Salud America!
The Robert Wood Johnson Foundation Research Network to Prevent Obesity Among Latino Children

RESEARCH BRIEF
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A Family Approach to Promote Positive Lifestyle Choices among Latino Children

Introduction

Obesity is a complex disorder involving biology, physical and social environments, societal structures and cultural determinants.[1,2] It is currently one of the most prevalent chronic health conditions among Latino children.[3,4,5] Many Latino children face a variety of barriers to leading a healthy life, including the lack of affordable healthy foods in their neighborhoods,[6,7,8] dangerous neighborhoods that make being active difficult, a lack of culturally sensitive community activities, a lack of adequate time for either play or food preparation, and the use of food and TV as rewards.[9,10,11] Cost-effective approaches to promote healthy lifestyle choices among Latino youth are needed to reduce the high obesity rates.

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PEER REVIEW
Peer review for this research brief was conducted by *Salud America!* National Advisory Committee Member Nancy Butte, Ph.D., professor of pediatrics at Baylor College of Medicine.

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Family-centered approaches have been successful in supporting healthy eating and physical activity in the family.[12,13,14] This may be particularly helpful in Latino communities, as the Latino culture highly values the extended family that is the core to many behaviors and decisions. These programs encourage the entire family to change their relationship with food and physical activity through parent training, dietary counseling, physical activity and behavioral counseling.[15,16]

PRELIMINARY RESEARCH RESULTS

Our *Salud America!* pilot research project, "A Family Approach to Addressing Lifestyle Decisions Regarding Obesity and Diabetes," is testing the feasibility and effectiveness of a family-centered approach consisting of interactive group classes followed by six months of health coaching. The group classes for Latino families with obese children, known as *Power-Up*, are delivered by an interdisciplinary team that includes a physician, nutritionist, physical therapist and health educator. *Power-Up* consists of five sessions over five weeks to harness "strength of family" to encourage sustainable change and accountability, covering topics in nutrition, exercise, emotion and lifestyle.

Health coaching is delivered by a Latina medical assistant who knows the community, using a coaching style modeled on a successful adult diabetes program, but tailored to include the child and family and focused on age-appropriate opportunities and solutions. Coaching helps children and their families find age-appropriate places for physical activity and access resources that enable healthy food choices. By providing concrete assistance, the hope is that families will be better able to use established community resources.

Our study design entails an intervention group and a waitlist control group. Outcome measures include body mass index (BMI), waist circumference, skinfold, physical activity, dietary assessment, quality of life and metabolic markers. Our project has enrolled 34 obese Latino children ages 9-12 (23 intervention and 11 control) so far. Most parents have limited English proficiency. The average BMIs are 28.1 among girls and 32.5 among boys, both above the 97th percentile. Our preliminary results include:

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- **Group classes and health coaching can be well-attended by Latinos.** Our project has a 96 percent retention rate thus far, and 70 percent of participants are attending at least 4 of 5 educational sessions and meeting with the lifestyle coach by phone or in person every 2-3 weeks. We believe this indicates a high level of program solubility, possibly because of strong cultural sensitivity and adaptability.

- **In the intervention's group classes, children and parents are assimilating nutritional knowledge.** Preliminary nutritional survey data taken before and after the group educational series show that the intervention is increasing nutritional knowledge of both the child and parent. Parent participants have an increased awareness of healthy nutritional habits for their children: replacement of whole milk with skim/non-fat milk (25% change); reduction in juice intake (25% decrease); reduction in soda intake (58.3% decrease); and increased number of home-cooked meals (16.7% increase).

- **Study participants have lower quality of life than healthy children.** The quality of life assessment, PedsQL™, is a well validated survey that measures children's physical, emotional, social, and school functioning. On average, our participants are scoring lower on both child and parent-proxy assessments than are healthy children. This illustrates the psychosocial toll obesity has on this population (see Table). Our participants and their parent-proxies are scoring similarly to pediatric cancer or diabetic patients.[17,18,19]

- **Our obese Latino children are at higher risk for cardiovascular disease and diabetes.** Our study's preliminary data revealed several abnormal biomarkers that indicate Latino children are at high risk for cardiovascular disease and type 2 diabetes. Nearly 57 percent of our participants had elevations in Hemoglobin A_{1C} levels (between 5.7% and 6.5%), an indication of risk for developing diabetes. Of the 23 intervention participants on whom data are currently available, two had elevated cholesterol levels, seven had decreased HDL levels and 15 had elevated triglycerides. Half our participants had elevated inflammatory markers.

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[18] Varni JW, et al. "The PedsQL™ in Pediatric Cancer: Reliability and Validity of the Pediatric Quality of Life Inventory™ Generic Core Scales, Multidimensional Fatigue Scale, and Cancer Module." *Cancer*, 94:2090-2106, 2002.
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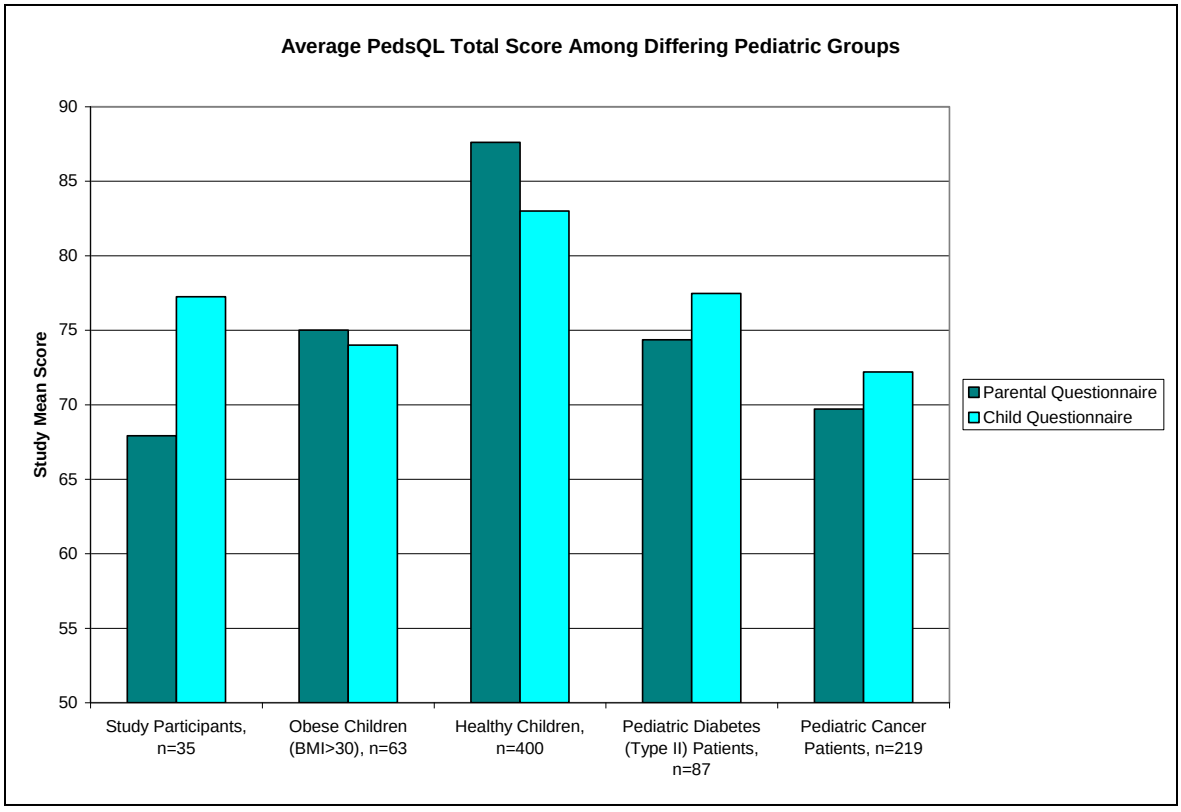

Conclusion and Policy Implications

For a Latino population at high risk of obesity, heart disease and diabetes, we have developed a family-centered program that has been well-attended and increased awareness of healthy nutritional habits. Our project promises to inform health care providers and policymakers in Chelsea, Mass., a community where 75 percent of children are Latino.[20] The work is presently being shared with *Healthy Chelsea*, a community coalition to address obesity in Chelsea, to help leverage community action. If this family-centered approach combining group classes and health coaching is successful, it will be disseminated through the Disparities Solution Center at Massachusetts General Hospital, a key organizational player in translating disparities research into social and clinical practice. This includes third-party payers who, given recent health care reform legislation, are considering reimbursing for heath coaches and navigators. We believe that health coaches are key to addressing lifestyle diseases among Latino populations. Addressing reimbursement for these services is a

[20] U.S. Department of Health and Human Services. Behavioral risk factor surveillance system. Available at: http://www.cdc.gov/brfss/.

critical step in transforming the medical system to a more efficient and successful system. While changes to the community and society are needed to address childhood obesity, treatment options for individuals must be developed in concert with community level changes to address this epidemic on a personal level.