Virtual Nutrition Education with Microgreens

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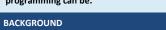


MISSION

The Microgreens Nutrition Outreach Project is a student-run project focused on making healthy eating behaviors easier and convenient for nutritionally underprivileged communities. We aim to:

- Reduce the overall burden of chronic disease
- Facilitate understanding of food's effect on health
- Partner with community-based organizations
- Teach individuals how to grow microgreens

While traditionally we run in-person classes, our organization hosted a pilot virtual event with Drexel University's Human Resources department to see how effective this type of programming can be.



Intervention is critical in order to mitigate the increase of chronic illness in communities. Consistent, healthy dietary patterns reduce the risk of major diet-related chronic diseases, such as diabetes, cardiovascular disease, and some cancers1. Our organization utilizes an alternative method to provide food and nutrition education that aims to combat chronic disease via microgreens.



- Young, edible sprouts
- · Harvested within one week
- Nutritionally dense, with more digestible vitamins and antioxidants than full-grown plants²
- Cultivated indoors
- Small, easy-to-assemble kit ideal for urban locations
- Costs \$1.29 per kit and provides 2-3 servings of fresh greens

METHODS

- IRB Determination Status: Approval of Protocol
- Participants attended a zoom event and were given a 15-minute presentation on chronic diseases and diet.
- Live surveys assessing participants' nutritional awareness were used to guide discussion and education on the material
- During the event, participants were given information on where to source kit materials and had the option to pick up a microgreens kit at a predetermined location after the presentation
- Post-surveys were provided after the presentation and an additional post-event survey was emailed out approximately one year after the presentation to assess efficacy and impact of the virtual format.





During the event, approximately thirty attendees participated in a live survey:

- 62% reported hearing of Microgreens prior to the event
- 91% reported knowing how to read a food label
- 62% reported reading food labels when they buy food
- 97% reported believing consuming fresh vegetables is important
- 80% reported growing their own food in the past
- 70% reported believing growing their own food was affordable

Immediately following our virtual event, twenty one attendees filled out the

- 100% reported interest in growing their own Microgreens kit
- 90% reported that the presentation helped make a connection between their eating habits and their health
- 90% reported recommending Microgreens to family and friends
- 52% reported the presentation changing their awareness about healthy eating.

Approximately one year after the hallmark event, fifteen attendees filled out the survey:

• 50% reported increased attention to food labels

Acknowledgements:

- 67% reported a diet change to include more fruits and vegetables
- 29% reported growing a microgreen kit since the presentation (n=4)
 - Of which, 75% reported that growing the kits were slightly challenging or not challenging at all
- 85% reported a preference for the virtual platform and would attend again





Special thanks to our partners r Gadegbeku, MD, volunteers, Sammy Britis, nearth Outreach Project (nor), and Drexel University College of Medicine.

CONCLUSIONS

Following our pilot virtual education event with the Drexel HR employees in March 2023, we received largely positive feedback and distributed nine, free microgreens kits.

Live responses showed that people:

- Generally knew the importance of healthy eating
- · Generally knew how to read food labels
- Generally knew the affordability of growing food at home
- Were unaware of microgreens at a rate of ~67%

The initial post-event survey showed:

- An overwhelming interest in growing microgreens
- . A majority feeling a greater connection between their eating habits and
- Over half reporting an increased awareness of healthy eating

Our surveys have shown that the virtual education format is an effective way of communicating the importance of healthy eating and the utility of microgreens. The virtual format also makes it easier for people to attend, so we conclude that this event style is something that will greatly help our organization and have a greater impact on our community.

FINAL STEPS

Approximately 1 million people in Philadelphia live in a neighborhood classified as a food desert³. Physical barriers such as finances, time, and transportation. as well as differing cultural norms and eating habits all impact the availability of nutritious foods for low-income communities.

Our goals:

- Continued virtual outreach
- Improve ease of kit distribution
- Continue to receive feedback



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- 3. Hillengas A., et al. Neighborhood Food Retail in Philadelphia. Philadelphia Department of Public Health: Division of Chronic Disease and Injury Prevention; 2019:4, retains all rights and connecting of