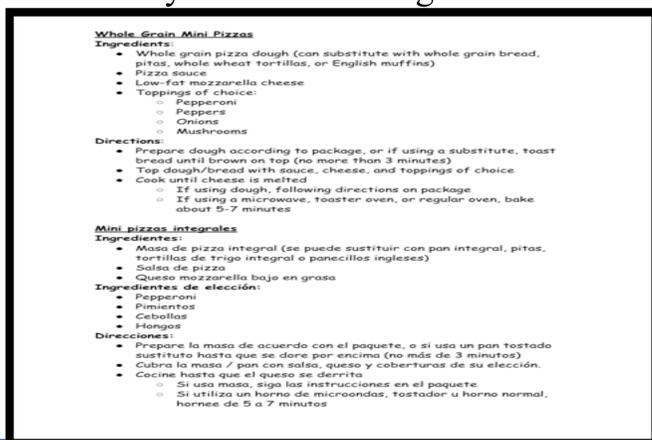
Claire Wilt, MDN, RD, LD; Libby Freeze, MA and Dr. Diana Cuy Castellanos, PhD, RDN, LDN

Background

- School-based nutrition education and gardening programs are found to positively affect nutrition knowledge and healthy eating behaviors (Berezowitz and Bontrager, and Schoeller, 2015; Davis and Spaiol and Somerset, 2014; Langellotto and Gupta, 2012; U.S. Department of Health and Human Services, 2017; Savoie-Roskos and Wengreen, 2017). Due to the limit on in-person learning during the Covid-19 pandemic, innovative technology approaches for continued nutrition and garden programs was imperative.
- To achieve effective behavior change students should receive between 40-50 hours of nutrition education a year (Institute of Medicine, 2014; Connell and Turner and Mason, 1985).
- Implementing the use of videos and visual learning could be a way for students to increase their understanding of nutrition material long-term.

Methods

- Using a quasi-experimental research design, we examined the effect of a virtual nutrition education and gardening program on the identification, intake and likability of fruits and vegetables.



Intervention

- During the 2020 summer session, the SPARKS workshops were adapted to virtual learning and all instructors were trained on how to use Google Classroom.
- The nutrition Google classroom featured six weeks of lesson plans, including nutrition activities, recipes, and cooking demos that the students viewed every week. The lesson plans were adapted for this specific population using the Ohio Education Standards and input from nutrition coordinators and educators with Miracle Makers.
- Each week, the students also received nutrition bags full of ingredients that went along with the current week's lesson plan so they could participate in the activity at home.

Outcomes & Analysis

- At baseline and at the end of the six-week class, participants completed questionnaires to measure their food identification, intake and likeability. Paired samples t-tests were run to examine differences in their pre- and post-test scores.

Results

- Participants included students ages 7-12, attending a virtual summer camp administered in partnership with the local school district and East End Community Center in Dayton, Ohio.
- Students improved their overall test scores from the pre- to post-test by 7% ($p = .04$).
- There was no difference in scores for Latinx and Non-Latinx students.
- On a 0-1 scale, identification (0.06), intake (0.05) and likability (0.10) scores each increased from pre- to post- test although the increases were not significant ($p > .05$).

Conclusion

- This pilot program helped to develop a foundation and insights into a virtual nutrition program in school-aged children.
- Creating an online learning environment where children could still be exposed to nutrition education and cooking skills, as well as having a gardening component that allowed the children to receive different food items each week opened up the opportunity to create positive influences around the students' consumption in the midst of the COVID pandemic.
- The virtual format may increase the opportunity to disseminate nutrition education to a larger population.

References

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