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Learning from Communities: Overcoming Difficulties in Dissemination of Prevention and Promotion Efforts

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The model of prevention science advocated by the Institute of Medicine (P. J. Mrazek & R. J. Haggerty, 1994) has not lead to widespread adoption of prevention and promotion programs for four reasons. The model of dissemination of programs to communities fails to consider community and organizational capacity to implement programs, ignores the need for congruence in values between programs and host sites, displays a pro-innovation bias that undervalues indigenous practices, and assumes a simplistic model of how community organizations adopt innovations. To address these faults, researchers should locate, study, and help disseminate successful indigenous programs that fit community capacity and values. In addition, they should build on theoretical models of how locally developed programs work to make existing programs and polices more effective.

KEY WORDS: dissemination; prevention and promotion; community psychology.

In his article on community science, Wandersman (2003) notes that the gap between research and practice in efforts to promote the quality of life in communities is often a chasm. Interventions based on social science evidence have not been widely adopted, and alternatives with little evidentiary base are far more popular. Wandersman suggests that the gap occurs primarily between the fourth and fifth steps of the prevention-intervention research cycle advocated by the Institute of Medicine (Mrazek & Haggerty, 1994), that is, between the large-scale trials of interventions that demonstrate their efficacy under controlled conditions and more widespread implementation in the community. He suggests a number of solutions that include participation and control by practitioners and communities in tailoring interventions and monitoring their success under local conditions. He also focuses on building the capacity of local organizations to deliver and evaluate interventions.

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This paper examines additional ways in which community psychology can improve upon the Institute of Medicine's model for prevention science in order to enhance the quality of life in communities. We begin by examining four problems with the top-down model of dissemination in which communities are viewed as passive distribution or delivery systems rather than as rich sources of knowledge and skills and dynamic places in which prevention programs will ultimately need to survive and thrive. First, the model fails to consider the capacity of organizations and communities to implement evidence-based prevention programs. Second, it ignores how the degree of congruence among community, organizational, and program values can facilitate or undermine program success. Third, it displays a pro-innovation bias that ignores the value of indigenous practices. Finally, it assumes a simplistic model of how community organizations make decisions to adopt innovations.

Next, we consider two alternatives to the one-way model of learning in which programs are first developed and tested by academic researchers and then disseminated to communities. Many interventions that fit well in and are sustainable in local

communities are developed there, but are never studied. We will propose that like pharmacologists who put indigenous remedies to rigorous scientific test, community psychologists should locate, study, and cooperate in the dissemination of successful indigenous programs. Our second proposal concerns community psychologists' role in the development of intervention theories that reflect local best practices. By studying variation in existing policies and programs, community psychologists, in cooperation with local experts, can identify the active ingredients in existing remedies. In our jargon, we can develop treatment theories and models of how locally developed programs work. As we intend to show later in this paper, rather than implement only our own, novel programs, we can build on this theoretical understanding of successful indigenous efforts to modify existing programs to make them more effective. Further, as suggested by Lipsey (1997), by uncovering the active ingredients in local programs, we can begin to build broad intervention theory in which we synthesize information regarding whole categories of indigenously developed social programs. By so doing, we might develop refined understanding of when, where, for whom, and how particular interventions are beneficial. We suggest that these approaches can help resolve the problems with the Institute of Medicine's model of dissemination. By learning from communities, community psychologists can contribute to the science of promoting the quality of community life.

These ideas build upon those articulated by authors in the prior special section of the *American Journal of Community Psychology* on science and community psychology. Price and Behrens also criticize the notion of a linear movement from basic research to application represented in the Institute of Medicine report. Drawing on Stokes (1997), they advocate "use-inspired basic community research" that feeds into both basic understanding of community processes and improved technology for change (p. 220). Kelly (2003) notes that "The community psychologist, as a scientist, works from the expectation that choices of topics, methods, and interpretation of findings are done in concert with representatives of the community" (p. 213). For Sarason (2003) the community psychologist remains "the intervener" in a school or other system, but the intervention itself "is an exercise in diplomacy, which is the art of compromise based on the recognition that each of the parties cannot have it all its way" (p. 211).

PROBLEMS WITH THE INSTITUTE OF MEDICINE MODEL OF DISSEMINATION

Capacity to Implement Programs

The first problem with the Institute of Medicine's model of dissemination is that there is frequently a mismatch between what scientists design and what communities have the capacity to implement. One issue is simply finances. For example, in the field of HIV prevention, the gold standard of prevention programs is a multi-session behavior-change workshop grounded in cognitive-behavioral principles. Meta-analyses conducted by the Centers for Disease Control and Prevention's Synthesis Project (Semaan & Sogolow, 2002) suggest that these interventions are moderately effective in reducing short-term high-risk sexual behavior among several at-risk populations. Programs such as these are estimated to cost from $269–470 per client (Holtgrave & Pinkerston, 1998). However, research on AIDS organizations suggests that the typical prevention budget falls within the range of $50,000–175,000 per year (see, e.g., Casteneda & Collins, 1997; Chng, Sy, Choi, Bau, & Asutdillo, 1998; DiFranciesco et al., 1999; Miller, 2001). Implementing a 5- to 12-session program on a typical AIDS organization budget would allow it to reach from 106 to 650 people per year. At the smaller end of the budget continuum, too few clients would be served annually for most urban organizations to compete successfully for ongoing funding or make a substantial difference in the local epidemic. At the larger end of the budget continuum, organizations would be limited to providing a single program rather than the multi-pronged efforts that characterize their current prevention activities.

By contrast, the Popular Opinion Leader intervention designed to encourage condom use has demonstrated laudable short-term effects in several studies with different populations (Kelly et al., 1991, 1992; Sikkema et al., 1996). In this intervention, popular people (opinion leaders) are trained to speak persuasively to their peers about how they protect themselves from HIV. As the opinion leaders' messages diffuse through the social network, perceived norms about safer sex shift, and so does sexual behavior. Studies of this program suggest that it costs $38 per client to implement (Holtgrave & Pinkerston, 1998), making it a comparatively low cost intervention among HIV prevention programs that have demonstrated benefits.

Because this particular program has a well-defined core element (i.e., causal mechanism) that is based on universal principles of changing norms in social networks, it can be flexibly implemented and scaled to fit (see, e.g., Fernandez et al., 2003; Miller, Klotz, & Eckholdt, 1998; Miller, 2003). Far too few interventions have clearly identified core elements around which an intervention can develop a flexible form suitable to the capacity of a variety of social settings.

Issues of capacity have to do with far more than budgets. Multiple frameworks exist to describe the capacity of individuals, organizations, associations, and communities to implement prevention and community action programs and to describe the important dimensions of capacity at each of these levels of analysis (see, e.g., Foster-Fishman, Berkowitz, Lounsbury, Jacobsen, & Allen, 2001; Fredericksen & London, 2002; Goodman et al., 1998; Labonte & Laverack, 2001; Miller, Bedney, & Guenther-Grey, 2003; Wandersman, 2003). For example, Foster-Fishman and colleagues developed a collaborative capacity framework that is based on a review of the literature on successful collaborative initiatives. This framework provides an exhaustive overview of the many skills and assets that enable associations to collaborate with other entities. Miller, Bedney, Guenther-Grey, & the Community Intervention Trial for Youth (CITY) Project Study Team (2003) developed an organizational capacity framework to describe what organizations must have in place in order to succeed in sustaining programs once they have been adopted and implemented. They identify domains of organizational and program capacity including vision and leadership, organizational management, program management, fiscal management, personnel management, and access to information. They also emphasize the importance of resource capacity including the number and types of personnel, the number and types of clients, physical plant, equipment, and existing efforts with which new efforts must dovetail. In a seminal paper on developing measures of community capacity, Goodman et al. (1998) suggest a 10-dimensional framework to describe a community that is capable of solving problems. Among the dimensions in this framework are leadership, involvement, and sense of community. Although these are only a few of the many frameworks that have been offered in the literature, each underscores the complexity of the systems into which we hope to embed our programs.

As noted by Hawe and colleagues (1997), the organizational and community capacity building literature has not always characterized which capacities are most important at particular phases, such as implementing a program following a decision to adopt it, or institutionalizing and sustaining a program, following initial implementation. Part of the problem is that distinct research questions have been asked at these different phases and not much research has been conducted across phases, so it is difficult to compare findings across phases. Further, the research has been conducted in many different disciplines such as system thinking and dynamics, organizational management, public health, organizational sociology, community psychology, communications, education, medicine, and program evaluation and has not yet been thoroughly integrated.

In general, organizational theory and research suggest that many of the capacity dimensions we previously mentioned to illustrate the complexity of the capacity construct reflect the strength and maturity of the organizational service delivery subsystems that must implement and sustain programs (Hawe, Noort, King, & Jordens, 1997; Steckler & Goodman, 1989). Coupled with a committed program champion or cheerleader, the strength of an organization's infrastructure and its subsystems is essential to its ability to implement novel programs. Klein and Sorra (1996) suggest a third essential organizational capacity, namely the ability of the organization to create a climate for implementation (e.g., changes in incentive structures and elimination of obstacles to implementation). Although empirical research in the area is still evolving, these three dimensions of capacity are often related to successful implementation of new programs. It is less clear what subcomponents of these broad dimensions facilitate or inhibit the dissemination and implementation of programs (Kegler & McLeroy, 2003).

Gaps between the requirements of prevention programs and organizational capacity to meet them can lead to dissemination failure. If the capacity gap is large, evidence-based programming may require operating changes that lead to strain on organizational practices and performance. These operating changes might include longer start up and training time, greater accountability expectations, increased supervision and monitoring demands, and more exacting procedures than are normative. These organizational changes could increase turnover, particularly among those personnel who are most grass

roots, and ideology drift, as new personnel who are more predisposed toward new program goals come on board. Loss of grass roots personnel may reduce cultural competence in the services that are provided.

The context in which organizations function also shapes capacity. A host of ecological factors in the organizational environment undoubtedly bear on the ease of program dissemination, adoption, implementation, and continuation, as well as on the consequences of programmatic change for the setting itself. The organizations to which we aim to disseminate our programs exist within legislative contexts that regulate aspects of their behavior, administrative contexts in which they must manage needs and interests, economic contexts in which they must acquire, allocate, and make efficient use of resources, and social/cultural contexts in which they must obtain and maintain legitimacy and value.

Interrelationships among organizations may further constrain their autonomy to make decisions about their own activities (Pfeffer & Salancik, 2003). For example, Barton-Villagrana, Bedney, and Miller (2002), in a study of adoption of programs described in more detail below, found that providers were leery of adopting new programs that bore great similarity to other locally offered services. Redundant programming was feared to reduce the uniqueness of the organization, threaten relationships with local peer agencies, and limit the ability of the organization to complete successfully for local funding, important contextual issues that bear on organizational capacity to accommodate and continue particular prevention programs.

At the community level, poor capacity can lead to negative side effects of prevention programs or only short-term benefits, if capacity is not first developed (Homer & Milstein, 2004; Kegler & McLeroy, 2003). In a simulation of the system dynamics of a community facing multiple health problems, Homer and Milstein show that outside programs aimed at fixing specific community problems are less beneficial to the community than are efforts to build community strengths when examined over a 20-year time horizon. Their model demonstrates that when a community has low capacity and problem-solving efforts are driven by small groups of professional specialists, community weaknesses are reinforced rather than strengthened. In strong communities, however, such efforts reinforce community strength. The model examines how fighting community afflictions, eliminating adverse living conditions, and building community capacity each fare over time given varied assumptions about a community's initial capacity. Under most assumptions, affliction is best managed by investing 8 or more years in building community strengths and widespread community involvement prior to addressing any particular affliction directly.

Capacity is a multi-level and multi-dimensional construct (Kegler & McLeroy, 2003). It encompasses the strengths and assets of individuals, families, organizations, associations, institutions, neighborhoods, and communities. It reflects dimensions such as skills, resources, leadership, social capital, and power. Rarely in intervention and dissemination research is capacity examined and its dimensional complexity fully acknowledged (for an exception, see Elliott et al., 2003). Yet, capacity at all levels of analysis and on multiple dimensions undoubtedly affects the dissemination, implementation, institutionalization, and sustainability of programs in communities. To move the field of dissemination forward, research must address how the capacity requirements of interventions fit the capacity of host settings.

Value Congruence

Unless a dissemination effort is designed with the explicit goal of changing basic organizational values, those values may be considered unimportant in program design. However, another way in which setting factors and intervention factors may be mismatched, leading to poor dissemination and sustainability, concerns the gap between the values and ideological principles that undergird the host community or organization and those that underlie the evidence-based prevention program. In his analysis of the failure of Fairweather's Lodge to be sustained, Shadish (1984) argues that the Lodge program undermined the fundamental ideology of the institution that Fairweather hoped would sustain it. By creating a program that empowered deinstitutionalized mentally ill patients to take control of their day-to-day lives, but housing that program within a system that holds professional control over resources as a core value, Fairweather created an innovation that was incompatible with the ideology of its host institution.

The fundamental ideology of the organization includes values about what its members believe it ought to accomplish in the world and also about what its members think is good, local prevention practice for its target population. For example, staff and leaders of many sexual and reproductive health

clinics, self-help programs, feminist organizations, and AIDS organizations hold values about matters such as responsive client-centered programming, democratic decision making processes, hiring from the target population, and challenging traditional approaches to service provision (see, e.g., Altman, 1994; Riger, 1984). These values shape the organizations' social structure, culture, norms, and practices.

Outside programs and entities whose values are not consonant with a target organization's may generate resistance or undesirable organizational changes, particularly if programs are imposed. Over the past 2 decades, government has made repeated attempts to restrict the content of AIDS-related educational materials by imposing a set of values that can be perceived as sex-phobic and homophobic on organizations providing HIV prevention services to gay men. Most recently, Stop AIDS San Francisco was investigated by the federal government on the assertion by Republican lawmakers that its prevention education materials were obscene. Stop AIDS would lose its government funding unless it produced materials that were consistent with an imposed value system. For Stop AIDS, gay-affirming, sex-positive, and sexually explicit prevention approaches reflect core values and are at the heart of the organization's cultural competence. In his study of AIDS organizations in Canada, Cain (1993) found that organizations often reported value conflicts with school officials over the nature of AIDS education programming. Success in accessing youth in schools often required watering down programs, so that condoms and sexual activity were not discussed.

Salem, Foster-Fishman, and Goodkind (2002) examined openness to change and innovation in collective action organizations serving people with disabilities. In particular, they studied adoption of an inclusion philosophy of programming and service provision. Organizations within the sample whose leadership and Boards held a strong belief in inclusion were more likely to embrace inclusion-styled programming. Further, these organizations had funding with sufficiently flexible requirements that the organizations could preserve their autonomy and act in ways that were consistent with their inclusive beliefs. Salem et al. concluded that organizations were most likely to adopt an inclusion-focused service orientation when the internal and external environmental conditions were consistent with such an approach.

Programs based on value systems that conflict with local values may actually undermine agency effectiveness. Campbell and colleagues (Campbell, Baker, & Mazurek, 1998) examined the consequences of compliance with funding mandates and financial dependence on sexual assault providers' services and activities. They found that as organizations became dependent upon government funds, they appeared to give into funding perspectives regarding how sexual assault services ought to be delivered. As a consequence, many lost their activism and radicalism. A consequence of effective dissemination of professional norms via the mechanism of government funds *reduced* efforts at social change.

To the extent that evidence-based programs are professionalizing mechanisms and convey professional values, they may have similar unintended effects on community organizations and weaken rather than strengthen community commitment to active social change (Wohlfeiler, 2002). As noted by Flood (1999), when a particular perspective dominates approaches to problems, creative thinking is diminished and knowledge-power systems are reinforced. Of course, professionalizing influences may also have positive consequences, such as more systematic consideration of links between program components and outcomes, greater knowledge of and access to external information, or even higher salaries. However, it is our view that a purely positive view of professional values promotes professional interests (Flood, 1999). As community psychologists, we must remain open to the possibility that values that serve our profession may not always serve communities.

The findings of the aforementioned studies are consistent with organizational change research and organizational theory (Emerson, 1962; Flood, 1999; Hira & Hira, 2000; Klein & Sorra, 1996: Lipsky & Smith, 1989–90; Meyer & Rowan, 1977; Morrill & McKee, 1993; Oliver, 1991; Pfeffer & Salancik, 2003; Saidel, 1989, 1991; Scott & Meyer, 1994). When an organization's value base is closely held, it will resist efforts at change that go against its underlying values (Klein & Sorra, 1996; Oliver, 1991). Value dissonance may lead to various forms of resistance to evidence-based practice and program discontinuation. When the fit is neutral (e.g., congruence or incongruence is moderate with low intensity values), organizations may respond to the program indifferently and implement it halfheartedly. When evidence-based programs match their social structure, ideology, and current practices, organizations may be more enthusiastic about adopting and continuing programs. Even when some value incongruence exists, implementation theory suggests that positive experiences with an innovation, defined as improved

organizational performance, can reduce the span of value gaps and change organizational values to be consistent with those of the innovation or program (Klein & Sorra, 1996), though as Fairweather's Lodge has shown us, this is not always so.

Pro-Innovation Bias

Evidence-based programs are widely presumed to have benefits over indigenous programs that have not been studied. One strength of these innovations derives from the fact that evidence-based programs are typically theory-based, increasing the logical coherence of the programs and improving the precision of efforts to monitor their impacts. Evidence-based programs also draw on a wide range of scientific knowledge and professional expertise to inform program practices, so confer benefits from multiple bases of expertise. Evidence-based programs are usually well documented, increasing the possibility that they can be imported with tolerable fidelity from one place to another. Additionally, evidence that a program works in a controlled study is presumed to increase the probability that a program will have similar benefits in the context of day-to-day service delivery, thereby increasing the host organization's effectiveness and ability to meet its mission. Presumably, evidence-based programs also increase an organization's efficiency by maximizing the ratio of resources employed to produce desired outcomes.

There is reason to challenge the underlying assumption that innovations that prove their worth in controlled settings, typically against no-treatment control groups, are also more effective or efficient than what they might replace in the community. This perception is commonly referred to as the pro-innovation bias, in which the innovator assumes that her innovation ought to be diffused and adopted (Abrahamson, 1991; Rogers, 1995). Rogers (1995) argues that the pro-innovation bias quells research to understand unintended consequences of adopting innovations, particularly harmful consequences, and to study conditions associated with rejecting or discontinuing innovations. Mayer and Davidson (2000) note that the pro-innovation bias leads to an inaccurate view of whether and how effectiveness is evaluated within community and organizational change processes.

In dissemination, the pro-innovation bias expresses itself in at least two ways. In one form it is expressed as a tabula rasa view of communities, in which communities passively await programs to adopt rather than engaging in local problem solving. Academic innovations, it is assumed, would undoubtedly do better and be less costly than starting from scratch using indigenous theory and effort. In other instances, innovation bias is expressed as deep skepticism of indigenous problem-solving approaches and community capacity, for if the efforts of these groups did indeed work, the social problem at issue would not remain so serious. Innovations from outside are assumed to be better than improving ongoing efforts. Either perspective ought to create tension for the community psychologist whose values are rooted in strengths-based, locally derived ways of addressing social problems. After all, if we were to evaluate our own programs using the standard of elimination of the social problem that they address, we too would fail.

Indeed, in many fields, the success of evidence-based practices pales in comparison to what individuals and communities have accomplished on their own. Schachter (1982) pointed out that, whereas the most successful smoking cessation and dieting programs have small effects, millions of Americans have succeeded in quitting smoking and losing weight. He suggests that results could be due to self-selection (those with more intractable problems seek help) or to the ineffectiveness of one-shot programs. Changing norms, stimulated in part by changing social policy, are probably central to drops in smoking. As smokers have become unwelcome in restaurants, offices, classrooms, and other public places throughout the United States and as taxes on cigarettes have rapidly escalated their purchase price, fewer people appear inclined to smoke. Similarly, the effects of the community mobilization that changed sexual behaviors in the 1980s in the gay community dwarfed those of interventions developed by psychologists (Yoshikawa, Wilson, Peterson, & Shinn, in press). Over a 3-year period from 1984 to 1987, a longitudinal community sample of 624 gay men in New York City almost tripled their use of condoms, going from approximately 25% to 70% of episodes of anal intercourse (Martin, Dean, Garcia, & Hall, 1989). Indeed, Kelly's Popular Opinion Leader Model sought to replicate in nonepicenter cities the naturally occurring processes observed in New York and San Francisco. The success of needle exchange in reducing the incidence of HIV infection also provides a powerful case example of indigenously engineered achievements (Cross, Saunders, & Bartelli, 1998; Des Jarlais & Friedman, 1998; Des Jarlais et al., 1996; Heimer, 1998; Vlahov & Junge, 1998).

Organic processes within and outside of community-based organizations can be quite powerful. We ought not assume our hothouse programs are any better without empirical examination of whether this is so and without improved understanding of how efforts in communities contribute to and enhance secular trends in community well being.

In many fields, the pro-innovation bias proves particularly problematic, as we typically know less about the effectiveness of the prevention programs that have been indigenously developed or their underlying logic than we do about those that emerge from the academy. Further, few trials compare our enhanced theory-driven interventions to standard organizational practices so that we can judge whether boutique programs do better in the field than what organizations have traditionally offered to accomplish similar aims. The relative advantage of innovations over what they might replace is an essential characteristic for encouraging the adoption of innovations (Mayer & Davidson, 2000; Rogers, 1995). Relative advantage can be fairly determined only by comparing the actual performance of on an ongoing, indigenous effort to its evidence-based rival as both programs function in the context of day-to-day service delivery. However, relative advantage may not be neatly reducible to a significant difference on a single narrowly framed outcome. Programs might provide a range of harms and benefits that a variety of observers may weigh differently. For example, if in order to introduce a social and emotional learning curriculum a school must eliminate music and arts programs, it is essential to assess how music and arts programs contribute to the development of empathy, knowledge of the emotional self, creativity, problem-solving, civil discourse, and other desirable outcomes.

Simplistic Models of Decision-Making

A final problem with the Institute of Medicine model of dissemination is that it assumes, simplistically, that evidence of the success of an intervention in controlled settings should be sufficient to promote decisions about adoption. However, as articulated in theories on the sociology of organizations and organizational change processes, many other considerations are relevant (Abrahamson, 1991; DiMaggio & Powell, 1983; Katz & Kahn, 1966: Miller & Greene, in press; Oliver, 1991; Pfeffer & Salancik, 2003; Scott & Meyer, 1994). Decisions about adopting and implementing programs in organizations are influenced by a wide range of stakeholders, including regulatory agents, legislators, funding institutions, clients, staff, and community institutions (e.g., churches, schools, local businesses). Each stakeholder group may hold distinct criteria for judging effectiveness and merit.

Further, social programs that address a given problem, unlike automobiles, DVD players, and seed corn, differ in form, function and meaning. According to Rogers (1995), the form of an innovation refers to its observable substance. A car takes the same general form whether it is a sedan, coupe, or minivan and regardless of its manufacturer. We are unlikely to confuse it with other forms of transportation, such as boats or bicycles. The function of an innovation refers to its contribution to people's lives. Cars function primarily to get one or a small group of passengers from one place to another. Although cars can fulfill other functions, such as providing a place to sleep, most would agree that a car's primary function is conveyance. The meaning attached to an innovation refers to the subconscious perception of it by social actors. Different drivers will attribute different meanings to minivans and sports cars. In short, cars can be easily compared because their form and function are relatively equivalent and meanings vary only within a small range. Because social innovations are complex, socially mediated technologies, they have complicated forms and functions, as well as diverse and often unanticipated meanings. Selecting innovations may not be nearly as straightforward as choosing between a Honda or a Saturn.

Miller and colleagues (Miller, 2001; Barton-Villagrana, Bedney, & Miller, 2002) used Diffusion of Innovations Theory (Rogers, 1995) in a mixed-method case study of whether a random sample of HIV prevention providers had adopted HIV prevention programs developed externally to their agencies. The researchers examined the factors that influenced adoption and rejection decisions, as well as decisions to continue and discontinue imported programs. They found that innovations were more likely to find favor if they fit with organizational missions, local populations, and resources, and filled gaps in, rather than duplicating, existing services. Agencies paid attention to evidence, but process evidence about the acceptability of programs and their use by peer agencies was weighted more heavily than information about outcomes.

It is also unrealistic to expect innovations to be adopted whole cloth. In the study cited above, Miller found that only about a third of organizations

had voluntarily attempted to adopt entire programs (Miller, 2001). Scott and Meyer (1994) argue that when social innovations are at issue, what can be transferred from one setting to the next is only an incomplete, biased picture of the existing practice in the originating setting. In essence, what is diffused is a theoretical model of a program that privileges some elements over others and often omits the contextual elements that make an innovation work in the setting of origin. Bauman and colleagues (1991) make a similar point when they argue that programs are not separable from their implementation context. They offer that the core principles underlying an intervention, the content of the intervention, and the procedures for implementation may be transferable, but that the totality of the program is an inherently local, unique, and immovable commodity. If, as they suggest, it is the idea of a program this is diffused, then it becomes important to understand the infusion of innovative ideas into existing programs, rather than the transplantation of entire programs in their original form to new contexts. Isolating the critical "active ingredients" that need to be infused in programs becomes of central importance to a reformulated notion of dissemination. From this perspective, it may be most critical to adopt the powerful ideas that undergird an evidence-based process, as opposed to the entire intervention or its practices.

ALTERNATIVE APPROACHES: LEARNING WHAT WORKS FROM COMMUNITIES

The concerns about capacity, values, effectiveness, and decision making lead us to propose two alternatives to the Institute of Medicine approach to prevention science. First, rather than (or in addition to) incubating programs in the hothouse of the university, and then attempting to transplant them to the rather different soil of the community, community psychologists should identify promising programs that are already functioning in communities, study them to determine their effectiveness and active ingredients, and disseminate those that work. Social scientists can learn from the "ordinary knowledge, skill, and craft" of front-line service providers (Elmore, 1983) who understand the community contexts within which their interventions take place, and often develop innovative approaches that work. For example, Yoshikawa et al. (2003) examined detailed narratives of HIV prevention staff working in the Asian and Pacific Islander communities of New York City to examine indigenous culturally-grounded theories of behavior change. Although elements and principles that are reflected in well-regarded scientific theories of behavior change were evident in the narratives, cultural symbols as a route to personal and community transformation emerged as a key theoretical mechanism for change. Identity-building and community affirmation were also prominent themes in prevention workers' narratives. Yoshikawa and colleagues argue that these indigenous theories provide an alternative framework on which to build prevention initiatives. Discovering the core values underlying indigenous theory provides a means to create value-consonant interventions.

The researcher may also help to develop and shape programs, to identify active ingredients and drop those that are inert, and study ways that treatments must be modified to work in new settings. Many researchers currently do so by subjecting boutique programs to extensive formative research so that programs have some reasonable measure of ecological validity. But by starting with programs that are already functioning in communities, the researcher assures that the programs are congruent with the values of at least some organizations that also have the capacity to implement them. Tests of effectiveness take place in the context to which generalizations are to be made, and evidence of effectiveness in similar contexts is likely to be persuasive to future adopters.

This is not to say that researchers should accept the claims of program developers without putting them to rigorous test. Many indigenous remedies work, but many do not. Rather it is to suggest that ecological validity, especially the acceptability and apparent success of the program in the contexts in which it is to be applied, might be as important as internal validity, or careful evidence that the manipulation indeed has the desired effect, and should sometimes be established first. Note that this approach is consonant with Cronbach's (1982) vision for program evaluation. He argues that the first order of business for program evaluation is to learn where, when, and to whom programs are most generalizable, not whether they work in some abstract sense. Further, adopters will want to compare their populations, treatments, settings, and outcomes to the conditions under which programs were originally tested to understand the likelihood of obtaining similar results.

Second, researchers should fixate less on programs and more on powerful ideas for improving the

quality of life in communities. These ideas will sometimes derive from understanding of how programs work, specifying the core elements or active ingredients of a program that could potentially be applied in other contexts. For example, a powerful idea in the Popular Opinion Leader Program (e.g. Kelly et al., 1991), described above, is that one can change norms of behavior by training popular members of a social network to talk persuasively about ways their own behavior is consistent with the desired norms. A powerful idea from the Teen Outreach Program (Allen, Kuperminc, Philliber, & Herre, 1994) is that autonomy and relatedness (to peers and to adult facilitators) in volunteer experiences are important in preventing undesirable developmental outcomes such as school failure and teen pregnancy for middle school students.

Alternatively, powerful ideas could involve how features of naturally occurring social settings (as opposed to specific intervention programs) are linked empirically to desirable outcomes, and thus are potential levers for change. For example, Barker and his colleagues (e.g., Barker, 1968) showed that in social settings where there are few participants relative to the number of roles, individuals feel more pressure to join in activities, take on more responsible roles, and report greater satisfaction relating to their competence and value than in settings with more participants per role. For another, researchers in developing countries have shown that education for women is associated with lower levels of fertility (Cochrane, 1979). Citizens or researchers can use such powerful ideas in creating or modifying settings or changing social norms in areas far different from those from which the ideas emanated. Of course, further research must examine the cultural and contextual conditions under which the innovative ideas operate as intended. As Trickett (1996) points out, a contextualist position involves understanding the contextualist constraints on any particular piece of knowledge. But at least one begins with knowledge generated in actual community contexts rather than the more rarified world of the academy.

In this view, dissemination becomes not simply the routine application of knowledge developed elsewhere and codified in prevention programs, but the theoretically motivated search for underlying principles of programs or practices that can inform both understanding of change and programs to create it. This idea is similar to Price and Behrens' (2003) notion of "use-inspired basic community research," Kelly, Sogolow, & Neumanns' (2000) and Baumann, Stein, & Ireys' (1991) notion of identifying core elements, and is again consonant with Cronbach (1982) who argues that it is conceptual uses of information rather than specific program results that are the main fruit of program evaluation. Particularly in the case of existing programs and policies that are widespread, introducing small innovations in existing practice based on powerful ideas has the potential to improve the lives of far more people than creating new programs. Next we illustrate further these two ideas of identifying and diffusing successful programs and powerful ideas.

Identification and Dissemination of Successful Community Programs

One example of a successful innovative program developed in a community is the Pathways to Housing program to house homeless individuals with mental illness and chemical dependencies. (Tsemberis, Moran, Shinn, Asmussen, & Shern, 2003). Tsemberis experienced frustration in his efforts to obtain housing in conventional "continuum of care" programs for individuals with mental illness who were living on the streets. The programs rejected individuals who were not clean and sober at entry, and the individuals often rejected programs as too restrictive. With colleagues, he developed a low-demand drop-in center in which consumers had considerable choice over their own affairs and input into program operations. An initial evaluation showed some successes of the innovative program, but continued failure in consumers' most important goal of attaining housing.

Tsemberis then developed a more radical "housing first" program that gave individuals their own apartments, directly from the street, without prerequisites for sobriety or participation in treatment, and with services under their control. He based the program on theoretical traditions including psychiatric rehabilitation, harm reduction, supported housing, and assertive community treatment, but combined these in a unique way. The central theoretical idea was consumer choice. Tenants, who received apartments with private landlords in neighborhoods of their choosing, were required only to participate in money management, to assure that the rent would be paid, and to see a worker twice a month. A full array of health, psychiatric, substance, vocational, and recreational services were available, and often chosen, but consumers got no additional benefits or privileges for taking advantage of the services.

Initially Tsemberis compared results from his program to city records of general success reported by all agencies funded under the same mechanism to house the same population (Tsemberis, 1999). Only after the program had been housing people for several years, did he collaborate with university researchers to do a more formal evaluation. In a random assignment study, homeless individuals with serious mental illness assigned to the experimental program experienced 99 fewer days homeless in the first year than individuals assigned to continuum of care programs (Tsemberis et al., 2003). The program has caught the eye of policy makers because of evidence that it is less expensive than conventional programs, primarily because it reduces use of psychiatric hospitals, which are a very expensive form of care (Gulcur, Stefancic, Shinn, Tsemberis, & Fischer, 2003). And although full replications are only beginning, Tsemberis is working on modifications directed at mentally ill people in the criminal justice system, and is disseminating many of the ideas behind the program by training assertive community treatment teams funded by the State Office of Mental Health for other programs. The powerful ideas of consumer choice and housing first may have broader dissemination than the particular "Pathways to Housing" program.

A second example is the Resolving Conflict Creatively program developed by a community-based nonprofit group, Educators for Social Responsibility Metropolitan Area and the New York City Board of Education, which has grown into one of the largest universal school-based violence prevention programs in the country (Aber, Brown, & Henrich, 1999; Aber, Brown, & Jones, 2003). The program includes a classroom curriculum to help students communicate with each other, resolve conflicts, foster cooperation, and appreciate diversity; teacher training and coaching; peer mediation; and training for administrators in an effort to change school cultures. Initial evaluations involved surveys of teachers and administrators about their views of changes in children (Aber et al., 1999).

Later academic researchers collaborated with Educators for Social Responsibility to examine the program's association with patterns of development in 11,160 1st to 6th grade children in a representative sample of New York public elementary schools. The design was quasi-experimental and examined association of dosage of the program with children's developmental trajectories. Children whose teachers taught a high number of lessons in the conflict resolution curriculum showed more positive trajectories of social-emotional development and deflections from paths toward future aggression comparable in size to differences between boys and girls (Aber et al., 2003). Although this evaluation did not permit the same inferences of causality that could have been drawn from an experiment, it examined the program in the ecological context for which it was designed, and at scale. Only after promising results at these earlier stages are the researchers moving to a carefully controlled experimental test of the program. That is, the evaluators put ecological validity ahead of the strongest evidence for internal validity. Meanwhile the program has expanded to over 400 schools across the country.

Identification and Dissemination of Powerful Theoretical Ideas

Many of the contextual conditions that foster or hinder physical and mental health are not part of specific prevention programs. Governmental and nongovernmental systems from schools to child care providers to departments of welfare or public health make choices that affect the welfare of millions of participants, while social scientists devise careful and often expensive boutique programs that affect hundreds. Although the boutique programs are useful for testing theoretical ideas, they have rarely been broadly disseminated in their original form.

Take the example of programs to promote child development. Yoshikawa's (1994) review of early education and family support programs showed that those that focused on early education had effects on children's cognitive development; those that focused on family support improved parenting, reduced parental risk, and increased family socioeconomic status. Programs that focused on multiple risks had multiple protective benefits, and impressive long-term effects on delinquency. However, the 18 experiments included in his review, spanning a decade and a half or work (and excluding the literature reviews) enrolled and retained a combined total of 926 children in their experimental groups. Researchers have learned a great deal about prevention science from this impressive body of work, and even more from Yoshikawa's synthesis, but have influenced the lives of very few children.

Head Start, perhaps the most successful program ever created on the basis of social science research, evolved from many of the ideas developed

in the more carefully controlled programs; it has reached millions of children. But day care centers and family child care providers serve many more. Social scientists will not be able to modify child care centers to turn them all into replications of the Ypsilanti-Perry preschool project, which had spectacular long-term results for the small group of children it served (e.g., Schweinhart, Barnes, & Weikart, 1993). However, Phillips, Howes, and Whitebook (1992) showed that features of child care centers that can be influenced by government regulation are associated with dimensions of quality that matter for children's outcomes. In a study of 227 child care centers in five metropolitan areas, they found that centers in states with more stringent child care regulations tended to have staff with more training, better staff-child ratios, and lower staff turnover. Further, centers that met a set of criteria that have been proposed as a national regulatory standard (criteria involving ratios, group size, and teacher training) also had more age-appropriate activities, lower staff turnover, and teachers who interacted with children in more sensitive and less harsh ways. These features in turn have been associated with better developmental outcomes for children. That is, this study showed that features of child care that developmental psychologists have theorized to be important have considerable ecological validity, and that they can be influenced by policy interventions (legislation). Children in high-quality centers may not receive all the benefits of the small, intensive experimental interventions developed by researchers, but far more children receive measurable benefits from such care, so that the total benefit to society is likely to be far larger.

Kontos, Howes, Shinn, and Galinsky (1995) extended the study of child care quality to less formal family child care settings, where many children, especially poor children, receive care. Not all findings replicated in this new context. In particular, the association of staff-child ratio and low group size with overall quality, which has been found in studies of center-based care, did not extend to care by relative and nonrelative providers in their own homes, who typically dealt with much smaller groups of children. Rather, the extent to which providers were "intentional" in their approach to care giving was key. (The researchers chose this word over "professional," which was rejected by the providers.) Features of intentionality that were associated with providing quality care were being committed to taking care of children (rather than simply helping out mothers or making additional income), seeking out opportunities to learn about child development, planning experiences for children, and getting involved with other providers. Providers who were intentional in their approach to care were more sensitive and responsive to children than providers who saw themselves as simply baby sitting. They also often took care of more children. State regulation and training were important predictors of intentionality and quality of care.

Together, these child care studies suggest some powerful ideas: state regulation, efforts to register informal child care providers with the state, control of group size and ratios in child care centers, and promotion of training opportunities for providers have the potential to create meaningful changes in outcomes for millions of children. Studying policies, programs, and practices that are already in place, and how to make them better may have more promise for promoting well being in the population as a whole than disseminating carefully researched boutique programs.

IMPLICATIONS FOR COMMUNITY PSYCHOLOGY PRACTICE

Identifying successful indigenous programs and powerful ideas requires some shift in the modes of working typical of many community psychologists. Building upon our traditional skills and training, we can increase our emphasis on spanning the boundaries between the academic and community world by looking for opportunities to work with and study existing programs. The recent book on participatory community research edited by Jason and colleagues provides many excellent examples of community psychologists engaged in exactly this kind of community discovery (Jason et al., 2004). Stronger linkages to applied community psychologists who, like Tsemberis, center their practice in the agencies, organizations, and associations that are the lifeblood of the community may also aid us in this effort.

Lipsey's (1993) idea of small theories of treatment may also provide some guidance for practice. Lipsey argues that the researcher's goal ought to be to develop a theory of the processes at play in a specific local program – a small theory of the treatment – rather than to draw on theory that applies to a class of programs or problems. Researchers should study the small theory as it is operationalized in the processes of specific local programs by employing methods that allow causal inferences to be made so that the small theory of the treatment

is put to rigorous test. Through studying small theories of treatments, research may ultimately produce a set of theories of social intervention (Lipsey, 1997). Other theory-driven approaches in evaluation (see, e.g., Chen, 1990; Weiss, 1995, 1997) may also prove valuable to identify the key theoretical ingredients or powerful ideas at work in community-developed (and university-developed) programs.

One problem with the identification and labeling of powerful ideas is that once these have found some favor with policy makers and funders, existing programs often lay claim to the language of innovation without changing their practices. For example, now that Tsemberis's housing program is proving successful and cost-effective, other programs for homeless people are claiming to embody the principles of housing first and consumer choice, without meaning anything so radical as giving individuals leases in their own names with private landlords without requirements for sobriety or participation in treatment. Researchers can help programs develop methods for assessing fidelity to their innovative practices to prevent this slippage.

To improve dissemination, we must explore what we can learn from scholars in other fields who consider issues of organizational life and capacity, dissemination processes, and research use through different disciplinary lenses than our own. For example, research use has been studied and debated extensively in fields such as program evaluation. A sophisticated understanding of the many types of use that might occur, types of users, time frame for use, and ways of facilitating use has evolved within this literature (see, e.g., Caracelli, 2000: Kirkhart, 2000; Ginsburg & Rhett, 2003; Grasso, 2003; Grob, 2003; Henry, 2003, Leviton, 2003; Preskill & Torres, 2000). Similarly, the public health literature has a great deal to offer us in its exploration of community and organizational capacity. Better knowledge of these literatures could inform our understanding of the conditions that might facilitate dissemination of programs and powerful ideas.

We should also think about community-based methods for dissemination. Applying the popular opinion leader idea to dissemination of programs and ideas may prove useful here. Community providers who have developed and implemented innovative programs may be far better at "selling" these programs to their peers than are academics. The popular media may be better at disseminating powerful ideas than professional journals. Rather than eschew such outlets, researchers should attempt to pair the compelling narratives that come from experience in the field with more systematic data to help journalists and community decision makers understand whether those narratives are representative or atypical anecdotes. We should recognize that community psychologists will often be more effective in a supportive than in a lead role. We must reduce our own arrogance, address power imbalances, and anticipate resistance in efforts to collaborate.

CONCLUSION: LEARNING FROM COMMUNITIES

We have suggested that there are important deficiencies in the Institute of Medicine's model of prevention science, particularly with respect to dissemination of prevention programs to communities. Community psychologists are well positioned to improve efforts to promote the quality of life by learning from communities. The idea implicit in the prevention intervention research model that we should bestow the wisdom of our prevention programs on "the field" bespeaks arrogance. Academic researchers do not have a monopoly on good ideas, and theory can be developed not just via basic research and academic thought, but by identifying successful programs, isolating their active ingredients, and determining the contexts in which the ingredients work. Both specific programs and powerful ideas are important candidates for dissemination.

Further, the acceptability of a program in community settings is as critical to impact as its effectiveness in controlled trials. Programs developed in communities may be more congruent with local values, may fit better with organizational capacity, may be more effective in local contexts because they draw on indigenous knowledge, skill, and craft, and may be more likely to be adopted by local decision makers. Of course, local origins are no guarantee of program success and local values may sometimes merit change. Rigorous research is still critical to determine program effects and to help weed out ineffective programs, but innovations should be pitted against existing practice in real environments, not just no-treatment control groups in experimental settings.

As noted by Cronbach more than 20 years ago (Cronbach, 1980), external validity, not internal validity, is the crux of program evaluation, for it is external validity that allows one to address the relevance of an innovation. It is not surprising then

that the process of establishing only the efficacy of prevention programs and then disseminating them to communities has had limited success. We suggest it is time to try an alternative model that starts with programs and policies with demonstrated ecological validity, and then brings scientific rigor to bear in testing their effectiveness and contextual limitations. In other words, we advocate that, at least some of the time, community psychologists should reverse the temporal sequence of their activities, first conducting studies in which external validity is their utmost concern and then conducting studies that privilege concerns about internal validity. We also urge that programs developed in communities have equal footing with and receive equal attention to those we develop ourselves. In addition to the possibility that communities can learn from programs developed by researchers, we suggest that researchers may improve the quality of community life by learning from communities.

REFERENCES

Aber, J. L., Brown, J. L., & Henrich, C. C. (1999). Teaching conflict resolution: An effective school-based approach to violence prevention. Research Brief. National Center for Children in Poverty. Retrieved February 12, 2004 from http://www.esrnational.org/es/rccptext.pdf

Aber, J. L., Brown, J. L., & Jones, S. M. (2003). Developmental trajectories toward violence in middle childhood: Course, demographic differences, and response to school-based intervention. *Developmental Psychology*, *39,* 324–348.

Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and rejection of innovations. *Academy of Management Review*, *16,* 586–612.

Allen, J. P., Kuperminc, G., Philliber, S., & Herre, K. (1994). Programmatic prevention of adolescent problem behaviors: The role of autonomy, relatedness, and volunteer service in the Teen Outreach Program. *American Journal of Community Psychology*, *22,* 617–638.

Altman, D. (1994). *Power and community: Organizational and cultural responses to AIDS*. Bristol, PA: Taylor & Francis.

Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford, CA: Stanford University Press.

Barton-Villagrana, H., Bedney, B. J., & Miller, R. L. (2002). Peer relationships among community-based organizations providing HIV prevention services. *Journal of Primary Prevention*, *23,* 217–236.

Bauman, L. J., Stein, R. E. K., & Ireys, H. T. (1991). Reinventing fidelity: The transfer of social technology among settings. *American Journal of Community Psychology*, *19,* 619–639.

Cain, R. (1993). Community-based AIDS services: Formalization and depoliticization. *International Journal of Health Services*, *23,* 665–684.

Campbell, R. C., Baker, C. K., & Mazurek, T. L. (1998). Remaining radical? Organizational predictors of rape crisis centers' social change initiatives. *American Journal of Community Psychology*, *26,* 457–483.

Caracelli, V. J., (2000). Evaluation use at the threshold of the twenty-first century. *New Directions for Evaluation, Number*, *88,* 99–111.

Casteneda, D., & Collins, B. (1997). Structure and activities of agencies providing HIV and AIDS education and prevention to Latina/Latino communities. *AIDS Education and Prevention*, *9,* 533–550.

Chen, H. T. (1990). *Theory-driven evaluation: A comprehensive perspective*. Newbury Park, CA: Sage.

Chng, C. L., Sy, F. S., Choi, S. T., Bau, I., & Asutdillo, R. (1998). Asian and Pacific Islander American HIV community-based organizations: A nationwide survey. *AIDS Education and Prevention*, *10*(Suppl. A), 48–60.

Cochrane, S. H. (1979). *Fertility and education : What do we really know?* Baltimore: Johns Hopkins University Press (for the World Bank).

Cronbach, L. J. (1980). *Toward reform of program evaluation*. San Francisco: Jossey-Bass.

Cronbach, L. J. (1982). *Designing evaluations of educational and social programs*. San Francisco: Jossey-Bass.

Cross, J. E., Saunders, C. M., & Bartelli, D. (1998). The effectiveness of educational and needle exchange program: A meta-analysis of HIV prevention strategies for injection drug users. *Quality and Quantity*, *32,* 165–180.

Des Jarlais, D. C., & Friedman, S. R., (1998). Fifteen years of research on preventing HIV infection among injection drug users: what we have learned, what we have done, what we have not done. *Public Health Reports, 113*(Suppl. 1), 182–188.

Des Jarlais, D. C., Marmor, M., Paone, D., Titus, S., Shi, Q., Perlis, T., et al. (1996). HIV incidence among injecting drug users in New York City syringe exchange programs. *Lancet*, *348,* 987–991.

DiFranciesco, W., Kelly, J. A., Otto-Salaj, L., McAuliffe, T. L., Somlai, A. M., & Hackl, K. (1999). Factors influencing attitudes within AIDS organizations toward the use of research-based HIV prevention interventions. *AIDS Education and Prevention*, *11,* 72–86.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, *48,* 147–160.

Elliott, S. J., O'Loughlin, J., Robinson, K., Eyles, J., Cameron, R., Harvey, D., Raine, K., & Gelskey, D. (2003). Conceptualizing dissemination research and activity: The case of the Canadian Heart Health Initiative. *Health Education & Behavior*, *30,* 267–282.

Elmore, R. F. (1983). Social policymaking as strategic intervention. In E. Seidman (Ed.) *Handbook of Social Intervention* (pp. 212–236), Beverly Hills: Sage.

Emerson, R. E. (1962). Power-dependence relations. *American Sociological Review*, *27,* 31–41.

Fernandez, I., Bowen, S. G., Gay, C. L., Mattson, T. R., Bital, E., & Kelly, J. A. (2003). HIV, sex, and social change: Applying ESID principles to HIV prevention research. *American Journal of Community Psychology*, *32,* 333–344.

Flood, R. L. (1999). *Rethinking The Fifth Discipline: Learning within the unknowable*. New York: Routledge.

Foster-Fishman, P. G., Berkowitz, S. L., Lounsbury, D. W., Jacobsen, S., & Allen, N. A. (2001). Building collaborative capacity in community coalitions: A review and integrative framework. *American Journal of Community Psychology*, *29,* 241–261.

Fredericksen, P., & London, R. (2000). Disconnect in the hollow state: The pivotal role of organizational capacity in community-based development organizations. *Public Administration Review*, *60,* 230–239.

Ginsburg, A., & Rhett, N. (2003). Building a better body of evidence: New opportunities to strengthen evaluation utilization. *American Journal of Evaluation*, *24,* 489–498.

Grasso, P. G. (2003). What makes an evaluation useful? Reflections from experience in large organizations. *American Journal of Evaluation*, *24,* 507–514.

Grob, G. F. (2003). A truly useful bat is one found in the hands of slugger. *American Journal of Evaluation*, *24,* 499–506.

Goodman, R. M., Speers, M. A., McLeroy, K., Fawcett, S., Kegler, M., Parker, E., Smith, S. R., Sterling, T. D., & Wallerstein, N. (1998). Identifying and defining the dimensions of community capacity to provide a basis for measurement. *Health Education and Behavior*, *25,* 257–278.

Gulcur, L., Stefancic, A., Shinn, M., Tsemberis, S., & Fischer, S.N. (2003). Housing, hospitalization and cost outcomes for homeless individuals with psychiatric disabilities participating in Continuum of Care and Housing First programmes. *Journal of Community and Applied Social Psychology*, *13,* 171–186.

Hawe, P., Noort, M., King, L., & Jordens, C. (1997). Multiplying health gains: The critical role of capacity-building within health promotion programs. *Health Policy*, *39,* 29–42.

Heimer, R. (1998). Syringe exchange programs: Lowering the transmission of syringe-borne diseases and beyond. *Public Health Reports*, *113*(Suppl. 1), 67–74.

Henry, G. T. (2003). Influential evaluations. *American Journal of Evaluation*, *24,* 515–524.

Hira, A., & Hira, R. (2000). The new institutionalism: Contradictory notions of change. *American Journal of Economics and Sociology*, *59,* 267–282.

Holtgrave, D. R., & Pinkerston, S. D. (1998). The cost-effectiveness of small group and community-level interventions. In D. R. Holtgrave (Ed.), *Handbook of economic evaluation of HIV prevention programs* (pp. 119–134). New York: Plenum Press.

Homer, J., & Milstein, B. (2004). *Optimal decision making in a dynamic model of community health*. Big Island, Hawaii: Hawaii International Conference on System Science,

Jason, L. A., Keys, C. B., Suarez-Balcazar, Y., Taylor, R. R., Davis, M. I., Durlak, J., & Isenberg, D. H. (2004). *Participatory community research: Theories and methods in action.* Washington, DC: American Psychological Association.

Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations.* New York, NY: Wiley.

Kegler, M. C., & McLeroy, K. R. (2003). Commentary on "Conceptualizing dissemination research and activity: The case of the Canadian Heart Health Initiative." *Health Education & Behavior*, *30,* 283–286.

Kelly, J. A., St. Lawrence, J. S., Diaz, Y. E., Stevenson, L. Y., Hauth, A. C., & Brasfield, T. L. (1991). HIV risk behavior reduction following intervention with key opinion leaders of a population: An experimental analysis. *American Journal of Public Health*, *81,* 168–171.

Kelly, J. A., St. Lawrence, J. S., Stevenson, L. Y., Hauth, A. C., Kalichman, S. C., & Diaz, Y. E. (1992). Community AIDS/HIV-risk reduction: The effects of endorsements by popular people in three cities. *American Journal of Public Health*, *82,* 1483–1489.

Kelly, J. A., Sogolow, E. D., & Neumann, M. S. (2000). Future directions and emerging issues in technology transfer between HIV prevention researchers and community-based service providers. *AIDS Education and Prevention*, *12*(Suppl. 5A), 126–141.

Kelly, J. G. (2003). Science and community psychology: Social norms for pluralistic inquiry. *American Journal of Community Psychology, 31,* 213–217.

Kirkhart, K. E. (2000). Reconceptualizing evaluation use: An integrated theory of influence. *New Directions for Evaluation, Number*, *88,* 5–24.

Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *Academy of Management Review*, *21,* 1055–1080.

Kontos, S., Howes, C., Shinn, M., & Galinsky, E. (1995). *Quality in family child care and relative care*. New York: Teachers College Press.

Labonte, R., & Laverack, G. (2001). Capacity building in health promotion, part I: For whom? And for what purpose? *Critical Public Health*, *11,* 111–127.

Leviton, L. C. (2003). Evaluation use: Advances, challenges, and applications. *American Journal of Evaluation*, *24,* 525–536.

Lipsey, M. W. (1993). Theory as method: Small theories of treatment. *New Directions for Evaluation, Number*, *57,* 5–38.

Lipsey, M. W. (1997). What can you build with thousands of bricks? Musings on the cumulation of knowledge in program evaluation. *New Directions for Evaluation, Number*, *76,* 7–24.

Lipsky, M., & Smith, S. R. (1989–90). Nonprofit organizations, government, and the welfare state. *Political Science Quarterly*, *104,* 625–648.

Martin, J. L., Dean, L., Garcia, M. A., & Hall, W. (1989). The impact of AIDS on a gay community: Changes in sexual behavior, substance use, and mental health. *American Journal of Community Psychology*, *17,* 269–293.

Mayer, J. P., & Davidson, W. S. (2000). Dissemination of innovation as social change. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 421–438). New York: Kluwer Academic/Plenum Publishers.

Meyer, J. W., & Rowan, B. (1977). Institutional organizations: Formal structures as myth and ceremony. *American Journal of Sociology*, *83,* 340–363.

Miller, R. L. (2001). Innovation in HIV prevention: Organizational and intervention characteristics affecting program adoption. *American Journal of Community Psychology*, *29,* 195–205.

Miller, R. L. (2003). Adapting an evidence-based intervention: Tales of The Hustler Project. *AIDS Education and Prevention, 15*(Suppl. 1), 127–138.

Miller, R. L., Bedney, B. J., Guenther-Grey, C., & the Community Intervention Trial for Youth (CITY) Project Study Team (2003). Assessing organizational capacity to deliver HIV prevention services collaboratively: Tales from the field. *Health Education and Behavior*, *30,* 583–600.

Miller, R. L., & Greene, G. J. (2004). Transferring HIV prevention technology to community-based organizations. In E. J. Trickett & W. Pequegnat (Eds.), *Context and culture in HIV/AIDS interventions: Ecological strategies for increasing community impact*. New York, NY: Oxford University Press. In press.

Miller, R. L., Klotz, D., & Eckholdt, H. M. (1998). HIV prevention with male prostitutes and patrons of hustler bars: Replication of an HIV prevention intervention. *American Journal of Community Psychology*, *26,* 97–131.

Mitchell, R. E., Florin, P., & Stevenson, J. F. (2002). Supporting community-based prevention and health promotion initiatives: Developing effective technical assistance systems. *Health Education and Behavior*, *29,* 620–639.

Morrill, C., & McKee, C. (1993). Institutional isomorphism and informal social control: Evidence from a community mediation center. *Social Problems*, *40,* 445–463.

Mrazek, P. J., & Haggerty, R. J. (Eds.). (1994). *Reducing risks for mental disorders: Frontiers for preventive intervention research*. Washington, DC: National Academy Press.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review*, *16,* 145–179.

Pfeffer, J. & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford, CA: Stanford University Press.

Phillips, D. A., Howes, C., & Whitebook, M. (1992). The social policy context of child care: Effects on quality. *American Journal of Community Psychology*, *20,* 25–51.

Preskill, H., & Torres, R. (2000). The learning dimension of evaluation use. *New Directions for Evaluation, Number*, *88,* 25–38.

Price, R. H., & Behrens, T. (2003). Working Pasteur's quadrant" Harnessing science and action for community change. *American Journal of Community Psychology, 31,* 219–223.

Riger, S. (1984). Vehicles for empowerment: The case of feminist movement organizations. *Prevention in Human Services*, *3,* 99–117.

Rogers, E. M. (1995). *Diffusion of innovations,* 4th edn. New York, NY: The Free Press.

Saidel, J. R. (1989). Dimensions of interdependence: The state and voluntary-sector relationship. *Nonprofit and Voluntary Sector Quarterly*, *18,* 335–347.

Saidel, J. R. (1991). Resource interdependence: The relationship between state agencies and nonprofit organizations. *Public Administration Review*, *51,* 543–553.

Salem, D. A., Foster-Fishman, P. G., & Goodkind, J. R. (2002). The adoption of innovation in collective action organizations. *American Journal of Community Psychology*, *30,* 681–710.

Sarason, S. B. (2003). The obligations of the moral-scientific stance. *American Journal of Community Psychology*, *31,* 209–211.

Schachter, S. B. (1982). Recidivism and self-cure of smoking and obesity. *American Psychologist*, *37,* 436–444.

Scott, W. R., & Meyer, J. W. (1994). *Institutional environments and organizations: Structural complexity and individualism*. Thousand Oaks, CA: Sage Publications.

Semaan, S., & Sogolow, E. (Eds.) (2002). Do behavioral HIV interventions work? A review and meta-analysis. *Journal of Acquired Immune Deficiency Syndromes, 30*(Suppl. 1).

Schweinhart, L. J., Barnes, H.V., & Weikart, D. P. (Eds.) (1993). *Significant benefits: The High/Scope Perry Preeschool Study through age 27*. Ypsilanti, MI: High/Scope Press.

Shadish, W. R. (1984). Lessons from the implementation of deinstitutionalization. *American Psychologist, 39*, 725–738.

Sikkema, K. J., Heckman, T. G., Kelly, J. A., Anderson, E. S., Winett, R. A., & Solomon, L. J. (1996). Prevalence and predictors of HIV-risk behavior among women living in low-income, inner-city housing developments. *American Journal of Public Health, 86,* 1123–1128.

Steckler, A., & Goodman, R. M. (1989). How to institutionalize health promotion programs. *American Journal of Heath Promotion*, *3,* 34–44.

Stokes, D. (1997). *Pasteur's quadrant: Basic science and technological innovation*. Washington, DC: Brookings Institute Press.

Trickett, E. J. (1996). A future for community psychology: The contexts of diversity and the diversity of contexts. *American Journal of Community Psychology*, *24,* 209–234.

Tsemberis, S. (1999). From streets to homes: An innovative approach to supported housing for homeless adults with psychiatric disabilities. *Journal of Community Psychology*, *27,* 225–241.

Tsemberis, S., Moran, L. L., Shinn, M., Asmussen, S. M., & Shern, D. L. (2003). Consumer preference programs for homeless individuals with psychiatric disabilities: A drop-in center and a supported housing program. *American Journal of Community Psychology*, *32,* 305–317.

Vlahov, D., & Junge, B. (1998). The role of needle exchange programs in HIV prevention. *Public Health Reports, 113*(suppl. 1), 75–80.

Wandersman, A. (2003). Community science: Bridging the gap between science and practice with community-centered models. *American Journal of Community Psychology*, *31,* 227–242.

Weiss, C. H. (1995). Nothing as practical as a good theory. In J. Connell, A. Kubisch, L. B. Schorr, & C. H. Weiss (Eds.), *New approaches to evaluating community initiatives* (pp. 65–92). New York: Aspen Institute.

Weiss, C. H. (1997). Theory based evaluation: Past, present, future. *New Directions for Evaluation, Number*, *76,* 41–55.

Wohlfeiler, D. (2002). From community to clients: The professionalisation of HIV prevention among gay men and its implication for intervention selection. *Sex Transm Infect, 78*(Suppl. 1), 176–182.

Wong, F. Y., Chng, C. L., & Lo, W. (1998). A profile of six community-based HIV prevention programs targeting Asian and Pacific Islander Americans. *AIDS Education and Prevention, 10*(Suppl. A), 61–76.

Yoshikawa, H. (1994). Prevention as cumulative protection: Effects of early family support and education on chronic delinquency and its risks. *Psychological Bulletin*, *115,* 28–54.

Yoshikawa, H., Wilson, P. A., Peterson, J. L., & Shinn, M. (in press). Multiple pathways to community-level impacts in HIV prevention: Implications for conceptualization, implementation, and evaluation of interventions. In E. J. Trickett & W. Pequegnat (Eds.) *Context and culture in HIV/AIDS interventions. Ecological strategies for increasing community impact*. New York: Oxford University Press.

Yoshikawa, H., Wilson, P. A., Hsueh, J., Rosman, E. A., Chin, J., & Kim, J. H. (2003). What front-line CBO staff can tell us about culturally anchored theories of behavior change in HIV prevention for Asian/Pacific Islanders. *American Journal of Community Psychology*, *32,* 143–158.