

Using Media Messaging to Promote Healthful Eating and Physical Activity among Urban Youth

B. J. Carter, MS, Child Health Initiative,
Preventive Medicine Institute/Strang
Cancer Prevention Center, New York, NY

Amanda S. Birnbaum, PhD, MPH,★
Institute for Prevention Research,
Department of Public Health, Weill
Cornell Medical Center, 411 East 69th
St, KB-209, New York, NY 10021;
Tel: (212) 746-1270;
Fax: (212) 746-8390;
E-mail: asb2006@med.cornell.edu

Lisa Hark, PhD, RD, Nutrition
Education and Prevention Program,
University of Pennsylvania School of
Medicine, Philadelphia, PA

Brian Vickery, MD, Department of
Pediatrics, Weill Cornell Medical Center,
New York, NY

Charles Potter, BM, Department of
Informatics, Preventive Medicine
Institute/Strang Cancer Prevention
Center, New York, NY

Michael P. Osborne, MD, Preventive
Medicine Institute/Strang Cancer
Prevention Center, New York, NY

(*J Nutr Educ Behav.* 2005;37:98-99.)

★Author for correspondence

INTRODUCTION

National trends show consistent increases, as well as racial and ethnic disparities, in the prevalence of overweight children and adolescents.¹ Such disparities are evident regarding behaviors such as a poor diet and a lack of physical activity and in the prevalence and outcomes of associated health problems.²⁻⁴ It has been suggested that grounding interventions in cultural traditions and norms is critical for preventing obesity among ethnic and racial minority youth; however, with some notable exceptions, few community interventions have used this approach.⁵ Moreover, urban minority youth may face additional barriers to healthful eating and physical activity behaviors, such as limited environmental and social support systems.^{4,6,7} Thus, there is a great need for culturally relevant community-based programs to serve them.

This program was supported by MetLife Foundation. Data input and analysis were supported by The Irving Weinstein Foundation.

HEALTHY CHILDREN HEALTHY FUTURES: PROGRAM DEVELOPMENT

In response to this need, Healthy Children Healthy Futures (HCHF) was developed and piloted in 3 US cities: Atlanta, Georgia, Los Angeles, California, and New York, New York. The overarching goal was to create a replicable program for under-represented minority youth to become advocates—through schools, families, and communities—for healthful eating and physical activity. To achieve this goal, HCHF first developed a set of 8 behavioral targets and then trained boys and girls ages 9 to 12 years in the creative and technical skills needed to turn the behavioral targets into youth-designed media messages, giving them a process and a forum for advocacy. Media messaging involved developing healthful eating and physical activity messages for a variety of outlets, such as print, posters, radio spots, and animated videotapes.

The purpose of this article is to describe the “8 Habits of Healthy Kids,” the program centerpiece that provided the behavioral targets on which participants built their media messages. It was based on behavioral theory (Social Learning Theory and Theory of Reasoned Action), input from the HCHF’s Expert Advisory Board, and extensive formative assessment to make the program culturally relevant and engaging. HCHF staff in the 3 cities conducted separate focus groups with 110 representative 9 to 12 year olds (12 groups) and 90 parents (10 groups). The focus groups revealed several barriers to healthful eating and physical activity that were common to all communities. Youth cited peer influence and unavailability of healthful foods at home and school as deterrents to healthful eating, reported that healthful food tasted “nasty or gross,” and stated that they or their friends lacked the interest or motivation to be physically active. Parents identified poor adult role modeling, a lack of targeted nutrition information, peer influences, and children’s “addiction” to junk and fast food as barriers to healthful eating. They cited safety and time barriers as reasons for not encouraging their children to be more physically active.

Integrating these findings with expert input and behavioral theory,

HCHF staff developed the “8 Habits of Healthy Kids” (Figure). Consistent with recommendations from health education research,⁸ the 8 habits are behaviorally based and specify concrete measurable goals. The full HCHF program consisted of a 12- to 20-session curriculum delivered during after-school programs, which provided nutrition and physical activity education and hands-on activities, as well as media messaging skill-building and participatory activities related to the 8 habits.

PROGRAM IMPLEMENTATION

HCHF was developed for after-school programs and was designed to be adaptable to a variety of environments and schedules. After attending a 1-day training, site facilitators implemented the program at 10 after-school sites. Facilitator guidebooks were provided to cover the 7 phases of HCHF: (1) Healthy Snacks and Physical Activity, (2) The 8 Habits of Healthy Kids, (3) Media Literacy, (4) Developing Messages, (5) Creating Media, (6) Recognition and Celebration, and (7) Parent Participation. These phases were integrated throughout the sessions, culminating in a variety of participant-created health messages, including print and radio advertisements and animated 30-second spots, each based on 1 of the 8 Habits. Widely publicized local events



Figure. 8 Habits of Healthy Kids.

were held to present the media messages to peers, parents, and school and community groups. Afterward, the print advertisements were displayed in school classrooms and hallways, and school-wide events and videotapes featuring the animated messages were shown in venues such as parent organizations, community events, conferences, and child health clinic waiting areas.

Across the 3 cities, HCHF was implemented with 380 participants: 44% African American, 32% Hispanic, 13% Asian, 6% multiethnic/multiracial, and 3% other. With its multiethnic, multi-regional focus, HCHF would likely be applicable and relevant in other urban areas as well.

PROGRAM EVALUATION

Pre- and posttest surveys administered before and after program implementation assessed participants' nutrition and physical activity knowledge, focusing on the 8 habits. The HCHF program contained 12 to 20 sessions of content for a 12-week span, but scheduling issues, such as school vacations, led to longer implementation periods at most sites, resulting in a 6-month interval between pre- and posttest surveys. Two hundred eight pretest and 174 posttest surveys were completed, with 93 participants completing both. To assess the program's impact on participants with the greatest dose of program exposure, we analyzed knowledge changes among the 93 participants with complete pre- and posttest data. Paired *t* tests comparing mean changes from pre- to posttest indicated significant improvements in knowledge related to physical activity, fruits and vegetables, and television

viewing and borderline significant improvements in portion size knowledge.

CONCLUSIONS

The current crisis of poor diet, inactivity, overweight, and obesity among young people supports the importance of programs promoting healthful eating and physical activity. However, challenges remain to identify feasible, effective programs and to ensure program relevance and efficacy for urban minority youth. HCHF, designed specifically for this population, was well received by participants and program leaders, and the survey suggests possible positive effects. A toolkit for program replication to be used in conjunction with facilitator training has been developed. Current program activities in the 3 cities include implementing an innovative parent program in HCHF communities and developing a more rigorous evaluation protocol that includes a control group and uses validated behavioral outcome measures.

ACKNOWLEDGMENTS

This program was supported by MetLife Foundation. Data input and analysis were supported by The Irving Weinstein Foundation. The authors wish to thank our program partners, Mentoring USA, After-School All-Stars, LA's Best, The After School Corporation (TASC), New York City Department of Education; program facilitators and participants in Atlanta, Los Angeles, and New York; our advisory board; our media partner, AnimAction, Inc.; and Richard Sawyer, PhD.

REFERENCES

1. Ogden CL, Flegal KM, Carroll MD, Johnson CL. Prevalence and trends in overweight among US children and adolescents, 1999-2000. *JAMA* 2002;288:1728-1732.
2. Smedley BD, Stith AY, Nelson AR, eds. Unequal treatment: confronting racial and ethnic disparities in health care. Washington, DC: National Academy Press; 2003.
3. Strauss RS, Pollack HA. Epidemic increase in childhood overweight, 1986-1998. *JAMA* 2001;286:2845-2848.
4. Gordon-Larsen P, McMurray RG, Popkin BM. Determinants of adolescent physical activity and inactivity patterns. *Pediatrics* 2000;105:e83-e89.
5. Crawford PB, Story M, Wang MC, Ritchie LD, Sabry ZI. Ethnic issues in the epidemiology of childhood obesity. *Pediatr Clin North Am* 2001;48:855-878.
6. Resnicow K, Yaroch AL, Davis A, et al. GO GIRLS!: results from a nutrition and physical activity program for low-income, overweight African American adolescent females. *Health Educ Behav* 2000;27:616-631.
7. Diez Roux AV. Residential environments and cardiovascular risk. *J Urban Health* 2003;80:569-589.
8. Contento I, Balch G, Bronner YL, et al. The effectiveness of nutrition education and implications for nutrition education policy, programs, and research: a review of research. *J Nutr Educ* 1995;27:297-369.