

Ardmore Institute of Health

Report Abstract for Awarded Grant

Organization Name

Loma Linda University Health

Project Title

Augmented Full Plate Diet Intervention through Use of Community Health Workers and Integrated Behavioral Health

Amount Awarded

\$128,500

Project Start Date

11/01/2017

Project End Date

11/01/2019

Anticipated Number of People Impacted

150

Actual Number of People Impacted

73

Project Overview

Obesity is known to be a leading predisposing factor for many chronic diseases including heart disease, hypertension, diabetes mellitus type II, and some cancers. While preventive lifestyle practices have been shown to have a positive effect on reversing these conditions, they have had limited success among Hispanic/Latinos (H/L), the largest ethnic minority in the US, who are particularly burdened with overweight/obesity. H/L, and especially mono- or bi-lingual immigrant H/Ls, are less likely to participate and/or complete weight loss programs and often suffer from depression and anxiety which is affected by fiber intake, a key feature of the Full Plate Diet (FPD). Moreover, Community Health Worker (CHW)-led interventions have demonstrated effectiveness and sustainability for this population, but have not been used with the FPD. The goal of our CHW-led

intervention was to culturally adapt the FPD and augmented it with behavioral health skills to promote, facilitate and sustain weight-loss and overall health. In this mixed-methods study we first conducted qualitative contextualization research to develop a culturally adapted FPD+ set of materials and pilot-tested study instruments. We then pilot-tested the resulting culturally adapted FPD intervention (FPD+) in three small cohorts for best delivery modality and explored behavioral change effectiveness.

Results

Qualitative results identified themes that were used to develop the FPD+ materials: 1. Obesity and overweight is the result of lifestyle-related behaviors (obesogenic food, sedentary behavior); 2. Barriers to healthy weight include competing priorities and lack of knowledge; 3. Family dynamics are critical; 4. Cultural values favor obesity and promote obesogenic behaviors; 5. Immigration is a risk factor for obesity; Spirituality and mental health are important.

Feasibility cohort program completion was 60%, 83%, and 96% depending on modality-- the lowest program completion was among participants recruited from a community food bank site. The results of our pilot feasibility interventions indicate that more than half of those who were overweight/obese at baseline lost weight; and 17% had a clinically significant weight loss (>2.2 pounds). Most participants (60%) had clinically significant improvements in HDL cholesterol and 26% improved their LDL cholesterol, 11 by at least 10%, a clinically significant change. We also found major reductions in depression (73.3%) and anxiety (74%). In addition, reductions in consumption of sugary beverages, increases in water consumption, and reductions in fast food consumption occurred; though only fast food reduction was statistically significant.

Use of Funds

Row Labels	Sum of END
Pending	
Employee Benefits Pool Temp	
General Administration Other Expense	
Other Professional Fees	
Research Project Supplies	
Research Subcontracts Idc Allowab	
Training and Education	
Travel Employee	
Wages Hourly PartTime	
Wages Contra	
Posted	
Employee Benefits Pool Temp	
General Administration Other Expense	
HoNrariums	
Other Minor Equipment	
Other Non Medical Supplies	
Other Professional Fees	
Other Purchased Services	
Research Project Supplies	
Research Subcontracts Idc Allowab	
Research Subject Expense	
Training and Education	
Travel Employee	
Travel NnEmployee	
Wages Hourly PartTime	

Key Challenges

1. It can be challenging for academics who are used to a different style of communicating, to work with CHWs which requires patience and clear communication.
2. Working with Spanish language participants is not limited one's ability to speak the language, but also applies to how language for many is reflective of culture. It required us to allow for discussions regarding cultural differences

between different Spanish speaking groups regarding how weight was seen, and how the need for weight loss was perceived.

3. While the award was made in November, several factors delayed the start of the project, such as internal accounting changes, IRB processes, and community capacity and relationship building.
4. Our qualitative results suggested the need for more adaptations than we anticipated. However, these resulted in a product that was carefully and responsively developed in content, evaluation methods, and delivery modality.
5. We encountered participants having strong preconceived ideas about the cost of healthy food; addressing this for this generally low-income population required a thoughtful process that included demonstrating not only how to shop economically but that in the end the FPD+ was more inexpensive AND healthier. Critical to this was organizing a shopping excursion and cooking demonstrations.

Key Learnings

We learned that a successful intervention would need to have the 8 sessions taught over 8 weeks, plus time for consenting and measurements. We also learned that we needed to focus recruitment on overweight and/or obese individuals. We were amazed how truly critical and resourceful CHWs were throughout the process. They are truly experts about their community. We also learned important lessons regarding participant follow-up and retention, including the need for incentives to promote program completion—i.e., a raffle.

Since participants voiced the need for more support, we decided to add a social media (FACEBOOK) presence (to have participants develop a walking support group, share experience, recipes and encourage each other). Whenever possible we will encourage family and or close friend's participation, as these are critical to assure social support for our participants. Our original thoughts of adding a mental health/stress reduction component ended up being even more critical than we anticipated. Clearly weight loss is a time when already stressed and burdened participants need tools to help them through this. We therefore added a short stress reduction skill practice to each session. Similarly, it became evident that participant's sense of spirituality/religiosity was critical to their success.

Recommendations for Future Projects

Conducting studies to develop behavior change interventions for health disparities sub-groups such as mono-, or bilingual H/L is challenging and the importance of culture, family, income limitations, and gender roles cannot be under-estimated. Any study going forward will need to employ a mixed methods design. It also made perfect sense to embrace the experience, connection and wisdom of trained CHWs as a key aspect of our approach. After following this process, we feel that we have a product that is not only a cultural fit, has resulted in high intervention completion by participants, and was received very well, but also had significant program impact with respect to biometric as well as mental health and lifestyle outcomes. Future studies should tap into the wisdom of their participants, who know their lives best. They helped us create a list of activities we will use during our follow-up, which we believe will be critical for the maintenance of our program results. These include a FACEBOOK website with practical tips for shopping (where and what) and recipes that maintain the flavor and attractiveness of the participant's original traditional foods. Participants also suggested discussion groups to help them cope with challenges and receive support.

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