Healthy Kids, Healthy Futures: A Multilevel Approach to Prevent Childhood Obesity

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Statement of the Problem

The increase in overweight and obesity among children is concerning. In the U.S. nearly 15% of low income, preschool age children are obese. In Boston, nearly half of Head Start children are overweight or obese. It is important to promote health in young children because obese children and adolescents are more likely to become obese adults. The obesity problem is complex and multifaceted. Contributors include health behaviors such as eating and physical activity. Children's health behaviors are shaped at home, at school, and in the community. To date there have been many prevention efforts among school-aged children. In contrast, there have been far fewer efforts for younger children. Prevention for young children should be comprehensive, targeting multiple environments, health behaviors and caregivers.

Healthy Kids, Healthy Futures (HKHF)

HKHF is an innovative, community-based early childhood initiative aimed to prevent childhood obesity by supporting healthy environments where preschool children live, learn and play (i.e., home, school, and community). In 2008 an inter-institutional partnership was formed to create greater opportunities for wellness among Boston families and to address disparities in the rates of childhood obesity by targeting neighborhoods that bear a disproportionate burden of chronic disease. HKHF combines evidence-based approaches to engage preschool staff and caregivers to promote healthy eating and physical activity. HKHF consists of 2 main components: (1) *Nutrition and Physical Activity Promotion in Home and at Preschool*; and (2) *Community-Based Physical Activity Promotion for Young Children and Families*. This poster describes the first component and presents program evaluation data from the pilot year.

HKHF Goals:

Goal 1: To improve the capacity of Head Start providers to prevent childhood obesity among pre-school age children and their families.
Goal 2: To increase opportunities for caregivers to build skills that support informed and healthful food choices, increased physical activity, and reduced recreational screen time.
Goal 3: To increase opportunities for preschool children to be physically active with their families in safe, accessible and age-appropriate settings.

Methods

Participants & Setting. Participants included Head Start staff (*N*=47) and family caregivers (*N*=57) of preschool children at 4 Head Start programs in Boston, MA.

***Program Activities & Evaluation for Caregivers*:** The NIH's We Can! (Ways to Enhance Children's Activity and Nutrition) curriculum was used to build skills that support parents in making informed and healthful food choices, increasing physical activity, and reducing recreational screen time for their families at home. We Can!:

- Focuses on *3* behaviors:
  - *(1) improved* food choices;
  - *(2) increased* physical activity (PA); and
  - (3) *reduced* screen time (TV).
- Includes 4, 90 minute bi-lingual workshop sessions
  - Session 1: Overview & Why Overweight is an Important Health Issue
  - Session 2: Energy Balance
  - Session 3: Strategies for reducing Energy In
  - Session 4: Strategies to improve Energy Out
- The We Can! questionnaire was administered at pre and post-test to parents (*N* = 26; 46%).

Items assessed *behavioral intentions*: Nutrition (*n* = 8); PA (*n* = 5); TV (*n* = 5) by asking:
Thinking about you and your family, how likely are you to do the following in the next 30 days?
- Response scale to this question is: 1 = very unlikely to 5 = very likely

Methods (continued)

Program Activities & Evaluation for Preschool Staff. The Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) was used to understand the nutrition and physical activity environment and policies at each site and to provide health information to Head Start staff.
- Each site completed the NAP SACC self-assessment (Table 1).
- Following the self-assessment, each site used goal setting and action planning with technical assistance and follow up consultation.
- Staff participated in 5 hours of bi-lingual professional development in the following areas:

Module 1: Childhood Obesity
Module 2: Nutrition for Young Children
Module 3: Physical Activity for Young Children
Module 4: Personal Health and Wellness for Staff
Module 5: Working with Families to Promote Healthy Weight Behaviors

Results

WE CAN!
- *Participants' Demographics*
  - 94% of participants were female
  - 78.4% Latino
  - 31.6% African American
  - 11.8% White
  - 5.6% American Indian/Alaska Native/Other
- *Compared with pre-test, at post-test participants' reported they were more likely to do the following in the next 30 days:*
  - Reduce high fat and sugar foods at home ($p < .01$)
  - Help children plan physical activities with friends ($p < .01$)
  - Switch to smaller portions ($p < .05$)
  - Talk with my family about healthy foods ($p < .05$)

NAP SACC
- All 4 Head Start program sites completed the NAP SACC self assessment (Table 1).
- Following the self assessment all 4 sites set goals and developed an action plan.
  - ***Types of goals:*** Nutrition Education & Child Feeding Practices (N = 2); Healthy Eating & Nutrition Policy (N = 1); Active Play (N = 1); PA Education (N = 2); PA policy (N = 2).
- The HKHF project manager provided on-going support and follow-up.

Summary and Conclusions

General:
- HKHF is a multi-level, obesity prevention initiative designed specifically for preschoolers.
- HKHF uniquely combines interventions across 2 program components to target children where they live (home), learn (school), and play (community).
- In Year 1, all program components were fully implemented as planned.

Caregiver Component:
- There was initial evidence of intentions to change health behaviors among caregivers.
- However, the evaluation lacked a control group and the data were self-reported.

Preschool Component:
- Head Start programs limit unhealthy food choices and promote healthy food choices.
- Head Start staff encourage children to try new or less favorite foods, join children at the table for meals, consume the same foods/beverages as children, talk with children about trying/enjoying healthy foods frequently and are aware of fullness and hunger cues.
- The self-assessment component led directly to suggestions for menu changes across the sites to diversify the menu to be more culturally representative of the children who attend the programs.
- As a result the Cultural Food/Favorite Recipe Day Workgroup was formed and is currently piloting new recipes received from parents and staff. This component will be evaluated in the fall 2010.

Next Steps:
- HKHF will benefit from a more rigorous (controlled) evaluation to document its effects on children's eating and physical activity behaviors and overweight/obesity rates across the participating Head Start programs.

Table 1. NAP SACC Self-Assessment

	# of Program Sites (N = 4)
Limiting Unhealthy Food Choices	
Fried potatoes, high fat meats, & sugary drinks offered < 1x/week, rarely or never.	4
Fried chicken/fish and sweet or salty snacks offered <1x/week or never.	3
Vegetables never/rarely prepared with fats, margarine or butter.	2
Promoting Healthy Food Choices	
Fruit is offered ≥2x/week; milk is usually 1% low-fat, & drinking water is easily visible or available upon request.	4
Vegetables (not French fries) are offered 1x/day; high-fiber, whole-grain foods are offered 2-4x/week; and beans and lean meats are offered 1-2x/week.	3
Vegetables (not potatoes) are offered 3-4x/week.	2
Eating Behaviors-Staff & Children	
Children are encouraged to try new or less favorite foods.	3
Staff join children at the table for meals and consume the same food/drinks as children.	3
Staff talk informally with children about trying/enjoying healthy foods frequently.	3
Food is rarely/never used to encourage positive behavior.	3
Children are asked all of the time if they are full before staff remove half-eaten meals & if they are still hungry before staff serve more.	2
Nutrition Education & Policies	
Posters or books about healthy food are in every classroom/ common area.	3
A written policy on nutrition is available and followed.	3
Nutrition training opportunities are provided to staff 1x/year.	2
Nutrition education is taught using a standardized curriculum ≥1x/week.	2
Nutrition education opportunities are provided to parents 1x/year.	2
Exercise & Physical Activity	
45-90 minutes of active playtime is provided to all children daily.	4
Staff often encourage children to be active and join students in play.	4
TV and videos are used rarely or never.	4
Children are rarely seated for >30 minutes (excluding meal time).	4
PE is provided to all children through a standardized curriculum.	4
Outdoor, active play is provided to all children 1x/day.	3
Teacher-led physical activity is provided to all children ≥2x/day.	3
Staff training opportunities in physical activity are provided ≥2x/year.	2
A policy on physical activity is written, available, and followed.	2
Outdoor play space is available with plenty of open running space.	2
Indoor play space is available for running.	2

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