

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.

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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

classes for older adults at the end of the project than at the beginning with each AACTF given the latitude to set individual goals.

2.1.2. *Training and technical assistance*

Central program staff provided orientation and ongoing technical assistance to local lead agency personnel responsible for organizing and managing an AACTF. Local lead agency staff and AACTF members were also provided access to external consultants who were experienced in delivering exercise classes to older adults. Monthly group teleconferences and annual individual site visits were conducted to facilitate problem solving, information exchange, and general program support and recognition. Using these communication channels, local lead agency staff were provided information on likely community partners and AACTF members, potential sites for exercise classes, recruitment methods and incentives for class participants, equipment and supplies needed for exercise classes, liability and safety issues, traits and skills of an effective exercise class instructor, essential components of an exercise class for older adults, ways to offer no- or low-cost exercise classes, and anticipated challenges to success. Over time, program processes and products developed at one site were shared with other sites for adaptation to their specific circumstances.

Central program staff and external consultants also provided guidance for each AACTF to conduct workshops to train instructors for existing and new exercise classes for older adults. Content for the workshops was based on national curriculum standards for preparing older adult fitness instructors (Jones & Clark, 1998) and accepted professional standards and principles for developing a safe and effective exercise class for older adults (American

College of Sports Medicine, 1995; American College of Sports Medicine, 1998; National Institute on Aging, 1998). These workshops ranged from 4 to 16 h and included both didactic and practical teaching methods. In 2002, 2003 and 2005, two-day AACTF conferences were held to highlight program accomplishments, present methods to overcome various challenges, share lessons learned, and discuss program sustainability. Local lead agency staff, local AACTF members, and program consultants played central roles in organizing and presenting information at these conferences. This forum allowed for significant in-person interaction among AACTF staff and members from all program sites.

2.2. *Evaluation procedures*

2.2.1. *AACTF evaluation*

Evaluation data were gathered at 6 and 12 months after the date that each AACTF was established. At 12 months, a standardized survey was completed anonymously by AACTF members. The survey was adopted from tools previously used to assess a coalition's stage of development and effectiveness in achieving its objectives (Goldstein, 1997), as well as a coalition leader's competence, performance, support, and control based on committee members' perspectives (Butterfoss, Goodman, & Wandersman, 1996). Several survey items were scored with a five-point Likert scale with one being strongly disagree and five being strongly agree. AACTF members were asked to assign letter grades (A–F) to items pertaining to the achievement of coalition objectives. A letter grade of A indicated a high level of agreement in achieving the objective and a letter grade of F indicated a high level of disagreement. Survey items are listed in Table 1.

Table 1
Items assessed with the Active Aging Community Task Force (AACTF) self-assessment survey completed by task force members^a

Coalition leader competence, performance, support, and control^b

1. The AACTF members share similar values
2. The AACTF members share concerns similar to my own
3. The AACTF members care about each other
4. The AACTF has had success at changing policies and programs
5. The AACTF has helped bring changes that will influence future generations
6. The AACTF keeps trying to make changes even if initial attempts do not produce visible results
7. The concerns of the AACTF come first before concerns of individual members goals and objectives
8. AACTF members follow-through with tasks and responsibilities
9. The collective efforts of the AACTF can improve the quality of life for older adults

Achieving Objectives^c

1. The AACTF successfully promoted the benefits of strength training for older adults
2. The AACTF successfully initiated older adult programming that provides strength training classes for older adults and encourages healthy lifestyle changes
3. The AACTF positioned itself as an important and well-recognized advocacy group in the community

^aTask force members were allowed to self-interpret the meaning of each statement and specific words in each statement (e.g., “success” or “important”)—definitions were not provided.

^bLevel of agreement with each statement was rated on a 1–5 Likert scale.

^cAbility to achieve each objective was rated with an A to F letter grade.

At 6-month intervals, local lead agency staff submitted progress reports to central program staff in response to a standardized form with a list of topics to address and several open-ended questions. Information was requested on the composition of the AACTF (e.g., number of members, local agency or organization members represented), number and description of formal AACTF outreach activities and meetings, and the number of exercise instructor training workshops conducted, training workshop participants, exercise classes created, and class participants. A description of the location of the new exercise classes and the days and times the classes were scheduled was also provided. Open-ended queries pertained to project challenges, accomplishments, lessons learned, products developed, potential adverse events experienced by class participants, and future plans. Conversations and observations during individual site visits also assisted with gathering information that served to help evaluate each AACTF's progress.

2.2.2. Exercise class participants

To determine if the exercise classes provided benefits to older adults, a functional fitness assessment was administered by trained local lead agency staff and AACTF members at four sites. The assessments were conducted with participants prior to and after attending exercise classes for 3–6 months. These functional fitness assessments, which have been proven valid and reliable in a nationwide sample of over 5000 older adults of varying functional capacity, measured upper arm and leg muscle strength, cardiovascular fitness, flexibility, agility, and balance (Rikli & Jones, 1999). To ensure anonymity of the participants, only aggregate pre-post functional fitness data were provided by the local lead agency to central program staff.

AACTFs used sign up forms to gather each exercise class participant's name, gender, address, phone number and age to document class size and profile and to communicate with participants as needed (e.g., change in class day or time or during extended periods of unexpected absence from the class). Informed consent and waiver forms and procedures approved by site-specific legal counsel were also implemented with each participant. Exercise class data provided to central program staff in progress reports was summarized and void of all personal identifiers.

3. Results

Each local lead agency organized an AACTF comprised of representatives from diverse community agencies and organizations (see Table 2). Over the 5-year period, the 25 AACTFs conducted 36 workshops to train exercise class instructors. Four hundred and sixteen persons attended these workshops although it was not anticipated that all of them would become an exercise class instructor due to a variety of reasons (e.g., unwilling or unable to make a commitment or only attended as the administrator of a

Table 2

Active Aging Community Task Force (AACTF) membership and settings for older adult exercise classes^a

AACTF members (various organizations represented across sites)

Community hospitals
Health and fitness clubs
Local nonprofit organizations
Area agencies on aging
County public health departments
Universities/colleges/adult education departments
Assisted living and skilled nursing facilities
Senior housing complexes
Rehabilitation clinics
Parks and recreation departments
California senior legislators
In-home health services
Nutrition services
Fire departments
Consulting firms
City and county planners
Law enforcement
Emergency services
Citizen advisory boards

Various settings for newly created exercise classes

Senior centers
Community centers
Congregate meal sites
Faith-based facilities
Assisted living/skilled nursing facilities
Retirement communities
Health and fitness facilities
Community hospitals
Rehabilitation clinics
Senior mobile home parks
Senior housing complexes
Parks and recreation facilities
Junior colleges/universities

^aBased on responses of local lead agency staff to queries as contained in progress report forms and information obtained during site visits and personal interviews.

potential exercise class host site). However, as a result of these efforts, 153 new exercise classes for older adults were created and an additional 81 formerly established classes for older adults incorporated strength and mobility exercises that were not previously included in the class. The vast majority of the exercise classes formed met for 1 h, 2 days per week. Classes were organized with a warm-up segment, followed by several exercises to promote muscle strength, balance and range of motion, and ending with a cool-down phase. Music was typically used to add variety and tempo to the classes. In addition, instructors utilized one-, two- and five-pound hand weights, bags filled with rice or beans, water-filled bottles, elastic bands, and other means to create variable resistance to movements.

Based on progress reports provided by the 22 local lead agencies, these classes served approximately 7200 persons with an average age of 70–84 years across sites. According to progress reports, a majority of class participants were female (65–76%) and white (60%); however, several classes

across sites served predominantly one racial/ethnic group including African American/Black, Hispanic/Latino, Native American and Filipino older adults. Interestingly, the functional capacity of class participants was evenly distributed among persons who were ambulatory without assistance (34%), ambulatory with assistance (33%) and chair-bound (33%). This probably reflects the age range of the participants and the diverse settings in which the classes were offered (see Table 2).

Fig. 1 displays the results from the self-assessment surveys administered 12 months after an AACTF was formed for approximately 50% of the pool of potential respondents. In general, AACTF members completing the survey ($N = 90$) agreed or strongly agreed with statements regarding their coalition leader's (i.e., the lead agency staff person assigned as project coordinator) competence, performance, support, and control of the group's efforts. In addition, AACTF members ($N = 86$) who responded gave high grades with regard to their coalition's progress toward achieving its objectives. When asked about the

objective of successfully promoting the benefits of physical activity for seniors, 46%, 36% and 14% of AACTF members who provided data gave their AACTF grades of A–C, respectively. Likewise, for the objective of successfully initiating exercise classes for older adults, 52%, 27% and 14% of these respondents awarded marks of A–C, respectively. When considering if their AACTF had positioned itself as an important and well-recognized advocacy group in their community, 52%, 32% and 8% of these AACTF members assigned grades of A–C, respectively. The responses were very similar across sites.

Table 3 shows the results from functional fitness tests completed by a sample of 167 older adults participating in 14 newly established classes across four of the sites. At baseline, functional fitness scores ranked between the 5th and 25th percentile on all measures indicating very poor to poor baseline functional fitness for the participants in these classes. After 12–24 weeks of exercise class participation, improvements were noted for between four and six functional fitness components with consistent gains

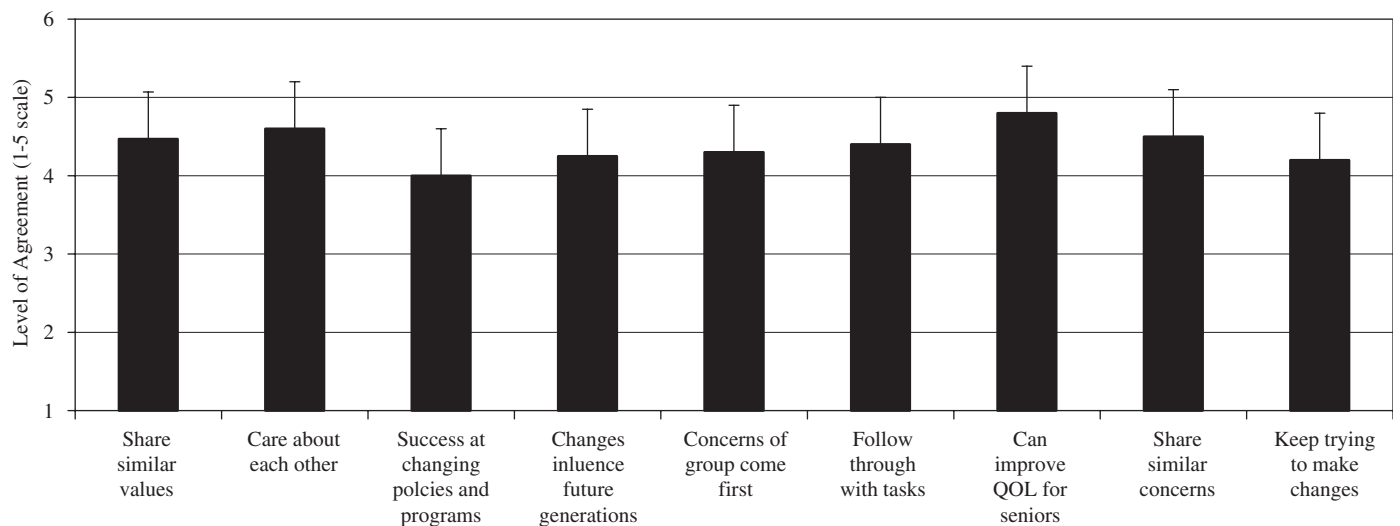


Fig. 1. Active Aging Community Task Force member responses to the coalition self-assessment survey ($N = 90$), 5 = strongly agree; 1 = strongly disagree.

Table 3

Changes in functional fitness in participants of newly created exercise classes for older adults from four selected Active Aging Community Task Force sites^a

Functional fitness component	Site 1 ^b ($N = 53$)	Site 2 ^c ($N = 26$), %	Site 3 ^d ($N = 44$)	Site 4 ^d ($N = 44$), %
Low back/hip range of motion	+ 61%	+ 331	+ 34%	+ 141
Cardiovascular fitness	+ 24%	- 13	+ 13%	+ 76
Upper arm strength	+ 20%	+ 12	+ 28%	+ 33
Leg strength	+ 6%	+ 18	+ 37%	+ 24
Shoulder range of motion	0%	- 2	+ 12%	+ 79
Agility/dynamic balance	— ^e	+ 17	— ^e	+ 77

^aResults were submitted by each site in aggregate form to ensure confidentiality of participants. This precluded additional statistical analyses of these data.

^bFunctional fitness assessments performed before and after 12 weeks of exercise class participation.

^cFunctional fitness assessments performed before and after 16 weeks of exercise class participation.

^dFunctional fitness assessments performed before and after 24 weeks of exercise class participation.

^eAssessment of this functional fitness component was not conducted at this site.

Table 4

Accomplishments, lessons learned and challenges experienced during the implementation of Active Aging Community Task Force (AACTF) project^a

Challenges/needs

1. Turnover in AACTF leadership and members due to changes in organization or agency personnel
2. Developing a cadre of trained and committed instructors to implement exercise classes for older adults
3. Creating a cadre of trained and committed persons to conduct follow-up supervision of newly-trained class instructors to ensure program compliance and safety
4. Securing a mutual agreement of understanding with community organizations serving as hosts for exercise classes to ensure program compliance and safety
5. Implementing an effective local system of exercise class participant recruitment, screening, assessment, referral, and intervention
6. When needed, developing a sustained means to compensate workshop trainers, class site supervisors, and class instructors

AACTF accomplishments

1. Newly formed partnerships among community-based organizations and professionals
2. Development of referral procedures, screening and assessment tools
3. Development of class starter kits for organizations agreeing to host an exercise class
4. Development and distribution of program newsletters, brochures, physical activity resource directories, resistance training guides, exercise videos
5. Translation of a benefits of physical activity pamphlet into nine languages
6. Communication with thousands of older adults and their caregivers via community outreach and educational activities (health fairs, public service announcements, lectures)
7. Leveraging of program funds and local efforts to obtain small grants from local foundations and pharmaceutical companies
8. Implementation of seminars and trainings for health care providers and case managers
9. Initiation of ongoing one-hour cablecast exercise classes three to five times per week in six counties for home-bound older adults or older adults preferring to exercise in a home-based setting
10. No adverse incidents reported for any older adults as a result of their participation in an exercise class
11. Development of a standardized train-the-instructor manual and workshop that was videotaped for dissemination
12. Identification of mentors to provide follow-up supervision and support for newly trained exercise class instructors
13. Formation of exercise class instructor support groups and continuing education classes
14. Expansion of AACTF efforts to support older adult walking groups and/or fall prevention programs
15. AACTFs received international, national and state recognition for implementing the project in their communities
16. Physical activity specialist positions were created within Area Agencies on Aging to implement and expand AACTF activities.
17. Area Agency on Aging boards approved Older Americans Act Title III–F funds be dedicated specifically to physical activity programming

Lessons learned

1. Area Agencies on Aging effectively served as the local lead agency for a coalition focused on promoting physical activity and creating new exercise classes for older adults
2. Clinical representation on the task forces was substantial and enthusiastic, especially by doctors and physical therapists
3. AACTFs were able to garner additional resources and in-kind contributions to support their efforts
4. AACTFs were able to safely engage high risk and frail seniors in exercise classes
5. Many community organizations were willing to host classes without compensation
6. Many persons were willing to be trained and lead exercise classes without compensation

^aBased on responses of local lead agency staff to open-ended queries as contained in progress report forms and information obtained during site visits and personal interviews.

observed in low back/hip range of motion (+34 to +331%), agility/dynamic balance (+17 to +77%), and upper arm strength (+12 to +33%). More variable gains were noted between the four sites for cardiovascular fitness (−13 to +76%), shoulder range of motion (−2 to +79%), and leg strength (+6 to +37%).

A review of progress reports and responses from local lead agency staff to open-ended queries uncovered several program accomplishments, lessons learned, and challenges to program compliance and sustainability. A summary of this information is provided in Table 4. Some sites experienced challenges associated with ensuring program compliance by both community organizations hosting exercise classes and persons trained and assigned as exercise class instructors. As a result, several policies and procedures were established by the AACTFs to ensure the

safety of older adults (e.g., under accomplishments see development of screening, assessment and referral procedures; class starter kits; and identification of mentors for exercise class instructors). As many of the older adults were of extremely poor functional fitness when enrolling in the class, it is especially noteworthy that there were no reported adverse events for several thousand participants in exercise classes created and supervised by the AACTFs. The greatest challenge faced by sites was the ongoing ability to sustain newly created classes as a result of issues pertaining to instructor turnover and compensation.

4. Discussion

The primary objective of the AACTF was to facilitate the organization of local coalitions and their efforts in

establishing safe and effective exercise classes for older adults to improve their muscle strength and enhance functional capacity. A combination of quantitative and qualitative procedures was utilized across three levels of the project to evaluate the extent to which this objective was achieved. At one level of evaluation, local lead agency staff supplied input on challenges, lessons learned and accomplishments. On another level, the AACTF members provided information pertaining to their coalition leader's competence, performance, support and control, as well as feedback on their AACTF's progress toward meeting project objectives. Finally, data at the individual level were obtained to monitor changes in functional fitness as a result of participating in an exercise class for older adults.

The 12-month self-assessment survey that was used by AACTF members enabled objective scoring of items of interest. The use of a five-point Likert scale and letter grades to provide feedback on coalition function and progress has been successfully used in the past with coalitions focusing on diverse health issues (Butterfoss et al., 1996; Goldstein, 1997; Reinert et al., 2005). The results must be viewed with some caution, however, because the validity and reliability of these surveys have not been formally established. Nevertheless, the findings from this project indicate that such a survey can be used by a coalition whose primary aim is to promote exercise/physical activity. It should be noted that one major advantage of using such a survey is that the information can be used to improve the effectiveness of coalition leaders (Goldstein, 1997). In the current project, central program staff collated the data and provided a summary of the results to local lead agency staff for their consideration. Another benefit to obtaining feedback from coalition members is to foster their satisfaction and commitment (Reinert et al., 2005). However, these factors were not assessed in the AACTF project.

It was apparent from the data received from the self-assessment survey that AACTF members had high praise for their coalition's leadership. Scores revealed that AACTF members primarily agreed or strongly agreed with all of the statements regarding their coalition leader's competence, performance, support and control (see Fig. 1). AACTF members were also of strong opinion that after 12 months the coalition had made substantial progress in meeting its objectives. Only 50% of the potential respondent pool of AACTF members returned these surveys raising the possibility of biased (Choi and Pak, 2005) and/or socially desirable (DeVellis, 2003) responses. However, despite the overall favorable ratings, room for improvement was clearly identified for certain areas indicating unbiased input from a number of respondents. Overall, these results indicate that both AAAs and local health departments have the ability to effectively and efficiently organize and manage coalitions to develop exercise classes for older adults.

Each AACTF was faced with similar challenges at varying times. The primary challenges communicated by

local lead agency staff were developing a cadre of trained persons to deliver exercise classes for older adults, organizing a group of persons that could serve as mentors for these newly trained instructors, guaranteeing compliance to established guidelines and agreements by both organizations hosting exercise classes and instructors to ensure participant safety, and recruiting and retaining class participants. These challenges arose during the pilot phase of the project enabling policies and procedures developed early in the project to be adopted and expanded upon by AACTFs organized in subsequent years. One sign of coalition effectiveness is the ability to identify challenges and/or needs and to develop solutions to address them (Butterfoss et al., 1993). By inviting persons with diverse experience and expertise and access to resources, and allowing these persons to be meaningfully engaged in coalition activities, the AACTFs were able to overcome most challenges that arose over time. In fact, many of the items listed under Accomplishments and Lessons Learned in Table 4 were in direct response to a particular challenge. For example, the development of a standardized curriculum for the train-the-instructor workshop helped meet the challenge of developing a cadre of trained exercise class instructors across all sites. During the pilot phase, through conversations with local lead agency staff and site visits, it was discovered that physical therapists and certified fitness instructors were extremely interested and available to assist with training and mentoring of exercise class instructors, as well as in being class instructors themselves. This learned lesson alerted ensuing AACTFs to actively seek the involvement of these professionals to enhance their capability to achieve the project's objectives. When considering the absolute numbers of train-the-instructor workshops (36), persons attending these workshops (416), new older adult exercise classes created (153), and exercise class participants (7200), it is justifiable to state that the AACTFs were very capable of meeting their objectives and the overall project was a success. However, one of the best indicators of success and effectiveness would be significant benefits derived by exercise class participants. To evaluate this component, a functional fitness assessment proven valid and reliable for older adults across a spectrum of functional capabilities (Rikli & Jones, 1999) was administered. This assessment was also selected because the tests could be administered by trained local lead agency staff; did not require much time, space, or equipment; and could be administered to a group of six to 10 persons simultaneously. In addition, the tests are sensitive to small changes that may occur within an older adult undertaking physical training for fitness and/or rehabilitation. The functional tests also assessed fitness components that would be emphasized during the older adult exercise classes

Based on several years of research with randomized, clinical control trials (American College of Sports Medicine, 1998; King et al., 1998), central program staff were confident that if exercise class instructors included proven

exercise-training principles in their routines (which were provided to them during the train-the-instructor workshops), then class participants would exhibit improvements in functional fitness after several weeks of training. This was indeed the case as substantial improvements were noted for each of the functional fitness components (see Table 3). This was not unexpected due to the very low levels of functional fitness these older adults exhibited at baseline. However, the results did vary for class participants across the four selected sites, particularly for cardiovascular fitness, shoulder range of motion, and leg strength. In addition, changes noted for these three functional fitness indicators showed either a lack of or only minimal improvement for participants from specific sites. The reasons for the differing outcomes in functional fitness across sites could not be determined by the evaluation procedures implemented in this project. Regardless, in practice, these data provided excellent feedback for local lead agency staff and class instructors to make immediate modifications in exercise class routines to emphasize the areas of least improvement. The data also helped inform enhancements in train-the-instructor workshops to better prepare instructors in offering a more balanced set of exercises and movements addressing all areas of functional fitness.

One of the AACTF project's creeds was "do no harm"; meaning that the exercise class instructors needed to be skilled in demonstrating exercises and monitoring participants to ensure proper technique and reduce the risk of muscle/joint strain or injury or other potential disabling conditions. The evaluation processes (i.e., group teleconferences, site visits, and progress reports) allowed for gathering of information pertaining to the occurrence of adverse events of any nature experienced by exercise class participants. It is especially noteworthy that over the 5-year project period there were no adverse events reported for any older adult as a result of their participation in one of the exercise classes instituted by an AACTF. These results were based on self-report information provided by local lead agency staff that could not be fully independently confirmed. However, central program staff had no reason to question the validity of these self-report findings due to the consistency of information also provided during conversations with AACTF members and exercise class instructors. Therefore, the authors are confident in claiming that the AACTFs were successful in developing *safe* and effective exercise classes for older adults. The authors also wish to state that it is essential for community groups to understand the potential benefits and risks to persons undertaking regular physical activity or structured exercise and to establish evaluation procedures to monitor the outcomes of both.

The evaluation system utilized in the AACTF project included a combination of process and outcome levels. The present system also relied on information from a variety of sources: in-person conversations with local lead agency staff and coalition members, written reports, archival

documents, and mailed surveys to local lead agency staff and coalition members. These sources are similar to those used by others when evaluating the efforts of prevention coalitions (Florin, Mitchell, Stevenson, & Klein, 2000; Reinert et al., 2005). However, the definitive indicator of any community prevention coalition's effectiveness will be changes in behavior or health at the individual and/or population level (Butterfoss et al., 1993). Therefore, an additional level of evaluation added to this project was that of assessing the functional fitness of exercise class participants who were the ultimate recipients of the AACTF's efforts. Community coalitions focused on promoting physical activity or exercise should, if possible, measure changes in individual physical activity or fitness in those participating in programs. For this reason, coalitions with physical activity as a priority should include members with physical activity behavior and/or physical fitness measurement expertise. In the AACTF project, local lead agency staff were keen on inviting university faculty, exercise/fitness specialists, and physical therapists who had experience and expertise in physical fitness assessment, exercise class instruction and/or fitness training principles (especially as applied to older adults). These persons were vital to overseeing implementation of the functional fitness assessments as well as appropriate training techniques.

Due to the limited resources provided to each site, central program staff were hesitant to add any additional evaluation requirements. However, if resources had allowed, a standardized questionnaire could also have been administered to the train-the-instructor workshop participants, exercise class instructors, and key personnel from agencies and organizations that hosted exercise classes. Formal feedback from these persons would have been helpful in quantifying the effectiveness of the train-the-instructor workshops and instructor mentors and further evaluating the competence of local lead agency staff. However, despite the absence of a formal evaluation system for these components, input was received through less formal processes of spontaneous in-person conversations with workshop participants, class instructors, and community partners during site visits and the annual AACTF conferences. One should not underestimate the potential importance of information obtained through less formal methods. Indeed, in the context of evaluating community coalitions and their activities, it has been stated that multiple sources of information greatly reduce the chances that vital information will be overlooked (Reinert et al., 2005).

In summary, the present paper describes the procedures used to evaluate the effectiveness of community coalitions to develop safe and effective exercise classes for older adults. The adaptation of evaluation systems previously used to assess community coalition's prevention efforts proved successful (Butterfoss et al., 1996; Goldstein, 1997; Reinert et al., 2005). The data also indicate that the AACTFs were highly effective in achieving their objectives, and the information provided via the evaluation system

was of tremendous benefit in identifying areas of needed modification. The evaluation system used in this project is easily replicable and can be implemented with limited resources. However, it is strongly recommended that coalitions wishing to evaluate the impact of their physical activity promotion efforts involve persons with physical activity or fitness assessment expertise especially suited for the target setting (e.g., school or worksite) and/or priority population (e.g., adolescents or older adults). This will ensure the inclusion of an additional level of evaluation that can provide vital information on the effectiveness of the coalition's efforts upon individuals and populations.

5. Lessons learned

Process evaluation methods applied previously to community disease prevention coalitions can provide meaningful information to determine if local lead agencies can effectively organize a coalition for the purpose of developing safe and effective exercise classes for older adults. Less formal, qualitative methods of obtaining information proved very helpful in verifying and supplementing data gathered through the more formal evaluation procedures. AAAs and local health departments can both be successful in organizing a community coalition to achieve program goals and objectives such as those embedded within the AACTF project. Including persons with physical activity behavior and/or physical fitness measurement expertise on prevention coalitions with physical activity/exercise emphases greatly enhances the evaluation of such community-based efforts.

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