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Research Partnerships with Schools to Implement Prevention Programs for Mexican Origin Families

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Abstract

We describe critical participatory principles and practices used in a successful multiyear partnership between university researchers and a public elementary school district to implement an efficacy trial of the *Puentes* program, a family based program to prevent school disengagement and mental health problems in Mexican origin 7th graders. We highlight the role of the School Advisory Board as the principle structure facilitating the collaboration and the expansion of roles and power sharing that evolved over the course of the project. We also present the results of a focus group conducted to evaluate the school district's perspective on the partnership. We end by sharing conclusions regarding the critical aspects of the partnership.

Keywords

collaboration; partnership; prevention; participatory research; Mexican; schools

The ultimate goal of prevention research is to increase the welfare of community members. Unfortunately, most scientifically validated prevention programs have not been widely adopted in communities. As a result, these interventions have done little to reduce behavioral health problems in American communities (Chinman et al., 2005; Sandler et al., 2005). A key reason may be that intervention researchers have paid insufficient attention to collaborating with community service providers, such as community agencies or schools, who potentially could implement and sustain interventions after initial research projects have been completed (Spoth & Greenberg, 2005). Recently, researchers have asserted that it is time for such collaborations to become a focus of community science (Chinman et al., 2005; Spoth & Greenberg, 2005; Trickett & Espino, 2004; Wandersmann, 2003). As a first step, intervention researchers need to describe their collaborations with community organizations and report the strategies and processes that were critical to their success (Jason, Davis, et al., 2003). Accordingly, in this paper, we describe a successful multiyear partnership that was formed between university researchers and a public elementary school district to conduct a randomized controlled trial of Bridges to High School Program / Puentes a la Secundaria (*Puentes*), a family based program to prevent school disengagement and mental health problems in Mexican origin 7th graders. We use the term “Mexican origin” to be inclusive of immigrant students and parents from Mexico as well as Mexican-Americans born in the United States.

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We begin by placing our current research partnership within the larger conceptual framework of prevention and participatory research and researcher-community collaborations. We then illustrate with concrete examples how we put participatory principles into practice to yield mutual benefit and satisfaction for both partners involved in the collaboration. We go on to present the results of a focus group conducted to elicit the collaborating school district's perspective on the partnership to date. Finally, we share conclusions regarding critical components in the success of the partnership.

Prevention Science and Participatory Research Frameworks and Principles

The prevention science research cycle espoused by the Institute of Medicine (IOM; Mrazek & Haggerty, 1994) represents a major contribution by delineating methodical stages of prevention program development (problem identification, specification of risk and protective factors, design of prototype), testing (conducting pilot tests then efficacy trial), and dissemination (intervention adoption and large scale implementation). Critical strengths of this model are its emphases on rigorous scientific processes and the validity of empirical evidence. At the same time, this model assumes a hierarchical scientist-as-expert perspective and portrays scientists as separate agents conducting research on “subjects” and groups. Moreover, even though each stage in the IOM model requires the cooperation of individuals and organizations, the model does not address the relationships and collaborative processes that are critical to accomplishing each stage. These limitations of the IOM model can lead to mismatches between interventions and the perceived needs of recipients and community organizations and to inaccurate presumptions regarding community organizations’ capacity to implement interventions (Chinman et al., 2005; Miller & Shinn, 2005).

Participatory research frameworks have been promoted to compensate for the shortcomings of traditionally distant and hierarchical relationships between experts and research “subjects” implied in the IOM model. (Jason, Keys, Suarez-Balcazar, Taylor, & Davis, 2003; Minkler & Wallerstein, 2003). Participatory research is a broad term that encompasses a range of approaches developed by researchers to engage citizens (e.g., non-researcher consumers, community groups, and service provider agencies) as active participants in the development, implementation, evaluation, and dissemination of research conducted with them (Taylor et al., 2003). The overarching purpose of this engagement is for citizens and community organizations to increase their capacity to direct their own futures and to initiate positive leadership in their communities (often termed “empowerment”; Balcazar et al., 2003; Rappoport, 1994; Trickett & Espino, 2004). Accomplishing this purpose requires that researchers commit to fostering egalitarian relationships with participants, to giving voice to participants’ experiences, needs, and goals, and to ensuring that research projects are responsive to what participants say (Wallerstein & Duran, 2003).

Advocates of participatory research have called for clarification of terminology in the field (Pokorny et al., 2003; Riger et al., 2003; Wallerstein & Duran, 2003). “Stakeholder” refers to individuals, groups, and organizations that have an interest in the outcome of a research project. Proponents of participatory approaches sometimes use the terms “participants” and “community” to simultaneously refer to two different levels of stakeholders, that is, individuals who are being studied by researchers and organizations or service provider agencies that represent, interact with, or provide access to these targeted individuals (Israel et al., 2005). As we are focusing on our working relationship with a school district in this article, we distinguish between the two levels of individuals and service provider agencies. In the service of clarity, we will use the term “participants” to refer to individuals (and families) who participated in our efficacy trial and were recipients of the prevention program that was being evaluated. We will reserve the terms research “partner,” “partnership,” and “collaboration” to refer to our working relationship with the school district and middle

schools serving the participants in our study. Finally, “we” refers to the authors of this paper who are university researchers responsible for implementing the efficacy trial project.

Participatory research typically requires collaboration between researchers and agencies that represent or serve potential participants. In this context, collaboration has been defined as “a mutually beneficial and a well-defined relationship entered into by two or more organizations to achieve common goals” (Mattessich & Monsey, 1992, p. 11). Collaboration processes vary along the dimensions of depth, breadth, and time (Trickett & Espino, 2004). Collaboration depth refers to the degree of partners’ direction of a project. Breadth pertains to the range of stakeholders consulted. Time refers to the duration of sustained collaborative relationship. Deeper and broader collaborations usually involve expanded roles for collaborators (e.g., relationship building, socializing) and extended time frames (Israel, 1998).

Principles of Participatory Research and Collaboration

Investigators have developed principles to identify and guide participatory research and collaborations (see Israel et al., 2005; Suarez-Balcazar et al., 2003; Taylor et al., 2003; Trickett & Espino, 2004). Although many of these principles can be applied to interactions with both participants and partners, the focus here is on collaborations with partner organizations (e.g., school districts). One key principle is that participatory researchers should *build on partners’ strengths and resources* rather than focus on deficits (Rappoport, 1994). Also, participatory practices should *enhance reciprocal learning* so that researchers and partners gain a deeper understanding of the target issues and of each other (Bradbury & Reason, 2001). This requires that researchers get to know the culture of the organizations with which they are collaborating (Trickett & Espino, 2004) and also orient their partners to the culture of researchers and the university (Wandersman et al., 2003). Researchers should demonstrate what Tervalon and Murray-Garcia (1998) refer to as *cultural humility*, which involves respecting the strengths, expertise, and organizational culture of their research partner. Practicing cultural humility serves to minimize potential power imbalances between researchers and partners. Participatory research should strive for a *balance between knowledge generation* (e.g., studies that primarily gather data) and *service* (e.g., studies of prevention program implementation) so that all partners and participants benefit (Israel et al., 2005). Participatory researchers are encouraged to share results with their partners and involve partners in evaluating and disseminating results. In addition, a participatory framework calls for investigators’ *commitment to long-term, iterative processes* of research and human and social capital development in communities and to sustaining effective interventions (Israel et al., 2003).

Some principles have been developed that more specifically address collaboration processes (Israel et al., 2003; Suarez-Balcazar et al., 2003; Trickett & Espino, 2004). Key among these principles is that researchers’ should commit to building relationships based on mutual respect and trust (Suarez-Balcazar et al., 2003; Trickett & Espino, 2004). Also, researchers and collaborators should endeavor to *maximize the exchange of resources*, both tangible (e.g., researchers employing community members and partners providing facilities for programs) and intangible (e.g., partners’ knowledge of participants and researchers’ knowledge of research methods) (Suarez-Balcazar et al., 2003). Additionally, authors advocate that collaborators establish and maintain open lines of communication, means for resolving conflict, and mutual accountability for project success. Another critical guideline is that the scope (depth, breadth, and duration) of collaborations needs to be balanced against the resources (e.g., time and funding) that both researchers and their partners are willing and able to invest to achieve prospective outcomes (Israel et al., 2003).

Recently, there has been a call to integrate prevention science and participatory research theory and practice in order to enhance the development and dissemination of effective prevention programs to benefit American communities (Chinman et al., 2005; Spoth et al., 2005). In the next section, we will outline how our research team has pursued this hybrid approach in the course of developing *Puentes*. The emphasis, however, will be on illustrating, through the use of concrete examples, how we put participatory and collaborative principles into practice in our relationship with a school district to yield mutual benefit and satisfaction.

Developing Puentes

Integrating prevention and participatory research

Ten years prior to the efficacy trial, our research team initiated a series of studies, integrating scientist-centered and participant-centered approaches, that moved us through stages of the prevention program development cycle (Mrazek & Haggerty, 1994). Our early studies focused on understanding risk and protective factors impacting children's mental health and adjustment in ethnically diverse families in the central Phoenix area. In some of these studies we used survey instruments and quantitative methods to help us identify salient transcultural (“etic”) risk and protective factors (e.g., parenting, adolescent coping) affecting children's adjustment, including academic achievement (Dumka, Roosa, & Jackson, 1997; Gonzales, Tein, Sandler, & Friedman, 2001). In other studies, we employed participant-centered qualitative methods (in-depth individual interviews and focus groups) to identify culture-specific (“emic”) risk and protective factors (e.g., acculturative stressors, home/school communication barriers) as well as family members' intervention needs and preferences (Dumka, Gonzales, Wood, & Formoso, 1998). In subsequent studies, we developed and tested culturally responsive assessment instruments (Barrera, Caples, & Tien, 2001) designed a prototype intervention to prevent children's maladjustment, and pilot-tested the prototype (Gonzales, Dumka, Deardorff, Jacobs-Carter, & McCray, 2004). Repeated pilot tests of interventions and feedback from participants helped us adapt the intervention to achieve an optimum balance between addressing empirically supported transcultural content and processes and responding to culture-specific characteristics (Gonzales, Dumka, & Mauricio, 2003). It was through these studies, involving hundreds of families of school age children and several different school district partners, that we came to understand the critical role that school engagement plays in Mexican origin adolescents' adjustment and what kind of prevention program might mobilize cultural and family factors to increase that engagement.

This history of studies reveals two important aspects of our work. First, it illustrates how we adopted a hybrid approach to developing *Puentes*. We strategically sequenced and integrated scientist-centered and participatory approaches as program development needs directed us. Second, it shows evidence of our commitment to the participatory research principle of balancing knowledge generation and intervention provision so that all stakeholders can benefit (Israel et al., 2005).

Balancing scope of collaboration with researchers' and partners' needs and resources

In the course of these studies, projects representing different stages of prevention research (e.g., generating knowledge of participants' experience, needs, preferences; identifying risk and protective factors; developing and pilot testing interventions) required different types of studies and different levels of collaboration (Israel et al., 2003). For example, some of the more participatory studies involving conducting focus groups and pilot testing our interventions required the use of school facilities and interacting with school staff. These collaborations with schools were necessarily “deeper” than those in which school districts

were only asked to provide rosters of students. It is important to note that our different school partners were interested in varying degrees of participation and collaboration depending on their investment in the studies' outcomes and the availability of human resources to invest in such collaborations. As advocated by Israel et al. (2003), our commitment was to present our partners with options regarding possible levels of collaboration and then to show respect for the level our partners were willing and able to support at the time and still accomplish project goals. In sum, we found that different stages of prevention program development could be responsibly achieved with different scopes of relationships with different parties (e.g., potential recipients of an intervention, service providers) (Israel et al., 2003; Pokorny et al., 2003).

The scope of the efficacy trial

Puentes was developed as a culturally responsive, family-based, skills-training program to promote school engagement and mental health among Mexican origin 7th graders following their transition to middle school (Gonzales, Dumka, & Mauricio, 2003). The research design required random selection and random assignment to condition. The treatment condition included two home visits and nine weekly sessions. Weekly sessions included simultaneous parent and teen components with a family interaction component immediately following. Sessions were conducted in the evenings at four middle schools. The treatment condition also included a school liaison component to facilitate problem-solving between parents and the schools. The control condition consisted of a one-evening discussion group for parents and teens conducted at a middle school. Separate English and Spanish speaking groups were held simultaneously at each school for both treatment and control conditions. The efficacy trial included 516 Mexican origin families across three cohorts (spanning three academic years).

What Scope of Collaboration Was Needed?

As we moved into the efficacy trial stage, the question facing us was: What is the optimum scope of collaboration to balance achievement of this project's goals and respect for the level of resources our partner was willing and able to commit? The *Puentes* trial clearly required a "deeper" and more extended collaboration with a school district partner than we had previously developed. Due to the complexity of the project (e.g., extensive reliance on school facilities, dedication of effort by school support staff), we also knew that effective processes of collaboration would be critical not only to the quality of the implementation but also to the likelihood of the intervention's future adoption and dissemination.

The model for our anticipated collaboration with the school district partner most closely resembled what Trickett and Espino (2004) describe as a "research partnership." This type of collaboration involves "the coming together of researchers with community groups around problems jointly identified as relevant enough to community concerns to generate sufficient energy to work together" (Trickett & Espino, 2004, p. 25). Thus, an important incentive for this type of collaboration is the prospect of mutual benefit. According to Trickett and Espino, a research partnership is generally initiated by the researchers who have developed a research project that they believe worthwhile with the potential for positive public health benefits. If the research partnership involves a proposed intervention, then core ingredients of the intervention and the research design typically have been determined in advance by the researchers and are not negotiable. This is was largely the case with the *Puentes* intervention (as a result of the previously mentioned participant-focused studies).

At the same time, our anticipated collaboration needed to depart from the typical research partnership in that it called for the integration of more participatory methods. For example, a key goal of the intervention was to enhance home-school linkages by increasing parents'

ability to communicate with teachers and navigate the school system. To achieve this goal, it was necessary to incorporate the particular schools' views on how to do this and to understand the schools' policies, procedures, and barriers when working with families. Also, although the parent, teen, and family components had been largely determined through the previously mentioned studies, the school liaison component had yet to be developed. It was critical to have the schools' participation in shaping this component as the school liaison needed to be responsive to both the school system and to families. In addition, we needed to understand the dynamics and capacity of the school system (e.g., facilities, personnel, financial resources, commitment) as the delivery context for the intervention, not just for the efficacy trial but also for future dissemination (Stith et al., 2006).

Entering the Partnership

Knowing our partner's characteristics and context

Gaining knowledge of relevant characteristics of potential research partners is critical in planning collaborations (Trickett & Espino, 2004). Our targeted school district served an area that had experienced significant year-to-year increases in the proportion of Mexican origin students over the previous 5 years and in 2002 served about 75% Mexican origin families (Arizona Dept. of Education, 2004c). Although predominantly lower income (75% to 85% of the students at these schools were eligible for free or reduced lunches; Arizona Dept. of Education, 2004a), the families of these students represented a range of income, parent education, occupational prestige, generational status in the U.S., and acculturation levels. There were four large middle schools in the district that served between 1000 and 1100 7th and 8th graders each. An average of 25% of the Mexican origin students were enrolled in Limited English Proficiency classes (Arizona Dept. of Education, 2004b) and a significant proportion demonstrating poor academic outcomes. The district was experiencing high rates of school disengagement among Mexican origin youth. It was also under pressure to comply with recent state legislation drastically limiting bilingual education as well as state and federal statutes connecting funding to minimum standardized test scores. Consequently, school disengagement was a community concern of great interest to both the researchers and the school district, a concern the *Puentes* program was designed to address (Trickett & Espino, 2004).

Identifying the resources that will be exchanged

Maximizing equitable exchange of resources is a principle of participatory research (Suarez-Balcazar et al., 2003). In this case, the school district would provide access to the Mexican origin families that would potentially participate in the *Puentes* program, facilities to conduct the intervention, and the investment of various staff members' time and effort. We would provide the personnel, program materials, and financial resources needed to manage and deliver a high quality evidence-based intervention aimed at increasing school engagement. We would also provide ancillary services to reduce barriers to attendance (e.g., meals, child care, and transportation).

Partner strengths: Leadership investment

In addition to a mutually valued goal and a favorable exchange of resources, another significant aspect of readiness to collaborate is the characteristics of the partner's leadership (Stith et al., 2006). The school district was led by experienced administrators committed to finding ways to better respond to the pressing issues occasioned by recent demographic changes. Moreover, these administrators were welcoming of assistance to address these challenges. These district strengths were important assets.

We had first approached the district superintendent when we were preparing our grant proposal. At that time, he had expressed a strong desire to collaborate. Upon receiving funding, the superintendent took the lead and convened a meeting with key district and middle school personnel likely to be involved in the implementation. At this meeting, the superintendent affirmed collaboration with *Puentes* as a district supported priority. We shared the background, mission, and requirements of the project, solicited reactions and questions, and asked attendees how their operations might accommodate the intervention. Although the support of school personnel initially was solicited in this more top-down manner, these personnel showed enthusiasm for the partnership. They were pleased that collaboration with *Puentes* would provide resources required to address important needs. At this meeting, in addition to describing our resources, we also took care to ensure that attendees understood the demands the project would place on them. For example, our research design specified that the intervention initially be limited to Mexican origin families and that there be random selection and assignment to either a treatment or control condition. These stipulations precluded referrals of students with academic problems to the treatment group. Additionally, we asserted the need to form a school advisory board to facilitate the partnership.

Prior to beginning the second and third intervention cohorts, we again conducted organizing meetings convened by the district superintendent. These meetings reminded school personnel of the mission, scope, and value of the partnership and served the function reinforcing our commitment to each other.

Enabling Reciprocal Learning - The School Advisory Board

Advisory boards are a mechanism increasingly used by university researchers in collaborations with targeted groups (Harris et al., 2001; Saunders, Greaney, Faith, & Clark, 2003; Secrest et al., 2004). Typically, advisory boards are comprised of volunteers who can represent the views and interests of participants or collaborating partners to guide researchers in the implementation of projects. Advisory boards can inform researchers about culturally sensitive practices, effective recruitment strategies, development of intervention materials, overcoming barriers to achieving project goals (e.g., facilitating problem solving and conflict resolution), and obtaining organizational support (Harris et al., 2001; Rothblum, Factor, & Aaron, 2002; Saunders et al., 2003; Secrest et al., 2004). Currently, the literature describing advisory boards tends to place more emphasis on one-way information flow, from advisors to researchers.

However, at this stage of the *Puentes* project, we conceived of the School Advisory Board (SAB) as the primary means for reciprocal learning between our partner school district and us. Granted, we needed the SAB to advise us on the most effective and collaborative ways to implement the intervention within the four respective school contexts, alert us to potential barriers or problems, and help us shape one component of the intervention –the school liaison (described below). At the same time, given the depth and extended timeframe of our collaboration, it was just as important to have a continuing means for our partner to learn about us, to develop a comfortable relationship with us, and to learn that we were committed, responsible, and trustworthy. We also hoped that the ongoing relationships would permit a richer opportunity to learn about our partner schools' organizational cultures and the ways in which these cultures would accommodate the *Puentes* intervention. In other words, we viewed our relationship with the SAB as an opportunity for us to demonstrate cultural humility (Tervalon & Murray-Gracia, 1998) and shape the collaboration in an increasingly egalitarian and empowering direction.

We proposed that SAB membership consist of an administrator and/or teacher (school) representative appointed by the principal of each participating middle school, a parent representative from each school, a *Puentes* co-principal investigator, and the *Puentes* project director (who oversaw intervention implementation). Recommended qualifications for school representatives were that they had the principals' confidence, were familiar with their school's operations and personnel (e.g., they had been at their school at least two years), were known to interact well with families, and were interested in prevention programs. Additional desirable qualities included being Mexican origin and bilingual. Recommended qualifications for parent representatives were that they were Mexican origin, had lived in the community for several years, and had shown involvement with the school. School principals appointed both school and parent representatives. All representatives received an honorarium for each SAB meeting they attended.

The first SAB meeting was held eight months prior to our first spring implementation of *Puentes*. Over the three years of the intervention, the SAB convened ten times, with more frequent meetings prior to and during the first year of implementation. Meetings were held on a rotating basis at the participating schools. Between meetings, there were additional interactions between *Puentes* and school representatives related to project tasks (described below).

Critical Results of the School Advisory Board

Shaping the school liaison (SL) intervention component

The rationale for the SL component was that rigid boundaries often exist between Mexican origin families and schools, with little information passing between the two. Schools and teachers may have practices that are unwelcoming or alienating (e.g., inadequate translation resources for Spanish-speaking parents). Also, Mexican origin parents may think it is not their place to advocate for their children or challenge school authorities (Valdez, 1996). The resulting lack of communication can negatively impact students' academic success. The SL component was intended to bridge this divide and the schools' input was critical its design.

A methodological challenge in developing the SL component was that, unlike the parent, adolescent, and family components of *Puentes*, which all treatment participants received, the SL would be consulted only by families wanting additional help with a school related difficulty. Thus, the SAB had to find a way of balancing the tension between what Bogat and Jason (1997) call bandwidth (i.e., range of involvements the SL could be drawn into with families) and fidelity (delimited involvements that increase consistency). We began by asking SAB members to identify school difficulties that Mexican origin parents encountered and ways that a SL could address these difficulties. We next asked SAB members to rank order the potential benefits of these SL functions. We then summarized the rankings and took the prioritized functions to the larger *Puentes* team to determine how these functions could be performed with fidelity across families and presenting concerns. Using the model of multisystemic therapy (Henggeler et al., 1998), the *Puentes* team derived a tentative set of intervention principles to guide the SL's involvement with families. We then went back to the SAB, oriented members to the role of guiding principles in maximizing intervention fidelity in efficacy trials, and solicited members' feedback and revision of proposed processes for implementing them. In this way, SAB members became engaged in critical research design decisions that capitalized on their expertise. In addition, we asked the SAB for recommendations regarding the qualifications and training of the SL. Through these processes, we sought to demonstrate respect for our partner's organizational culture and maximize reciprocal learning and mutual investment in the success this component of the intervention.

Integrating knowledge of schools' culture and practices into the intervention

We tried to demonstrate cultural humility by consulting with the SAB to learn about each school's practices that impacted *Puentes* participants and program implementation. For example, we learned about schools' disciplinary and suspension practices, their procedures for communicating with parents about students' academic or behavioral problems, and procedures for referring students for necessary behavioral health and family support services. We also learned about the extent and effects of language barriers between teachers and parents and about available school resources to overcome these barriers. The knowledge gained was then integrated into *Puentes* staff training in order to maximize the intervention's sensitivity and responsiveness to these school conditions.

Member role expansion and empowerment

The process of collaboration can entail the expansion of researchers' and partners' roles over time (Trickett & Espino, 2004). Initially, we had conceived of the school representatives on the SAB primarily as consultants who also could facilitate communication between the *Puentes* research team and school administrators and staff. However, as we demonstrated our commitment to reciprocal learning and power sharing by acting on SAB members' recommendations, the roles of the school representatives expanded. This role expansion was observed in school representatives' growing sense of ownership of the *Puentes* intervention and their becoming champions for *Puentes* in their respective schools (Galano, 2001). Evidence of this increasing ownership included school representatives proactively alerting us to important school personnel changes and to upcoming school events and renovations that conflicted with intervention dates. These representatives, as insiders, influenced school administrators to modify school event scheduling, facility use, and support staff duties (e.g., front office and custodial staff) to facilitate implementation of *Puentes*. SAB school representatives, at their own recommendation, assumed responsibility for teacher data collection and logistical communication at their own schools. Additionally, when our job search did not yield enough appropriate candidates, two of the school representatives offered to take on the responsibilities of *Puentes* on-site supervisors at their schools, coordinating child care and meal serving for the duration of the intervention. These role expansions resulted in increased communication between our team and the school representatives which enhanced our ability to detect and respond to school concerns promptly. The role expansions also led to compensate school representatives for their added time commitments. In sum, these developments attest to the empowerment of the school representatives over the course of the intervention (Trickett & Espino, 2004).

Participatory Evaluation of the Partnership

In keeping with participatory principles, we felt it was essential to include our partner's perspective in evaluating the partnership (Israel et al., 2005). Consequently, after the third and final *Puentes* cohort, we conducted a focus group evaluation with the school principals (n=3; one was unable to attend) and SAB school representatives (n= 3). The 90-minute focus group, held at one of the participating schools, was conducted in two parts. The first part focused on the perceived costs and benefits of the partnership and was moderated by the first author. The second part addressed satisfaction with the partnership and was moderated by an impartial professional focus group moderator not associated with either partner. Participants consented to videotaping and the videotape was later transcribed verbatim. To maintain anonymity in the second part of the focus group, respondents identified themselves and each other only by their role when speaking (i.e., principal or SAB school representative). Participant responses were independently coded by the first and second authors. The coders then compared their results and resolved discrepancies. Following is a brief summary of the results.

Part I: Views of the exchange of resources

In order to assess our partner's views on the exchange of resources, we asked about perceived costs and benefits of the partnership. SAB school representatives and principals noted that the partnership had significant benefits for participating families, the schools, and themselves personally. On a personal level, school representatives reported professional development and satisfaction in the expanded roles *Puentes* gave them to help students and families succeed at school and life. Observed benefits to families included improved student coping and parent-adolescent relations, increased parental involvement in adolescents' schooling, and more effective parental communication with teachers. Principals and school representatives also noted school-level benefits such as an enhanced public image with parents as a result of providing an attractive family based program. Moreover, principals noted that the school's relationship with the university and *Puentes* had positive effects on teachers' attitudes towards using evidence based practices and towards participating in research.

Perceived costs of the partnership included providing required space and use of school staff for program implementation. Regarding space, there were the challenges of reserving facilities and negotiating scheduling conflicts. Staff resource costs mainly involved obtaining additional cooperation from custodians and teachers. There were occasional complaints from teachers who did not want to share their classrooms with *Puentes*. SAB school representatives described some challenges in enforcing deadlines with colleagues for submitting teacher report data. As a final point, principals noted that school representatives who served as site coordinators were unavailable for other school leadership responsibilities due to their time commitment to *Puentes*.

Part II: Views on *Puentes* collaborative processes

With the *Puentes* personnel absent, participants were first asked by the moderator to quantitatively rate the balance between costs and benefits in collaborating with *Puentes*. The response scale ranged from 1 (many more costs than benefits) to 5 (many more benefits than costs). All six participants responded with the highest rating (5), that is, many more benefits than costs. Next, participants rated their personal level of satisfaction with the partnership. Again, all six participants responded with the highest rating. Finally, the SAB school representatives (n=3) rated the *Puentes* team's responsiveness to their recommendations and feedback from 1 (not at all) to 5 (very responsive). All three respondents provided the highest rating.

Respondents were then asked to identify the most satisfying aspects of the partnership. Principals said they appreciated being able to delegate the responsibility for management of the intervention to the university *Puentes* team as well as *Puentes*' ability to compensate teachers for extra work. School representatives who acted as site supervisors (n=3) appreciated that the project was well organized. Specifically, they identified the high degree of overall assistance provided by *Puentes* (e.g., trainings) including the *Puentes* project director keeping them well informed, being readily available to assist them, and promptly responding to their needs and feedback. One school representative expressed satisfaction in seeing how the partnership grew in effectiveness over the three years. Another liked how teachers at his school seemed to take increasing ownership of the *Puentes* program over the years.

Participants were then pointedly asked to identify least satisfying aspects of the partnership. Three aspects were identified. First, school representatives noted difficulties with teacher data collection, which they attributed to the personalities of some their colleagues and to university Institutional Review Board rules requiring giving monetary incentives at the time

of request rather than for questionnaire completion. A second “least satisfying” aspect identified was the relatively low pay rate at which *Puentes* could compensate school representatives compared to what the district compensated teachers for extracurricular work. A third “least satisfying” aspect was the occasional conflict and tension that arose between various *Puentes* personnel groups on site (child care workers, group leaders, site supervisors, undergraduate research assistants). The site coordinators said they sometimes wished that *Puentes* staff would have consulted with them more and solicited their recommendations before instituting procedural changes to solve problems reported by group leaders. However, overall, it appears that participants expressed a high degree of satisfaction with *Puentes* collaboration processes.

Conclusions, Recommendations, and Future Directions

As Israel et al. (2003) assert, “no one set of community based participatory research principles is applicable for all partnerships” (p. 59). We will now present our conclusions regarding the principles and practices that were most critical to the success of this collaboration and the efficacy trial.

Highly valued mutual goal and resource exchange

In our (and our partner's) view, the success of the collaboration rested on the foundation of a highly valued mutual goal and the prospect of favorable outcomes and mutual exchange of resources. It was the strength of our and the school district's mutual concern for improving the academic performance of Mexican origin students that fueled the investment of resources necessary to accommodate the required scope of this collaboration. Fortunately, at this stage of *Puentes* development, we were in a position to provide a high quality service over an extended period and to compensate school staff for their expanded role responsibilities. Still, our experience attests to the importance of carefully and accurately articulating a mutual concern and goal before embarking on collaboration and negotiating its scope. Researchers promoting projects that do not provide immediately apparent benefits to collaborators and participants face a greater challenge and responsibility in accurately framing these goals.

We also think it was critical that we established communication processes to regularly remind ourselves and our partner of the mutually valued goal and exchange of resources. The processes we used in School Advisory Board meetings and the annual *Puentes* planning meetings convened by the district superintendent were designed to reinforce partners' commitment to the project's mission. For example, we would frame problem-solving tasks at these meetings in terms of: How can we address this problem in a way that most benefits the families we serve? or How can we do this in a way which best evaluates *Puentes* effectiveness with students? Frequent interactions with our school representatives in their expanded roles also provided us with opportunities to receive ongoing feedback on their perceptions of the exchange of resources and to make prompt adjustments.

Determining and agreeing on an appropriate scope for the partnership

Researchers need to balance study requirements with potential collaborators' different levels of interest and ability to invest in extensive participatory research processes. This stage of our research involved conducting a randomized trial of a family oriented prevention program using school facilities after school hours as well as collecting both teacher report and school district archival data. Our study design placed limitations on the depth and breadth of collaboration in that the design drew both treatment and control group students from each of the schools. To minimize potential treatment-control contamination, we needed to restrict the degree of project's publicity and advocacy within the schools' cultures and in

the communities they served. Given these conditions, the results of the focus group evaluation indicated that the collaborative processes struck a reasonable and mutually satisfactory balance. We anticipate that this satisfaction will facilitate different scopes of collaboration with the school district in the next stages of the research.

Our experience also highlights the importance of collaborators identifying and prioritizing their requirements for collaboration when negotiating the scope of their relationship. Given that the efficacy trial was implemented through schools and used school facilities, we viewed participation in the SAB as a priority requirement. It is also possible that the scope of collaboration on a project may need to change over time. If this should happen, then the strength of the collaborative relationship, manifest in mutual good will and loyalty, is likely to be a significant factor in how partners approach these changes.

Listening, reciprocal learning, and power sharing

Implementing participatory principles resulted in power sharing that increased partner investment and improved project quality. As Labonte (1994) notes, the spirit with which a collaboration is approached can turn a traditional hierarchically oriented researcher-partner relationship into a more collaborative one. We approached the operation of the SAB from an egalitarian position, acknowledging that school representatives were experts on their own organizations. We endeavored to give voice to their ideas about how *Puentes* could best function within their contexts (including conducting the focus group evaluation of the collaboration itself). As we showed that we would accept SAB members' influence by acting on their recommendations, members' commitment to the success of *Puentes* increased, and their roles expanded. Correspondingly, members' interest in implementing rigorous scientific procedures (i.e., our cultural practices) also increased. Researchers may be ambivalent about such power sharing, fearing that it may compromise scientific validity. However, the interplay of reciprocal influences was very advantageous to this project.

We think similar power sharing processes are crucial to increasing the capacity of prevention science to enhance community welfare. Programs that have demonstrated efficacy in trials often fail to replicate successful outcomes in real-world settings (Wandersman & Florin, 2003). In part, this may be attributable to practitioners' modifying programs due to incongruencies between the intervention and an organization's capacity to deliver the intervention (Miller & Shinn, 2005). We think that our approach to this collaboration has significantly increased the potential fit of *Puentes* to its intended real world settings (Stith et al., 2006).

Next steps

Overall, mutual satisfaction with the scope and outcomes of the partnership has contributed to both partners' interest in future collaborations. The next steps include reporting initial intervention outcomes and assessing the school system's readiness to invest in intervention adoption, dissemination, and sustainability. The upcoming stage of the research involves moving *Puentes* from relative obscurity within the district to a substantially more visible profile. Critical questions need to be addressed. For example, what additional partners need to be included in future collaborations (e.g., school board members, community advocates, and service providers)? To what degrees are the parent, teen, family, and school liaison components of the *Puentes* valued by the partners? What investments are the potential partners willing to make to obtain the needed resources to adopt and sustain the intervention? What are the barriers to program adoption and sustainability? These questions point to opportunities to reinvest in and deepen collaboration.

As we said earlier, the ultimate goal of prevention research is to increase the welfare of community members. Our collaboration with our partner school district, patterned on participatory principles, moved the development of *Puentes* significantly along the prevention research cycle. We take satisfaction in the positive experiences reported by our partner and we deeply appreciate the cooperation we received. We now look forward to applying what we have learned to the challenges of the next stage of *Puentes* adoption.

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