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Challenges in the Evaluation and Implementation of School-Based Prevention and Intervention Programs on Sensitive Topics

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Abstract: The current emphasis on best practices for school-based health and mental health programs brings with it the demand for evaluation efforts in schools. This article describes the challenges of launching a successful school program and evaluation, with lessons learned from three projects that focus on intimate partner violence. The authors discuss issues related to constraints on the research design in schools, the recruitment of schools and participants within schools, program and evaluation implementation issues, the iterative implementation-evaluation cycle, and the dissemination of programs and study findings. The authors emphasize the need for flexibility and cultural awareness during all stages of the process.

Keywords: *school; program evaluation; research methods; implementation*

In the past decade, there has been increased emphasis on the use of “evidence-based” behavioral health programs in schools, as well as the need to evaluate those programs that are already being implemented (e.g., Nabors, Weist, & Reynolds, 2000; Tingle, DiSimone, &

Covington, 2003; U.S. Department of Health and Human Services, 1999, 2001). For example, in the President's New Freedom Commission on Mental Health (2003) report, promoting mental health in children by improving and expanding school mental health programs was emphasized. The commission also stressed the need to accelerate research to promote recovery and resilience and as a means of preventing mental illness, advancing evidence-based practices in community settings. Similarly, school health guidelines to prevent unintentional injuries and violence also emphasize the need for schools to choose programs that have scientific evidence of effectiveness (Barrios et al., 2001).

An evidence-based program is one that has been shown to have a positive impact on targeted outcomes in an empirical study (one based on observation or experiment). It is not enough to implement a program; it is also crucial to be able to say that the program is effective. However, effectiveness may vary from setting to setting, even when programs are implemented rigorously and with high quality (Wandersman & Florin, 2003). It is increasingly recognized that interventions must examine ecological factors such as the socioeconomic and cultural environment in which the targets of interventions (individuals) are embedded. These ecological factors affect the response to an intervention and ultimately its success. Whether a particular program "works" in a specific population may rest on whether sufficient background work has been done in that population and whether the population itself is invested in the implementation of the intervention.

Some recent examples show the dangers of the widespread implementation of programs that lack such an evidence base. Studies of the widely implemented Drug Abuse Resistance Education program for reducing drug use showed little impact of the program (Ennett, Tobler, Ringwalt, & Flewelling, 1994). Similarly, studies conducted by Kirby (2001, 2002) concluded that there is no evidence that abstinence-only programs either delay sex or reduce teen pregnancy. As the requirement to show program effectiveness becomes increasingly more routine, the inclusion of evidence on effectiveness will be need to be a part of all programs and will be particularly required in areas in which little is known about effective intervention strategies.

Types of data that indicate whether a program can work include data on feasibility and acceptability, efficacy or effectiveness, and cost-benefit analysis or cost-effectiveness (Institute of Medicine, 1997). A recent historical review of school-based randomized trials provided some context for current efforts (Flay & Collins, 2005). As the authors cogently pointed out, methodological advances (e.g., modern approaches to missing data) have helped ease some of the tensions in school-based research; the "devil is in the details." In this article, we attempt to flesh out some of those details and describe how three different projects dealt with them.

In this article, several alternative study designs for evaluating the effectiveness of a school program, and the manner in which feasibility factors may impede the implementation of such a design, are described. Alternatives to the optimal, experimental design that can nonetheless be used to collect some useful information about effectiveness or efficacy are then discussed. Three case examples illustrating complications that arise in evaluating school-based intervention programs and solutions for these types of problems are presented.

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Designing an Effectiveness Study in Schools

In evaluating the impact of an intervention program, the balance between evaluating efficacy and effectiveness warrants careful consideration (Flay, 1986). If it is important to determine how well the program can work under conditions in which the research team has the ability to carefully select participants and deliver the intervention with the highest quality implementation and evaluation possible, then an efficacy study is desired. However, many programs are first evaluated in specialized settings and then implemented in different communities. But the results produced in rarefied clinical or research settings cannot necessarily be reproduced in real-life community settings (Evans, Axelrod, & Sapia, 2000; Glasgow, Lichtenstein, & Marcus, 2003; Weisz, Donenberg, Hann, & Weiss, 1995). The alternative is an effectiveness study, in which one determines how well an intervention works when delivered under usual conditions in a regular community setting. An effectiveness study produces results that are more easily generalized, but it is extremely challenging to implement.

The ideal method for evaluating the effectiveness of a school-based program is a well-controlled randomized trial (Flay et al., 2005). Unfortunately, this design requires potentially altering normal operating procedures in schools to meet the demands of the study design and implementing rigorous controls to minimize the effects of possible confounds, which can be expensive, and thus it is not always feasible. A randomized controlled trial requires a very high level of cooperation and investment among schools, implementers, and the community from which participants are drawn. Randomization must be acceptable to schools and the community, but there are several alternatives that may make it more acceptable. For instance, schools can be matched and randomly assigned to conditions in pairs or sets prior to recruitment into a study (Flay & Collins, 2005). Breakdowns of randomization (the withdrawal of schools or partial implementation) can be examined statistically to determine if they affect the results of the evaluation or not.

Naturally, the ability to confidently attribute changes in students who undergo an intervention, even within a randomized trial, will vary depending on the quality of the control group as well as the quality of the intervention. Intervention implementers must agree to some monitoring of the intervention to ensure that the program is implemented as intended, with the tracking of fidelity to the program's description or manual. Control group composition (placebo control, attention control, wait-list control, no-treatment control) can be varied to suit the needs of an evaluation and the schools themselves. Most schools deem it undesirable to withhold a potentially beneficial intervention from their students and yet provide it to others. Thus, the emphasis on "equal opportunities" for all students makes it difficult to offer a placebo intervention, particularly if the program under evaluation is perceived by schools to be something good for students. Wait-list control designs are often more acceptable, but these designs make it difficult to evaluate the long-term outcomes of a program, because there often is pressure to offer the wait-list group the program near in time to those who receive it immediately (even within the same school year).

Prevention programs can operate at the school or even community level. These may involve promoting good health practices throughout a school, a school system, or an entire community (e.g., health awareness campaigns). For example, two school-based drug prevention programs, Project Northland and the Midwestern Prevention Project, include community involvement in their interventions (Komro et al., 2001; MacKinnon et al., 1991). Such interventions are applied to communities or schools and require the randomization of these aggregate units rather than randomizing individuals. Even when an intervention could be assigned to individuals, such as a new curriculum, randomizing individuals may not be possible.

Transfer among intervention and control students can occur if students in the same school are receiving different treatments, so that contamination of intervention effects occurs. Logistics often make it impossible to generate classes randomly because of scheduling constraints. Furthermore, the desire for equal opportunities makes schools reluctant to randomly vary students' opportunities within a school.

An alternative is the cluster-randomized trial, in which schools or other aggregate units are randomized to experimental conditions, and all students within a school receive the same treatment. Although such cluster-randomized designs avoid the problems of randomizing individual students, they require greater sample sizes to achieve statistical power equal to that of designs with individual randomization, and they introduce the need to control for the potential of the similarity of outcomes of students from the same cluster, or the intraclass correlation of outcomes (Murray, 1998, p. 7). To achieve sufficient statistical power, cluster-randomized designs often require large numbers of schools, many more than would be required for a design with individual randomization. Matching, blocking, and other techniques can be used to offset the need for a larger sample (Murray, 1998; Raab & Butcher, 2001).

Quasi-experiments and well-designed observational studies might be used in place of randomized designs when randomization is considered unethical or not feasible. In general, such studies rely on naturally occurring variation in the treatment of students to determine if treatment affects student outcomes. The challenge of such designs is to ensure that differences in outcomes reflect treatment effects rather than preexisting differences between groups receiving different treatments. Shadish, Cook, and Campbell (2002) provided an excellent introduction to the design of such studies. Below, three case examples illustrate different levels and types of evaluations on the basis of the realities of evaluating programs in the real world.

Three Case Examples

Three projects are described to present design decisions and methods issues that change the kind of evaluation that can be accomplished. All three projects are cooperative agreements funded by the Centers for Disease Control and Prevention (CDC) to examine the prevention of intimate partner violence (IPV) among ethnic minorities, and all three focus on adolescents in school settings. Although the programs were in different stages of development, with different levels of experience working in schools, in each case, a community-researcher partnership obtained the funding to conduct these demonstration projects in the local schools. The CDC funding in all three studies went to the research teams and was subcontracted to the community partners for the staffing and implementation of the programs in school settings.

The Johns Hopkins University (JHU) Respect Me Project

The JHU School of Nursing and the George Washington University School of Public Health worked with the Historic East Baltimore Community Action Coalition (HEBCAC) and the House of Ruth to provide a culturally competent, arts-based dating violence prevention initiative in Baltimore, Maryland. The overall purpose of the JHU Respect Me Project was to develop and evaluate a school-based program to promote healthy relationships and prevent violence (physical, emotional, and sexual dating violence) among predominately African American seventh grade students in four middle schools in the city. This demonstration project evolved from the existing HEBCAC antiviolence Summer Theatre Project, which included high school students from the community who developed an antiviolence theater production for several summers. These students were mentors in several components of the project.

The JHU Respect Me Project consisted of four major components: (a) a variety of arts-based student activities, including a school theater production, school visual arts projects, and a Web page design project (all students either directly participated in the theater and visual arts components of the project or at least were given the opportunity to see them); (b) a dating violence prevention curriculum consisting of two classes for all seventh graders; (c) violence prevention and early intervention student support groups; and (d) teacher and staff training on dating violence prevention.

The evaluation component of the project examined the extent of dating violence among middle-school-aged adolescents and evaluated the overall effect of the interventions. The evaluation was based on a system-change-theory approach, with baseline, intermediate, and long-term outcomes (using quantitative and qualitative data) contrasting two intervention schools with two comparison schools. The project used both group (student and teacher surveys) and schoolwide (climate of the school) measures before and after the intervention. The comparison schools started implementing the intervention during the last year of the project, after the evaluation was complete. Thus, during the final year, all four schools were intervention schools. In addition, youth who participated directly in the theater, visual arts, Web based project, or support group project components will be compared with youth in their own schools and in comparison schools on a survey about attitudes and experiences related to violence.

The Break the Cycle Evaluation Project

Break the Cycle, a nonprofit organization in West Los Angeles whose mission is to end domestic violence among 12- to 22-year-olds, implemented an innovative prevention and early intervention program for ninth graders that focused on legal rights and responsibilities. This program, Ending Violence, differs from many prevention efforts in that it is taught by attorneys, who offer students attorney-client privilege. The program focuses on the legal aspects of domestic violence, and efforts are made to give students the opportunity to seek advice and legal counsel without risking mandated reports, as is the case when they speak with counselors, teachers, or police. This project extended Break the Cycle's work to more fully reach out to Latino teens, by hiring bilingual and bicultural staff attorneys to deliver their programs and services and by extending their program to high schools with strong Latino majorities. On the basis of social learning theory, the program aims to change attitudes and norms about violence between intimates and aims to make it culturally appropriate for Latino youth. In addition, the program aims to overcome specific barriers to help seeking among teens, namely, concerns about a lack of confidentiality and a lack of information about the legal system (Children's Hospital of Los Angeles, 2000).

The evaluation of the Ending Violence curriculum used a quality-of-care evaluation framework described by Donabedian (1988) and elaborated by McGlynn, Norquist, Wells, Sullivan, and Liberman (1988) in the context of mental health care delivery. In this framework, there are three interrelated elements of quality of care: the *structure* of the service delivery system, which influences the *process of care*, which in turn influences *outcomes*. The evaluation (conducted by the RAND Corporation in collaboration with Break the Cycle) involved 11 schools in the Los Angeles Unified School District that are composed of at least 80% Latino youth. The evaluation comprised both process and outcome evaluation components. The process evaluation described the structural elements of the program, measured fidelity to the intervention, and tracked participants' use of services over time. The outcome evaluation used a randomized experimental design in which tracks within schools were randomly assigned to a wait-list control group or to the Ending Violence prevention curriculum. The study evaluated

Break the Cycle's impact on students' attitudes, knowledge, victimization and perpetration, and help seeking. The results helped inform Break the Cycle about the impact of its curriculum, as well as guiding other prevention efforts and laying the groundwork for disseminating this important and innovative program to other parts of the nation.

Arizona's Promoting Healthy Relationships Project

The University of Arizona Cooperative Extension and the John and Doris Norton School of Family and Consumer Sciences worked in partnership with schools and other community-based organizations to develop an effective, culturally respectful approach for reducing the risks of dating violence and promoting healthy relationships among ethnic minority youth in Arizona. Two of the project sites delivered programming to American Indian eighth and ninth graders. The broad goal of Arizona's Promoting Healthy Relationships Project was to develop, implement, and evaluate a dating violence curriculum delivered in the context of a comprehensive positive youth development program. Therefore, in addition to the dating violence prevention curriculum, youth development programs, such as team building, mentoring, and after-school or weekend recreation, were also a part of this project. The incorporation of youth development strategies into programs that target specific risk behaviors (e.g., dating violence) increases the likelihood of success at preventing negative health outcomes (Klindera & Pagliaro, 1999). Because cultural relevance was a theme that permeated the Promoting Healthy Relationships Project, unique structure and delivery modes were used in each community to ensure that the program was culturally relevant for participants. Program evaluation, guided by a community-based participatory research model (Community Health Scholars Program, n.d.) and the tribal participatory research model (Fisher & Ball, 2002), involved process and outcome evaluation. Process evaluation included participant and leader feedback surveys following each program session, participant attendance records, and a detailed program-monitoring log. The outcome evaluation design involved pre- and postprogram assessments for youth participants. These written surveys collected information on knowledge, attitudes, and behaviors related to IPV, sexual violence, and healthy relationships. Focus groups were conducted with students, and interviews were conducted with key informants to gain their perceptions of the program and its impact on youth, parents, and the community. Evaluation results were used internally to modify the program to enhance its success and cultural relevance. They are being used externally to communicate successful prevention interventions and program models to other communities that could benefit from similar programming.

Contrasts Between the Three Projects

These three projects differ in a fundamental way, although they all involved both implementing and evaluating programs related to dating violence, and all were implemented in the schools to some degree. Their main differences lie in the stage of development of the intervention and in the evaluation design used.

In the JHU Respect Me Project, the prevention program was developed as part of the research project, building on an existing community-based summer program. The intervention was schoolwide, making it impossible to randomize students or clusters within schools. Because of concerns about the acceptability of randomization in the community, the JHU Respect Me Project chose not to randomize but to carefully select schools and match them on key characteristics. Two experimental and two comparison schools were chosen. The two groups of schools were selected on the basis of similar areas of the city with comparable demographic characteristics. The intervention was provided to the comparison schools in the last year of the project.

The Break the Cycle Evaluation Project, in contrast, was already in existence, but not previously evaluated, and extended its services to make them more culturally competent, while moving into schools not previously accessed. In the Los Angeles Unified School District, the large urban high schools operate on a year-round schedule, with three “tracks” of students formed within each school and students from two tracks attending the school at any one point in the year. The original design plan was to randomize schools to intervention or wait-list groups, in the hope of minimizing transfer and with the idea that students across tracks would be similar to one another. This plan required the researchers to recruit as many different schools as possible. On further investigation, however, it was discovered that the tracks offered different classes and sports, and thus students within tracks might be more similar to one another than to students on other tracks. Because students on different tracks had little contact with one another, the design was changed to randomize tracks rather than schools. This plan was successfully implemented, with tracks randomized to receive the curriculum either between the first two research assessments during the first semester or in the second semester, after the third and final research assessment.

Finally, Arizona’s Promoting Healthy Relationships Project took an existing evidence-based program (Safe Dates; Foshee et al., 1996) and modified it for use with the American Indian population, adding a concurrent positive youth development program. Safe Dates is a program aimed at primary and secondary prevention of dating violence (Foshee et al., 1996). The theoretical basis for prevention activities involves changes in norms and gender stereotypes along with enhanced conflict management and prosocial skills, while secondary prevention also incorporates precaution adoption theory (see Foshee et al., 1996, for a complete description of the theoretical basis for the Safe Dates curriculum). Although the original evaluation design proposed using comparison groups, it became clear early on that neither randomization nor selection and matching were feasible, because the project was implemented in small, rural communities with only one junior high school and one high school. In addition, because of the small sizes of the schools, the likelihood of transfer among intervention and control students was quite high. Therefore, an evaluation design using intervention and comparison or control groups was not appropriate in these communities, and a pre-post design was used instead.

Clearly, all three projects have multiple evaluation aims, including both process and outcomes evaluations. Because of space constraints, we focus on issues related to a successful outcomes evaluation. In comparing implementation and outcomes evaluation challenges across these three sites, six common or core considerations and constraints were identified, including (a) constraints on the research design in schools, (b) the recruitment of schools and participants within schools, (c) protecting human participants and their privacy, (d) implementation issues, (e) the iterative implementation-evaluation cycle, and (f) the dissemination of programs and study findings. The first issue, how research designs are constrained in schools, has already been discussed above. In the section that follows, each of the other issues is discussed, and examples are provided of ways in which the projects described above grappled with them.

Recruiting Schools and Participants Within Schools

Schools are an excellent venue for prevention and early intervention programs and are eager to implement such programs when resources permit. However, recruiting schools to participate in the evaluation of such programs can be difficult, and ample time is required

(Cline, Schafer-Kalkhoff, Strickland, & Hamann, 2005; Horowitz et al., 2003; Lytle et al., 1994; Peterson, Kealey, Mann, Marek, & Sarason, 2000).

Schools have multiple demands placed on them, including meeting testing standards and facing budget cuts. Schools in which there may be the highest need for such programs may be the least equipped to collaborate because they are busy dealing with daily crises and are under scrutiny for underachievement. Some schools with chronic performance problems can be put on probation and given specific periods of time to demonstrate improvement before school district intervention, usually by replacing the top administrators with new staff members. In extreme cases, schools with severe performance or safety problems can be taken over by the state, in which case both administrators and teachers are at risk for losing their jobs. As such, some administrators and teachers are reluctant to shift any focus away from these problems. Therefore, there must be engagement from the top administration, and the burden on schools must be small (Ellickson, 1994). Meetings with top administrators are essential to gain initial approval, followed by the identification of a liaison who can be easily accessible and can handle the day-to-day planning. Motivating school administrators to value prevention projects may be enhanced by linking an "asset-rich environment" with successful academic performance (Nichols, 2004). The JHU Respect Me Project required a special sensitivity to multiple system-level crises within the school system. These crises and internal stresses were related to budget cuts in addition to a statewide monitoring of the schools. One school in particular faced additional challenges when the principal was changed. Personnel were especially sensitive to additional demands within the schools on days that monitoring was occurring. Consequently, the research team had to accommodate their plans to the demands of the system. A more routine example of working to minimize burden on the schools comes from the Break the Cycle Evaluation Project and involved the scheduling of a 6-month follow-up assessment, which occurred once the students had changed classrooms for the second semester. This involved working with the school administration to locate the students in their new classrooms, to arrange a space and time for group administration of the assessments, and to arrange a makeup time for absent students. However, this required that the school prepare "call slips" for each student, giving them permission to move from their regular classrooms to the assessment location. The researchers found that this was a large burden on schools and that they were not completely reliable in getting the call slips to the students. Project staff members offered to write out the call slips and distribute them themselves, ensuring less burden on school staff members as well as a more reliable outcome. This appeared to improve things, but despite best efforts, there was still an absentee rate of 12% before and after the test, and about twice that at the 6-month follow-up (including students who dropped out, transferred schools, or were "chronically absent").

Once schools are recruited and a study is designed, the cooperation of affected teachers must be sought (Horowitz et al., 2003; Lytle et al., 1994; Peterson et al., 2000). However, the style of interaction between administrators and teachers varies from school to school and may not be immediately apparent to the research team. Whereas some administrators will have consulted the teachers before making decisions to participate, others will not have done so, with the result that some teachers may feel that a study is being imposed on them. In addition, whereas some administrators are diligent in providing teachers with information about the special programs or studies (scheduling, etc.), others provide teachers little or no information. It is crucial that a project team inform teachers directly about a program and its evaluation (after gaining the administrators' approval) and win their cooperation.

In the JHU Respect Me Project, teachers were in the throes of budget cuts, which resulted in teacher layoffs and increased workloads for the teachers who remained. This meant that the

project lost some staff members with whom they had built good relationships, requiring time to try to garner new relationships and commitments from other teachers and school administrators. Additionally, the staff members who were not laid off were overworked and primarily concerned with educating students and the survival of the school system. This climate made it more difficult to secure the interest and cooperation of school staff members in something that might be considered by some as not essential to student education.

In Arizona's Promoting Healthy Relationships Project, the dating violence prevention curriculum was originally offered to ninth graders during physical education classes at one site. However, concern over students' scores on mandatory performance testing led administrators to restructure some class offerings. For example, students had to delay taking physical education until after ninth grade. Because the restructuring occurred midyear, program staff members had to work quickly with other teachers in other classes to determine the best class setting for the program, or risk stopping the program in the school. Fortunately, program staff members had built good working relationships with teachers and administrators and were able to find another class in which to implement the program.

Next, students must be recruited to participate in an evaluation. In the past, researchers commonly used passive-consent procedures when collecting data from minors for their ease of implementation and because they resulted in extremely high participation rates. Even studies of sensitive topics such as adolescent suicide (Adcock, Nagy, & Simpson, 1991) and factors associated with forced sex among southern adolescent girls (Nagy, Adcock, & Nagy, 1994; Nagy, DiClemente, & Adcock, 1995) used passive-consent procedures and were able to obtain high participation rates (these studies reported parental refusal rates of 1% or less). In recent years, however, passive-consent procedures have come under increased criticism and are now generally considered unacceptable when collecting sensitive data from minors. This sets up a mismatch between the students who can be evaluated and the students the programs intend to serve.

For instance, sexual education in most areas has a parental "opt-out" or implied-consent procedure whereby students are offered sexual education unless parents request that they not receive it. Yet the evaluation of such a program requires active consent. The permission procedure therefore requires a different process than the program and can potentially introduce some bias into the sampling, because active-consent procedures often result in sharp drops in participation rates (Schuster, Bell, Berry, & Kanouse, 1998). For instance, a recent study on smoking among sixth graders used a dual-consent procedure of active parental consent as well as implied parental consent (lack of refusal). This study found that about 15% of the sample provided implied consent and that boys, African Americans, students with poor grades, and smokers were overrepresented in the implied-consent category (Unger et al., 2004). Obtaining acceptable participation rates is possible with active-consent procedures but requires additional effort and resources and increased recruitment costs (e.g., Pokorny, Jason, Schoeny, Townsend, & Curie, 2001).

In addition to securing active consent from parents, active assent was required of students for them to complete the evaluation instruments. Students involved in school activities and classes considered to be a normal part of the school curriculum do not provide their individual consent. Making sure that both parents consent and students assent to an evaluation can be a challenging organizational task and may require more personnel to be present than expected. In the JHU Respect Me Project, this proved especially difficult because of the school system's difficulties and resultant staffing problems. This means that there should be an adequate number research staff members to take on responsibilities and tasks that might be expected of teachers (e.g., distributing and collecting consent forms, monitoring students

during data collection, etc.). Families differ a great deal in the degree to which they trust schools, raising the importance of working with communities and consideration of cultural differences. The terminology used for the project is important, as is gaining input and approval from key stakeholders, including parents, early in the evaluation process. Attention to reading and language barriers requires the provision of culturally appropriate materials in other languages (usually Spanish). A program and its evaluation must be designed to add value to the community, and consent forms must be written to be transparent in terms of intent and in a way that parents can clearly understand the tangible benefits for their own children, to motivate them to grant permission for participation. Within the east Baltimore community around the JHU Respect Me Project, attitudes about research were generally negative, on the basis of past experiences of the community with research. Therefore, obtaining consent was not an easy task. The consent form with the template mandated by the human participants research board was also a challenge because of its language complexity. The project worked very closely with the institutional review board in attempting to change some aspects of the form to result in a more understandable form. The terminology used in the parental consent forms used in Arizona's Promoting Healthy Relationships Project also proved to be problematic. The university's institutional review board consent form template mandated the use of the term *principal investigator*. The word *investigator* had very negative connotations to parents in the participating communities. When *principal investigator* was replaced by *principal researcher*, parents were more comfortable with signing the consent forms.

Overcoming the barriers to parents' consideration and return of consent forms (either to agree or to refuse to participate) is crucial. There are several ways to work on this, and some methods are more successful than others. For instance, a recent study found that student-returned consent-form procedures yielded a higher rate of returns than mailed-back consent forms (McMorris et al., 2004). If a project has access to parents' names and phone numbers, direct outreach can be used. If not, forms can still be sent home via students, in which case there is a need to overcome student apathy toward returning the forms.

All three projects planned to ask teachers to send home materials and have students return the signed parental forms. However, student apathy was a challenge and in some cases appeared to be related to teachers' levels of enthusiasm for a study. The teachers' enthusiasm and levels of cooperation for the study varied enormously, as well as their willingness and ability to encourage and remind students to bring back parent consent forms. Whether the forms indicated parental refusal or acceptance was immaterial; it was important that the signed forms be returned. All three of the projects subsequently changed the recruitment procedure to reduce the burden on teachers. In each case, study staff members came into the classroom to describe the project and worked closely with teachers to monitor their return and distribute incentives (e.g., in Break the Cycle, ice cream gift certificates were given to everyone in the class if 80% or more of the students returned signed forms, whether giving permission to participate or denying permission). In one site of Arizona's Promoting Healthy Relationships Project, parents of new ninth graders are required to attend student registration prior to the start of the school year. Program staff members were present at registration and were able to provide a description of the program and evaluation, answer any questions, and collect parental consent forms. Because the parents were able to discuss the project with the persons who would be implementing it, they felt more comfortable granting permission for their children to participate.

The student-assent process is usually more routine, with most students who have parental permission agreeing to participate. But an important component has to do with the social stigma of participation. Project materials should be designed to be nonstigmatizing, so that

students do not feel embarrassed or ashamed to participate or not participate in a project. In the Break the Cycle Evaluation Project, surveys were administered in whole classrooms (containing participants and nonparticipants), and an alternative survey that looked the same as the evaluation survey was given to nonparticipants. Surveys were color coded to disguise participation. In this way, students could be promised that no one else in the class (or outside of the research team) would know if they participated or declined participation.

Protecting Human Participants and Their Privacy

As new concerns about privacy build in the health care arena, so too do concerns about students' privacy, perhaps increasing the barriers to evaluating such programs.

Working with youth on sensitive topics raises issues around confidentiality and privacy because of mandatory reporting laws and parents' and schools' expectations of protecting students above all other considerations. Because of this, many surveys of students on sensitive topics are anonymous. These types of surveys may allow more honest reporting of problem behaviors among students, because they know that their responses cannot be linked to them personally. But many evaluation efforts require linking responses over time and therefore require some linkage to individuals during the study.

Evaluation efforts that are not anonymous are required to take a protective stance, favoring the reporting of suspected child abuse over the preservation of confidentiality. But the ethics of reporting child abuse without follow-up are questionable, and projects then need to consider what happens after a report and how to best protect a child. In addition, parents and school personnel sometimes expect that projects will report any cases that indicate severe problems to them, so that they can help support or protect the students. However, it can be difficult to figure out what *severe* means and how to ensure accurate responding if some types of responses will be shared outside of the project. The delicate balance between the benefits of the research project and the risk to students must be considered in light of any restrictions to privacy that will be required. In designing a survey, one can consider exactly what information is needed for the study, and sometimes less detail can be gathered, allowing privacy to be maintained. For instance, specifics of violence exposure (where it occurred, who was the perpetrator) that might trigger a mandatory report to authorities can be left off if it is not central to the research.

Maintaining students' confidentiality, however, can be especially challenging in a school setting. Teachers and other school administrators regularly share information about students and may expect to be informed about what individual students say. Procedures can be put into place to ensure the confidentiality of data collected from students, including making surveys anonymous, using project staff members to distribute and collect student surveys (Peterson et al., 2000), asking teachers or other school staff members to leave the room during data collection procedures, and asking teachers to refrain from answering students' questions about a survey, from walking around the room while students are completing the survey, and from looking over students' shoulders as they are completing the survey (Horowitz et al., 2003).

For example, the Break the Cycle Evaluation Project took place in California, where the definition of child abuse in state law includes dating violence. This meant that project staff members would technically need to report all instances of abuse detected on the survey. Checking further, they found that those reports would be made to the local police department, and discussions with the police indicated that they would investigate each report. Being unsure of the impact such investigations would have on students, the project team thought that

the obligatory warning about making such reports in the consent form would either dissuade students from participating or would lead to underreporting of dating violence on the survey. So, after much deliberation, the researchers ultimately decided to forgo the examination of those items over time among individuals and made the portion of the survey that queried about dating violence completely anonymous. Researchers ensured that the students were informed about how to get help if they were experiencing dating violence so that they would be able to seek help from appropriate sources within the school and from Break the Cycle.

Like Break the Cycle, Arizona's Promoting Healthy Relationships Project distributed a resource list to all participating students. In addition, a school counselor was always available on survey and program implementation days to handle any questions or concerns raised. In the JHU Respect Me Project, students were warned at the beginning of the curriculum sessions, as well as in the arts-based projects, that should anyone discuss personal abuse, the study team would be required to report this to authorities. In addition, students were advised about confidentiality, stressing that what was discussed in the classroom needed to stay in the classroom or group. Like the other projects, the JHU Respect Me Project distributed resource information and also provided early intervention support groups within the school.

Implementation Issues

In terms of implementation, working in schools can be very difficult. Often, schools are reluctant to participate in outside activities that might place even the most minimal burden on already overburdened teachers and administrators and that might take away from students' class time. If schools do agree to participate, communication with teachers and administrators, who are rarely available by telephone, can be very difficult. Obtaining help from schools in a timely and efficient manner to locate particular students, remove them from class, and secure a space in which to conduct the study can also be difficult, because not only administrators and teachers but also support staff members are overburdened. A complex school calendar (involving three and sometimes four tracks), a complex bell schedule (involving days that are shortened for a variety of reasons), space constraints, and last-minute scheduling changes to accommodate special school activities and state testing and final testing schedules make smooth program evaluation difficult, especially if efforts are made to maintain privacy of participants. During the Break the Cycle Evaluation Project, for example, it was common for school schedules to change at the last minute (particularly during the spring semester) to accommodate state testing schedules, final schedules, earthquake drills, and so on. Often, teachers were not informed of changes in the school bell schedule until the last minute. At the same time, administrators are not always up to date on special activities that teachers have planned (e.g., field trips, outside speakers, tests) and may inadvertently confirm a schedule or activity that conflicts with another activity planned at the school. Thus, a good deal of flexibility as well as more staff members and more visits to the school can be helpful for schools with more complex scheduling issues (Lytle et al., 1994).

In Arizona's Promoting Healthy Relationships Project, prior to program implementation, a baseline survey was given to all high school students who had parental consent. Because the school's basketball team advanced in a tournament, more than half of the students were out of school on the date the survey was to be administered. Therefore, survey implementation was delayed until the basketball season had ended.

Incentives for students, parents, teachers, administrators, and support staff members are extremely important (Cline et al., 2005) but are sometimes not allowed by schools. It is important to recognize the burden on school personnel, including staff members in the front

office as well as the school liaison and affected teachers. Incentives such as gift certificates and contributions to school funds are important, but so too are small tokens of appreciation such as cookies, coffee mugs, and the like for office staff members themselves. The JHU Respect Me Project found that a complimentary breakfast was very much appreciated while the teachers completed their teacher survey forms, and pizza or ice cream parties for students were popular. Arizona's Promoting Healthy Relationships Project offered small incentives for parental consent form return, survey completion, and program completion. For example, students received \$1 for simply returning the parental consent form, whether or not parental consent was granted. Additionally, students received \$10 for survey and program completion.

Iterative Changes in Evaluation and Implementation

During the natural course of a project that combines the implementation and evaluation of a program, feedback occurs between the two activities that provides for changes over time. Of course, altering a program while it is being evaluated is problematic under most circumstances, and often, changes in a program are held off until the evaluation is completed. Substantial changes in a program would require a reevaluation of effectiveness. Still, iterative changes can be extremely useful if they can be conducted during a pilot period or as part of a demonstration project, as in the three studies described here. Although none of these projects had formal pilot periods, lessons learned were still integrated for the future. For example, in the JHU Respect Me Project, the arts-based curriculum was modified in response to content feedback and participation across years. For instance, to provide a realistic view of violence between boys and girls, students' suggestions and comments were integrated into the arts activities. In addition, the teaching strategies were modified in that they encouraged more interaction by the students and encouraged the students to be active participants in the discussion and the activities. In the Break the Cycle Evaluation Project, information from teen focus groups about their reliance on peers for help (Ocampo, Shelley, & Jaycox, in press) led to the development of a supplementary peer support program developed by Break the Cycle (not part of the evaluation). As a result of discussions with community members, project staff members, youth, and the funders, the evaluation plan for Arizona's Promoting Healthy Relationships Project evolved. Originally, the evaluation concentrated on looking at pre-post changes on the youth survey and possible comparisons among groups. The revised design focused on (a) documenting reactions, participation, and the perceived impact of the program activities to improve them and (b) documenting and describing the success (or lack thereof) in implementing the program activities to gain a deeper understanding of what is needed to address dating violence in the participating communities. The unique needs and populations and need for a culturally relevant program in Arizona's Promoting Healthy Relationships Project led to a greater emphasis on program development and process evaluation.

Dissemination of Results

Timely feedback to communities is very important. Newsletters, community forums, and regular updates help schools and surrounding communities understand the results of the evaluation, but the integrity of the research design must also be protected.

For example, the Break the Cycle Evaluation Project produced regular newsletters semi-annually and sent them to all of the participating schools and staff members. The newsletter contained project updates (recruitment numbers, schools involved) as well as general information

about dating violence and preliminary results that were not related to the main outcomes of the evaluation. This way, educators and administrators were able to see the fruits of their participation and could learn from the project, without biasing the participants or teachers about the main study questions while they are still being analyzed.

Arizona's Promoting Healthy Relationships Project also prepared community-specific newsletters after each cycle of program implementation. Newsletters typically contained brief descriptions of the project, graphic displays of interesting findings, overviews of significant results, and implications for future program implementation. These newsletters were given to program staff members, who then distributed them to appropriate stakeholders in the community (e.g., school personnel, parents). At one site, the school principal gave an oral presentation of the material in the newsletters at a regular staff meeting.

The JHU Respect Me Project incorporated results from the student and teacher surveys during the previous year into the teacher training activities for the subsequent year once they became available to inform teachers about issues related to IPV prevalence within participating schools, as well as to provide feedback on project successes and demonstrate changes in intervention relative to comparison schools. This type of feedback was deemed important, particularly because at project initiation, several teachers had commented on the fact that they did not perceive dating violence to be a particular problem in middle schools because most students were not dating yet. Project data helped inform those perceptions by demonstrating that in fact, the majority of students were already dating and that among those who had dated in the past year, victimization experiences were high. It was also important to enlist staff members' support in relation to the intervention and evaluation activities. This type of informational feedback can not only counter misperceptions but also potentially improve levels of school staff members' support for the efforts required to test new interventions in schools.

Discussion

This article has described three IPV prevention and intervention projects and how they strived to gather the best possible data to answer the question of whether their programs worked in their communities. The stories here reflect the classic trade-off between real-world applicability and a tight research design, and each project made that trade-off in different ways. The stages of prevention program development, the degree to which cultural competence needed to be addressed, and the evaluation designs chosen differed dramatically, but many of the logistical issues and concerns were uniform across the three projects. All three projects had to figure out how to handle issues around the recruitment of schools and participants, parental consent, privacy, implementation within complex organizational systems, how to integrate early findings into the programs, and how to disseminate programs and study findings. The one critical element that seemed to underlie the success of these projects was flexibility: the ability to work in a stressful environment and adapt project requirements in the face of ongoing organizational obstacles but still achieve the best possible study design and procedures within existing constraints.

Of course, even under the most ideal evaluation circumstances, studying prevention and early intervention programs faces a number of constraints. Foremost among them are measurement problems, because many of the behaviors being prevented are low in frequency and socially undesirable, resulting in highly skewed responses (Orlando, Jaycox, McCaffrey, & Marshall, 2006). In addition, the validity of survey responses is questionable, thus dampening findings from an evaluation that relies on assessments via survey.

In the three projects described in this article, many of the difficulties encountered had to do with a lack of familiarity with the schools involved in the projects, the need to learn how school systems operate, and competing with more important school priorities. In addition, each evaluation team had to find a way to help schools see the value and worth in the proposed prevention program and its evaluation. A single school can contain several "cultures": the teacher culture, the general student culture, and different racial or ethnic student groups, for example. Thus, a single approach to a school does not always work, and adaptations and competence may be needed with several different cultures within a single school. As researchers gain familiarity with school systems and forge partnerships with particular schools, these cultural issues may ease.

Being sensitive to the needs of the culture in which one will be working is crucial to the successful implementation of a school-based study. This could be the school culture and climate, the culture of teens, or the ethnic and racial cultures of the study participants. Peterson et al. (2000) emphasized the need to be sensitive to a school's culture by recognizing the school's needs and wishes as to how a study or program will be implemented. It is important to become familiar with issues related to the particular community and culture that could affect the recruitment and enrollment of minority participants, and the formation of an advisory committee can help develop community support as well as increase recruitment and retention in the project (Gittelsohn et al., 2003; Grunbaum, Labarthe, Ayars, Harrist, & Nichaman, 1996).

In this article, we have discussed the details of how the three projects were implemented, in an effort to convey lessons learned for other researchers and program implementers who are grappling with similar issues. Flay and Collins's (2005) comment that the devil is in the details seems extremely apropos to the current state of knowledge about how to conduct solid school-based research. Although many advances have been made in methods and in schools' appreciation for the importance of evaluations, these projects are still quite difficult to conduct. There is a constant need to be flexible in procedures and plans to accomplish the evaluation. Some decisions for modifications in procedures described in this article evolved slowly over time within the partnerships, whereas others were "on-the-spot" decisions. These on-the-spot decisions are the most difficult, because they require an appreciation for the ideal research design as well as the various trade-offs that can be made without jeopardizing the ability to answer the main research questions. Key questions that should arise each time a decision is made include questions about ethics and confidentiality, feasibility, the comparability of intervention and comparison groups, the ability to discern what happens in each group, attention to possible contamination or spillover between groups, and the quality of the data that will be collected. An appreciation of the statistical methods that can correct for some of the real-world problems of attrition, missing data, imperfect randomization, and the like is also helpful to figure out how decisions will affect the final analyses.

Some of the main pointers for how to conduct successful programs and evaluations in schools are as follows: (a) become familiar with schools' environments and cultures; (b) gain cooperation from schools at the district level, from principals, and also from teachers and other school staff members who will be involved in the project; (c) maintain contact with school staff members throughout the study period (not just at the beginning); (d) keep the burden on school staff members to an absolute minimum, using project staff members to support research activities; (e) provide incentives to schools, teachers, and other school staff members for students to return consent forms (regardless of consent status) as well as for participation in assessments; (f) plan to put a lot of time and effort into the informed-consent process, including the preparation of culturally and linguistically appropriate materials, distribution to students, and frequent reminders; (g) build flexibility into your implementation plan, allowing

time in the project schedule and adequate staffing to deal with unexpected changes; and (h) be sensitive to schools' cultures.

In conclusion, we believe that the evaluation of school programs is an extremely important yet challenging task. It is hoped that the details of the three projects described here can help other researchers implement their own evaluations successfully and help the field understand better what works, and for whom, in schools.

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