

Community Agency Survey Formative Research Results From the TAAG Study

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School and community agency collaboration can potentially increase physical activity opportunities for youth. Few studies have examined the role of community agencies in promoting physical activity, much less in collaboration with schools. This article describes formative research data collection from community agencies to inform the development of the Trial of Activity for Adolescent Girls (TAAG) intervention to provide out-of-school physical activity programs for girls. The community agency survey is designed to assess agency capacity to provide physical activity programs for girls, including resources, programs, and partnerships. Most agency respondents ($n = 138$) report operations' after-school hours, adequate facilities, and program options for girls, although most are sport oriented. Agency resources and programming vary considerably across the six TAAG field sites. Many agencies report partnerships, some involving schools, although not necessarily related to physical activity. Implications for the TAAG intervention are presented.

Keywords: *physical activity; community agency; school and community collaboration*

Increasing physical activity in all age groups is a major goal for promoting the nation's health (U.S. Department of Health and Human Services, 2000). Youth are encouraged to accumulate at least 60 min of moderate to vigorous physical activity on most days of the week (Cavill, Biddle, & Sallis, 2001). Many adolescents, particularly girls, do not meet these recommendations. In addition, physical activity declines beginning in late elementary school and continues into adulthood (Centers for Disease Control and Prevention, 2000). Females are less active than males at all ages and experience a particularly striking decline in physical activity during adolescence (Kimm et al., 2002).

Experts have recommended a variety of school- and community-based strategies to increase physical activity levels in youth (Centers for Disease Control and Prevention, 1997; U.S. Department of Health and Human Services, 1996; U.S. Department of Health and Human Services, U.S. Department of Education, 2000). One potential strategy for promoting physical activity in youth is collaboration between community agencies and schools to provide out-of-school physical activity programs for children (Carnegie Corporation of New York, 1992; Centers for Disease Control and Prevention, 1997; Stone, McKenzie, Welk, & Booth, 1998). Adolescents in Grades 7 to 12 who used a community

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recreation center were 75% more likely to engage in high-level moderate to vigorous physical activity (Gordon-Larsen, McMurray, & Popkin, 2000). However, few studies have been published documenting community agencies as sources for physical activity either alone or in collaboration with schools (Moody et al., 2004).

After-school programming in schools and community agencies is not uncommon, but oftentimes, there is little focus on promoting or increasing physical activity (Halpern, 1999; Kahne et al., 2001). More than 80% of parents in a national survey indicated they wanted their child attending an after-school program (not limited to physical activity programs), yet only 30% of public elementary and middle schools offered after-school programs (Charles Stewart Mott Foundation, 1999). In one study in San Diego County, a minority of recreation centers (41%) provided after-school programs at elementary schools, 11% at middle schools, and none at high schools (Moody et al., 2004), with very few opportunities for physical activity in these school-based after-school programs. Communities may offer a variety of recreation and sports programs for children and adolescents, but many youth do not participate. This may be due, in part, to an emphasis on competitive activities that cater to the more skilled performers while cutting the majority of potential participants from such programs (Pate et al., 2000).

A challenge for providing diverse physical activity programs in community agencies and schools is lack of resources, such as staff, facilities, transportation, and equipment. The development of collaborative relationships between schools and community agencies may be an effective strategy to overcome these limitations. The Trial of Activity for Adolescent Girls (TAAG) is a national multisite study funded by the National Heart, Lung, and Blood Institute at the National Institutes of Health that incorporates an intervention component called Programs for Physical Activity. The focus of this component is to increase physical activity opportunities in the school and community for girls from selected middle schools (Grades 6 to 8) by fostering school and community agency collaboration. Although school and community collaboration is not new, it is a novel component for National Institute of Health intervention trial.

To inform the development of this component of the TAAG intervention, the Community Agency Survey was developed and administered. The primary purpose of the survey was to assess the current capacity of community agencies to provide physical activity opportunities for girls from TAAG schools. Accordingly, the survey included topics on physical activity resources (e.g., facilities, equipment, and staffing), physical activity programs, marketing and communication strategies (e.g., how youth or parents receive information about physical activity programs), accessibility (e.g., daily hours of operation, seasonal programming, and transportation), and collaboration with schools and other agencies.

METHOD

Objectives and Instrument Development

The objectives of the Community Agency Survey were to assess (a) potential TAAG community agency resources and facilities for providing physical activity programs for girls, (b) current physical activity programming, (c) current marketing and communication strategies, (d) descriptive information on agency staff and the organization, and (e) current partnerships with schools or other agencies.

Instrument development was driven by the objectives, which were based on information that interventionists requested early in the planning process. Categories for the Community Agency Survey included (a) respondent characteristics; (b) agency resources, including agency offerings, facilities, internet access, and staffing; (c) physical activity programs and services for adolescent girls, both at the agency and in schools; (d) access to the facility, including hours of operation, seasonal availability, transportation, and funding sources; (e) marketing and communication strategies; and (f) community partnerships. The final survey had 23 items throughout 6 pages and took approximately 30 to 40 min to complete. Input and feedback from TAAG interventionists were sought throughout the instrument development process. The instrument was pilot tested, and all survey administrators received training. Local internal review board procedures were followed at all sites.

Sample and Survey Administration

Community agencies received a survey if they (a) had a physical facility, (b) provided physical activity programs and/or services, and (c) could serve girls from a potential TAAG school. (A potential TAAG school was a school that met the eligibility criteria to participate in the TAAG study but that had not yet been approached with a request to participate in the study.) Agency selections were made at each of the six sites. At least two community agencies were identified for each of 6 to 10 potential TAAG schools at each site. Agencies identified for the survey included park and recreation centers, YMCAs, and Boys and Girls Clubs. Phone calls were made to each identified agency to obtain the name of the key decision maker or person who was responsible for youth programs. Surveys were addressed to these individuals. The survey, along with a self-addressed stamped return envelope, was mailed between July and September 2001. Survey respondents were asked to return the survey within 2 to 3 weeks and were given an incentive determined by the study site for survey return (e.g., a \$10 gift certificate to a sporting goods store). Nonrespondents were telephoned a maximum of three times and sent an additional survey if requested.

Surveys were sent to 248 community agencies (22 to 74 surveys mailed per site); across all sites, 138 community agency representatives completed the survey, for an overall response rate of 56% (range per site was 29% to 81%). Community agencies surveyed ($n = 138$) had been in operation for a median of 30 years, ranging from 1.5 to 150 years. Respondents reported a variety of titles, including director (38%), supervisor (17%), coordinator (16%), and manager (9%). There were equal numbers of male (49%) and female (51%) respondents. Respondents had been in their current positions for a median of 3.5 years, with a range of 0 to 35 years, and in their current field for a median of 12 years, with a range of 1 to 40 years.

Analysis Methods

Each study site collected the completed Community Agency Surveys and mailed them to the Collaborative Studies Coordinating Center at the University of North Carolina at Chapel Hill, where data were entered into an in-house data management system. Descriptive statistics (e.g., frequencies, means, and medians) were used to summarize data by site and across all sites. All data were analyzed using the Statistical Analysis System Version 8.0 (Statistical Analysis System Institute, 1999).

RESULTS

Resources

Resources assessed in the survey included agency offerings, facilities, internet access, and agency staff. Respondent agencies provided a variety of programs and services, including programs at the agency (83%) and outside the agency (60%), programs for youth (99%) and adults (73%), and services at the agency (46%) and outside the agency (30%). More than half of the respondent agencies offered facilities (63%), more than half offered volunteers (59%), and less than half offered financial assistance (42%). A few offered transportation (29%).

Across sites, agencies reported having a wide variety of physical activity facilities available, which for most included a multipurpose room (74%), basketball courts (70%), a gymnasium (59%), sports fields (59%), and dance and exercise rooms (52%). As shown in Table 1, there was variability in the types of facilities by sites. For example, only 24% of agencies in Arizona had sports fields, compared to 47% in California and 73% in Louisiana.

Across all sites, agencies reported a mean of 12.6 full-time staff members (median 4.0, range of 0 to 100) and a mean of 37.0 part-time staff members (median 6.0, range of 0 to 493). Agencies also reported a mean of 18 contractual staff members (e.g., exercise class instructors; median 3, range of 0 to 750) and a mean of 82 volunteer staff members (e.g., sport team coaches; median 8, range of 0 to 3,000). There was variability both across and within sites on a number of staff. Agency respondents reported a mean staff turnover per year of 21% (median 15%, range of 0% to 100%).

Physical Activity Programs and Services for Girls

Agencies were asked to list physical activity programs in which girls ages 11 to 14 participated, the number of girls who participated in each, whether the activity took place on weekdays or weekends, and the season in which the activity occurred (fall, winter, spring, and/or summer). A total of 47 different activity categories were created from the 480 activity programs listed. Across sites, the most commonly reported physical activity programs available to girls included basketball (53%), soccer (32%), dance (29%), and volleyball (26%) (see Table 2). Similarly, respondents reported that physical activity programs most popular with adolescent girls included basketball (26%), dance (18%), soccer (17%), and volleyball (15%). Across sites, 58% of agency respondents (range of 35% to 71%) reported that their agencies provided girl-only physical activity programs.

Most physical activity programs available to girls occurred at the community agency. Schools (32%) were the most common offsite location; other common locations included specialized facilities (e.g., an ice skating rink or tennis center), other centers and/or gyms, and parks. Additionally, 34% reported offering programs, financial support, and/or staffing at middle schools. Most of the school-sponsored programs (89%) occurred after school. Opportunities for physical activity at middle schools varied considerably, with a range of 12% in Louisiana to 57% in Minnesota. Twenty categories of physical activity that occurred at schools were created. Those categories identified most often included, respectively, youth recreation (e.g., sports, games), dance, basketball, team sports, and soccer.

Table 1. Percentage of Facilities Reported at Community Agencies Across all Sites

Facility	Arizona (n = 22)	Maryland (n = 20)	South Carolina (n = 17)	California (n = 17)	Louisiana (n = 33)	Minnesota (n = 30)	All Sites (N = 139)
Multipurpose room	76.2	95.0	82.3	64.7	63.6	70.0	74.1
Basketball courts	47.6	90.0	76.4	58.8	81.8	60.0	69.7
Gymnasium	57.1	70.0	82.3	29.4	54.5	63.3	58.9
Sports field	23.8	70.0	58.8	47.0	72.7	66.6	58.9
Dance/exercise room	47.6	70.0	47.0	64.7	45.5	46.6	51.7
Volleyball courts	47.6	35.0	52.9	29.4	48.4	43.3	43.8
Other	66.7	50.0	47.0	29.4	18.1	56.6	43.1
Swimming pool	38.1	15.0	41.1	35.2	48.4	50.0	39.5
Weight room	52.4	40.0	52.9	23.5	30.3	40.0	38.8
Tennis courts	19.0	35.0	41.1	47.0	39.3	23.3	33.0
Track	38.3	15.0	41.1	5.8	30.3	43.3	30.2
Exercise bikes	33.3	15.0	35.2	17.6	24.2	33.3	26.6
Treadmills	28.6	15.0	29.4	17.6	21.2	30.0	23.7
Racquetball courts	19.0	0.0	23.5	11.7	9.0	16.6	12.9
Wall ball courts	9.5	0.0	5.8	23.5	6.0	13.3	9.3
Skateboard ramp	9.5	0.0	5.8	0.0	0.0	16.6	5.7
Dirt bike moguls	0.0	5.0	5.8	0.0	0.0	3.3	2.1

Table 2. Physical Activity Programs for Girls Offered by Community Agencies and Most Popular Physical Activity Program Among Girls (Average Percentage Across Sites)

Activities Offered	Percentage Reporting (<i>n</i> = 133)	Popular Activities	Percentage Reporting (<i>n</i> = 127)
Basketball	53	Basketball	26
Soccer	32	Dance	18
Dance	29	Soccer	17
Volleyball	26	Volleyball	15
Martial Arts	25	Cheerleading	13
Softball	24	Swimming	13
Cheerleading	23	Camps	11
Gym and fitness	22	Softball	11

Access to Facilities and Programming

More than half (54%) of all community agency respondents reported user fees (fees charged to consumers for particular services) as a source of funding for programming, followed by agency funding (39%). Additional sources of funding came from city, county or parish, state, and federal funds; grants; and other. Again, there was a great deal of site variation.

Across sites, 60% of all physical activity programs available to girls were offered on weekdays, 28% were offered on both weekdays and weekends, and 11% were offered on weekends only. For the weekday-only programs, more than half (56%) occurred during the traditional academic school year (fall, winter, and spring). An exception to this trend was Minnesota, where 49% of all programs were offered on both weekdays and weekends and 39% on weekdays only during the school year. Overall, very few physical activity programs available to girls (25% or less) were offered during the summer.

The majority of agencies across sites (62%) operated from early morning (e.g., 5:30 a.m. or 6:00 a.m.) through evening (e.g., 9:00 pm, 10:00 pm, or 12:00 midnight). An additional 38% of agencies reported operating mainly during after-school hours (e.g., from 2:00 to 7:00 pm). The earliest time agencies opened for operation was 5:00 am; the latest closing time was midnight. A few agencies appeared to be open 24 hr. Data were missing on 42% of surveys concerning Saturday hours of operation and 63% of surveys concerning Sunday hours of operation, which may indicate that these agencies did not operate on Saturday and/or Sunday.

There was much variability in agency reports concerning consistency in hours of operation year round. Across all sites, more than half (59%) of the agencies reported hours of operation that varied at different times of the year, with a range of 29% in California to 95% in Maryland. Most of the adjustment and change to the usual hours of operation occurred during school breaks, summer breaks, and holidays.

Across all respondents, the most common modes of transportation for youth ages 11 to 14 to come to the agency were car (50%) and walking (27%). Few came by school bus (8%) or public transportation (4%). However, as shown in Table 3, there was much variation from site to site.

Table 3. Percentages of Modes of Transportation for Youth Coming to Agencies

Mode of Transportation	Arizona (<i>n</i> = 22)	Maryland (<i>n</i> = 20)	South Carolina (<i>n</i> = 17)	California (<i>n</i> = 17)	Louisiana (<i>n</i> = 33)	Minnesota (<i>n</i> = 30)	All Sites (<i>N</i> = 139)
Car	46.4	34.8	60.0	61.2	46.6	57.7	51.0
Walk	21.2	51.9	14.0	20.6	40.2	15.3	27.8
School bus	16.7	0.0	11.8	2.7	4.1	13.9	8.7
Bike	3.0	4.6	5.1	5.5	4.9	7.0	5.1
Public transportation	5.6	9.6	4.1	1.6	2.1	1.8	3.7
Other	1.8	3.3	5.0	2.8	2.3	4.3	3.2

Marketing and Communication Strategies

Across all respondents, the five most common types of promotion were flyers (96%), word of mouth or verbal communication (88%), brochures (83%), newspaper articles (57%), and mailings to community residents (52%). Other methods included Internet Web pages (43%), newspaper advertisements (43%), public service announcements (41%), class schedules (29%), activity demonstrations (26%), and billboards (15%). However, there was considerable variation among sites. For example, use of newspaper articles was reported by 33% to 100% of agencies at different sites, use of direct mailings by 10% to 77%, use of Internet Web pages by 10% to 62%, use of public service announcements by 30% to 76%, use of newspaper advertisements by 20% to 65%, and use of activity demonstrations by 10% to 53% of agencies at different sites.

Community Partnerships

In addition to offering and/or sponsoring programs at schools, many community agency respondents reported participation in partnerships. The mean number of partnerships for agencies reporting partnership involvement was 2.8; the median number was 2 (range of 0 to 8). The purposes of these partnerships were varied and were not necessarily related to physical activity.

DISCUSSION

The Community Agency Survey revealed several positive indicators about the potential of community agencies to provide quality physical activity programs for adolescent girls, assuming their willingness to collaborate with schools and TAAG university staff in the TAAG intervention. Across all sites, community agencies reported the availability of physical activity facilities and staff, physical activity programs during after-school hours, a variety of methods for promoting programs and events, and a variety of program offerings, including some just for adolescent girls. Many agencies already sponsored physical activity programs at schools. In addition, community agencies reported current involvement in partnerships with schools and other community organizations. These results are congruent with the supportive findings from other studies (Henderson et al., 2001; Moody et al., 2004; National Heart, Lung, and Blood Institute, National Institutes of Health & National Recreation & Park Association, 2000).

Although community agencies appear to be well positioned to provide and promote physical activity for girls, results also revealed variability across community agencies and across study sites in daily and seasonal hours of agency operation, agency staffing patterns, specific types of physical activity programs offered, and funding for programming. Local follow-up as part of the TAAG intervention will further assess these factors and their impact on providing after-school physical activity programs for girls. Issues concerning resources, physical activity programs and services, accessibility of programs, marketing and communication strategies, and partnerships are discussed further below.

Resources

There appeared to be more part-time, contractual, and volunteer staff members at most agencies than full-time staff members. Median staff turnover rates were 15% per year,

with noticeable variability across sites. Supervision is a critical determinant of youth activity participation before, during, and after school (Sallis et al., 2001). Therefore, the TAAG intervention may need to build strategies to address the sufficiency of staff reported at community agencies to expand services beyond current physical activity program levels. Community agencies reported a variety of facilities that support physical activity. Most agencies had a multipurpose room, basketball courts, a gymnasium, and a sports field. However, there was some variability that may be due to regional variations in climate (e.g., the very hot weather in Arizona and cold weather in the eastern regions require greater indoor participation, whereas in California, the moderate temperatures allow for more outdoor activity) and that will likely result in regional variations in programs provided through community agencies. The TAAG intervention will need to address regional climate variations in providing increased physical activity opportunities for girls.

Physical Activity Programs and Services

Although most agencies had physical activity programming available for adolescent girls, many of the programs appeared to be traditional sports-oriented programs that may or may not appeal to large numbers of girls. This is consistent with previous findings (Pate et al., 2000). Studies have shown that male students value greater participation in contact and high-risk sports, whereas girls preferred individual and creative activities (Garcia et al., 1995; Sallis, Zakarian, Hovell, & Hofstetter, 1996). To attract adolescent girls, TAAG will promote the development of physical activity programming that considers possible gender differences.

Accessibility of Programs

Youth cannot be physically active unless they have access to physical activity opportunities. Agencies were open for operation a variety of hours during the day and evening, usually during weekdays of the school year. Less programming is offered on weekends and during summers; these appear to be potential times to provide additional physical activity programming through TAAG. The TAAG intervention will involve working with agencies to explore physical activity program options during these alternate times. Youth usually traveled to agencies by car; other modes of transportation were less common. Many agencies reported relying on user fees for funding of activity programs, although there was much variation. Because of variation across and within sites, transportation and other access barriers will be addressed locally as part of the TAAG intervention. Planning committees (school, agency, and university collaborations) will be incorporated into the TAAG intervention to share resources in addressing financial, transportation, and other access barriers.

Marketing and Communication Strategies

All agencies surveyed had established forms of communication with potential for promoting TAAG physical activity programs. The most commonly cited strategies were flyers, word of mouth, and brochures. However, a variety of additional communication and marketing strategies were identified, with some variability in frequency of use from site to site. Another TAAG intervention component, promotions, will work with the planning

committees and agencies to develop and use messages that promote girl involvement in physical activity opportunities.

Partnerships

Many of the community agencies reported existing partnerships with schools, which was a positive indicator for potential collaboration between schools and community agencies to provide physical activity programs for girls. However, the specific purpose of the reported partnerships and the history of these relationships were not assessed. The development of collaborations between schools and community agencies to provide physical activity programs for girls will vary from community to community and across sites to capitalize on local resources and relationships. The planning committee will be one avenue incorporated by TAAG to address local resources.

Implications for TAAG Intervention

The implications for the TAAG intervention below are based on the assumption that if the surveyed agencies were formally approached by TAAG, they would be willing to participate in the TAAG intervention as found in a survey of parks and recreation agency directors (Moody et al., 2004). At the time of formative research data collection, the selection of TAAG intervention schools had not been made and, therefore, the associated community agencies in the intervention could not be identified. Because some of the agencies surveyed may ultimately be associated with TAAG control schools, it was necessary to provide limited information to the potential community agencies at this time.

Formative research suggested that TAAG could build on the existing physical activity opportunities offered by community agencies by expanding days of facility and program availability (especially during weekends and the summer), increasing the variety of physical activity options for girls and addressing potential barriers to participation (e.g., transportation and fees). The TAAG intervention will incorporate limited amounts of funding to assist schools and agencies to address barriers, such as lack of funds for instructors, equipment, or supervision. In addition, TAAG will emphasize providing programs for girls at schools in addition to community agencies as a way to overcome some barriers to access.

Based on formative research, collaboration between community agencies and schools also appeared to be a viable approach to enhance and expand out-of-school physical activity opportunities for girls. The TAAG Programs for Physical Activity intervention component will incorporate school and community collaborations as a way to increase physical activity opportunities during out-of-school time, including (a) enhancing activity programs currently being offered, (b) expanding current programs and/or developing new programs, and (c) reducing barriers to current programs. Because of the variation among sites, the TAAG Programs for Physical Activity component will provide common guidelines for developing collaborative relationships and standards for quality physical activity programs for girls while building flexibility into the process so that site-specific differences in resources and local school and community preferences may be accommodated.

Areas for Additional Exploration

Enhancing and Expanding Current Programs and Developing New Programs. Agency resource issues that need further exploration at the local level include the capacity of existing staff to increase physical activity programming, skills of existing staff to provide quality physical activity programs for adolescent girls, possible use of volunteers to promote and supervise physical activity programs for girls, effect of agency staff turnover on the provision of quality physical activity programs for girls, and feasibility of agency staff attending TAAG trainings and/or utilizing TAAG resources and guidance. Additional assessment will be needed to determine which girls are participating in existing programs, which girls are not being reached with current programming, girls' satisfaction and enjoyment in existing programs, repeated participation by girls in physical activity programs, and physical activity levels of girls in current programs. It will also be important to learn more about the approach to, commitment to, and success of the relationship-building process between community agencies and schools, particularly for providing physical activity programming for girls.

Reducing Barriers to Programs. Issues for further exploration concerning barriers include the availability of facilities for conducting simultaneous activities. Is the same space converted for use as basketball, volleyball, and tennis courts? Are community agency facilities accessible for physical activity programs for girls, especially during times when competitive sports teams may get preference for use? Are more girls reached through physical activity programs at schools or community agencies? Through the TAAG intervention, opportunities to increase activity programs for girls and the availability of facilities during currently set hours will be explored. Site-specific exploration will be needed to assess the extent to which transportation and user fees may be barriers to girls participating in activity programs.

Limitations

The results of the Community Agency Survey provided descriptive information about community agencies qualified to potentially participate in the TAAG intervention and cannot be generalized beyond that. Identifying agencies to survey was challenging because this phase of formative research was necessarily conducted at a very early stage in the TAAG study to provide information to guide the development of the TAAG intervention components. The community agencies surveyed were identified prior to the assignment of the TAAG intervention schools and therefore prior to the development of collaborations between local schools and community agencies. A different set of agencies than those participating in this formative research may be involved in providing after-school physical activity programs in the TAAG study. The specific agencies involved in the TAAG intervention will not be known until collaboration between agencies and schools to provide TAAG physical activity programs is underway as part of the intervention. The response rate of 56% was relatively low and likely could have been higher had it been possible to share more information about the TAAG project and begin to establish a relationship with these agencies.

Implications for Practice

Formative research may be an important tool to describe community agency resources, access issues, types of programming currently offered for girls, and potential barriers to offering physical activity programs for girls. This study highlighted the variability across- and within-sites TAAAG sites for some factors; the need to collect additional, detailed information at the local level; and the importance of allowing some flexibility among sites to address local variability. In this study, there were promising indicators about current community agency resources, physical activity programming, and relationships with schools. It appears that physical activity programs offered through community agencies have a large potential reach into the community, especially with youth. Potential areas of concern identified in this study that require follow-up include access to agency programs and appeal of current physical activity programs to adolescent girls.

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