Background

Olivewood Gardens & Learning Center's Cooking for Salud® program is a 7-week lifestyle modification program that gives participants tools to change their food-related habits by participating in culinary instruction in a teaching kitchen centered around nutrition, mindfulness, and wellness. Each week focuses on different aspects of nutritional knowledge and culinary skills which builds on the previous weeks and features guest chefs leading hands-on cooking classes on site. Topics covered include: drink alternatives to sugar-sweetened beverages, incorporating culturally-relevant vegetables and fruits into every meal, whole grains, knowledge of oils, well-thought-out protein options, batch cooking, eating on a budget, nutrition trends, effects of balanced meals on chronic diseases, and roles of food in the healthcare system.

Cooking for Salud® participants positively changed one or more clinical health measures. HbA1c (5.7 +/- 2.1 vs. 6.4 +/- 2.1, p < 0.05). The San Diego Foundation Age-Friendly Communities Program for funding support

Future Directions

• Revise communication and recruitment methods for seniors after the program ends
• Ensure curriculum emphasizes the value of maintaining participants’ cultural food traditions
• Include multiple Cooking for Salud® generations to increase participant number and follow for more than three years
• Develop a logo and media kit to specifically address the aging community

Conclusions

• Three pilot data suggest that an innovative culinary-based lifestyle modification program can positively impact biomorphic data and behavioral change indicators
• A culinary-based program can be utilized as an effective method for chronic disease management and prevention

Limitations:

• Non-randomized study
• Post survey and biomorphic measures were conducted immediately following the program which could affect long-term outcomes
• No control group
• Unknown if results can be replicated with another population and/or more participants

Due to the social and economic determinants of health, the assessment of health outcomes of participants in Cooking for Salud®, a culinary-based lifestyle modification program that gives participants tools to change their food-related habits by participating in culinary instruction in a teaching kitchen centered around nutrition, mindfulness, and wellness.

Methods

• Participants were recruited during nutrition classes at local senior centers and senior living facilities
• Recruited individuals 55+
• Effort was made to include participants’ cultural food traditions
• Nutritional and focus group data were collected prior to the intervention and again at the completion of the program
• Demographic data included: HgA1c, LDL, HDL, triglycerides, blood pressure, weight, height, BMI, and visceral fat
• Observational and focus group data obtained
• Focused group discussions were held 3 months post-intervention
• Focused group discussions were held 6 months post-intervention
• Focused group discussions were held 1 year post-intervention
• Focused group discussions were held 2 years post-intervention
• Focused group discussions were held 3 years post-intervention
• The survey was designed to capture changes in beliefs and behaviors that could positively impact biomorphic data and behavioral change indicators
• Qualitative data were analyzed using content analysis for theme identification
• Surveys were adapted from validated surveys

Clinical Results

Lipid Panel

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<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>HDL</td>
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<td>61</td>
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<tr>
<td>LDL</td>
<td>148.0</td>
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<td>Triglycerides</td>
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Figure 4: Pre and Post Average Triglyceride Levels (n=13)

In addition to blood pressure and cholesterol levels, the level of triglycerides in the blood is another known biomarker of heart health. High triglycerides are associated with a higher risk of heart disease and other chronic health conditions and can be reduced with lifestyle changes. Figure 4 shows that average triglyceride levels also decreased from the beginning of the program to the end of the program.

Figure 3: Pre and Post Average HDL “Good” Cholesterol Levels (n=13)

In terms of cholesterol, higher levels of HDL are associated with a lower risk of heart disease. As shown in figure 3, participants who completed Cooking for Salud® saw a statistically significant increase in their HDL levels.

Figure 2: Pre and Post Average Blood Pressure (n=13)

Three primary measures of heart health - blood pressure, cholesterol, and triglycerides - were all measured pre and post participation in Cooking for Salud®. Average changes across all measures trended positively. Although not statistically significant, participants’ average blood pressure decreased (See Figure 2) and half of the participants had lowered their blood pressure by the end of the program.

Figure 1: Pre and Post Average Blood Sugar Level (A1c) (n=13)

The HbA1c (A1c) test reflects a person’s average blood sugar level over a 90-day period. Reductions in the A1c can be an indicator of dietary change and/or good management of diabetes. Normal A1c levels are below 5.7%. This shows that participants who attended Cooking for Salud® saw a statistically significant decrease from the beginning of the program to the end of the program.

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