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Sustaining a School-Based Prevention Program: Results From the Aban Aya Sustainability Project

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Sustaining effective school-based prevention programs is critical to improving youth and population-based health. This article reports on results from the Aban Aya Sustainability Project, an effort to sustain a school-based prevention program that was tested via a randomized trial and targeted violence, drug use, and risky sex-related behaviors among a cohort of 5th-grade African American children followed through 10th grade. Sustainability project health educators trained parent educators to deliver the Aban Aya prevention curriculum in five schools, and project researchers studied the resultant curricular implementation and relations between the research and school-based teams. Study results showed uneven implementation across the five schools that we largely attributed to parent educator preparation and parent educator-health educator relations. These and related results are discussed to answer the study's primary research question: How viable was the sustainability project's parent-centered approach to sustaining a school-based prevention program?

Keywords: *sustainability; school-based programs; parent involvement; violence; substance use; sex education*

School-based prevention research is an important component of the larger research body in health promotion and disease prevention (Flay, 2002). Many of the problem behaviors that lead to compromised health in adult populations are initiated during childhood (Dryfoos, 1990). The health promotion field posits that prevention and delay of these problem behaviors in childhood will greatly reduce morbidity and mortality (Nutbeam, Aar, & Catford, 1989).

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Health promotion efforts targeting youth often are centered in schools, which are seen as a promising venue for preventive interventions because children spend so much of their time there and because of the school's role as a major socializing institution for youth (Comer, 1988; Flay & Collins, 2005; Trickett & Moos, 1973). Although prevention research has made tremendous advances in its ability to rigorously test the effects of school-based prevention programs (Flay & Collins, 2005), similar advances have not been made in the field's ability to translate efficacious programs into effective and sustained ones (Hansen & Dusenbury, 2001). If efficacious strategies for preventing youth problem behaviors cannot be translated into sustainable school-based prevention programs, the health promotion field will not be successful at using school-based strategies for reducing subsequent morbidity and mortality (Elias, Zins, Weissberg, & Graczyk, 2003; Jenney & Roberts, 2000; Vaughn, Klingner, & Hughes, 2000). Thus, more and better research needs to be conducted on program sustainability in prevention.

This article reports on results of one such study, the Aban Aya Sustainability Project (AASP), a multi-year effort to sustain the Aban Aya Youth Project (AAYP). AAYP was a school- and community-based randomized trial investigating the effects of a multi-component prevention program designed to reduce violence, drug use, and unsafe sex among a cohort of 5th-grade, inner-city African American children followed through 10th grade. AASP worked to sustain AAYP by training parent educators (PEs) to deliver the core intervention component, a classroom-based prevention curriculum, which had been implemented by health educators (HEs) during the AAYP research trial. AASP's investigation centered on three research questions:

1. Implementation: To what extent is the AAYP curricular component implemented as planned?
2. Relations: How do the relations both within and between the research and school teams affect the sustainability project?
3. Viability: To what extent does the parent-centered approach to sustaining AAYP appear viable after AASP's first year?

KEY CONCEPTS IN PROGRAM SUSTAINABILITY

Program continuation has been associated with many terms in the health promotion and related literatures (for reviews, see Pluye, Potvin, & Denis, 2004; Thompson & Winner, 1999). These terms include *sustainability* (Altman, 1995; Johnson, Hays, Center, & Daley, 2004; Paine-Andrews, Fisher, Campuzano, Fawcett, & Berkley-Patton, 2000; Pentz, 2000; Scheirer, 2005; Shediak-Rizkallah & Bone, 1998), *institutionalization* (Goodman & Steckler, 1989; Osganian, Parcel, & Stone, 2003; Steckler & Goodman, 1989), *maintenance* (Lefebvre, 1990; Lytle, Ward, Nader, Pedersen, & Williston, 2003), and *routinization* (Yin, 1979, 1981). Sustainability is the most dynamic approach to program continuation as it considers changes to the program itself, its delivery process, its implementers, its clients, and even its host institution during the continuation process (Shediak-Rizkallah & Bone, 1998). We use this dynamic conceptualization of program continuation, termed *sustainability*, in this article.

Previous research on sustainability has typically viewed the process of program continuation as an end stage in a multistage model for program development, implementation, evaluation, and dissemination (Bracht et al., 1994; Flay, 1986; Goodson, Murphy Smith, Evans, Meyer, & Gottlieb, 2001; O'Loughlin, Renaud, Richard, Sanchez Gomez, & Paradis, 1998). Although it is true that not all programs should be sustained (i.e., program

effects may be limited or programs may not be good fits with their organizational and/or community environments), waiting for end stages in a program's life cycle might not provide sufficient time to mount well-designed sustainability efforts (Goodman & Steckler, 1987-1988; Scheirer, 1990). Hence, preliminary evidence of program effects (combined with organizational and community fit) may be sufficient grounds for initiating the sustainability process (Shediac-Rizkallah & Bone, 1998). Indeed, recent approaches to sustainability have called for building sustainability planning into earlier stages of program development and testing (Johnson et al., 2004; Shediac-Rizkallah & Bone, 1998). One recent approach even views program implementation and sustainability as a concurrent series of events, emphasizing the need to measure implementation during the earliest stages of sustainability efforts, as initial implementation can be predictive of long-term program sustainability (Pluye et al., 2004; Pluye, Potvin, Denis, Pelletier, & Mannoni, 2005).

Several factors suggested in the sustainability literature are particularly important when sustaining school-based prevention programs beyond their research trial period. Because the best-designed school-based prevention programs are now tested via controlled efficacy trails, HEs or research staff external to schools often teach classroom curricula and manage other program components during the trial period (Flay & Collins, 2005). For the potentially important effects of these prevention programs to be sustained beyond the trial period, however, teachers or other school-based key actors (i.e., other staff members or parents) need training for program implementation (Hansen & Dusenbury, 2001; Jackson et al., 1994). Moreover, a transition from external to internal implementer may represent a major change to program design. Such implementation transitions will present challenges for any type of organization, including schools, and call for strong fits between programs and organizations (Basch, 1984; Elias et al., 2003; Rogers, 1995). Thus, relationships between key actors in the research and school settings become an important assessment variable when studying the transfer and sustainability of school-based prevention trials (Johnson et al., 2004).

PROGRAM

The Aban Aya Youth Project

The AAYP was a school-based prevention program and research trial for low-income African American children in the Chicago area. AAYP was one of several studies funded by the National Institutes of Health (NIH) Office for Research on Minority Health (and administered by the National Institute of Child Health and Human Development) to develop and research prevention programs for minority children, a population that was perceived as particularly at risk for problem behaviors (Dryfoos, 1990). Aban and Aya are two African symbols for fence and fern, representing the protection and self-determination that a culturally relevant program provides for African American youth.

AAYP used an experimental design to test the program's effects on violence-, drug use-, and risky sex-related behaviors among a cohort of 5th graders followed through the 10th grade in 15 low-income public schools between 1994 and 2001. The AAYP program had the following three components: (a) an Afro-centric curriculum (for all study schools), averaging twenty 45-minute lessons per grade level, delivered by AAYP-trained HEs; (b) parent involvement, consisting of interactive parent-child homework assignments (all schools) and parent meetings designed to mobilize support

for the prevention curriculum (enhanced parent involvement at five schools only); and (c) community involvement (five schools only), whereby community coalitions were formed or maintained to support the AAYP school-based components. The core AAYP component was the culturally relevant prevention curriculum, which emphasized African terms for responsibility, self-determination, and unity, contained many stories of prominent African American figures in U.S. culture and history and used active teaching techniques such as question-response activities and small group projects. All AAYP program components were designed using the theory of triadic influence (Flay & Petraitis, 1994), a meta-theory that integrates many prominent approaches to behavior change in a single theoretical framework. Results from the AAYP randomized trial showed significant program effects among males in reducing the three categories of risk behaviors noted above (Flay et al., 2004; Ngwe, Liu, Flay, Segawa, & Aban Aya co-investigators, 2004; Segawa, Ngwe, Li, Flay, & Aban Aya co-investigators, 2005).

The Aban Aya Sustainability Project

The AASP was a 4-year effort to sustain the AAYP. Initiated in 1998, AASP capitalized on the relationships established during the first half of the AAYP research trial in an effort to sustain the project in those five schools where the trial had included both the enhanced parent-involvement and the community-involvement components (Fagen, 2003). This sustainability effort was driven by (a) requests from key actors in the enhanced parent/community-involved elementary schools (i.e., teachers, principals, parents) for AAYP continuation as the research trial's child cohort moved from the 8th to the 9th grade and (b) a desire among key actors on the AAYP staff (particularly those staff members working on the enhanced parent/community involvement component) to continue the program and not exit the schools/communities. Although AAYP effects had not been definitively established in 1998, both sets of key actors perceived "evidence of effects" (e.g., via staff data analysis meetings or observation and program participation within schools) that contributed to their desire for program continuation.

Efforts to sustain AAYP during the first half of the research trial (prior to 1998) via end-of-year, schoolwide teacher training in the AAYP curriculum had minimal effect. Most teachers saw the curriculum as too complex to implement easily without ongoing technical support (which was not built into the NIH grant) and without cutting into their regular preparation time, and as a result, they did not teach AAYP once the study cohort had moved out of their grade level. Given this context, AAYP staff members worked to develop a new sustainability plan and raise funds to implement it. The AASP team started by producing a 5-year plan for sustaining AAYP, which was based on our experiences with AAYP and our review of the sustainability literature. This sustainability plan called for AAYP HEs to train local parents (two per school on average) in curriculum implementation and to team-teach with them at one grade level per year (starting in the 5th grade), so that by the beginning of the fifth year, PEs would be independently teaching the AAYP curriculum in Grades 5 through 8.

Transforming the AAYP curriculum from health educator-centered to parent-centered implementation represented a major transformation of the program from the research trial to the sustainability phase. This implementer change was based on the lay health advisor model for community health promotion, in which health workers are recruited from the intervention community to expand an intervention's reach and cultural relevance (Eng & Young, 1992). Lay-health-advisor strategies run on a continuum from natural (novice) to paraprofessional helping (Eng, Parker, & Harlan, 1997) and

Table 1. Descriptions of Curriculum Training, Implementation, and Expected Results for Year 1 of the Aban Aya Sustainability Project

Curriculum Training and Implementation	→	Expected Results
<i>PE individual training</i> 2 hours per week. HE trains each school's two PEs to teach the Aban Aya lessons.		<i>PE teaching independence</i> PEs gradually teach more of each lesson until they are teaching entire lessons without the HE by the end of the school year.
<i>PE group training</i> 4 per year. HEs and program planners train all schools' PEs in Aban Aya teaching techniques.		
<i>PE individual preparation</i> PEs use insights from training and the Aban Aya curriculum binders to individually prepare for lesson delivery weekly.		
<i>Aban Aya curriculum delivery</i> 45 minutes per classroom per week. PEs and HE team-teach the 22-week Aban Aya curriculum in all fifth-grade classrooms at each partner school.		

NOTE: HE = health educator; PE = parent educator.

have been used effectively in African American communities (Jackson & Parks, 1997). Locally, the shift to parent-educator implementation was undertaken for the following reasons: (a) The low-intensity, teacher-oriented sustainability effort during the research trial was minimally successful; (b) using PEs would involve these school stakeholders in the sustainability project's start-up and implementation, providing a significant and visible level of parent involvement; and (c) using PEs drawn from the school and its community would enhance the immediacy and cultural relevance of the AAYP prevention program. In particular, the potential for meaningful parent involvement to drive AAYP delivery and sustainability was seen as a promising approach based on parent-school involvement research (Comer & Haynes, 1991; Eccles & Harold, 1993; Fan & Chen, 2001).

After producing the AASP long-term plan, AAYP staff members obtained 1 year of sustainability funding (with the promise of additional funding for up to 4 years total) from the Illinois Violence Prevention Authority. AASP's Year-1 activities and expected results, summarized in Table 1, focused on training PEs to deliver the AAYP curriculum, as the prevention curriculum was considered the core component of AAYP. Partner school principals recommended school-involved parents to fill the parent-educator roles; in most instances, these parents had also participated in the AAYP parent- and community-involvement components. AASP offered PEs a \$250 per month stipend to attend all training sessions, prepare for lesson delivery, and team-teach the AAYP curriculum. Because this stipend was seen as a potent financial incentive for residents of impoverished neighborhoods, principals typically sought to reward their most faithful parent volunteers by recommending them as PEs. To continue (or establish) collaborative relationships with partner schools, AASP staff members accepted these principal recommendations in all cases.

AASP's parent-educator training was highly intensive: 2 hours of individualized school-based training (in addition to four group sessions) for every 45 minutes spent delivering each lesson. At each school, the HEs delivered all of the intended training, and PEs typically missed only one to two training sessions during the entire project year. The intensity of parent-educator training was necessitated by both the complexity of the AAYP curriculum (e.g., the use of African words and active teaching techniques) and the recognition that most PEs had little to no experience teaching in elementary school classrooms. Moreover, we expected that most PEs would need to use training insights and the AAYP curriculum binders to prepare individually in advance of lesson delivery. Given this context, the AASP plan called for HEs and PEs to team-teach the AAYP lessons so that PEs could observe HEs modeling curriculum delivery while gradually assuming more independent teaching as the school year progressed. Paralleling the AAYP research trial, we expected that teachers in AASP classrooms would observe HE-PE curriculum delivery and assist with classroom management as needed. Our overarching expectation for AASP's first year was that PEs would teach 100% of the AAYP lessons by year's end as a result of the intensive training combined with the team-teaching approach.

METHOD

Study Focus and Design

Because AASP was initially funded for a 1-year period, the research team designed a study that investigated AASP's first stages and whose results are reported in this article. The three research questions on implementation, relations, and viability (see the article's opening) guided our study. These research questions address several of the key issues in sustainability research summarized previously (see the "Key Concepts in Program Sustainability" section).

Our investigation of AASP's first year used the multiple-case study design with the school ($N = 5$) as the unit of analysis. The case study design is appropriate for investigations in which the number of variables exceeds the number of available data points (Yin, 2003) and in which phenomena are studied in their natural settings (Stake, 1995). In addition, the multiple-case study is the strongest variant of the case study design as it allows for comparison and synthesis of results across cases (Yin, 2003).

Data Collection, Management, and Analysis

Our multiple-case study used four data collection methods: (a) interviews, (b) reporting forms, (c) observation, and (d) document reviews. We conducted 29 audiotaped interviews with key actors from both the school teams (i.e., principals, teachers, PEs) and research teams (i.e., HEs, project director, principal investigator) working to sustain AAYP at the end of the 1998-1999 school year. At each school, we interviewed all key AASP actors: PEs (two on average), host classroom teachers (two on average), and the principal (for five interviews on average per each of the five study schools). These semi-structured interviews were guided by questions (available on request) that corresponded to this study's research questions, lasted 1 to 2 hours, and were conducted in the interviewees' work settings. The primary purpose of these interviews was to gain multiple perspectives on the sustainability project.

Our second data collection method was reporting forms. AASP HEs completed 17-item surveys (available on request) after training and co-delivering each of the 5th-grade lessons. These reporting forms asked HEs (among other things) to gauge the percentage of the lesson that the PE taught and to describe the classroom management techniques used during lesson delivery. The resultant quantitative data provided ratings of program implementation that were used to complement and extend the qualitative data collected via this study's other methods. We collected parallel reporting form data from PEs to assess their perspectives on training and lesson delivery. Unfortunately, when compared with HE reports and observation data (see below), parents overestimated their percentage of AAYP lesson content taught and their skills in lesson delivery. Although we were gratified that parents rated training quite highly, we decided that these parents' self-report ratings on other important variables were not valid data, and thus we did not include these data in our analyses.

Our third data collection method was observation. The AASP project director or PD (Fagen) was intimately involved in all aspects of the sustainability project, and thus served as a participant observer of the research team's work (Atkinson & Hammersley, 1998). Furthermore, the PD made three to four visits to each of the five study schools during AASP's first year. During these visits, the PD observed HE-PE training and AAYP curriculum implementation, serving as a direct (passive) observer (Spradley, 1980). These direct observations were structured by a protocol (available on request) that focused on HE-PE team-teaching and PE preparation for lesson delivery. The PD's observations in both the research and school settings were shared and discussed in the weekly AASP research team meetings and were thus embedded in the meeting minutes (documentation) described next. Finally, we reviewed documents detailing the project's first year. Specifically, we reviewed the minutes from weekly meetings held by the AASP research team. These meetings, which were attended by HEs, the PD, and project evaluators, served to plan and debrief the research team's implementation of AASP in the five study schools. The minutes were typically two to three single-spaced pages and were a rich source of documentary data that provided context for the interview and reporting form data.

The AASP PD served as the primary data analyst. Qualitative data analysis was conducted in the following phases using the Atlas/ti software (Kelle, 1995): (a) initial data segmentation and coding; (b) intercoder reliability checks (Carey, Morgan, & Oxtoby, 1996) reaching 90% agreement between the PD and a graduate research assistant; and (c) final coding. In all, the PD made 10 passes through the interview data with a refined coding guide (available on request) containing 13 codes grouped into three categories. Those 5 codes relevant to this study's research questions are teaching, preparation, and payment (implementation); and collaboration+, collaboration-, and role negotiation (relations).

Once the interview data were coded, the PD used Atlas to hyperlink segments of the meeting notes that provided contextual descriptions for selected quotes, allowing interviewee reports to be simultaneously considered and analyzed within their larger contexts. At the same time, the reporting form data were analyzed to provide complementary data on program implementation. After these contextual and implementation data were linked to the interview data, the PD generated case reports for each of the five schools in this study of AASP's first year. Triangulating data from all four data sources, these case reports (available on request) described the context, key actors, program implementation, and relations at each school, and concluded with the PD's initial interpretations regarding AASP's first year in each of the five schools. To corroborate the

descriptions and interpretations in the case reports, the PD solicited feedback on these reports from the relevant key actors in each school and their corresponding HEs, discussed areas of agreement and disagreement, and attempted to reconcile differences in interpretation. In the occasional instance when such differences could not be reconciled, competing interpretations were noted in the case reports and all subsequent project write-ups.

After the key-actor feedback was integrated into the case reports, the PD conducted a cross-case analysis to identify common themes and patterns among the study's five school sites (Yin, 2003). The cross-case analysis was initiated by combining relevant portions of the individual case reports into a single cross-case synthesis document that was categorized in the same manner as the case reports. Once synthesized, the case report data were matched to the study's first two research questions (implementation and relations).

RESULTS AND INTERPRETATIONS

Implementation. The cross-case analysis revealed varying levels of program implementation across the five school sites. As anticipated by the AASP Year 1 plan (see Table 1), implementation variations were related primarily to (a) PE preparation and (b) PEs' ability to teach independently of HEs. PE teaching independence was both observed (weekly by HEs and periodically by the PD) and rated (by HEs). Implementation variation was not attributable to training differences as all PEs attended the vast majority of their in-school training sessions.

HE ratings of PE teaching independence are summarized in Table 2 (pseudonyms are used for all school names throughout this article) and showed a wide range of independent PE teaching, from a mean lesson percentage taught of 23% in one school (Grover) to 71% in another (Canton). This rating means that from the HE perspective, PE teams taught approximately one quarter of the lesson content at Grover during the course of the school year, whereas PE teams at Canton taught approximately three quarters of the lesson content. We found similar variability in the lowest percentage of any lesson taught (from 0% to 60%) and the highest percentage of any lesson taught (from 40% to 100%) across the five schools. These ratings indicate that (from the HE perspective) for certain lessons, PEs did not teach any of the content (0% at Grover and Harlow); for other lessons, PEs taught the entire content (100% at Harlow and Phipps; and in one case (Grover), the PEs never taught more than 40% of lesson content.

In most cases, the percentage of lesson content taught by PEs seemed related to the amount of independent preparation for teaching undertaken by the PEs. The extent to which PEs prepared to teach the AAYP lessons (as observed by the HEs/PD and recorded in the AASP meeting minutes) is summarized in Table 3 (along with relations summaries, which are detailed in the next section). For example, one of the Grover PEs was consistently unprepared to teach. It is not surprising, then, that Grover PEs taught (on average) 23% of the lesson content and never more than 40% of the lesson content during the school year. In contrast, the Phipps PE was typically well prepared to teach and during the school year taught 65% of the lesson content and, in some weeks, taught 100%. The one exception to this apparent relationship between PE preparation and PE independent teaching was at Harlow, where one of the PEs was often unprepared yet was able to team with her fellow Harlow PE to teach 67% of the lesson content during

Table 2. Percentage of Aban Aya Lesson Content Taught per School by Parent Educator Teams During Year 1 of the Aban Aya Sustainability Project

School	Mean % Taught	Lowest % Taught	Highest % Taught
School 1: Canton	71	60	75
School 2: Grover	23	0	40
School 3: Harlow	67	0	100
School 4: Phipps	65	25	100
School 5: Roter	31	5	50

NOTE: All school names are pseudonyms.

Table 3. Summary Descriptions of Aban Aya Curriculum Implementation and Key Actor Relations by School During Year 1 of the Aban Aya Sustainability Project

School 1: Canton

PEs were generally well prepared and taught a large percentage of the lessons independently but were often unsupervised by the HE. Tension emerged between PEs 1 and 2 and PE 3, as PE 3 taught and worked at a slower pace than PEs 1 and 2.

School 2: Grover

PE 1 was typically unprepared and could not teach much. Implementation quality improved when the more skilled PE 2 joined PE 1, although the PEs did not teach a large percentage of the lessons independently. PE 2 was a role model for PE 1 in terms of preparation and teaching quality.

School 3: Harlow

Implementation was poor, with spotty preparation by PE 1 and read-aloud lessons by both PEs, although PEs did teach a large percentage of the lessons independently. The PEs enjoyed working with each other and with the HE, but the HE was frustrated working with them.

School 4: Phipps

PE 1 was well prepared and taught a large percentage of the lessons independently and without a partner PE for most of the school year. PE 1 and the HE enjoyed working with each other.

School 5: Roter

Implementation was poor, as the PEs were generally unprepared and did not teach a large percentage of the lessons independently. Relations were also challenging, as the HE felt that the outspoken PE 1 stunted the understated PE 2's development as an Aban Aya implementer.

NOTE: All school names are pseudonyms. HE = health educator; PE = parent educator.

the school year and, in some weeks, this PE team taught 100% of the lesson content. Overall, these HE ratings illustrated that PEs were progressing toward independent teaching in some schools and not in others, raising issues about our expectations for PE independence (see "Discussion" section).

Relations. One area emerged in this study as fundamental to the relations between key actors working to sustain AAYP: the centrality of the HE-PE relationship. The prominence of this relationship is not surprising given AASP's focus on curriculum

training and delivery. Indeed, the intensity of the training, the HE-PE team-teaching approach to curriculum delivery, and the expectation that PEs would teach independently by the end of the school year were all reasons that interviewees cited for the prominence of the HE-PE relationship.

The HE-PE relations varied appreciably across the five school sites (see Table 3). At some sites, these relations were described as “smooth” and “collaborative,” whereas in other sites these relations were more difficult. For example, at Harlow school, the HE described his challenges in being both supportive and constructively critical of the PEs, as follows:

Well, the thing is, I kind of felt a little bit like walking on eggshells because again, you are dealing with people who are sensitive number one. Number two, who may feel like they don't have the confidence to do these lessons. So you really want to build confidence. I think that is the really big thing with me was trying to build confidence in that area. So you don't want to be too critical, even if it was constructive criticism, because they could take that as a real negative.

As a result of his ambivalence about providing critical feedback, this HE felt that implementation of the AAYP curriculum was not as strong as it could have been.

This variability in HE-PE relations resulted in part from the challenging nature of the PE role. The PEs were expected to teach a complex curriculum using innovative instructional techniques, a role previously played by master's-level HEs. Few of the PEs had college degrees, and several had not earned high school diplomas. Given their educational backgrounds and professional preparation, many PEs were not equipped to handle the complexity of their instructional role. Although the intensive curriculum training aimed to address this issue, in some sites the training was not sufficient to overcome these obstacles. In other sites, however, PEs were able to establish successful instructional roles. These successes were often attributed to the open, supportive relationships established between the parent and HEs, which were typically augmented by a higher degree of PE professional preparation (e.g., as a nurse aid or classroom aid) than was the case for those parents experiencing more difficult relations with their HEs.

In addition, payment issues for PEs became a focal point in the relations between the research and school teams during AASP's first year. The research team had a difficult time ensuring timely payment of PEs (to compensate for their work on the sustainability project). The payment system that the research team set up did not work efficiently; as a result, the PEs were often paid late or in a haphazard fashion. These late payments were frustrating for almost all of the PEs, particularly those from the most impoverished schools and neighborhoods. One PE (from Roter) described her feelings about the late payments, as follows:

It matters how we treat one another. Partnership is just that. We have to recognize that we are all of value. And sometimes it appears to me that if you want parent involvement, then you must recognize where you are coming to get me from. And just like you have needs to be met, volunteers only go so far. But in the sense of growing and giving, you are taking me out of one environment and putting me into another and then not paying and then saying that I should volunteer—[that] is not what I would consider good partnership and good business.

This PE continued by explaining that the late stipend payments represented more than financial loss; they represented a loss of credibility and trust in the project as well.

This and other instances of PE reactions to payment difficulties illustrate the negative impact that these difficulties had on relations between the research and school teams and, in particular, the HE-PE relationship. Although the HEs were not responsible for creating and implementing the PE payment system (this was the responsibility of the larger AAYP project's manager), they often were called on to deliver stipend checks to the parents. Thus, when PE frustration regarding late payments grew, it was often directed at HEs, who in fact were only acting as messengers or deliverers in the payment system.

DISCUSSION

These mixed results in response to the implementation and relations research questions feed directly into our final research question, viability. Ultimately, we were interested in knowing whether the parent-centered approach to sustaining AAYP was viable in light of the implementation and relations challenges detailed above. In an effort to interpret AASP's results and use them to project the program's viability, we used the community readiness model (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000; Oetting, Jumper-Thurman, Plested, & Edwards, 2001). The community readiness model is particularly relevant for interpreting AASP's parent-centered approach because it posits that local people are likely to have the greatest and most sustainable impact in solving local problems (Edwards et al., 2000).

The community readiness model is used to assess and plan for the extent to which a community is ready to adopt, implement, and sustain a preventive intervention. There are nine stages of community readiness, which range on a continuum from stage 1, "no awareness" (of the issue and ways to intervene), to stage 9, "professionalization" (embedding the intervention in appropriate community systems; Edwards et al., 2000). At the start of the school year, AASP was at stage 6 or "initiation." The partner schools were aware of the youth risk-behavior issues, a plan was in place to address these issues (AASP), and the research team had begun training PEs to implement the AAYP curriculum. AASP's Year 1 plan called for the project's move from stage 6 ("initiation") to stage 7 ("stabilization"), as we expected the PEs to teach independently of HEs by year's end. Moreover, we expected that the parent-centered approach would provide a stable framework for sustaining AAYP in subsequent years.

AASP's Year 1 results, however, did not indicate the project's movement from initiation to stabilization. Indeed, the adequacy of our parent-centered approach for sustaining AAYP seemed largely dependent on (a) the professional preparation of the PEs and (b) the strength of their relationships with the HEs. Because there was such wide variability in both of these factors across the five schools, it is clear that AASP's parent-centered intervention was not stabilized on a project-wide basis after its first year. As a result, it looked like AASP would return to the initiation phase at the beginning of its second year, with planners seeking to strengthen the parent-centered approach to stabilize it during Year 2.

There are several possible explanations for AASP's inability to move from initiation to stabilization during Year 1. The first possible explanation is that the AASP Year 1 plan was simply not a good fit for the five partner schools, as expectations for independent PE teaching were too high based on previous teachers' inability to adopt the AAYP curriculum. Although we acknowledge the possibility of this misfit, we do not think that it fully explains the lack of stability in Year 1's parent-centered approach. AASP's Year 1 plan

was based soundly on the lay health advisor model for community health promotion (Eng & Young, 1992) and previous research emphasizing the importance of parent involvement in schools (Comer & Haynes, 1991; Eccles & Harold, 1993; Fan & Chen, 2001). Furthermore, recognizing that providing the AAYP curriculum to teachers with no ongoing technical assistance did not promote curricular sustainability during the AAYP trial, we built ongoing and intensive training into AASP's plan. Where AASP's year-one plan may have fallen short, however, was in its expectation that *all* PEs would be capable of teaching the AAYP curriculum independently by the end of the school year, even with intensive training. AASP study results indicate that only certain PEs—particularly those who were more professionalized on the natural (novice) to paraprofessional helping continuum (Eng et al., 1997)—were capable of independent AAYP teaching.

Another, more plausible explanation for AASP's inability to move from initiation to stabilization during Year 1 is that AASP failed to adequately assess the partner schools' readiness for the parent-centered intervention and thus designed an overly ambitious Year 1 plan. Although the parent-centered approach had buy-in from both AAYP staff and partner school principals, several key actor groups were not part of the sustainability planning process. Specifically, classroom teachers were not consulted regarding the parent-centered approach to delivering the AAYP curriculum. Because many of these teachers had hosted AAYP curriculum delivery during the HE-centered research trial, their perspectives would have been valuable for assessing the initial viability of AASP's proposed parent-centered approach. In some instances, these teachers might have cautioned that using parents to deliver the AAYP curriculum seemed overly ambitious.

In addition, we did not assess the readiness of the parents themselves to assume a significant and independent AAYP teaching role prior to their AASP recruitment. Rather, we asked partner school principals to recommend potential PEs, who were typically the "tried and true" school-involved parents. In an effort to increase the fit between the sustainability project and its partner schools, AASP staff accepted the principals' recommendations for PEs without screening these parents for educational background, professional preparation, and teaching experience (or capability). Ironically, this attempt to increase the fit between AASP and the partner schools might actually have served to decrease it, as most of the PEs proved professionally underprepared to assume independent teaching roles.

CONCLUSION

Based on this discussion of AASP's first-year results and interpretations, we conclude that the parent-centered approach to sustaining AAYP was not viable as planned and implemented during Year 1. AASP's effort to capitalize on established relationships with schools and parents coupled with its foundation in both the lay health advisor and parent involvement models created a promising approach to sustaining AAYP. However, this promise was mitigated by implementation realities that included (mostly) nonprofessionalized PEs and (often) fragile relationships between professional HEs and nonprofessional PEs. Ultimately, our expectation that parents would be capable of teaching the complex AAYP curriculum independently by year's end was simply too high.

This conclusion yields several important lessons and recommendations for both practitioners and researchers seeking to sustain school-based prevention programs. First, it is critical to assess community readiness for the prevention program from the perspective of all key actors who will be involved in its implementation. Although principals are the fundamental initial gatekeepers for any school-based program (and were very involved in initiating AASP), their influence is most prominent during the

program adoption phase. Beyond this initiation phase, key actors include the implementers themselves (i.e., parents in AASP) and the implementation “hosts” (i.e., teachers in AASP). These key actors must be assessed, screened, and listened to during the planning phase. In the case of AASP, conducting a more comprehensive community readiness assessment might have produced a sustainability plan that integrated PEs but had more realistic expectations for what they could achieve in the project’s first year.

Our second recommendation relates closely to our first: Planning should be an integral part of any sustainability effort and should be initiated as early as possible. When it became clear during the AAYP research trial that the teacher-centered approach to sustainability was not viable, we should have explored other sustainability approaches immediately. Instead, we waited for a critical juncture in the trial (i.e., the program cohort’s move from the 8th to the 9th grade) to respond to school and staff requests and to start planning for sustainability. Although we were able to produce a promising parent-centered approach for sustaining AAYP and raise first-year funds to implement it, pilot-testing this approach during previous years would have strengthened AASP. Indeed, such testing (coupled with a thorough community-readiness assessment) might have revealed that parents were not ready to take on independent teaching roles, that more or different types of parent training would be necessary, or that teachers needed more significant roles in the parent-centered sustainability approach. Specific to parent training, pilot-testing would likely have indicated that parents needed at least 3 hours of training for every hour spent on curriculum implementation, more opportunities for mock lesson delivery, and more training in team-teaching approaches.

Of course, planning for sustainability during a research trial will likely base sustainability decisions on initial perceptions of effects rather than well-established program effects. We believe that perceptions of effects are sufficient grounds for launching sustainability planning if the program being tested is thoroughly grounded in state-of-the-art theory, if it is based on a current understanding of best practices, and if it appears to be a good fit for the host community. Because AAYP met each of these criteria (i.e., based on the theory of triadic influence, Flay & Petraitis, 1994, was a comprehensive and multi-level intervention, and was culturally relevant for African American schools), we were comfortable launching its sustainability project. We are hopeful that our experience with the AASP will prove informative for other researchers and practitioners attempting to sustain school-based prevention programs.

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