Cocinando con Amor: Nutrition Education Classes for the Hispanic Community of Cincinnati

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Introduction

LC 13 has been investigating nutrition as a determinant of health in the Hispanic community. We partnered with Su Casa Hispanic Center, a program of the Catholic Charities of Southwest Ohio whose mission is to "serve, enlighten and empower" Hispanic people from across the greater Cincinnati area.

At Su Casa's Health Fair, we conducted a survey to identify healthcare topics of interest. Based on this, we implemented an educational class series in Spanish focused on nutrition and exercise. Nutrition is an important factor in prevention and management of many chronic diseases, but is inaccessible for many.

Target Population

Here in Cincinnati, 3% of the population is Hispanic [4]. Nationwide, 12.1% of Hispanics have diabetes. In 2017, 42.3% of Hispanics over the age of 20 were obese compared to 34.6% obesity in the non-Hispanic population [1,3].

Service and Learning Objectives

Service objective: To develop a relationship with Su Casa Hispanic Center and better understand the Hispanic community of Cincinnati.

Learning objective: To measurably improve Hispanic community member understanding of the basic principles of nutrition and healthy lifestyles over the course of three education classes held on Saturday mornings at Su Casa.

Methods

Our educational course consisted of three, one-hour classes on Saturday mornings. Materials included PowerPoint presentations, demonstrations, and group discussion.

Class 1: Healthy meals and sugar content.
Included a sugary drink demonstration and a healthier taco meal.

Class 2: Healthy snacks, recipes and label reading.
Included a live demonstration of snack preparation and label reading.

Class 3: Exercise and diabetes.
An exercise class including simple at-home exercises and yoga.

Before and after Class 1 and Class 2, a five-question quantitative quiz was given. Before and after Class 3, a qualitative survey was administered.
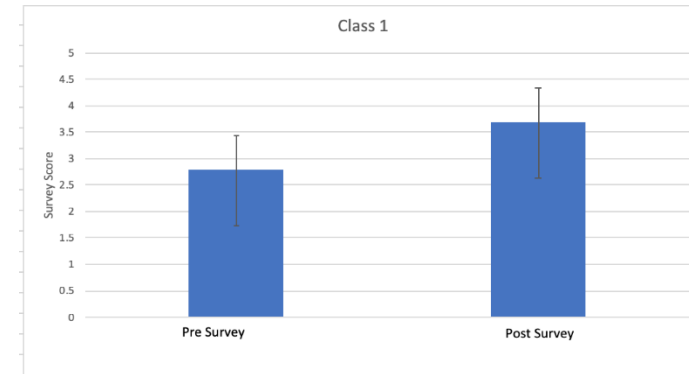
Results

Class 1 Results:

Figure 1. Results from pre-test and post-test from Class 1.

Results demonstrated that participants increased their knowledge of nutrition. T-test performed on data obtained from pre-test and post-test administered in Class 1 were statistically significant ($p < 0.05$, n= 10).
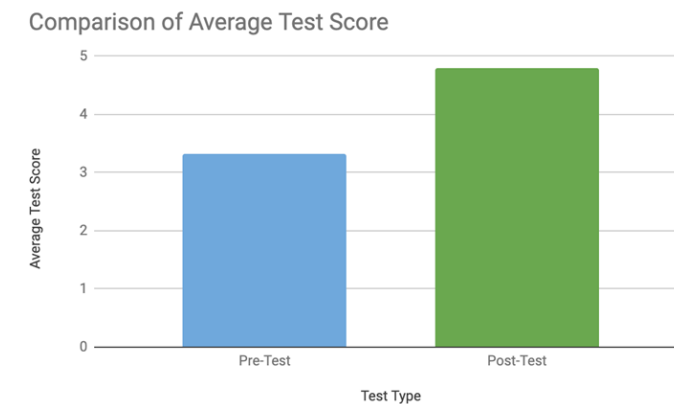
Class 2 Results:

Figure 2. Results from pre-test and post-test from Class 2. The questions were the same for the pre- and post-test, with a maximum possible score of 5.

Results, cont.

Class 2 Results (cont.):

	Mean:	Median:	Mode:	Std Dev:
Pre-Test	3.3	3.0	4.0	0.72
Post-Test	4.8	5.0	5.0	0.41

Figure 3. Results statistics from Class 2.

Our results demonstrate that the scores on the survey increased after the class. A paired T-test p-value was 4.2×10^{-6}.

Class 3 Results:

How long should you exercise per day?	
Pre-test	Post-test
1 hour or as much as possible	30 minutes
Which type of exercise do you think is healthiest?	
Pre-test	Post-test
• running • soccer	any movement
How can you exercise more?	
Pre-test	Post-test
• running • play sports • go to the gym	• short walks • move around during the day • desk exercises • exercise videos on YouTube
Which type(s) of exercise do you currently perform?	**Which type(s) of exercise would you feel comfortable adding to your daily routine?**
Pre-test	Post-test
• rowing machine • walking • running • nothing	• running • taking the stairs • push ups • abdominal workouts

Figure 3. Questions and answers from Class 3, before and after the class.

Discussion

The primary objective of our education series was to develop a relationship with the Hispanic community of Cincinnati and to better understand their needs and barriers to health. With our class series we learned more about the Hispanic community's experiences and their health habits.

Throughout our class series, we were challenged by:
• The language barrier
• Small class size due to transportation barriers
• The desire to keep our surveys anonymous to increase participation
• The difference between survey method and teaching styles between classes

Despite the challenges and limitations of our research, we still achieved our goal of developing strong relationships with the Hispanic community and with Su Casa.

Analysis of the pre-test and post-test surveys administered indicates that the community members who participated improved their understanding of nutrition and exercise. These results suggest that simple educational interventions can help increase awareness and facilitate discussion regarding important health concepts.

Conclusion and Future Steps

Implementing educational classes for underserved communities may help to prevent chronic disease. Our experience demonstrated:
• The eagerness of the participants to talk about many health conditions
• The importance of understanding the needs of the diverse communities
• The utility of collaborating with community agencies

Future projects to serve this community could involve:
• Nutrition Classes tailored for children and families
• Mental health classes and/or local services
• Tutorials on how to navigate the transportation system in Cincinnati
• Navigating the healthcare system

Acknowledgements and References

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