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Chronic Disease Prevention: African Americans Who Live in Food Desert Using Access, Training, Education (ATE)

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Problem Statement: Preventable chronic diseases such as hypertension, diabetes, hyperlipidemia and obesity are much more prevalent in the African American community. Food deserts increase the proportion of these diagnoses within the African American community as they force many to purchase foods from corner store markets and fast food restaurants which carry products with limited nutritional value and a higher sodium, calorie, sugar, and cholesterol content.

Purpose: This study aimed to determine if increased access to healthy food options, health screenings and health education along with meal preparation education would decrease poor food choices and increase awareness of hypertension, diabetes, obesity and cholesterol in the low-income African American population which resides within the food desert of Washington, DC's Wards 7 and 8.

Methods: Using Kaiser Permanente's Thrive Van, the researcher conducted health screening fairs to identify participants through surveys, for three (3) intervention focus groups. Focus groups were used 1) to gather information on cultural diet and health perceptions; 2) to educate on diabetes, hypertension, obesity and hyperlipidemia; and 3) to train participants on how to prepare healthy versions of cultural foods. After the completion of the focus groups there was an evaluation intervention's effectiveness in the form of a post-test and participants provided with a cultural cookbook.

Analysis: The study utilized a phenomenological research approach; therefore, it required a sample size large enough to gain enough feedback for all or most perceptions. Homogeneous sampling was conducted for a focus group of 5-8 people per group. Sample size aim was 24, 26 participants signed up for the study. Twenty-one (21) participated in the first meeting and sixteen (16) participated in the final meeting. Data collected was in the form of focus group interviews and pre/post-test surveys which were analyzed using the Qualtrics software.

Significance: This project can be replicated in other food deserts and low-income areas to help to modify the diet of those residents. By changing the dietary habits of the population, millions of lives could be saved through a reduction in excessive hospital admissions due to complications from diabetes, hypertension, hyperlipidemia and obesity.

Kaiser Permanente Mid-Atlantic States sponsored the project to complete my research via the Community Benefit program.

Title:

Chronic Disease Prevention: African Americans Who Live in Food Desert Using Access, Training, Education (ATE)

Keywords:

Food desert, Low-Income African Americans and Preventable chronic disease

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Abstract Summary:

A discussion on the behavioral intervention which set out to modify diets and educate on preventable chronic diseases for the low-income African Americans who reside Washington, DC's largest food desert.

Content Outline:

I. Introduction

- A. Preventable chronic diseases such as hypertension, diabetes, hyperlipidemia and obesity are much more prevalent in the African American community. Food deserts increase the proportion of these diagnoses within the African American community as they force many to purchase foods from corner store markets and fast food restaurants which carry products with limited nutritional value and a higher sodium, calorie, sugar, and cholesterol content.
- B. This study aimed to determine if increased access to healthy food options, health screenings and health education along with meal preparation education would decrease poor food choices and increase awareness of hypertension, diabetes, obesity and cholesterol in the low-income African American population which resides within the food desert of Washington, DC's Wards 7 and 8.

II. Body

1. Main Point #1: Many chronic health conditions such hyperlipidemia, hypertension, diabetes and obesity are preventable. These health conditions are found in more dense concentrations within communities that are structured with less access to healthcare as well as healthy whole foods and fresh produce. Such communities tend to have a lower socio-economic population and conversely, fewer full-service grocery stores and farmers' markets. This creates an environment known as a food desert: a vapid area where there is no access to fresh fruits, vegetables or healthy whole foods within a mile radius
2. Main Point #2: African Americans are more likely to live in food deserts and as a result are more disproportionately diagnosed with hypertension (HTN), diabetes, hyperlipidemia and obesity than their Caucasian counterparts (Lankarani and Assari, 2017). There is a direct correlation between an increase in these disease processes and lack of access to healthy foods and healthcare, which is often caused by a poor understanding about what is healthy and is influenced by the cultural diet.
3. Main Point #3: Residents of Washington, DC's Wards 7 and 8 are in dire straits when speaking in terms of food insecurity, as they reside in the district's largest food desert. Of the 49 full-service grocery stores in Washington, D.C., only 3 of them are found within Wards 7 & 8 combined, serving 149,750 residents (DC Hunger Solutions, 2017). Many of these residents are low income and qualify for the Supplemental Nutrition Assistance Program (SNAP). SNAP is sponsored by the United States Department of Agriculture (USDA) and allows participants to receive a monthly stipend on an electronic benefit (EBT) card to purchase food. The food purchased can be fresh, frozen, or processed but must not be pre-prepared. Residents in Ward 7 & 8 often have transportation issues as well, due to their low income. They are unable afford the hefty transportation costs to frequent full-service grocery stores which may be up to 5 miles away. Therefore, SNAP participants within food deserts often choose to purchase food items from corner markets which have a smaller variety of less healthy foods at a higher price (DC Hunger Solutions, 2017).

4. Participants were trained on how to meal prep, read food nutrition labels and educated on diabetes, hypertension, hyperlipidemia, and obesity. After the initial intervention, participants returned 3 weeks later to check for progress in diet modification and retention of knowledge of diseases.

III. Conclusion

1. Focus groups showed that many participants knew what healthy foods were and that they should consume more of them. However, the largest constraint was cost followed by time. Participants cited their budget as the major reason why they purchased items, stating that if an item was on sale they were more likely to purchase it, if they also knew how it tasted and how to prepare it. Some cited the amount of time they had after taking public transportation to get home from work. The prepackaged meals were not healthy, but they were inexpensive and convenient.
2. Many of the participants were somewhat familiar with diabetes, hypertension, hyperlipidemia and obesity and some of the causes of these diseases. There were also multiple opportunities to correct statements such as "*diabetes comes from too much mucus in your blood*" and "*high blood pressure is something I can't control*".
3. Post intervention showed that 31% of the participants did make diet modifications, % 88 began reading food labels while shopping compared to original 77%.

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Professional Experience: I have 1 year as a Complex Care Research Nurse. I am a DNP student and I have 4 years in this program where I completed this research. I have 5 years as a registered nurse.

Author Summary: Regina Leonard is a Complex Care Clinical Research Nurse for Kaiser Permanente Mid-Atlantic States (KP-MAS). In this capacity she coordinates care for patients with complex health issues, conducts research with patients and provides education for disease management. Regina is a known team player and leader within the organization. She is a board member of the KP-MAS GenKP and University of Maryland Alumni council. She enjoys spending her free time with friends hiking, biking and kayaking.

Any relevant financial relationships? Yes

Relationship	Description of Potential Conflict
Grant funded by employer and Salary	Kaiser Permanente Mid-Atlantic States sponsored the grant to complete my research via their Community Benefit program.

Signed on 04/16/2018 by *Regina Leonard*