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Eat Smart. Play Hard™ San Luis Obispo: A Nutrition and Fitness Pilot Program for Young Children and Their Adult Buddies

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Abstract: Eat Smart. Play Hard™. San Luis Obispo!, a multi-component primary prevention program targeting low-income, Hispanic children 6-8 years, focuses on promoting healthy dietary and physical activity behaviors using an innovative child-adult buddy system approach. The child-adult buddies participate in multiple activities to increase their consumption of fruits and vegetables, and level of physical activity and decrease their consumption of sweetened beverages. The results of the pilot program show high program satisfaction and improvements in dietary and physical activity behaviors. Such programs provide an opportunity to establish and promote healthy behaviors among young children and ultimately prevent overweight development.

Background

There is a significant need to improve American's dietary and physical activity behaviors in order to combat the recent surge in overweight across the country. This is particularly important among young children as research has shown that eating and activity behaviors during childhood predict these adulthood behaviors (Krebs-Smith, Heimendinger, Patterson, & Subar, 1996).

In San Luis Obispo County, a small, agricultural county with a significant Hispanic population located on California's central coast, 19 and 20.7% of children ages 5 - 19 years have been identified as being at risk for overweight and being overweight, respectively. These percentages are considerably greater than the national data that indicate 15.7 of children ≥ 2 years are at risk for overweight and 14.7% are overweight (CA PedNSS, 2003).

In the American Dietetic Association's recently released position on interventions for pediatric overweight, they highlighted the benefits of multi-component prevention interventions for families with young children and recommended such interventions for reducing childhood overweight. They further noted the lack of family-based primary prevention interventions conducted in community settings; interventions reviewed were predominantly tertiary prevention interventions conducted in clinical or after-school settings (Ritchie, Crawford, Hoelscher, & Sothern, 2006).

The results from a pilot test of a nutrition and fitness primary prevention program with family participation conducted in a community setting are reported here.

Program Description

Eat Smart. Play Hard™. San Luis Obispo! is a 6-week program designed to promote healthful dietary and physical activity behaviors among low-income, Hispanic children ages 6 - 8 years with an adult "buddy." Adult buddies were parents, neighbors, grandparents, and other influential adults in the child's life. The program targeted Hispanic communities within San Luis Obispo County with schools that serve 50% or more free and/or reduced lunches.

Messages and resources from two well-known social marketing campaigns, the USDA Eat Smart. Play Hard.™ and Iowa Nutrition Network and Iowa Department of Public Health Pick a Better Snack™ were used to develop the program curricula. All materials, including the social marketing campaign messages, were translated into Spanish, and a Leader's Guide was written for community members to run the program. Two facilities in the targeted neighborhoods were chosen to hold the program, the Oceano Boys' and Girls' Club and Paso Robles Housing Authority. Staff from these facilities were hired to recruit participants and lead the program.

Because staff members were from the targeted neighborhoods, they were familiar with the community's cultural norms, easily able to establish rapport with the participants, and able to make participants feel safe. Most participants were able to walk to the facility where the program was held. Nine child and adult pairs met for 1 1/2 - 2 hours one weekday night per week for six consecutive weeks. Free childcare was provided for children not participating in the program (i.e., siblings). Funding for the program came from the USDA Food Stamp Nutrition Education Program.

The buddy system approach was unique to this Hispanic population. Each of the six weekly meetings was designed for the child and adult to learn and play together, so that the pair could encourage one another to adopt the learned behaviors into their every day life. The program objectives were to empower the child-adult buddies to:

1. Eat more fruits and vegetables,

2. Replace sweetened beverage consumption with water, and

3. Learn fun and inexpensive ways to be physically active.

These objectives were promoted weekly through a range of activities that included an interactive knowledge center, food demonstrations, and physical activities. The knowledge center focused on a different theme each week. Weekly themes are listed in Figure 1. Eat Smart food demonstrations highlighted easy and inexpensive snacks made with fruits and vegetables, for example watermelon sundaes, confetti bean salsa, lemon coleslaw, and mango sherbet. Healthy snacks were followed by Play Hard activities. Scoop-N-Toss, Catch Me If You Can, Spatula Badminton, and Animals on Parade were some of the activities that focused on working together in non-competitive ways with inexpensive household items adaptable for indoor and outdoor use. Water consumption was encouraged throughout the program.

Figure 1.
Weekly Themes

Week 1 Is it Fruit Juice or a Fruit Drink?
Week 2 Sugar in Sweetened Beverages.
Week 3 Potato Fat Facts.
Week 4 Fat in Popular Snack Foods.*
Week 5 What Does Your Pyramid Look Like?
Week 6 Sugar in Cereal.

* Example: Participants were asked to match the amount of fat with each snack food by placing the appropriate fat tube in front of the correct snack food. Snack foods ranging in fat were displayed.

The program wrapped up each week with a buddy check-in and the completion of a satisfaction survey. Child-adult buddies talked about the ways they would encourage one and other to practice the behaviors they learned. The Power Panther™, the Eat Smart. Play Hard.™ campaign spokescharacter, visited during the 6-week program to remind buddies the importance of eating smart and playing hard.

Evaluation

Eat Smart. Play Hard™. San Luis Obispo! was pilot tested in the summer of 2004. Both impact and process evaluation tools were designed to assess program satisfaction and changes in weekly fruit and vegetable consumption, physical activity, and knowledge. Each week the session began with the child and adult completing a snack and activity evaluation, in which they reported specific snacks and activities they consumed and participated in during the past week.

The evaluation consisted of two one-dimensional pyramids and numerous stickers with various snacks and activities. The stickers were placed on the pyramid at the level that indicated the frequency at which each snack food was eaten or activity was participated in during the past week. Knowledge gain was assessed through change in responses to pre- and post-program quizzes. Table 1 displays participant program satisfaction and behavior and knowledge changes.

Table 1.
Program Satisfaction and Behavior & Knowledge Change Reported by All Participants, Children and Adults (n = 19*)

	%
Described the class as very good or excellent (compared to good, fair, or poor).	100
Reported at least one of the following changes in snacking behaviors: Increased vegetable consumption, increased water consumption, and/or decreased soda and sports drink consumption.	91
Reported I learned 'a lot' in the program (compared with 'some' or 'a little').	89
Reported increasing physical activity from "I do these activities 'not much' or 'some'" to "I do these activities 'lots'."	32
Reported average increase in knowledge score (score based on multiple choice questions about nutrition and physical activity).	22
* There were 14 participants who participated in the program at the Oceano Boys' and Girls' Club and 5 participants (one adult came with two age-appropriate children each week) at the Paso Robles Housing Authority.	

Implications

Eat Smart. Play Hard™. San Luis Obispo! was designed to be a multi-component nutrition and fitness primary prevention program for low-income, Hispanic families with young children. Such programs provide an ideal opportunity to establish healthy behaviors among families with young children and ultimately prevent overweight development. Adult participation in such programs is critical in order to establish healthy behaviors among young children in the home environment.

Key characteristics of the program include the following.

- Program was designed for child-adult buddies to participate together through family-centered learning.
- Curricula used messages and resources from well-known social marketing campaigns.
- Leader's Guide was developed for community members' use to lead the program.
- Program was implemented in a community setting as opposed to a clinic or after-school setting.

References

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