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Sisters Together- Program Increases Fruit and Vegetable Consumption and Physical Activity of African American Women

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PREVIOUS
ARTICLE



ISSUE
CONTENTS



NEXT
ARTICLE



Sisters Together--Program Increases Fruit and Vegetable Consumption and Physical Activity of African American Women

Abstract

Sisters Together is a nation-wide community-based program that encourages African American women to eat healthier foods and become more physically active. A program was developed in Lincoln, Nebraska to increase the awareness of the health benefits of eating more fruits and vegetables and to encourage Black women to be more physically active. Pre and post evaluations showed that program participants increased their intake of fruits and vegetables and were more physically active. Further research is needed to determine ways to provide continued support to these women and build program elements into existing community resources.

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Introduction

Increasing evidence suggests that diets rich in fruits and vegetables may protect against the development of chronic diseases, including heart disease, certain cancers, and stroke (Bazzano et al., 2002; Joshipura et al., 1999; Key et al., 2004). Healthy People 2010 objectives for person's ages 2 years and older <<http://www.healthypeople.gov>> and the Dietary Guidelines for Americans (USDA, 2005) both promote adequate fruit and vegetable consumption. Yet national surveys indicate that many Americans fall short of these public health guidelines (Serdula et al., 2004). In 2002, only 19% of 25-34 year old respondents to the Behavioral Risk Factor Surveillance Survey reported consuming the recommended five or more servings of fruits and vegetables per day <<http://apps.nccd.cdc.gov/5ADaySurveillance>>.

The gap between actual and recommended intake of fruits and vegetables may be even more pronounced among African Americans due to, among many factors, limited access and availability of quality produce and sociocultural influences (Haire-Joshu, Kreuter, Holt, & Steger-May, 2004). In a recent cross-sectional analysis of 2,172 African American adults, only 8% reported eating at least two servings (1 cup) of fruit per day, and only 16% reported eating at least three servings (1 ½ cups) of vegetables per day (Gary et al., 2004). Adequate fruit and vegetable intake along with an increase in physical activity and other lifestyle changes are crucial components in preventing obesity and other chronic diseases in this population (Gary et al., 2004).

Several dietary intervention programs have targeted African American populations to improve eating habits and increase fruit and vegetable consumption, including the Black Churches United for Better Health Project (BCUBH) (Campbell et al., 1999), the Eat for Life Trial (Resnicow et al., 2001), and Body and Soul (Resnicow et al., 2004). Sisters Together: Move More, Eat Better, an initiative of the Weight-control Information Network (WIN), is a community-based program that encourages African American women to become physically active and to eat healthier foods <<http://win.niddk.nih.gov/sisters>>. *Sisters Together* is based on a pilot program that occurred in Boston from 1994 to 1998 <<http://win.niddk.nih.gov/sisters>>.

The University of Nebraska-Lincoln Extension started a Sisters Together program in Lincoln, Nebraska in May 2001 with the help of a minister in a predominately African American church. Extension developed the health and wellness program targeting African American women, while the minister worked with community outreach. The overall goal of Sisters Together is to educate participants about the relationship between food and health, focusing on health issues of importance to African-American women including obesity, cardiovascular disease, hypertension, and cancer.

The specific objectives of the Lincoln program were:

- To increase the consumption of fruits and vegetables by ½ cup per day.
- To increase physical activity by 2000 steps per day.

Sisters Together Program

Before starting the program, Extension hosted a luncheon with local ministers of predominately African American congregations. Ministers learned about health issues of African Americans and about the Sisters Together program. The project utilized church groups, hair salons, and ethnic organizations to recruit African American women at least 19 years of age. Approximately 35 women participated in the program.

The Lincoln Sisters Together program consisted of three components: nutrition education, food preparation, and physical activity. Participants met once a month for 6 consecutive months. The monthly class lasted approximately 2 hours. During the first half of each class, the women participated in discussions on various health and nutrition topics, including cardiovascular disease, weight management, disease prevention, cancer prevention, hypertension, and dietary fiber (Table 1).

Table 1.
Sisters Together Program Outline

| Month | Health/Nutrition Topic | Power Point Presentation | Recipes |
|--------------|-------------------------------|---|--|
| 1 | Cardiovascular Disease | The Heart Truth | Sautéed chickpea and okra Spicy black-eyed peas Ethiopian collard greens Vegetable medley Sweet potato pie |
| 2 | Weight Management | Portion Control | California beef stew Effortless spinach salad w/ raspberry dressing Mexican cornbread Easy apple cider |
| 3 | Disease Prevention | Soul Food Revisited | Oven-fried chicken Roasted asparagus w/balsamic browned butter Mashed potatoes Freezer rolls Spiced nutty bananas |
| 4 | Cancer Prevention | Cancer Prevention & 5-A-Day | Honey roasted chicken breast Tomato and cucumber salad Stovetop sweet potatoes Stir-fried Brussels sprouts Baked pineapple slices w/ frozen yogurt or low-fat ice cream |
| 5 | Hypertension | Controlling High Blood Pressure: Mission Possible Dash Diet | Homemade hamburger on a toasted sesame seed bun Fresh vegetables: spinach, tomatoes, lettuce, cucumbers Tropical fruit salad Fresh strawberry ice cream |
| 6 | Dietary Fiber | Increasing the | Tuna salad |

| | | | |
|--|--|--------------------|---|
| | | Fiber in Your Diet | Carrot, apple, orange coleslaw Marinated bean salad Springtime potato salad Ginger-spiked lemonade |
|--|--|--------------------|---|

In the second half of each class, participants prepared and tasted various foods. Each of the women prepared one of five recipes per session and then sampled the recipes at the end. Participants learned to prepare and evaluate healthy food that tasted good, was easy to prepare, and low in calories, fat, and sodium. Participants were encouraged to try these recipes at home.

University of Nebraska-Lincoln student assistants searched the Internet and cookbooks for recipes that could be modified to offer traditional ethnic flavors, but with more health-conscious ingredients or preparation methods. For example, traditional Southern-fried chicken was replaced with oven-fried chicken marinated in buttermilk and spices. Traditional collard greens dressed with pork drippings were replaced with Ethiopian collard greens sautéed in olive oil. Several of the recipes featured fruits and vegetables, which are lacking in the diets of African American women (Gary et al., 2004).

Participants formed physical activity groups based on their residence or work location. They were encouraged to participate in physical activity for at least 30 minutes per day on most days of the week. A community fitness leader taught a class on the benefits of walking and explained how walking had helped her. The community fitness leader also provided tips on the proper walking attire, safety, and walking routes. Participants received pedometers and activity logs and learned how to track their steps. Each month participants reported results of physical activity.

Evaluation

The primary outcome measured was fruit and vegetable intake. Pre and post assessments showed higher daily consumption of fruits and vegetables following the 6-month program. Before the program, participants ate 1.9 servings (1 cup) of fruits and 2.1 servings (1 cup) of vegetables a day. After the program, participants ate 2.4 servings (1 ½ cups) of fruits and 2.7 servings (1 ½ cups) of vegetables. Participants significantly increased ($p < 0.05$) their fruit and vegetable intake by ½ cup over the 6-month period. Although participants increased their intake of fruits and vegetables, they did not meet national daily recommendations for women between the ages of 19 and 50 years old <<http://www.mypyramid.gov>>.

Overall, Sisters Together helped these African American women make small but positive changes in their eating habits. Participants increased their intake of fruits and vegetables, and reported preparing foods with less fat and salt. They were also leading more physically active lives. Several women formed walking groups and used pedometer to track their daily steps. At baseline, they averaged approximately 6,270 steps/day. At 6 months, the women had increased physical activity to 10,128 steps/day.

At 12-month follow-up, participants had begun to show signs of relapse, which is typical of short-term interventions. The women's fruit and vegetable intake had returned to baseline values. At 12-month follow-up, the women were not as physically active.

It is difficult for many Americans to view "health" as a priority compared to other things in their lives. Future research is needed to develop effective strategies for lifelong behavior change.

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