Numerous studies have shown that Latinos and African Americans have disproportionately high rates for coronary artery disease and stroke. Unfortunately, these groups may be unaware or have low awareness of risk factors that contribute to these predominantly behavioral and lifestyle-driven diseases. In an effort to improve this disparity, we designed a program with a focus on etiology, clinical signs, and prevention of cardiovascular disease. In order to ensure that our efforts will have a large impact on the community, we targeted our intervention to school-age children that are willing to participate in the program and then help educate people in their community. The program (PAST) Cardiovascular Health and Wellness Education took place at La Verne Science and Technology Charter, a K-12 school in a predominantly Latino community within Pomona. This community was identified by the CDC as having significant numbers of adult residents with elevated cholesterol. The program consisted of a series of educational workshops with topics covering cardiovascular anatomy, pathology, clinical signs of disease, and prevention with behavioral modification (diet, exercise, mindfulness training). Mastery of the learning objectives was measured through the administration of pre- and post-quizzes. Efficacy of behavioral modifications (meditation, diet, exercise) was qualitatively and quantitatively assessed. Success of the program was determined by the ability of the students to effectively present the information they have learned at this program to their family and friends, as well as implementing programs in their communities that promote healthier lifestyles.

A report published by the Center for Disease Control in 2016 demonstrated that there is a large number of adults living with dyslipidemias in Pomona, California. Pomona is a medically underserved community that has been identified by the US Department of Agriculture as being a food desert (areas lacking access to fresh produce). In addition, Pomona Valley Hospital Medical Center reported that African American and Hispanic women have a higher rate of cardiovascular disease than other women of similar socioeconomic status within the area.

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Acknowledgements

When we started this project, our goal was to see if a simple intervention could lead to an impact on the cardiovascular health disparity we see in the Latino and African American communities in Pomona, California. We chose to work with elementary school students because we believe they would serve as practitioners and promoters of cardiovascular health in their communities. Throughout the project we were able to demonstrate that the students were able to master the educational objectives by consistently scoring higher in the post-session quizzes than the pre-session quizzes. In addition, we were able to demonstrate that the lifestyle modifications we taught students, mainly mindfulness, resulted in a reduction of heart rate. Finally, the students were able to demonstrate their understanding of the importance of cardiovascular health by implementing an intervention at their school (Walk or Bike to School Day) and presenting their findings to their peers at the school assembly. Overall, we believe that this project was successful and that we can use this model (with modifications) at other schools to continue to bridge the healthcare disparity gaps in Latino and African American communities.

References


Abstract

To improve the existing cardiovascular health disparity in Latino and African American communities in Pomona, we believe in educating younger generations so they become highly informed proponents of heart health within those communities. Therefore our program has the following objectives:

I. Understand the anatomy and physiology of the cardiovascular system
II. Understand the etiology of pathological processes affecting the cardiovascular system
III. Be able to identify risk factors and early clinical signs of cardiovascular disease
IV. Understand what a “healthy” lifestyle consists of and how it affects mind, body and spirit
V. Be able to educate others in the community about cardiovascular health