Research Brief

Fit Families Program Improves Self-Perception in Children

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ABSTRACT

Objective: To determine the impact of the *Fit Families* youth weight management program on self-perception of participants.

Methods: *Fit Families* was delivered through Cooperative Extension and provided education to overweight and obese children and their families on healthful eating and physical activity along with building self-esteem and social competence. At the beginning and end of the 7-week program, a convenience sample of 46 youth completed the Self-Perception Profile for Children questionnaire to evaluate changes in self-perception.

Results: Youth had improved self-perception in the areas of athletic competence ($P = .04$) and physical appearance ($P = .007$) after participating in *Fit Families*.

Conclusions and Implications: *Fit Families* provides a holistic approach to weight management that promotes positive self-perception, which may decrease the burden of depression, anxiety, and low self-esteem obese youth face.

Key Words: childhood overweight, childhood obesity, family intervention, nutrition education, self-perception (*J Nutr Educ Behav*. 2016;■:1-5.)

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INTRODUCTION

Childhood obesity rates have risen dramatically since the 1980s,[1] putting youth at risk for chronic diseases not only during childhood but throughout their adult lives as well.[2,3] In 2007, an expert committee issued guidelines for the treatment and prevention of childhood obesity encompassing birth to age 17,[4] and a recent review article of effective interventions in youth aged 5–18 years supports the use of these guidelines.[5] Key aspects of these and other recommendations indicate that treatment should be based on behavior and include dietary and exercise education delivered by professionals with credentials in these areas.[4,5] Furthermore, a family-based approach is recommended because children have limited control over many aspects of food that is available to them and family interventions have been shown to be more effective than are interventions that target children alone.[6] In addition to improving physical health in overweight and obese youth, it is also extremely important that mental health be considered when developing interventions. Obese children report having lower quality of life and greater levels of depression and anxiety and lower self-esteem than do non-obese children.[7-10] Obese children also face stigma and are more likely to be teased and bullied than are their normal weight peers.[7,11-15]

Although recommendations are in place for developing and delivering effective programs, many families with overweight children do not have access to programs, in part because many intervention programs are delivered via clinical sites and barriers exist for accessing clinical providers, particularly for low-income, minority populations.[16] However, examples of the delivery of family-based programs for childhood weight management are promising.[17] The *Fit Families* program was developed in response to the lack of resources in southern New Mexico to address the concern regarding childhood obesity in a positive, culturally appropriate manner in a population with a large percentage of Hispanic people. *Fit Families* was developed as a community-based program delivered through the New Mexico Cooperative Extension Service with input from local pediatricians and health professionals and was based on Social Cognitive Theory, which posits that personal, behavioral, and environmental factors work in a dynamic and reciprocal fashion,

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and that all are important in influencing behavior change.[18] In *Fit Families*, the behavior changes desired were a more healthful food and nutrient intake pattern and increased physical activity. Constructs and strategies within Social Cognitive Theory that were incorporated included self-efficacy (the opportunity to practice choosing foods and dishing up appropriate serving sizes, practice with nutrition skills such as reading labels, practice in learning new exercise and social skills, etc), cognitive restructuring (providing accurate information about nutrition and exercise recommendations for children emphasizing that healthy foods can be delicious and that the focus of exercise is moving one's body in an enjoyable way), social support (conducting the education together with family members in a community setting with foods that are socially acceptable and specifically targeting social skills and self-esteem building), and goal setting (allowing participants to select goals at the end of each lesson related to lesson content).

The *Fit Families* program included education on healthful food choices and eating approaches, enjoyable physical activity, and feeling positive (a component focused on building self-esteem and social competence), and was delivered to overweight and obese children and their families. Improvement in eating patterns of *Fit Families* participants was reported previously.[19] The purpose of this research was to conduct a pilot study regarding the effectiveness of *Fit Families* in changing self-perception of children in the program.

METHODS

Program Delivery

The New Mexico State University Institutional Review Board approved all data collection procedures. *Fit Families* was delivered as a series of 7 weekly sessions that met for 2 hours 45 minutes (from 5:30 to 8:15 PM). The program was coordinated by the New Mexico State University Cooperative Extension Service. Children who were overweight or obese (body mass index ≥ 85th percentile for age) were referred to the program by local physicians. To facilitate the referral process, physicians were briefed on the program and provided with contact information for the *Fit Families* program coordinator. When a referral was made, the program coordinator followed up with a parent of the referred child and provided information for enrolling in the program. Class size was limited to 15 referred children. However, because at least 1 parent or guardian was required to attend with the child, and other family members including siblings were welcome to attend, the total class size was typically around 40–50 including both adults and children.

A registered dietitian taught the nutrition component, a physical activity professional with a degree in exercise science taught the physical activity component, and a school counselor taught feeling positive. A simple nutritious meal was served at the beginning of each session. Having a meal as part of the class served several functions. It provided an incentive for families to attend and made attendance more manageable because families did not need to navigate the logistics of feeding their families before coming to the class. The meals also served as examples of nutritious, quick meal plans that families could replicate at home. Tips on mindful eating were given before eating the meal and families were encouraged to relax and enjoy the mealtime with each other and other families.

The week 1 session included the following activities: introduction and overview of the *Fit Families* program, a name tag activity in which participants created name tags that illustrated who they were, pre-program evaluation forms, and physical activity games. A primary goal for this first session was for the referred child and all family members to have an enjoyable experience. During weeks 2–7, there were 4 program components after the meal: nutrition education, physical activity, feeling positive, and goal setting (Table 1). Concepts were taught with hands-on activities and discussion. For nutrition and feeling positive sessions, kids and parents were in separate groups. Kids' groups were broken out into younger and older kids; generally children aged ≤ 7 years were in the younger kids group. Physical activity was done as a group activity with all family members. This component included a short instruction time introducing strategies for increasing physical activity throughout the week. The remainder of the time was spent playing active games. Games included activities from the CATCH curriculum[20] and Dance Dance Revolution.

Data Collection

A total of 46 children participated in the study. Participants were drawn from 6 *Fit Families* class series in 2009 and 2010. For each class series, at the first session of *Fit Families*, before the beginning of education, referred participants completed the Self-perception Profile for Children (SPPC)[21] questionnaires. The SPPC questionnaire measured self-perception in children using 6 subscales: scholastic competence, athletic competence, physical appearance, social acceptance, behavioral conduct, and global self-worth, and reported a high reliability.[22,23] The SPPC was also been used in a previously reported intervention for obese children.[23] Each of the 6 subscales had 6 items that were scored on a 4-point scale. Participants filled out the same questionnaires 6 weeks later during the final session of *Fit Families* for each series. Participants also filled out program satisfaction surveys during the final session.

Statistical Analysis

A pre-experimental design was used with each subject serving as its own control. The reason for this design is that this was a pilot evaluation of the *Fit Families* program implemented as a community program without research funding. Often, community-based programs are developed and implemented without collecting data beyond program satisfaction surveys, which provides little information on program impact; the pre-experimental design allowed assessment of program impact on *Fit Families* participants. The sample was a convenience sample; sample size was determined by the number of participants enrolled during the period of data collection.

For each response variable, subjects with complete pre–post measurement data were used to compare measurement occasions. For summated scores from the SPPC instrument, a repeated-measure mixed model was fitted with measurement occasion as the fixed effect, an unstructured covariance