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Evaluation of community coalitions ability to create safe, effective exercise classes for older adults

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Abstract

This paper describes the evaluation of the Active Aging Community Task Force (AACTF) project that fostered the development of 25 community coalitions charged with creating safe and effective exercise classes for older adults. Periodic progress reports, site visits, personal interviews, and standardized questionnaires formulated the process evaluation. Functional fitness assessments were conducted on exercise class participants to document changes in fitness over time. Over 5 years, 36 workshops to train exercise class instructors were conducted, 153 new exercise classes were created, and over 7000 older adults participated in these classes. After 12–24 weeks of exercise class participation, consistent gains were observed in low back/hip range of motion, agility/dynamic balance, leg strength, and upper arm strength. AACTF members generally agreed/strongly agreed with statements regarding their coalition leader's competence, performance, support, and control, and they also gave high ratings for their coalition's progress toward meeting its objectives. No adverse events were reported for any AACTF exercise class participant. The adaptation of evaluation processes previously used to assess community coalition's prevention efforts proved successful and the information provided via these processes was of tremendous benefit in identifying areas of needed modification. The data also indicated that the AACTFs were effective in establishing safe and effective exercise classes for older adults.

Keywords: Exercise; Older adults; Community coalition; Evaluation

1. Introduction

The physical and mental health and physical fitness benefits of regular physical activity are well documented (U.S. Department of Health and Human Services, 1996). Unfortunately, more than one-half of adults in the US report not meeting the public health recommendations for physical activity with persons over the age of 50 years (i.e., older adults) reporting the highest levels of insufficient physical activity (Centers for Disease Control and Prevention, 2003). As long as older adults remain inactive, they will experience accelerated losses in physical fitness, health and function that will: (1) render them more dependent on care, (2) put them at higher risk for several chronic conditions, (3) make them less likely to pursue leisure-time physical activity, and (4) increase their likelihood of consuming health care (Hooker, 2002).

One vital component of physical fitness that should be of primary concern to older adults is muscle strength. Muscle strength declines an average of 15–20 percent per decade after age 50 and this can have devastating effects on function and mobility (American College of Sports Medicine, 1998). Indeed, low muscular strength has been associated with a higher prevalence of activity limitations in both men and women (Brill, Macera, Davis, Blair, & Gordon, 2000). Despite the known benefits of strength training, most older adults do not engage in strength-training exercises, including those that meet public health

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recommendations for physical activity (Kruger, Brown, Galuska, & Buchner, 2004). However, effective interventions can help restore or maintain physical fitness attributes, physical function and functional independence thereby retarding the progression towards frailty and disablement (King, Rejeski, & Buchner, 1998). It has been firmly established that older adults participating in a structured exercise routine can significantly improve their muscle strength, as well as other physical fitness components such as aerobic endurance and joint range of motion (American College of Sports Medicine, 1998). One of the most safe and effective means by which older adults can undertake such exercise is as a participant in a group-based class led by a trained fitness instructor (Jones & Clark, 1998.). However, many older adults do not either understand the extensive benefits of strength training, or have easy access to exercise classes that promote muscular strength, or both.

A viable approach to increase community resources, such as exercise classes for older adults, is to improve the community's capacity to develop and sustain such resources and to foster community ownership of the processes to accomplish such a task. Certainly, community coalitions are now an accepted strategy for promoting health through community development (Butterfoss, Goodman, & Wandersman, 1993; Reinert, Carver, & Range, 2005). This paper describes the evaluation of a project to develop 25 coalitions (hereafter referred to as task forces) serving 28 counties charged with creating safe and effective exercise classes for older adults in community locations where such classes did not exist.

2. Methods

2.1. Active aging community task force (AACTF) project

It was the explicit intent of central program staff to identify a local lead agency that did or could provide services to older adults in one or more of the 25 counties in California that ranked highest with respect to the rate of nonfatal injuries from falls among persons over age 50 years. Administrative and program personnel from the local health department and the Area Agency on Aging (AAA) were contacted to determine their interest and willingness to serve as the local lead agency for an AACTF. Regardless of whether the AAA or local health department agreed to serve as the local lead agency with fiscal, administrative and programmatic oversight of the project, it was expected that the other organization would serve as a key partner and member of the AACTF. This arrangement fostered collaboration and coordination among agencies not traditionally engaged in partnership at the state or local level. In addition, it was not known if AAAs could successfully organize and manage a coalition focused on promoting physical activity, a role more commonly assumed by public health, exercise/fitness, or healthcare professionals. In this respect, central program staff viewed the AACTF project as an opportunity to enhance coalition development and management skills in AAAs thereby positioning them to assume additional community leadership roles pertaining to future physical activity initiatives.

In 2000, three AAAs and one local health department established AACTFs and served as pilot sites. As additional funding was secured in 2001–03, another nine AAAs and nine local health departments agreed to organize an AACTF to serve older adults in other counties identified with the highest rates of nonfatal injuries due to falls in older adults. To date, these 22 local lead agencies have implemented AACTF activities in each of the 25 "high risk" counties as well as three additional counties.

2.1.1. AACTF objectives

As they agreed to participate, each local lead agency was provided $16,000 over a 2-year period to support their AACTF efforts. The primary objectives for each AACTF were to:

(1) raise awareness among older adults and their service and care providers about the benefits of physical activity and strength training for reducing the risk of chronic diseases (e.g., osteoporosis) and falls and maintaining functional capacity and independence;
(2) increase the number of existing and new older adult exercise classes incorporating resistance exercises to improve muscle strength, bone health, balance and mobility; and
(3) increase the number of trained personnel available to instruct safe and effective older adult exercise classes in diverse community settings.

A safe exercise class was one in which older adults were able to perform the instructor-led activities and movements without incurring an injury or other adverse event (e.g., dizziness or heart problem). An effective exercise class was defined as one in which older adults were able to achieve gains in functional fitness (e.g., muscle strength or cardiovascular fitness) as a result of regular participation.

Central program staff anticipated that the number of exercise classes developed would vary among sites depending on the: (1) capability of lead agency staff to effectively organize and manage a local coalition, (2) readiness of community partners to provide physical space for exercise classes, (3) availability of experienced exercise class instructors to serve as trainers and mentors to newly trained instructors, (4) willingness of persons to be trained as exercise class instructors, (5) ability of the AACTF to leverage grant funds to obtain additional resources, (6) existence of efficient channels to reach and involve persons over age 50, and (7) the population density of older adults in the area served (i.e., rural versus urban location). Therefore, there were no minimum requirements for the AACTFs with regard to number of instructors to be trained, classes to be created, or participants to be recruited. Success was defined as having more exercise