A Childhood Obesity Prevention Project: Implementation of the KidsFit Obesity Prevention Program Among School-aged Scouts to Increase Knowledge and Behaviors Related to Nutrition and Exercise

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**Background and Problem**

- Childhood Obesity is a chronic disease that can be prevented with healthy nutrition and adequate physical activity.
- In the United States, childhood obesity affects nearly 1 in 5 school-aged children.
- Complications of childhood obesity impact physical and mental health such as hypertension, diabetes, asthma, body dissatisfaction and depression.
- Early prevention should be delivered during the school-aged range when children are eager to actively participate in learning activities.
- Kids learn best with similar aged peers in a social environment (Social learning theory).

**Methods**

- Design: Pre-/Post-test
- Intervention: Weekly 1-hour meetings using the KidsFit curriculum delivered over 6 weeks
- Outcome Measures: completed on Week 1 and Week 6
  - Health Knowledge: “Nutrition and Physical Activity Pre and Post Test”
  - Daily Steps: Weekly fitness tracker steps
  - Health Behavior: “Food Frequency and Lifestyle Habits Questionnaire”

**Settings and Sample**

- **Settings:**
  - Girls Scouts met at a recreation center in Clark, NJ
  - Cub Scouts met at a community center in Newark, NJ
- **Sample Size:**
  - 11 girl scouts, 8 cub scouts (n=19)
  - girls mean age: 9 years old
  - boys mean age: 9.5 years old

**Results**

- **Health Knowledge**
  - Knowledge was determined by a 20-question exam that was scored from 0-100%.
  - Week 1: 83%
  - Week 6: 86%
- **Daily Steps**
  - Pedometers were given to the Scouts at the first meeting. An average number of daily steps was determined from the first week and the last week of implementation.
  - Week 1: 29k
  - Week 6: 33k
- **Healthy Behaviors**
  - Health Behaviors was determined by an 18-question questionnaire that rated behaviors on a scale of 1-5
  - Week 1: 3.0
  - Week 6: 3.4

**Weekly Lesson Approach**

**Week 1:** Calories and Energy Balance
Knowledge test and Behavior questionnaire completed for baseline, each scout received a pedometer

**Week 2:** My Plate: Fruits, Vegetables, Grains, and Protein

**Week 3:** My Plate: Dairy and Bone Health

**Week 4:** Nutrition labels and Serving Sizes

**Week 5:** Sugar and Breakfast Cereal, Fast Foods

**Week 6:** Health Habits for Life
Knowledge test and Behavior questionnaire completed for comparison

*record of daily steps collected each week
*The KidsFit program was created and approved by RWJBarnabas Health System (2019)

**Significance and Implications**

- The troop setting provided supportive social environments and peer modeling which motivated children to initiate behavior change.
- School-aged Scouts were receptive to weekly learning objectives and excited to actively participate in healthy activities when opportunities were provided.
- The KidsFit program was designed with a multifactor education strategy that addressed diet, exercise, and family involvement which contributed to its effectiveness.
- Providers can use programs as a resource to refer patients at-risk for being overweight.
- This intervention has the potential to increase health knowledge and behaviors related to nutrition and exercise in children of both genders, diverse ethnicities, and different socioeconomic backgrounds.

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Abstract: A Childhood Obesity Prevention Project: Implementation of the KidsFit Obesity Prevention Program Among School-aged Scouts to Increase Knowledge and Behaviors Related to Nutrition and Exercise

Childhood obesity is a global epidemic that predisposes children to a lifetime of medical conditions, social problems, and increased medical costs. Fortunately, early intervention of modifiable risk factors of obesity, specifically nutrition and physical activity, can effectively prevent or decrease the prevalence of this disease. There is a need for more evidence-based interventions that can be widely accessed and utilized in community settings to address this issue. The purpose of this Doctor of Nursing Practice (DNP) project was to evaluate the KidsFit program in a social setting involving a troop of Scouts aged 8-11 years old. KidsFit is an established obesity prevention program developed by Robert Wood Johnson Barnabas Health to combat childhood obesity. The use of Girl Scouts and Cub Scouts participants was supported by the Social Cognitive Theory that explains that behavior change is impacted by social peers, a supportive environment, and individual self-efficacy.

The Scouts attended weekly meetings over the course of six weeks where they learned about nutrition, reading food labels, portion sizes, healthier choices, and the importance of physical activity. Success of the program was determined by pre- and post-intervention tests and questionnaires that assessed both health knowledge and healthy behaviors. The Scouts were also given a fitness tracker to measure their physical activity level throughout the 6-week program. The project intervention resulted in an increase in health knowledge, healthy behaviors, and daily physical activity for all participating Scouts despite differences in their gender, age, socioeconomic status, or ethnicity.

This project impacts clinical practice by encouraging health care providers to take one step further beyond identifying the child to be overweight; but to also provide an action plan to eliminate unhealthy lifestyle behaviors and prevent additional weight gain. The findings identified the positive impact of a child’s immediate social environment and peer modeling on their motivation to initiate behavior change. Furthermore, the KidsFit program utilized a multifactor education strategy to enhance the effectiveness of this intervention. This project is the beginning steps to the potential expansion of this feasible childhood obesity prevention program tool to reach children at a local, county, state, and national level.

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