

Title of Intervention: Coping skills training and problem-solving in diabetes for high-risk youth

Intervention Strategies: Group Education, Supportive Relationships, Individual Education

Purpose of the Intervention: To improve metabolic and psychosocial outcomes through training

Population: English-speaking youth between the ages 10 and 14 who have a family history of diabetes and a body mass index greater than the 95th percentile

Setting: Middle schools in urban Connecticut; school-based

Partners: School districts, community clinic

Intervention Description:

- **Group Education:** Weekly nutrition classes, each lasting 45 minutes, were taught to children and their parents. Some of the topics included "Multi-cultural pyramids," "Dining out in the fast food lane," "Basics to building better school lunches" and a supermarket tour. The curriculum was designed to be family-centered and culturally-sensitive. Coping skills training was taught along with the nutrition classes. Training included culturally-sensitive weight management materials. There was also an afterschool physical activity program scheduled two days a week for 45 minutes each. Activities included basketball, double-dutch, hip-hop dance, whiffle ball, baseball, Frisbee and walking.
- **Supportive Relationships:** Parents were invited to the weekly nutrition classes and were encouraged to engage in physical activity with their children at least three times a week at home. During the summer, participants received phone calls from the class leaders to reinforce weekly nutrition and exercise goals and coping skills training.
- **Individual Education:** Children created weekly goals, with assistance from the dietitian.

Theory: Social Cognitive Theory

Resources Required:

- **Staff/Volunteers:** School nurse practitioners, a registered dietitian, exercise interventionist
- **Training:** Cognitive skills training for the dietitian
- **Technology:** Not mentioned
- **Space:** Classroom space
- **Budget:** Not mentioned
- **Intervention:** Large exercise balls, two- and five-pound hand weights, jump ropes, resistance bands, pedometers, hip hop dancing videos, sports equipment, free transportation to clinic, curriculum
- **Evaluation:** Surveys

Evaluation:

- **Design:** Quasi-experimental
- **Methods and Measures:**
 - Surveys measured changes in self-efficacy, depression and physical activity.
 - Oral glucose status and body mass indices were measured at screenings.
 - Twenty-four-hour dietary recalls assessed dietary intake.

Outcomes:

- **Short Term Impact:** Self-efficacy related to physical activity improved in the intervention group. Children and parents both reported an improvement in knowledge.
- **Long Term Impact:** Participants receiving the intervention demonstrated trends in lower glucose and insulin levels. The weight and body mass index increased in both groups. The intervention group had a lower rate of gain.

Maintenance: During the summer, telephone support calls were made by course instructors to reinforce weekly goals.

Lessons Learned: Not mentioned

Citation(s):

Grey, M., D. Berry, et al. (2004). "Preliminary testing of a program to prevent type 2 diabetes among high-risk youth." *J Sch Health* 74(1): 10-5.

Grey, M. and D. Berry (2004). "Coping skills training and problem solving in diabetes." *Curr Diab Rep* 4(2): 126-31.