Weight Control

Disseminating Health Promotion Practices in After-School Programs Through YMCA Learning Collaboratives

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Abstract

Purpose. *We describe the perceived usefulness of a learning collaborative for translating obesity prevention science into practice at YMCA after-school programs.*

Approach. *We conducted mixed-methods research to identify beneficial aspects of the collaborative and to assess perceived effect of the collaborative on ability to meet goals.*

Setting. *Sixty-one YMCA after-school programs serving roughly 2500 children in 21 states.*

Participants. *After-school program staff attending learning sessions for the collaborative.*

Intervention. *YMCA learning collaboratives comprise a structured organizational change process delivered during 9 to 12 months that aim to empower staff to find local methods for achieving specific program outcomes related to diet and physical activity.*

Research Method. *Eight focus groups conducted during the collaboratives assessed their usefulness. A post hoc Web-based follow-up survey (39 respondents; response rate, 40.6%) assessed final perceived effect.*

Results. *Qualitative and quantitative data were highly positive about the usefulness of the collaborative. The collaboratives' duration, peer learning, multilevel staff involvement, focus on creating a supportive organization, and regular coaching support enabled many respondents to make program and policy changes consistent with project goals. There was consensus that executive-level commitment to the work was critical.*

Conclusion. *Learning collaboratives are a promising tool for embedding health promotion practices in existing after-school programs through a structured organizational change process. (Am J Health Promot 2010;24[3]:190–198.)*

Key Words: Child Overnutrition, Nutrition, Obesity, Prevention and Control, Prevention Research. Manuscript format: research; Research purpose: program evaluation; Study design: nonexperimental, qualitative; Outcome measure: attitudinal; Setting: community, after-school programs, institutional (YMCA); Health focus: physical activity, nutrition, spiritual health; Strategy: skill building/behavior change, policy change, culture change; Target population: adult program staff; Target population circumstances: mixed education level, low/middle income, mixed urban/suburban/rural, multi-ethnic

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INTRODUCTION

Interventions that can alter children's energy balance and dietary quality are urgently needed. Although population-specific estimates vary, one-third of U.S. 2- to 19-year-olds are overweight or obese,[1] and related morbidities are increasing.[2,3] Children's diets include more added sugars but fewer fruits, nutritious vegetables, and whole grains than experts recommend; moreover, increased intake of added sugars seems to be driving increased energy intake.[4] The root of the obesity problem is a widening gap between energy expenditure and energy intake.[5–7] Evidence suggests that multicomponent primary preventive interventions based in schools can produce changes in diet and physical activity and, less often, in adiposity.[8–10] Elements of such programs with robust evidence for adiposity reduction efficacy center on reductions in television viewing[11–13] and in sugar-sweetened beverage consumption.[14,15] Although many studies of preventive strategies tend to focus on individual behavior change (e.g., cognitive-based approaches), environmentally focused strategies involving internal, regulatory, or legislative policy change are increasingly popular.

If the efficacy of overweight primary prevention programs has been modest,[8,10,16] even less is known about how to translate the best interventions into large-scale programs. Translation refers to intentional processes of dissemination (getting target groups to adopt new practices) and implementation (properly carrying out new programs).[17] Although low or no effectiveness can in fact reflect poor implementation (rather than low efficacy per se), this phenomenon is not well documented.[10] However, it deserves attention because translation is complex and there are many steps at which it can unravel.[17–19] An organization needs to overcome inertia to adopt new methods and then must support the transition. Staff such as teachers or food service staff need to learn new techniques and change the way they work. Although organizational changes can theoretically result in improved child behavior and health, ''only when effective practices

and programs are fully implemented should we expect positive outcomes.''[18] Therefore, large-scale programs that can alter energy balance and promote children's health must not only use efficacious strategies but also attend to the complexities of dissemination, adoption, and implementation through methods that promote replicability, fidelity to original design, and sufficient dose. Although significant resources have focused on promoting new practices in schools, the results have been modest.

Many other settings such as after schools, child care programs, and camps, which may have an important role in children's energy imbalance, have untapped potential and have been underutilized to date.[20] After-school programs (ASPs) provide food, physical activity, and other developmental supports to 6.5 million U.S. children annually in a social setting in which staff and child peers can model healthy behavior.[21] Moreover, ASPs care for children for many hours each week, have frequent personal contact with parents, and have greater programmatic flexibility than schools. Several pilot studies[22–25] in ASPs have appeared in recent years, with modest but promising findings in nutrition, physical activity, and television-viewing reduction; their capacity to scale up is not known.

PURPOSE

We report on the perceived usefulness of a learning collaborative for disseminating and facilitating uptake of health promotion practices in YMCA ASPs. A federated organization of more than 2500 local associations, YMCAs provide school-age child care to roughly 400,000 children each year at about 8500 sites located in schools or YMCA facilities. Since 2004, the number of YMCAs involved in efforts to deliver science-based obesity prevention and health promotion methods has steadily grown through a national strategy known as YMCA Activate America (http://www.activateamerica.net).[26] The present article describes early experiences at a subset of these YMCAs using the YMCA's adaptation of the Institute for Healthcare Improvement's Breakthrough Series (BTS) learning collaborative model (http://www.ihi.org). Our study is based on formative and pilot research conducted among staff from 61 YMCA ASPs serving roughly 2500 children in 21 states. We describe how frontline and managerial staff perceived their experience in a learning collaborative designed to facilitate adoption of new program standards.

METHODS

Intervention Design

Context. In 2003, YMCA of the USA convened expert consultants to help develop an innovation strategy to translate current science on chronic disease prevention and health promotion into replicable, sustainable program practices that fit within local branch culture and context. This would provide an improved environment in which members (persons using YMCA programs and services) would have an easier time attaining their health behavior goals than in the current YMCA model. The goal was to change the YMCA experience from simple delivery of fitness, camping, and child care to one in which programs address the difficulties people face meeting health goals by using deeper communication, data-driven decision making, and member involvement in program development.

To improve organizational infrastructure, physical environment, and staff, the YMCA developed training in experimental program development and using data for decision making, as well as in methods of building engagement and community through active listening and motivational interviewing. The methods for doing this were embedded in an adaptation of the learning collaborative model described herein. The work focused on adult fitness facilities and ASPs. This article focuses exclusively on ASPs.

Developed by the Institute for Healthcare Improvement, the BTS learning collaboratives were designed to promote group work among health care settings to implement science-based cost-effective changes.[27] The BTS model is intended to meet service providers ''where they are'' and to engage them in assessing and improving their performance. A starting point for quality improvement is a synthesis of scientific evidence into standard practice guidelines. These guidelines are used to establish explicit improvement aims (program outcomes). Participants devise small tests of process changes and measure their outcomes; when experiments are successful, organizations attempt to integrate the results into standard practice.

Setting. With Institute for Healthcare Improvement coaching, the YMCA adapted the BTS learning collaboratives, developing a model we refer to as the YMCA learning collaboratives (YLCs). To our knowledge, this is the first application of the BTS learning collaboratives to improve physical activity, promote healthy eating, and foster social connectedness in ASP settings. In 2004, the YMCA initiated YLC-1, comprising teams from 43 ASP sites based in 21 states with YMCAs. YMCAs are typically composed of multiple branches overseen by an executive office. After-school programs take place at multiple sites that are managed out of specific branches. Therefore, a YMCA may have six branches, each of which manages five after-school sites, all 30 of which comprise the after-school program. The initial YLC was a formative effort to determine whether the YLC model was appropriate and to identify the best method for implementing the model. Substantial effort and resources were marshaled to track, evaluate, adapt, and improve the YLC during this formative phase. The learnings from this initial experience helped to inform the evolution of the YLC. In 2005, 16 ASP sites from nine YMCAs participated in a subsequent learning collaborative (YLC-2) that differed slightly in its form and content from YLC-1, as described below. All YMCA ASP sites were staffed by YMCA employees and were located in public schools, with few exceptions. Funds for the YLC were provided by participating YMCAs and by corporate foundations (see the ''Acknowledgments'' section).

Intervention. The YLC process consisted of several steps. In prework, executives and staff from YMCAs planning to participate in the YLC worked with the YLC management team to assess and improve their organization's readiness for change. The objective of prework was to ensure that participant organizations understood the YLC aims and were committed to devoting the necessary time and resources to the effort. YMCA executives were told that YLC participation would affect strategic planning, would require executives and staff to reallocate time to participate in the process, and would result in new management and program practices related to chronic disease prevention, data-driven decision making, and member relations. The organizational readiness

for change assessment process was under development in YLC-1 and was refined during YLC-2.

Next, participating YMCAs were asked to formally commit to the YLC charter and change package (CCP), a document that laid out the vision, end points, and benchmarks for success. The specific elements of the CCP evolved from YLC-1 to YLC-2 and reflected specific learning from the first collaboration about success, prioritization, and efficiency. The CCP articulated process and content goals. In terms of process, CCP described a data-driven decision-making model based on (1) collecting important benchmark data (such as enrollment or parent satisfaction rates), (2) using small experiments to test ideas and develop best practices, and (3) using benchmark and experimental data obtained from adults and children to build new programs and practices. Relative to content, for after schools the CCP presented a set of simple science-based nutrition, physical activity, and screen time standards appropriate for the YMCA after-school setting (Figure 1). The standards were drawn from guidelines developed at the Harvard Prevention Research Center (http://www.hsph.harvard.edu/prc/proj_ymca_resources.html). In addition, there were expectations for staff engagement of families and children (''connectedness'') to improve relationships and to promote buy-in and continuity at home. Options for building connectedness included formation of parent-child advisory groups, walking clubs, and special family events. Late in YLC-1, the Harvard Prevention Research Center developed supporting curricular and parent engagement materials for ASP staff. Food and Fun After School became part of the intervention in late YLC-1 and was in use throughout YLC-2 (http://www.hsph.harvard.edu/prc/proj_ymca_resources.html) (Figure 1).

In the next step, YLC began a schedule of learning sessions and action periods. Learning sessions were 2- to 3-day events held in a central location and designed to foster learning from expert to staff and from staff to staff. YLC-1 consisted of four learning sessions during a 12-month period from 2004 to 2005, and YLC-2 was composed of three learning sessions during 9 months from 2005 to 2006. The learning sessions were designed to teach travel team members about the YLC process and expectations, help them identify and access resources, and facilitate social cohesion and accountability within and across ASP sites and YMCAs. Specific sessions included data-driven decision making, active listening skills, interactive workshops, and didactic instruction on nutrition, physical activity, and obesity prevention, as well as peer-to-peer learning on the same topics.

Figure 1
Standards for Healthy Eating, Physical Activity, Advertising, and Screen Time in YMCA After-school Programs Participating in the YMCA Learning Collaboratives

Healthy Eating

1. Offer a fresh fruit or vegetable option every day in programs that are after school, three-a-day in all day holiday and vacation programs
2. Do not serve foods with trans fats
3. Involve kids in snack or meal preparation and clean up
4. Offer water as the primary drink every day
5. Do not serve sugar sweetened drinks
6. Highly encourage staff to participate in all of these healthy eating outcomes with the children

Physical Activity

1. Include moderate, fun, physical activity for every kid every day (30 minutes afterschool programs; 60 minutes holiday and vacation programs) and include out of doors activity whenever possible
2. Offer vigorous, fun, physical activity as an option three times a week (20 minutes each time)
3. Highly encourage staff to participate in physical activities with the kids

Advertising and Screen Time

1. Do not include commercial broadcast TV or commercial movies in YMCA programs for children
2. If included at all, limit computer time to less than one hour per day within YMCA programs for children
3. Review all posters, handouts and other materials used in YMCA programs for children for advertising that may be incongruent with healthy eating and physical activity

During action periods, the 2 to 4 months following each learning session, participants practiced carrying out small experiments and using their findings to build local program models consistent with the new standards for health promotion. The goal was to inculcate skills in creating and sharing knowledge that would become part of the work culture. Teams were encouraged to conduct these program-based experiments using a standardized format from the BTS learning collaboratives called PDSA (plan, do, study, act). The PDSAs were not intended to represent formal evaluation strategies but rather to provide a standardized inquiry method that would empower staff to localize methods of achieving CCP goals. For each PDSA, staff had to identify a problem or hypothesis, plan and carry out an experiment to address it, record the results, study them, and take action based on the results. A particular PDSA might identify a new best practice, a flawed idea, or an idea that needed another round of refinement. Data from PDSAs typically consisted of brief reports from staff, and highlights were shared at learning sessions. As an example, early PDSAs in ASPs often sought to test whether children would accept a snack that included a fruit or vegetable. Positive findings shared at the learning sessions helped to reinforce support for the CCP standards for healthy eating.

Throughout the learning collaborative, the national management team supported the teams through one-on-one and multi-YMCA telephone conference calls and periodic site visits designed to facilitate cross-site sharing and accountability. Each YMCA identified a travel team of three to four staff that attended learning sessions and was responsible for teaching the YLC processes and content among staff on their home teams. Each team chose a leader who provided internal coordination and cohesion on the road and at home.

The differences between YLC-1 and YLC-2 reflected the experience of the first group of ASP sites, the observations of the collaborative management team, and the

formal process evaluation conducted by the external advisors. In YLC-1, learning sessions emphasized didactic learning from experts in the field, as well as presenting child wellness and the childhood obesity epidemic as a coherent rationale for undertaking the work. Participants reported that too much emphasis was placed on the lecture format and not enough on development of practical implementation skills. To address this, the rationale in YLC-2 for undertaking the changes was more focused and was integrated into the learning session content to make more time available for skill-based and peer-to-peer learning. In addition, learnings from specific successes and failures in YLC-1 were shared with YLC-2 participants.

Qualitative Evaluation

To monitor the usefulness of the YLC process, members of the Harvard team (JLW, TFN) led focus groups at the learning sessions. We chose a focus group method over other evaluation strategies to obtain detailed information that could immediately cycle back into the work. Eight focus groups were held as follows: two at YLC-1 learning session 3, four at YLC-1 learning session 4, and two at YLC-2 learning session 2. We were limited by the time constraints of the learning sessions, although no additional groups were considered necessary, as at a point no new themes or concepts emerged. Focus groups were conducted using formal discussion guides and open-ended questions. We were interested in understanding more about the parts of the collaborative structure and process that were successful, or unsuccessful, in promoting the objectives of the YMCA to foster healthy eating, physical activity, and social connectedness for children and families in out-of-school programs. We specifically tested whether staff believed that the YLC was having the desired effect on these outcomes and whether the staff attributed success and challenges to specific mediating processes. Social learning theory[28] provided the general framework for investigation. Our a priori hypothesis was that the YLC provided structure to enhance staff expectancies about changing the program to improve child health and well-being and helped improve group- and self-efficacy, leading to greater insight, innovation, problem solving, and persistence in implementing interventions. We were also interested in whether staff found that the YLC allowed them more freedom to experiment and be creative and provided them with an environment in which trying, failing, and trying again was acceptable and encouraged. Staff were asked to reflect on their experiences of success and failure in the YLC, to describe the effect of participating in the YLC on their work with children and families, and to share recommendations for improving and sustaining the YLC. Discussants were informed that their responses were being written down and that their anonymous input would be summarized for planning and reports. Participants were encouraged to be honest and to speak freely. Focus group protocols were exempt from approval by the Harvard School of Public Health Human Subjects Committee on the basis that they did not meet the threshold for human subjects research.

Participants. Each focus group included 6 to 10 participants who were recruited at the learning session by members of the collaborative management team via written invitations. Although staff were not required to participate in the groups, few declined. No tracking of participation among those who were invited was conducted. Participation in the groups was not compensated, and no benefits to which staff members were otherwise entitled were withheld for nonparticipation. Efforts were made to include team leaders and frontline staff, members of teams at all levels of proficiency, and participants who would be willing to share their views and experiences openly and honestly. Discussants were typically managerial, including ASP site directors and branch- or association-wide program directors. Researchers (JLW, TFN) led the focus group discussions so that participants would be encouraged to speak freely without their comments being directly heard and attributed to them by members of the YMCA collaborative management team.

Data Analysis. Respondent comments were typed in real time using a laptop computer. Clarifications were requested as needed using reflective listening techniques. Notes from the focus group interviews were reviewed by two researchers (JLW and TFN) to identify themes and to summarize them in brief reports to the YMCA collaborative management team. The two readers independently reviewed field notes to identify themes based on frequency, consistency, intensity, and salience of participant comments within and across focus groups. The few discrepancies between the two researchers in the initial analysis of the findings involved the relative emphasis of certain points, which were resolved by consensus consistent with standard practice for analyzing and reporting qualitative research.[29,30] These brief reports included anonymous exemplary quotations from participants to highlight main findings. YMCA staff were not involved in report preparation. Reports were shared, and debriefing was conducted with the YMCA collaborative management team to ensure reliability, transparency, and feedback of process data.

Quantitative Evaluation

In February 2007, we revisited the focus group results to assess their salience following the passage of several months (YLC-2 participants) to a year or more (YLC-1 participants). We also wanted to hear from a broader range of individuals. We reworded focus group findings on nutrition, physical activity, and the experience of being in the learning collaborative into 40 statements with Likert-type 5-level responses (strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree). We sorted the statements by topic and randomly split them into two lists (A or B) so that each respondent would receive a manageable number of statements. We included two items from list A and three items from list B in both lists to gain sample size on items of particular interest and to assess reliability across respondent groups. Confirmatory survey A (CS-A) consisted of 22 items, and CS-B consisted of 23 items.

Participants. The sampling frame comprised travel teams from YLC-1 and from YLC-2. Of 162 email addresses, we excluded 66 that were inactive according to current YMCA staff, indicating the individual was no longer working at that location. The remaining 96 email addresses (77 confirmed active and 19 of unknown status) were randomly assigned via coin toss to CS-A (n = 49) or to CS-B (n = 47). Subjects were emailed an embedded electronic link to the assigned survey (http://www.grapevinesurveys.com). Because the survey was anony-

Table 1
Quotations From Participants in YMCA Learning Collaboratives (YLC)

From Focus Groups
Before this project started, I never thought about food. I just gave the kids pizza.
I was skeptical of what you guys were saying, so I had to try everything out on myself…now I've lost 30 pounds….
I have to be accountable to the kids.
[YLC] helps to reinforce the changes that staff realize they need to make and want to make.
[YLC] has helped to get the best out of our staff…they can explore and experiment….
[I like] understanding what kinds of things work—the need to experiment. It allows some creativity.
We thought the kids were active, but then we tested them and they weren't. We thought we were doing well.
Seeing the results keeps you motivated.
The Y seems to be really doing something in the community.
We had a tradition-based program and needed this new process to bust through that.
From Focus Group Confirmatory Survey Open-Ended Responses
Participating in YLC was a positive career-changing experience.
I can't say enough how much the YMCA learning collaborative means to me and the work that I do. I am so proud to be able to say that I have been part of this work from the very beginning. The outcomes that my team and I have seen are phenomenal!
I felt honored to be a part of such a huge crucial initiative. It really brings you back to what is important: supporting children and families and helping them lead better lives.
This was truly one of the most enjoyable and challenging initiatives that I have been involved in during my 15 years at my Y…enabled me to make some very impactful adjustments in the way we work….
I have been with the YLC from the beginning. I have learned more about children and families in the past 3 years than I have from any college course or 10 years' experience…I have found this work challenging at times, however extremely worth the effort.
I found it the most helpful that the group understood the problems with child care staff workloads and the need to make changes.

mous, all subjects received several survey reminders. The protocol was approved by the Harvard School of Public Health Human Subjects Committee.

Data Analysis. Data were analyzed using descriptive statistics within the Grapevine Surveys system. Because of the small sample sizes, we present findings based on simple means.

RESULTS

Focus Group Findings

According to comments of focus group participants (Table 1), the YLC created an emotional and philosophical climate that was helpful for, although no guarantee of, success. We distilled the following four concepts that are consistent with making significant progress toward the YLCs' process and content goals: awareness, accountability, authority, and patience.

Relative to the first two concepts, individuals spoke about becoming *aware* that standard practices were inadequate or even unhealthy and about developing a sense of *accountability* to other staff, parents, and children. Some expressed sentiments that they belonged to a large community doing important work together.

The third concept, a sense of *authority* to plan for and carry out changes to improve children's health, seemed to be contingent on having actual line authority to do so. Therefore, a personal sense of efficacy to influence organizational change was not separable from a supportive organizational infrastructure.

The final concept was the practice of patience in implementing change. Teams progressed at different rates, and their enthusiasm, or frustration, often varied over time. As recounted at the end of YLC-1, participants reported being impatient to move forward early in the collaborative, but in hindsight they valued the emphasis on moving slowly in a climate of ongoing external coaching and support. In fact, some said ambitious early efforts had met with resistance from parents or other staff that had stalled progress. Some focus group participants believed that they had made mistakes by making unilateral policy decisions early on instead of taking time to experiment and to seek broad buy-in and support.

As people began using the experimentation process and parent-child engagement practices to reach the new health promotion standards, some described their experience in the collaborative as transformative. Norms and values at work changed; people described excitement about having ''permission'' to be creative and to figure out new solutions to old problems. Prior work styles were often described as prescriptive, top down, and manual driven, resulting in difficulty creating necessary or effective change. As a result of the YLC, participants reported that a new organizational value was placed on experimentation that was professionally and personally invigorating. Many found the strength and support to make significant changes to their eating and physical activity behavior. People believed that, by problem solving through experimentation and parent-child engagement, they obtained confidence that they were devising best practices for their local situations. Participants told us that they valued the support of their colleagues on their teams and other teams across the collaborative. As they gained proficiency, they became more and more comfortable and confident of success.

Specific perceived challenges to implementing program change concerned logistics, skills, organizational congruence, and human resource factors. Midway through YLC-1, focus group participants reported that providing healthful snacks was more challenging than expected because of logistical issues such as having to make special shopping trips, not having adequate storage or preparation space, and having no cooperative vendor. Although the experimental pro-

cess helped resolve many of these issues, change was sometimes derailed by competing priorities related to budget, staff schedules, or other aspects of infrastructure. For example, organizational-level data (such as program or participant statistics) were sometimes unavailable, hampering efforts to use such information to drive change. Many staff believed that participation in the YLC added to their existing responsibilities, and although some thought that the new work was worth the temporary extra effort, others were frustrated by this. For example, in installing new skills, some found it difficult at first to incorporate the practice of small experiments into their work, although proficiency improved with time. Indeed, many participants agreed that some staff were unable to transition to the new methods, requiring a rethinking of hiring practices and team development. Finally, consensus emerged that the greatest challenge to the success of the YLC was lack of congruence within the organization about the value of the work. If local association or branch leadership was considered uncommitted to or unsupportive of the YLC goals, little progress was possible at the site level. Specific leadership practices that were described as unsupportive included local YMCA executives who had not visited local programs or who had given insufficient acknowledgment of staff efforts.

Confirmatory Survey

We received 39 CS responses, for an overall response rate of 40.6%. Survey-specific response rates were 32.6% (n = 16) for CS-A and 48.9% (n = 23) for CS-B. Eighteen of 21 YLC-2 contacts (85.7%) completed the survey vs. 21 of 75 YLC-1 contacts (28.0%). The large response difference between the two collaboratives was likely because of the combined effects of staff turnover and greater elapsed time since YLC-1. Twenty-two respondents (56.4%) to the survey recalled participating in a focus group.

The CS generally supported what we had heard in the focus groups, provided additional nuance, and showed that the perceptions of YLC value during the collaboratives held after the learning collaboratives were over (Tables 2–4). Because of the small sample sizes, we were prevented from meaningful stratification by collaborative and prior focus group participation, and the mean scores should be interpreted with caution.

The mean scores across all measures were 4.2 (range, 3.7–4.8) in CS-A and 3.9 (range, 2.5–4.9) in CS-B. We defined a rounded mean score below 2.5 as a negative perception, 2.5 to 3.4 as neutral, and 3.5 or above as positive. In CS-A, all individual mean scores were positive. More variability was evident in CS-B; while 18 of 21 responses were positive (range, 3.5–4.9), the remaining scores were neutral (range, 2.5–3.4) (data not shown).

We also looked at the mean scores for items within each domain we covered (Tables 2 through 4). Items that had low scores are of particular interest because they indicate discordance with what we heard at the focus groups. Three items, all in the implementation section of CS-B (Table 3), fell into this group. The first of these asked about the effect of being in the collaborative on competence (''I was better able to handle challenges to the work…''), and the second asked about the perceived effect of a key tenet of the learning collaborative model (whether ''experimentation and engagement processes help people…buy in to program and policy changes''). The third item with a lower mean score was related to experience with implementing specific changes (''Changing snacks in our program was harder than changing physical activity''). The broad range of responses to these questions indicates how variable the collaborative experience can be, although the number of individuals with negative responses was low.

Two items in CS-A deserve special notice (Table 3). First, only one person responded ''not at all'' (response category one) to the statement ''I made one or more changes in my own behavior (eating, physical activity) because of the YMCA learning collaborative,'' suggesting that the other 15 respondents had modified one or more personal behaviors. Second, all respondents to CS-A indicated that ''Experimentation and engagement have shaped one or more policy/program changes since we started the YMCA learning collaborative'' (i.e., all selected response categories three through five).

In the duplicate items (Table 4), all means were 4.0 or higher. These items show strong ongoing agreement with a belief in the value of the health promotion changes and their acceptability among children (with one person responding negatively to the latter). There was strong agreement that organizational congruence was critical to experiencing the full usefulness of the learning collaborative and to changing the way of work.

DISCUSSION

In efforts to combat childhood obesity and to promote healthy lifestyles among children, interventions with established efficacy need to scale up with fidelity and sustainability for measurable changes in obesity prevalence to occur. Data on the relative benefits of different dissemination methods are lacking. Previous intervention efforts to improve energy balance may have underestimated the important role of organizational infrastructure in promoting quality implementation of new technologies. The YLC process, characterized by a 12-month timeline, intense peer-to-peer interaction, knowledge creation at the local level, involvement of personnel from all organizational ranks, focus on creating a supportive organizational climate, and ongoing regular coaching support, seemed to have several benefits. In addition to reportedly facilitating progress toward health promotion changes in the ASPs that we studied, the YLC was highly acceptable to participants, helped staff change their behavior, and improved job satisfaction among staff. Because recent findings show that the after-school field is beset with problems of high staff turnover and low wages, this spillover effect warrants our attention.[31] The ability of participants to identify specific barriers to program change through the YLC is an additional benefit for cases in which problem identification precipitated the discovery of solutions but may have been a source of unanticipated tension when it did not. Participant comments suggest that awareness, accountability, authority, and patience were staff attributes that developed through and contributed to a successful learning collaborative experience.

We do not mean to imply that learning collaboratives will solve the overweight epidemic. Certainly, there continue to be challenges to their use, many of which are context specific and reflect the circumstances in a given organization. For example, high staff turnover rates in ASPs can challenge the sustainability of new skills. Where experimentation is

Table 2
Survey Domain of Creating Conditions for Success: Mean Item-by-item Responses to the Focus Group Confirmatory Survey

Survey Item	Mean (Range) Score on a Five-point Scale
Survey A (n = 16)	
1. During the collaborative, I felt accountable to my team members and to my colleagues.	4.1 (3–5)
2. The YMCA learning collaborative helped me realize that doing my work without questioning it or experimenting with new ways to do work kept me from doing the best work possible.	4.3 (3–5)
3. The YMCA learning collaborative helped me become more aware of discrepancies between existing program practice and best practice regarding physical activity and nutrition.	4.3 (3–5)
4. The YMCA learning collaborative helped me realize some parents face big challenges in providing healthier food on a consistent basis.	4.3 (2–5)
5. The YMCA learning collaborative helped my team feel empowered to act to improve the health of the children in their program.	4.0 (3–5)
6. The YMCA learning collaborative increased my knowledge, skills, and confidence that I can help change existing unhealthy behaviors in kids' lives.	4.1 (3–5)
7. Knowing we were part of a larger effort that was important to the YMCA movement kept me motivated.	4.2 (3–5)
8. Participation in the YMCA learning collaborative was the driving force behind changing the food we served.	4.4 (4–5)
9. Overall, being in the YMCA learning collaborative was important to staff.	3.7 (3–5)
10. The YMCA learning collaborative helped me realize it's important to go slowly and get buy-in before making program and policy changes, even ones that seem like they'll be easy.	4.6 (3–5)
Survey B (n = 21)	
1. During the collaborative, I felt accountable to the children and families in my program to work toward the high-bar outcomes/environmental standards and to be a good role model.	4.1 (3–5)
2. The sense of accountability during the collaborative helped me stay motivated and keep working.	4.1 (2–5)
3. The YMCA learning collaborative helped me realize I needed to identify logistical constraints that needed to be addressed before we could meet our goals.	4.1 (3–5)
4. The YMCA learning collaborative helped me realize I had biases and assumptions about what children like to eat that were not accurate.	3.6 (1–5)
5. The YMCA learning collaborative helped me realize we could get support from colleagues and community resources with some of the challenges we faced.	3.5 (2–5)
6. The YMCA learning collaborative resonated with concerns I already had about the program, but before the collaborative started, I didn't know what to do about them.	3.5 (1–5)
7. The YMCA learning collaborative supports, like pod calls, coaching calls, learning sessions, and other formal and informal processes, were really helpful for sustaining motivation and focus and working through problems.	3.5 (2–5)
8. Being in the YMCA learning collaborative re-energized me in my work at the Y.	3.5 (1–5)
9. I felt good about getting encouragement to experiment, to try new things, and to be creative.	4.0 (2–5)
10. Seeing the results of our work kept me motivated.	3.9 (2–5)
11. The YMCA learning collaborative helped me realize it's important to be a good role model with respect to healthy eating and physical activity.	4.4 (3–5)
12. During the collaborative, I felt accountable to the children and families in my program to be a good role model.	4.3 (3–5)

practiced regularly, associations may grapple with creating efficient methods of disseminating best practices. Moreover, learning collaboratives require a high level of organizational commitment and are not appropriate in all settings. Nonetheless, it is important to contemplate the likely role of organizational change methods in turning health promotion theory into practice on a large scale. Even the most efficacious intervention cannot produce results if implemented poorly, so dissemination, implementation, and implementation management are critically important for public health practitioners to understand. Indeed, thorough implementation requires attention to two levels of program design, the intervention and the process of carrying it out.[18] Whereas core intervention components are the efficacious practices that comprise the content, wrapped around them are core implementation components, including ''preservice training, ongoing coaching, staff evaluation, program evaluation, and facilitative administrative supports,'' all delivered over an extended period of time.[18(p29)] These components are necessary because practice changes are unlikely in the training-only approach and because the experience of change can be tumultuous and chaotic, so much so that participants may revert to the status quo simply to regain a sense of normalcy.[17,18]

A good change process seems to be one that moves slowly but with guidance, vision, and structure such that it is replicable and promotes fidelity to a goal. Learning collaboratives embody these attributes and seem to be a promising model for widespread change in YMCA ASPs. They can be conducted across or within organizations, contributing to broad dissemination and to internal quality improvement efforts. The positive experience of our participants is consistent with findings suggesting that the process yields benefits that are planned for and unexpected for organizations and staff, including gains in cohesion, motivation, self-efficacy, and accountability.[32] Others have document-

Table 3
Survey Domain of Implementation: Mean Item-by-item Responses to the Focus Group Confirmatory Survey

Survey Item	Mean (Range) Score on a Five-point Scale
Survey A (n = 16)	
11. I made one or more changes in my own behavior (eating, physical activity) because of the YMCA learning collaborative.	3.0 (1–5)
12. I now value experimentation as a means of continually improving our work rather than other methods we used to use.	4.2 (3–5)
13. I now value stakeholder engagement as a means of improving our work.	4.0 (3–5)
14. I've become proficient in experimentation as a result of participating in the YMCA learning collaborative.	3.6 (2–5)
15. Experimentation and engagement have shaped one or more policy/program changes since we started the YMCA learning collaborative.	4.0 (3–5)
16. Snack changes and physical activity program/policy changes are sustainable after the YMCA learning collaborative ends.	4.6 (3–5)
17. Being in the YMCA learning collaborative was ultimately worth the extra work.	4.3 (3–5)
Survey B (n = 21)	
13. I was better able to handle challenges to the work than if the same challenges had come up without the YMCA learning collaborative support system.	3.3 (2–5)
14. The experimentation and engagement processes help people—staff, parents, and kids—buy in to program and policy changes.	3.2 (1–5)
15. The YMCA learning collaborative helped us engage with parents on bringing healthier snacks to programs.	3.5 (2–5)
16. Changing snacks in our program was harder than changing physical activity.	2.5 (1–5)
17. Once you participate in the YMCA learning collaborative and learn this new way of work, there is no going back.	3.7 (1–5)
18. Full implementation of the changes—experimentation, data-driven decision making and the high-bar outcomes/ environmental standards—requires adequate commitment of organizational resources and philosophical commitment at higher organizational levels.	4.5 (3–5)
19. Being in the YMCA learning collaborative added to my workload.	4.2 (1–5)

ed that high-performing teams articulate a shared vision, have sufficient time to achieve aims, and work in settings in which quality improvement efforts are part of the organization's strategic goals.[33] Our study extends the evidence for these benefits to ASPs.

This is a pilot study with certain limitations, including a limited data set. The focus groups were conducted primarily to support an ongoing process evaluation with the objective of providing rapid feedback for quality improvement. Researchers took notes during the group sessions but did not record or transcribe the interviews for more detailed analysis. This methodological limitation may have introduced some bias in the reporting of the findings, although this design choice was made in consideration of the needs of the collaborative management team for real-time feedback and for quality improvement.[29] Although the CS seemed to bolster the focus group findings, threats to validity exist. The response rate to the online survey, while low, was consistent with rates in the meta-analysis of Web-based surveys by Cook et al.[34] Of greater concern is whether the response rate reflected a bias in the type of individual who chose to respond; for example, those with stronger opinions might have replied at higher rates than others. In addition, the individuals eliminated from the sampling frame may have left their jobs because of the YLC. Two mitigating factors bear consideration. First, staff turnover in ASPs is high, and while we cannot rule out a ''survivor'' bias, it cannot completely explain the loss of sample.[31] Second, it is also possible that the response rate was higher (and less

Table 4
Survey Domains of Value of the Changes and Organizational Congruence: Items Included in Both Survey A and Survey B (n = 39)

Survey Item	Mean (Range) Score on a Five-point Scale	
	Survey A	Survey B
1. Children responded positively to the changes brought about through the YMCA learning collaborative.	4.1 (3–5)	4.0 (1–5)
2. The YMCA learning collaborative increased my sense that we can make a difference in kids' families' health through our actions at this program.	4.4 (4–5)	4.1 (2–5)
3. A learning collaborative won't be able to make lasting change if there is disagreement at different levels of the organization about the value of the work.	4.8 (4–5)	4.2 (2–5)
4. A learning collaborative won't be able to make lasting change unless top-level executives provide the kind of support critical for the collaborative team to move forward.	4.8 (4–5)	4.7 (3–5)
5. A learning collaborative won't be able to make lasting change if the changes are the work of a few individuals—the changes need to be embedded in the organizational infrastructure (staffing, budget, mission, etc.).	4.9 (4–5)	4.6 (3–5)

likely to be biased) than the evident rate of 40.6%, as we were unable to verify whether 19 of 96 email addresses that we used were still active.

Because we did not study a comparison condition, we cannot conclude that the YLCs were superior to another method of disseminating health promotion in ASPs. More rigorous evaluation with comparison conditions and child-level outcomes is under way and should shed additional light on the usefulness of this staff-focused organizational change process.

Finally, we emphasize that this study focuses on participants' perceived usefulness of the learning collaborative process rather than on program outcomes per se. Nonetheless, an example of the power of knowledge generated through small experiments may be informative. Several YLC-1 sites found that children enjoy healthy snacks and various new, more inclusive physical activities. Moreover, the use of a student voting system was helpful to programs and empowered children to be actively engaged in identifying new favorites. Anonymous use of Likert-type scales involving smiley or frown faces allowed even nonreaders to make their opinions known. Subsequently, this voting practice was taken up by several programs and was incorporated into our Food and Fun curriculum. Therefore, local knowledge replicated at multiple sites became accepted as a best practice and is being disseminated nationally.

Environmental interventions to improve nutrition and physical activity among children are receiving increasing attention because of their potential for broad effect. In this study, YMCA ASP staff reported that participation in the learning collaboratives facilitated their ability to implement change and was a positive experience. Outcomes research on the amount of change that a collaborative can produce is now needed.

SO WHAT? Implications for Health Promotion Practitioners and Researchers

Based on our findings, learning collaboratives are a promising approach to disseminating health promotion practices within after-school settings. This study seems to indicate that learning collaboratives create conditions that enable and empower staff to incorporate new standards for nutrition, physical activity, and parent engagement into existing programs. Combined with other research, there is preliminary support for the assertion that organizational change methods will be an important determinant of our success in scaling up efficacious chronic disease prevention strategies in child-serving organizations. If this assertion holds true, health promotion practitioners interested in dissemination would be well served by becoming more proficient in the theory and practice of organizational change.

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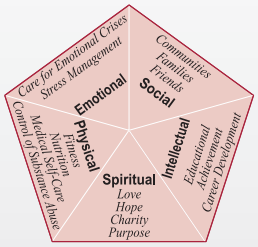

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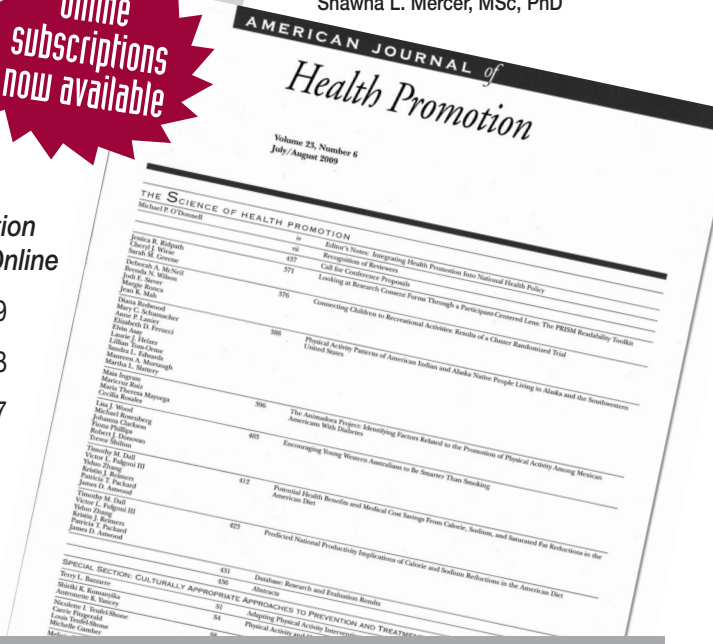

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