Parent Coaches: Novel Approaches To Health Education
Neighborhood Diabetes Education Program

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ABSTRACT

BACKGROUND: Diabetes mellitus is a continually growing health issue in the United States, particularly in New York City where the prevalence is 10%. 16% of Crown Heights residents are affected by diabetes which warrants a forceful community-oriented approach to diabetes education.

METHODS: In partnership with Crown Heights-based Seeds in the Middle, we developed a parent soccer coach program with 12 participants through which we delivered topics on healthy eating and diabetes and gathered weekly weight measurements over the course of 9 weeks.

RESULTS: The average BMI reduction overall was 0.46. However, among 8 participants whose initial BMI was >25, the average BMI reduction was 0.58 while the average BMI reduction for those whose initial BMI was <25 was 0.23.

CONCLUSIONS: Our intervention and study showed a modest reduction in BMI on average amongst participants. Larger scale intervention is required to assess such a novel approach to diabetes education and promotion of healthy lifestyle.

METHODS

• Gained participation of 12 parent soccer coaches with ongoing enrollment. None had been diagnosed with diabetes.
• Each weekend for 9 weeks (April – July 2016) on Hamilton Metz Field in Crown Heights, NY
  • Discussion on health-related topics ranging from complications of diabetes to tips on healthy snacking for the whole family (15 minutes)
  • Discussion on rules of soccer and parent coaching tips (10 minutes)
  • Assignment to different age groups and leadership of child activity on the field (1 hour)
  • Setting up/cleaning up the field (10 minutes)
• A scale was placed on the edge of the field for weekly weight measurement.

OBJECTIVES

I set out to develop and launch a diabetes curriculum in partnership with Seeds in the Middle, a multi-faceted Crown Heights-based organization aimed at empowering communities to combat obesity and health inequalities through grade school programs, community events, and a weekend soccer program for children.

Our objectives were three-fold:
• Offer valuable information about diabetes and healthy eating/exercise
• Promote weight loss through lifestyle modification
• Build a community of parent soccer coaches who engage with their children and become active in a meaningful way

BACKGROUND

Diabetes mellitus (DM) represents a tremendous burden on the United States health care system and those affected by the disease. According to the most recent census by the CDC in 2014, 29 million Americans (9.3 percent) have been diagnosed with DM. That burden is amplified in urban New York City where the prevalence of DM approaches 10 percent according to the New York City Department of Health (NYC DOH). The Crown Heights neighborhood of Brooklyn, a historically underserved population of NYC, boasts a shocking 16% prevalence of diabetes, ranked 2nd out of 59 neighborhoods in the city by the NYC DOH.

The incidence and severity of diabetes mellitus, particularly type 2, is well-known to be related to insulin resistance and adiposity. In fact, several studies have demonstrated that weight loss via lifestyle modification can dramatically reduce the risk for DM.

There are many factors affecting the increased prevalence of diabetes in NYC neighborhoods like Crown Heights including financial hardship, lack of access to high-quality health care, and lack of healthy food alternatives.

I sought to assess whether one novel method of delivering information about diabetes and healthy dietary habits may promote weight loss amongst adults of the Crown Heights community.

RESULTS

<table>
<thead>
<tr>
<th>Average Initial BMI</th>
<th>Initial BMI &lt;25 (normal weight)</th>
<th>Initial BMI &gt;25 (overweight)</th>
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<tbody>
<tr>
<td>26.4</td>
<td>4 participants</td>
<td>8 participants</td>
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CONCLUSIONS

• On average overall, participants experienced a BMI reduction of 0.46 over 9 weeks.
• However, if the participant was initially considered overweight by the BMI scale (BMI >25), than they experienced a greater average BMI reduction of 0.58 while those considered normal weight (BMI <25) experienced a lower average BMI reduction of 0.23.
• Parents can be motivated to live healthier lives by their child and the desire to serve as a role model of health for their child.
• Crown Heights is in need of larger-scale health outreach and not just on-demand health education.