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Environmental and policy approaches to increasing physical activity:

Improving access to places for physical activity and dissemination of information

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Abstract

The Centers for Disease Control and Prevention's (CDC) Racial and Ethnic Approaches to Community Health (REACH) program funded 40 communities in the United States during 1999–2007. Three of these communities implemented interventions to increase physical activity among African Americans. This case study looks at these interventions and the evidence-based recommendations from the CDC's Community Guide for Preventive Services. These recommendations address creating or improving access to physical activity and the dissemination of information via media campaigns. Findings suggest that although the evidence could not be applied in every respect, culturally-tailored change strategies can meet unique characteristics of African Americans with or at risk for heart disease and may contribute to increased physical activity.

Keywords

African Americans; evidence-based practice; exercise; health promotion; organizational case studies; public health

Description

In the United States, heart disease is the leading cause of death; African Americans bear the preponderance of this disease (1). In 2005, deaths amongst African Americans from heart disease exceeded the US rate by 31% and African Americans were 1.3 times more likely to die from heart disease than their white counterparts (2). Furthermore, research has demonstrated a strong relationship between exercise and lowered risk for heart disease and its complications (2).

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Three *Racial and Ethnic Approaches to Community Health* (REACH) community-based programs focused on increasing physical activity among African Americans with or at risk for heart disease:

- the Healthy Hearts Project, *Have a Blast with a Splash* (University of Nevada, Reno);
- the Association of Black Cardiologists' Physical Activity Program (Fulton County Department of Health and Wellness [FCHW], Atlanta, Georgia); and
- Wellness Within REACH: Mind, Body, and Soul (African American Health Coalition, Inc., Portland, Oregon).

These community coalitions implemented multi-component interventions to enhance existing physical activity programs or to create new programs accessible to African Americans. The University of Nevada, Reno, implemented year-round aquatic classes in kickboxing, Pilates, Tai Chi, yoga, and ball workouts. FCHW provided weekly aerobic classes at faith-based organizations and recreation centers. Similarly, the African American Health Coalition offered classes in water aerobics, Pilates, yoga, strength training, African dance, and low-high impact aerobics. The African American Health Coalition's classes were led by African American Lay Health Trainers, certified 'personal' fitness instructors.

The communities conducted media campaigns with information on physical activity that were culturally tailored to resonate with African Americans. They were disseminated through television, radio, newspapers, newsletters, direct mail, and billboards.

Evidence

The recommendations provided by the *Guide to Community Preventive Services: What Works to Promote Health* are based on evidence collected in a rigorous, systematic review of published studies from the United States and other countries (3). This case study focuses on the Community Guide's environmental and policy approaches designed to create or improve access to places for physical activity and on the dissemination of information to increase physical activity.

The Community Guide's reviews and recommendations are available to those interested in implementing evidence-based community health interventions (4). The systematic review methods and rationale are described in detail in the Community Guide (3). In brief, the review processes and recommendations are managed and directed by the Task Force on Community Preventive Services, an independent group of volunteer, nongovernmental, public health and prevention experts, whose members are appointed by the CDC Director (4).

The Community Guide recommends improving access to places for physical activity and disseminating information associated with the environmental and policy approaches to increasing physical activity. These multi-component interventions involve the efforts of work sites, coalitions, agencies, and communities (3).

Analysis

This case study used quantitative and qualitative data to assess physical activity and health promotion information provided to African Americans. The REACH Risk Factor Survey (RFS) telephone interviews were conducted annually among REACH communities. Each year, an average of 1,000 African American residents aged 18 years or older was interviewed. The percentage of African Americans that met physical activity recommendations (i.e. moderate activity at least 30 minutes per day, five days per week, or vigorous physical activity at least 20 minutes per day, three days per week) was examined for each community (5). The REACH Information Network (REACH IN) database contains more than four years of REACH communities' annual and semiannual progress reports. These data were used for qualitative analysis (6).

This case study selected REACH communities that solely addressed heart disease among African Americans with the aim to create or improve access to physical activity and health promotion information. Three communities met these criteria, although their strategies to increase physical activity varied.

The University of Nevada, Reno, implemented the *Have a Blast with a Splash* intervention. At the conclusion of the program's fourth year, more than 100 African Americans were enrolled (6). This intervention provided education and information on physical activity during the community-based *Ounce of Prevention* workshops held in 35 faith-based organizations. Approximately 334 individuals attended the six-week workshops (6). In addition, radio health promotion public service announcements were disseminated to a listening audience of approximately 160,000. This met the University of Nevada's objective of increasing awareness and knowledge of the risk factors for heart disease and the importance of modifying unhealthy behaviors. Printed health promotion materials also were disseminated to 80 faith-based organizations. This included posters, billboards, and bus shelter signage (6). These collective interventions contributed to a 7% increase of self-reported physical activity among University of Nevada community residents from year one (30.9%) to year four (37.9%) (5).

The FCHW offered low-impact aerobic classes and educational presentations through its partnership with the Association of Black Cardiologists. The classes, led by certified aerobics instructors, were conducted in 18 churches three times each week during ten-week intervals. More than 565 participants attended (6). Access to FCHW aerobic classes, social marketing strategies, and volunteer health education sessions contributed to a 9.2% increase from year one (25.4%) to year four (29.3%) (5).

By the end of year four, more than 1,300 Portland, Oregon, community members had participated in the Wellness Within REACH program, with an average of 227 participants per month (6). Health promotion information was delivered to an estimated 3500 African Americans participating in Oregon's statewide Medicaid managed-care health plan and more than 9000 Prevention Within REACH mailings were distributed to African Americans (6). The RFS data demonstrated that overtime physical activity in African Americans increased by 0.6% from year one (37.8%) to year four (38.4%) (5).

The Community Guide is not specific enough to guide every aspect of intervention planning. It does not provide information on materials needed, cost or suggest steps on how to implement the intervention. Also not widely available in the evidence is the 'net benefit' of the intervention, the economic impact, or any identification to overcoming barriers to the intervention implementation.

All three REACH communities culturally-tailored the evidence because it could not be applied in every respect. This included using African American community members as fitness instructors, providing individuals with personal fitness instructors to ensure accountability, and recognizing faith-based organizations as agents for health change.

Going beyond the Community Guide, the REACH communities also successfully used the following strategies to implement physical activity programs and distribute information:

- provide participants with telephone reminders of program activities;
- award consistent program participants with additional incentives;
- rotate instructors to keep class participants interested and motivated;
- provide individual personal fitness trainers to ensure accountability;
- change venues at the end of each intervention cycle so that programs are offered in various areas of the same community;
- address local government system changes that allow community programs to solicit contract proposals and award funds to sustain programs for more than one year; and
- conduct an annual community-wide walking event to sustain free physical activity classes.

Conclusion

The Community Guide is the most comprehensive and up-to-date collection of evidence-based approaches to health promotion and chronic disease prevention accessible via the Internet. Although the Community Guide recommendations are for general populations and are considered applicable to diverse groups, there is not enough specificity to guide every aspect of intervention planning (3). It does not provide information on the program design, specific intervention strategies, or necessary implementation resources. Details, challenges, and demonstrated solutions associated with intervention implementation are not provided in detail.

In an effort to engage African Americans in physical activity, the REACH communities used the Community Guide evidence-based strategies and made them culturally relevant to meet their program goals. An evaluation of these strategies found African Americans did increase their physical activity. However, the influence of other community activities also may have contributed to the behavioral changes that were self-reported by participants in the REACH Risk Factor Survey.

The data indicates that the use of culturally tailored evidence-based approaches to meet the unique needs of a given racial and ethnic population can be effective in increasing physical activity in that population. An expanded application of similar approaches in public health practice will provide additional evidence that similar strategies could be a positive factor in addressing health equity in racial and ethnic populations.

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