



Parents, Advisors and Children Together (PACT)

Project Information Sheet

Project overview

Parents, Advisors, and Children Together (PACT) was a 1-year intervention to promote healthy lifestyles among families with 2nd grade and 3rd grade students at Body Elementary School. Eighty eight families were randomized to receive the intervention when their child was either in 2nd grade or in 3rd grade. Family advisors met with the intervention families up to 10 times in the families' homes. Families set nutrition and activity goals, and participated in fun activities. Advisors used a coaching approach in working with families. In addition to the family visits, all families received newsletters containing healthy recipes and ideas for increasing physical activity, as well as information about current activities in the San Luis Valley that were supportive of nutrition and physical activity.

- The primary objectives of PACT were consumption of at least 5 servings of fruits and vegetables each day, as recommended by USDA dietary guidelines, and at least 30 minutes of moderate or more intense physical activity 5 or more days a week, as recommended by Healthy People 2010.
- The secondary objectives of PACT were to reduce consumption of fat and saturated fat to healthy amounts, as recommended in the US dietary guidelines, and to reduce television viewing to two hours or less per day, as recommended by the American Association of Pediatrics.

Why? A description of the health problem

The prevalence of childhood obesity has more than tripled in children 6-11 years of age over the past three decades and in preschool children and adolescents it has more than doubled. Both diet and physical activity are known to be related to maintaining a healthy weight and to the prevention of chronic disease. Based on dietary intake and physical activity data, the increase in obesity is likely the result of children eating more calories than they are using through daily physical activity. In addition, the source of calories has changed. Increased consumption of processed and convenience foods high in refined carbohydrates and fat have replaced more nutrient dense foods including fruit, vegetables and whole grains. These lifestyle behaviors develop early in life and are influenced by family members and the home environment. The key to prevention will be to implement changes from many directions – individual, family, community, corporate and government (see Preventing Childhood Obesity at www.iom.edu).

Time line by school year

- 1999-2000: Intervention and protocol development; ethnography conducted with families of young children.
- 2000-2001: Recruitment and baseline data collection on 51% of 172 2nd grade families. 44 of 88 families received the intervention.
- 2001-2002: One-year follow-up data collected (75% response); the delayed intervention group of 44 families (year one control group) received the intervention. Leadership training seminars conducted.
- 2002: 2-year follow-up data was collected (67% response). Qualitative interviews were conducted on a sample of 5 “successful” and 5 “less successful” families and the family advisors. Analysis and manuscripts on-going.

Results

Adults in the treatment group increased fruit and vegetable consumption by approximately two-thirds of a serving size as compared to the control group. Less weight gain, increased activity and, in children, less TV watching was observed. While trends were in the postulated direction for all outcomes except for TV viewing time in adults, low power limits our ability to determine significance.

One-year change in fruit and vegetable consumption, physical activity, television viewing and body mass index: PACT Program preliminary year one data ¹

Outcome Measures in Primary and Secondary Caregivers	Intervention (n=43)	Control (n=48)	p-value
<i>Fruit and vegetable consumption (change in servings/day)</i>			
24 Hour Recall	+ 0.74	- 0.05	0.37
BRFSS	+ 0.65	+ 0.06	0.16
<i>Moderate and Vigorous physical activity (change in min/day)</i>			
Accelerometer	+ 3.30	- 0.20	0.10
<i>TV viewing and video games (change in hours/day)</i>			
Self-report in adults	+ 0.23	0.0	0.44
Primary caregiver report of child	- 0.50	- 0.10	0.23
<i>Overweight</i>			
Weight (change in Kg)	+ 1.90	+ 3.00	0.38
Body Mass Index (BMI; change in kg/m ²)	+ 0.73	+ 1.12	0.42

¹ Only participants with baseline and follow-up data were included in these analyses.

In the qualitative evaluation, most of the adult participants reported behavior changes in at least one healthy habit, i.e., physical activity or nutrition. Caregivers attributed successful behavior change to: a) **the hands-on activities** with the family advisor that influenced their individual perception of preferences or perceived self efficacy; b) **goal-setting**, with the additional **accountability** to and **informational and social support** from an outside person (i.e., the family advisor); and c) having their **awareness raised of their own diet or physical activity behavior**, either from clinic interviews or from receiving results of activity monitor data. Indirectly, some referred to the usefulness of coaching conversations they had had with their family advisor, in assessing what they were already doing well and becoming aware of behaviors that they could improve upon, as well as facilitating family discussions around menu planning. They attributed PACT with a) “jump starting” them to making changes that they had wanted to make previously, but had not acted upon until involvement in PACT; b) reminding them that maintaining healthy habits was important; and c) motivating them to make changes in their healthy habits. Lessons learned from this qualitative evaluation led to changes in the PACT protocol in 3 areas: increased social support for physical activity, deepening the connection between the family and our FVP goals, and improved strategies for dealing with individuals who are not currently inclined to change.

Accomplishments to Date

- 1) Brett J, Heimendinger J, Boender C, Morin C, Marshall JA. Using Ethnography to Improve Intervention Design. *J Health Promotion*, 16(6):331-40,2002
- 2) Heimendinger J, Uyeki T, Andhara A, Marshall JA, Scarbro S, Belansky E, Crane L. Coaching Process Outcomes of a Family Visit Nutrition and Physical Activity Intervention. *Health Education & Behavior* 34:71-89,2007
- 3) NIH funding of the Healthy Family Project 2003-2008 (see related project information sheet)

Primary outcomes paper: Results presented at the National Chronic Disease Control and Prevention Conference 2003 and manuscript in progress. Two unpublished manuscripts available on request: Lessons learned about plate waste measurements; Correlates of physical activity in rural Hispanic and non-Hispanic white residents.

Steering Committee

Julie Marshall, Elaine Belansky, John Brett, Lori Crane, Jerianne Heimendinger, Cathy Morin, Kim Reynolds, Becky Sawyer (data analyst), Sharon Scarbro (data analyst), Jackie Vigil (family advisor coordinator), Terry Uyeki, Anamarie Bourgeois (coaching trainer).

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