ABSTRACT

The proposed intervention program is based on Social Cognitive theory and the premise that enhancing children's capacity for emotional and behavioral self-regulation is a key component of effective obesity prevention. A randomized controlled trial that will evaluate, among 600 Head Start children and their parents, the effectiveness of 2 approaches to obesity prevention: (1) a curriculum delivered to preschoolers and their parents that focuses on obesity-related health behaviors, and (2) POPS + Incredible Years Series (IYS), an evidence based intervention designed to improve preschoolers' emotional and behavioral self-regulation. The hypotheses are: (1) POPS will lead to improvements in obesity-related health behaviors and adiposity indices, and (2) POPS + IYS will lead to the greatest improvements in obesity-related health behaviors and adiposity indices, and this effect will be mediated by improved self-regulation. The goal of the study is to evaluate the feasibility, fidelity, and educational effectiveness of the POPS and POPS + IYS interventions, as delivered by paraprofessionals and educators within Head Start and Extension. The education objective is to provide Extension and Head Start staff non-formal training and educational curriculums which can be widely disseminated. The long-term goal of this project is to disseminate a novel and effective approach to obesity prevention in preschoolers.

METHODS

Participants: Children attending Head Start and their parents

Interventions

• Delivered by Michigan State Extension Educators
• 8 lessons for children, 8 lessons for parents
• For children, teachers read an age-appropriate book to children focused on a POPS content area, Extension Educators visit classroom and direct an age-appropriate activity
• For parents, Extension Educators direct a cooking activity, a meal is served, and a 2-hour interactive educational session focuses on specific content area
• Content includes promoting fruit and vegetable intake, reducing sugar-sweetened beverage intake, reducing television viewing, promoting appropriate portion sizes, encouraging physical activity, and encouraging healthy eating behaviors

Primary outcomes

• Maternal Depressive Symptoms (Center for Epidemiologic Studies Depression scale score = 16)
• Household Food Security status (USDA food security scale) (1) High security: 75% (2) Medium security: 92% (3) Low security: 8% (4) Household Income-to-Needs Ratio (mean, SD) 2.8 (0.5)

HYPOTHESES

Hypothesis 1: An obesity-prevention curriculum (POPS) for children attending Head Start and their parents will result in improved obesity-related health behaviors and child adiposity indices compared to usual Head Start exposure alone.

Hypothesis 2: POPS in combination with a curriculum aimed at improving children’s emotional and behavioral self-regulation (IYS), provided to children attending Head Start and their parents, will result in improved obesity-related health behaviors and adiposity indices and obesity status compared to usual Head Start exposure alone or POPS alone.

Hypothesis 3: The greater effect of POPS combined with IYS over POPS alone will be mediated by improvements in children’s self-regulatory capacity.

RESULTS

Table 1. Demographic characteristics

Table 2. Behavioral characteristics of study sample

Table 3. POPS Outcomes/Expectations (Pre-intervention)

Table 4. Select POPs Knowledge Questions (Pre-intervention)

CONCLUSIONS

The interventions were feasible and well-accepted by the Head Start programs, children, and parents.

Results of the randomized controlled trial will be presented at the SNEB Annual Conference in July 2015.