

SOME VALUES GUIDING COMMUNITY RESEARCH AND ACTION

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The dual purposes of applied research—contributing to understanding and improvement—are only partially served by method systems that encourage studying (with increasing precision) a narrow range of questions of modest societal importance. To optimize contributions to challenging societal problems, a field's cherished standards should be adapted to support more adventuresome forms of community research and action. This paper outlines 10 values for community research and action, based on insights from the fields of behavioral and community psychology. These values—and related evaluative questions—reflect the goals and challenges of establishing collaborative relationships with research participants, determining research goals and methods, designing and disseminating interventions, communicating research findings, and advocating for community change. Critical challenges are outlined, and implications for the field and its clients are discussed.

DESCRIPTORS: behavioral community psychology, methodology, community behavior analysis, collaboration

Like the Sirens in Greek mythology, the field of applied behavior analysis lures us in with its sweet song—the promise of a better way to understand and improve the world. For many of us, the journey began when we witnessed the pain and suffering of client groups we have known: low-income children and adults, for instance, whose substandard education, housing, and opportunities for a decent job contribute to a dim future. Perhaps we have been touched by people with developmental or physical disabilities, for whom the lack of high-quality accessible community services limits their prospects for living independently. Or, maybe we were moved by the experience of youthful drug

abusers, adolescent mothers, or infants born without benefit of adequate prenatal care, whose chances for full lives are diminished by inadequate or non-existent support systems and prevention programs. The faces of these victims of maltreatment, neglect, and injustice haunt us; their marginal status propels our search for a better way to understand and change the conditions that create and sustain their problems in living.

This journey toward understanding and action led to a variety of ways of exploring phenomena, including those represented by such fields as special education, public health, anthropology, social welfare, political science, rehabilitation, and community psychology. It also led us to various strategies and tactics for changing the world, such as individual and systems advocacy, community organizing, and political lobbying. But, frustrated by these often less than systematic ways of learning about and transforming the world, we turned also to the methods of applied behavior analysis to help us understand and improve clients' social and physical environments in order to help them reach their goals.

Applications of behavior analysis in communities have yielded benefits for the field and its clients. The essence of the behavioral paradigm—that individual and social problems are represented in the *behavior* of people and the environmental arrangements they experience—permits an exploration of

I have been fortunate to learn about community research and action along with some wonderful collaborators, including the following who commented on earlier versions of this manuscript: Fabuicio Balcazar, Kathy Blanchard, Vince Francisco, Mike Johnson, Mark Mathews, Adrienne Paine, Kay Fletcher Schriener, Tom Seekins, John F. Smith, Yolanda Suarez de Balcazar, Paula Whang-Ramos, and Glen White. Special thanks to Lenny Jason, Keith Miller, and Dick Winert with whom I had extended dialogues on these issues. Thanks also to Bill Berkowitz, Brenna Bry, David Chavis, Susan Elkins, Scott Geller, David Glenwick, Charlie Greenwood, Ken Maton, Bob Newbrough, Rick Price, Todd Risley, Tom Welsh, and Mont Wolf, who contributed to my earlier attempts to articulate these values. This article is an adapted and extended version of an invited address presented to the 1990 convention of the Association for Behavior Analysis.

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problems seen as intractable by some other disciplines (see Fawcett, 1990, and Bogat & Jason, in press, for descriptions of the contrasting paradigms of behavioral and community psychology). Recent examples of behavioral research with communities (Greene, Winett, Van Houten, Geller, & Iwata, 1987) suggest the promise of the field for making significant contributions to its clients.

Critical features of the behavior-analytic paradigm of community research are suggested by criteria for applied behavioral research in general (Baer, Wolf, & Risley, 1968, 1987) and dimensions of community technology in particular (Fawcett, Matthews, & Fletcher, 1980). The applied criterion of behavior analysis focuses attention on the relevant behaviors of people actually experiencing problems in real-world contexts, not analogue responses of proxy participants chosen for convenience. The technological criterion properly directs attention to practical, modifiable features of the social and physical environment. The field's analytic criterion encourages use of experimental designs and analytic methods that select for interventions that produce powerful effects. The methodology of social validity helps program for (and identify) effects judged to be socially important by clients (Fawcett, 1991; Schwartz & Baer, 1991; Wolf, 1978).

The field's history reflects a shift from research in maximally controlled environments, such as with animals in a laboratory, to investigations in somewhat less controlled institutional settings with relatively dependent participants, such as preschoolers, elementary school students, or people with developmental disabilities. In recent years, a few more examples of work with normal adults in open community settings have appeared, such as the exemplary research in health promotion and injury control. (See, for example, the illustrative work on road safety in *JABA*, Vol 24, No 1.)

Yet, the standards for experimental control that were refined in laboratory contexts encourage investigators to target people who cannot avoid our interventions. Relatively dependent people serve far more often as participants than do service providers, elected officials, or those who usually can evade this fate. This may suggest inadvertently that most

problems reside in proximal targets, not in those more distal to the situation whose behavior may actually create the conditions in which problems are more likely.

Conformity to research values appropriate for laboratory and quasi-institutional contexts has delimited research questions in open community settings. For example, the applied research goal of showing large and immediate effects, usually with a small number of people, has discouraged investigations of prevention programs with prospects for producing small delayed effects throughout entire communities. Traditional standards encourage investigations of only those questions and environmental contexts in which behaviors and outcomes can be controlled or significantly influenced by investigators. These standards for behavioral research have also led to avoidance of broader contextual variables that impinge on behavior and outcomes at both individual and community levels (Biglan, Glasgow, & Singer, 1990; Winett, 1985; Winkler, 1986). The field of applied behavior analysis has grown in methodological sophistication; but, to address more difficult community problems, it must embrace a broader set of values.

This paper discusses a set of values for community research and action. (The term *value* is used as Skinner [1972] used it, to refer to statements of what is important, of what, if adhered to, might produce reinforcement. This manuscript offers a personal credo, not standards for the professional work of all people in all circumstances.) Special challenges for community research endeavors are outlined, such as attempting to avoid exploitative relationships with research participants and planning for "small wins" on community problems. Ten values for community research and action are also outlined, based on insights from the fields of behavioral and community psychology. These 10 values—and related evaluative questions—reflect the goals and challenges of establishing collaborative relationships with research participants, determining research goals and methods, designing and disseminating interventions, communicating research findings, and advocating for community change. Implications of these values for the field

of applied behavior analysis and its researchers and clients are discussed.

Challenges to Behavioral Research with Communities

Researchers face a number of challenges in meeting the dual goals of community research and action: (a) contributing to understanding about behavior–environment relationships in open community settings, and (b) facilitating the development of individuals and communities consistent with their own goals. This section outlines five challenges for community researchers: avoiding “colonial” relationships with research participants, identifying client goals, selecting participants in research and action efforts, planning for small wins on community problems, and coping with the multiple client audiences for community research and action.

Avoiding Colonial Relationships with Research Participants

Mainstream social science, and the funding agencies supporting it, hold that researchers should determine what questions to ask, what measurement systems to employ, what social interventions to use, and what kind of results and outcomes are considered valuable. By contrast, the action science paradigm maintains that these choices should be made interactively with actors in the situation (Argyris, Putnam, & Smith, 1985; Schon, 1983). Calls for avoiding colonial or potentially exploitative relationships with research participants (Chavis, Struckey, & Wandersman, 1983) and the existence of methods for involving clients in validating the importance of the goals, means, and effects of research (Wolf, 1978) may help adjust the distribution of control between researchers and key actors in the communities they study. (Note that the term *participant* is used in lieu of the term *subject* because the former connotes greater control over the research and intervention and a more equal distribution of the benefits. The broader term *clients* refers to those audiences—usually including participants, agency administrators, funding agents, and the disci-

pline—who sponsor or otherwise support the research.)

The standard behavioral science protocol of obtaining informed consent may illustrate the concern about these potential relationships. Research committees require only that participants be told about what will happen to them and that participants (or their representatives) agree to be subjected to the procedures designed by the researchers. The emphasis is on protecting “subjects” from harm and researchers from legal problems, not in maximizing participants’ benefits from the research. By contrast, research committees might redefine their roles as helping establish a contractual relationship between researchers and participants in which research goals are negotiated and expectations for how the research will benefit the community are specified.

The notion of involving participants and other clients in socially validating aspects of the research (Wolf, 1978) is an improvement, but it does not go far enough. Participant input usually occurs after the choice of goals, minimizing clients’ opportunities to influence the research agenda (see Baer et al., 1987, and Fawcett, Seekins, Whang, Muiu, & Suarez de Balcazar, 1982, for a discussion of the issue of participant influence on the research agenda and methods for addressing it). In the mainstream behavioral science paradigm, the relevant audience is the academic discipline and funding agent, and the participants are the silent, subservient targets of research.

Such colonial relationships between researchers and subjects permit the control necessary to demonstrate causal relationships convincingly. However, this model of researcher-dominated relationships can limit access to important participants and variables. People with power, such as service providers, administrators, or elected or appointed officials, avoid roles as research participants, particularly when they are not permitted control over the goals and means of the research. People with power can avoid being researched because they, by definition, have the capacity to control important consequences for researchers, including access to research settings or funds necessary to conduct scientific investigations.

Despite their relevance to the solution of social problems, the behaviors of the relatively powerful (service providers, administrators, policymakers, and others "upstream" to social problems) are rarely targeted for change. Rather, research usually addresses targets "downstream"—low-income families, children with developmental disabilities, and others for whom consent to serve as research participants is given in the context of the relative constraint of few available alternatives. When participants have limited control over research goals and procedures, they receive fewer benefits from the studies than do researchers or the discipline in general.

By contrast, the concept of collaboration calls for researchers to involve clients as partners in the process of research and action (for a description of this tradition in community psychology, see Kelly, 1986). A collaborative relationship puts the researcher in the place of learner, recognizing the importance of the knowledge and experience of participants (see Agar, 1980, and Stull & Schensul, 1987, for insights into this relationship from the perspectives of ethnography and action anthropology). In taking a "one-down" or marginal role as a student, the community researcher learns from the client what issues are important and what are acceptable ways to study them and, if appropriate, intervene. Such genuine collaboration is a particular challenge for community researchers, because client and experimental control cannot be maximized simultaneously, and researchers and participants may not always share the same goals.

Identifying Client Goals for Research and Action

The choice of goals is perhaps the most basic test of collaboration between researchers and participants. Participants in research—and those clients who pay for the research—should be permitted to select (or at least influence) goals for community research and action.

If solving community problems is one obvious goal of community research, selecting and framing problems is a more subtle and important feature (Argyris et al., 1985; Schon, 1983). Community

problems are those discrepancies between actual and ideal (or normative) levels of behavior and environmental conditions that are labeled by communities as important (Fawcett, 1990). Adolescent pregnancy may be labeled as a community problem, for instance, when the incidence of births to teen mothers exceeds that of comparable communities or the norms of the local community. Community problems are analyzed by examining interactions between the behavior of key targets and the physical and social environmental events that define the proximate and broader contexts.

The problem of drinking and driving, for instance, may be affected by a variety of events antecedent and consequent to the behaviors. These include broader structural variables, such as the level of enforcement or the existence or absence of laws extending liability to drinking establishments. They also include such proximate variables as drinkers' knowledge of their blood alcohol content, servers' skill in refusing drinks to potentially impaired patrons, or social consequences for guests attempting to drive while under the influence of alcohol (see, for example, Geller & Lehman, 1988). These variables illustrate the types of goals that communities might select for change; their function in resolving the community problem is a matter for subsequent analysis.

Ascertaining what goals are valued by the client is not an easy task, however. Those who have worked with traditionally unempowered people of marginal economic or social status, such as poor families or people with psychiatric disabilities, are aware of many participants' reluctance to attempt to influence the choice of goals or methods for change. Even when communication is good, researchers are usually able to listen to only a small and highly biased sample of the community of interest. When there is disagreement among community members—or between researchers and community members—about what goals are valuable, identifying goals may be particularly challenging.

Community researchers and change agents have developed some strategies for involving consumers in determining what kinds of goals and methods to be pursued, including needs assessment (Murrell,

1977), community self-study (Warren, 1965), and participatory planning (see, for example, Calliot's model of development as dialogue, cited in Goulet, 1971). Our community research team at the University of Kansas has developed a Concerns Report process that combines surveys developed by community members and community forum methods to involve groups of disadvantaged people in setting issue agendas and identifying acceptable alternatives for action (Fawcett et al., 1982). This agenda-building methodology has been used with a variety of client groups, including poor families (Seekins & Fawcett, 1987), residents of low-income neighborhoods (Schriner & Fawcett, 1988), and people with physical disabilities (Fawcett, Suarez de Balcazar, et al., 1988; Suarez de Balcazar, Bradford, & Fawcett, 1988). Although researchers, participants, and other clients may disagree about goals, such empirically derived information draws attention to client concerns and identifies opportunities for establishing consensus on goals for community research and action.

Selecting Participants in Research and Action Efforts

Participants are those whose behavior would be understood or changed as a result of the proposed research and action. The choice of participants should be consistent with the multilevel nature or societal problems, the model of change used in the community intervention, and an orientation towards the strengths rather than the weaknesses of the community.

The selection of participants should reflect the multilevel and systemic nature of community problems. The conditions that people label as problems are usually related to the behavior (or lack thereof) of multiple actors at various levels in the system. These often include community members, service providers and other mediators, and elected and appointed officials responsible for making and implementing laws and policies that affect community conditions. Ryan (1971) and Holland (1978) provide excellent discussions of the traps that result from focusing only on individual "victims" who experience the problem directly.

Multilevel problems require multilevel community interventions (Geller, Ludwig, Gilmore, & Berry, 1991). As suggested by an ecobehavioral analysis, they also demand attention to broader contextual variables (Morris & Midgley, 1990; Willems, 1974). Whether behaviors labeled as problems or solutions *can* occur is determined by the physical environment and opportunity system; what *will* occur depends on behavior-environment relationships at various levels of the current context (Morris, 1988). We must shine the lantern of inquiry beyond proximal behavior-environment relationships and attempt to understand and influence "metacontingencies"—those broader relationships that control the proximal contingencies of reinforcement (Glenn, 1988).

The problem of adolescent drug abuse, for example, may be addressed on many levels of behavior and environmental context. At the individual level, adolescents may lack the social skills to refuse drugs offered by peers or have limited alternatives for after-school activities. At the family or school level, parents and teachers may lack knowledge, skills, or other resources for monitoring youths. At a more distal level, school officials may experience punishment for reporting youths suspected of using or dealing drugs, or the school may lack financial resources to implement drug abuse prevention curricula. In the broader context, elected officials may lack information and constituent support to establish regulations for mandatory drug testing in schools or to create incentive programs or opportunities that encourage at-risk youths to stay drug-free.

Different models of change (e.g., prevention, empowerment, diffusion, or community development) suggest varied contexts and targets for the intervention. Consider the implications of these alternate approaches to addressing some common problems. Based on a prevention model (Felner, Jason, Moritsugu, & Farber, 1983; Kessler & Albee, 1975; Price, Cowen, Lorion, & Ramos-McKay, 1988), a dimension of the problem of drug abuse and crime among street youth might be defined as a discrepancy between the ideal and actual incidence of school failure among low-income youth.

This would suggest the need for dropout (or "push-out") prevention programs based in schools and focused on the behavior of teachers and administrators as well as students. Alternatively, an empowerment model (Fawcett, Seekins, Whang, Muiu, & Suarez de Balcazar, 1984; Rappaport, 1981, 1987) might identify the problem as the disadvantaged group's limited control of resource allocations and other important events relevant to its interests. Consistent with this analysis, the group might use advocacy efforts to attempt to change elected and appointed officials' responsiveness to the group's concerns.

According to a diffusion model (Bandura, 1986; Rogers, 1983; Stolz, 1981), problems in living among inner city youth may be seen as the result of too slow a level of adoption of a functional innovation, such as a method for promoting academic achievement. Accordingly, information and incentives might be introduced to encourage adoption of innovations by decision makers and to maintain their use by teachers and other end users of new ideas, products, and practices.

Finally, a community development model (see Rothman & Tropman, 1987, for a discussion of alternate forms) might define the problem as a discrepancy between desired and actual levels of community participation in efforts to define goals and initiate change efforts. Prominent solutions might include collaborative projects with neighborhood associations, consumer organizations, or coalitions of people experiencing a common concern.

In selecting targets for intervention, community researchers look at community strengths—features of the social and physical environment worthy of maintenance and enhancement—as well as deficits (Rappaport, 1977; Whang, Fletcher, & Fawcett, 1982). When strengths are at risk, they can also be usefully framed as problem statements. Applied anthropologists remind us that many strengths are at risk. For example, participation in Native American cultural traditions—a strength valued highly in many tribes—may be considered a problem when the level of participation falls markedly below that desired by the people. Thus, problem statements

about strengths (an apparent paradox) may also serve the field by directing attention to variables that enhance or maintain valued behaviors and conditions in communities.

If the discrepancies labeled as "problems" are seen to be exclusively in people and not in environments, we fall into the trap of "victim blaming" (Ryan, 1971). In the disability rights movement, the idea is conveyed this way: People are not handicapped, they have disabilities; it is environments that are handicapping. As community psychologists have noted, researchers contribute to the victimization of targets when problem statements suggest that people are a bundle of deficiencies and that these deficits, not their environments, explain their difficulties (Rappaport, 1977).

When defining social problems, we must strike a balance between acknowledging personal responsibility and recognizing societal duty to remove barriers to opportunity (Winkler, 1986). Scientist change agents are challenged to establish as targets the behaviors of key actors, including those beyond the relatively powerless individuals labeled as having the problem, and the environmental conditions that create or sustain these behaviors (Holland, 1978).

Planning for Small Wins on Community Problems

A multilevel strategy might help address the concern that behavioral interventions have been restricted to first-order change—changes within a basic system that itself remains unchanged (Fawcett et al., 1980; Watzlawick, Weakland, & Fisch, 1974). Often, the conditions labeled as problems are addressed only at the level of individuals and their proximate environments, such as the welfare client who is provided training in the skills of job interviewing and family budgeting. Without corresponding changes in job opportunities and adequate financial resources for the family, the desired outcomes of financial independence and family well-being are highly improbable. Changes in knowledge and behavior at only one level do not usually produce significant and durable changes in desired community outcomes.

The level of research and action can be shifted within the ecosystem to higher order targets, such as from welfare clients to decision makers. Accordingly, we can shift the focus to (a) new dependent variables, such as resource allocations to human service programs (Seekins & Fawcett, 1987); (b) new independent variables, such as information relevant to policy enactment (Fawcett, Seekins, & Jason, 1987); and (c) new strategies for change, such as voter registration campaigns for low-income clients (Fawcett, Seekins, & Silber, 1988).

Similarly, we can shift the unit of analysis from individuals to settings or systems. As a result, predictable patterns of social relations known as "social regularities," such as discrimination on the basis of color, can be detected and targeted for social intervention (Seidman, 1988). Ideally, community research and action efforts would use a multilevel strategy that would involve attempting to change the behavior-environment relations understood to be part of the problem at the levels of individuals, settings, and broader systems.

But, the challenge of effecting change at a broader community level suggests the importance of a strategy of seeking small wins. Small wins are those concrete outcomes of modest significance that attract allies and deter opponents (Weick, 1984). Consultation with an advocacy organization of disabled consumers may facilitate small wins, for instance, if it results in improved decision making, increased actions toward objectives, and enhanced attainment of modest outcomes such as curb cuts or an emergency alarm safety system (Balcazar, Seekins, Fawcett, & Hopkins, 1990).

We need to continue to challenge one another to produce large effects at multiple levels. However, small effects at higher levels—small wins—must also be embraced. By recognizing such approximations, the field can help maintain attempts to integrate community research and action.

Coping with Multiple Client Audiences

There are four primary audiences for behavioral research and community action efforts: (a) the research participants and immediate collaborators (who make up the proximate context); (b) the

disciplinary audience, with its emphasis on methodological standards for scholarly research; (c) the funding agents and organizations that purchase and apply the research knowledge and products; and (d) the decision makers who often define problems and acceptable solutions. Because some challenges of collaborating with participants were addressed earlier, this section will note considerations in coping with the broader audience for community research and action.

Academic disciplines exert tremendous influence over what research questions and methodologies are conceived and implemented, because they control important reinforcers for researchers. With a few exceptions (e.g., some highly acclaimed initiatives in public health), few academic disciplines reward the extensive effort required to develop and disseminate effective interventions. Methodological standards have a sovereign place in peer-review systems used by most academic journals, with editorial reviewers consistently selecting for rigor over relevance. Typically, university promotion and tenure committees uphold these standards by providing security and advancement for those faculty who publish in such "prestigious" journals.

Peer-review systems usually select for contributions to understanding about relationships between variables of interest to the discipline and deemphasize benefits to the community at large (Walsh, 1987). More fundamentally, the idea that solving social problems is not a scientific endeavor impairs the capacities of academic disciplines to see the possibilities for combining community research and action (Fawcett, 1990).

Funding agencies may be an even more influential audience in determining who are appropriate targets and what are legitimate variables and methods for study. When an agency's requests for proposals (RFPs) consistently call for an analysis of the behavior of people experiencing the problem at the individual level, they communicate the idea that personal deficits better explain the problem than do features of the broader environment. Serrano-Garcia (1984) discussed related factors that limited an empowerment effort in a third-world context. Those who authorize research and who purchase

research knowledge—the state and federal agencies and foundations from whom we seek and accept grants and contracts—help shape our notions about what are worthy problems, variables, and methodologies.

Although advocacy efforts with (and on behalf of) those experiencing problems might not be commissioned by funding agencies, these actions may be justified as necessary for building collaborative relationships essential for the research. However, when decision makers or the powerful people they represent are made aware of social action components of research, they might denounce them or even threaten the researchers (or their institutions) with retribution. This was illustrated on two different occasions in which my colleagues and I collected and presented data to elected officials relevant to pending policy choices: The first involved a state legislative committee considering a bill on child passenger safety (Fawcett et al., 1987; Seekins et al., 1988), and the second involved a city ordinance designed to provide subsidized "lifeline" utility rates for low-income families (Seekins, Maynard-Moody, & Fawcett, 1987). On the first occasion, I was called to the vice-chancellor's office to receive a message from a legislator who opposed the bill; the message was that we should avoid future research of this type. On the second occasion, an elected official opposed to the proposed ordinance denounced the policy innovation as "social engineering," and another university administrator cautioned against what he termed "advocacy." When supported by research data, however, such efforts to take sides and bear witness are appropriate (Price, 1989). They help ensure that the primary clients—those affected by the problem under investigation—accrue benefits from the research.

Research and advocacy may be combined effectively while maintaining ethical standards and accepting only modest personal risk. As Coleman (1972) has noted, it is possible to maintain scientific standards while generating and communicating knowledge likely to benefit clients. Direct lobbying should be left to interest groups, but researchers may discuss with them the results that bear on their concerns. Formal communications of research re-

sults and balanced recommendations to elected officials and other decision makers are justified as part of the open communication of findings essential to the practice of science.

Disciplinary, purchaser, and decision-maker audiences exert indirect, but powerful, influences over community research and action. They do so through the standards and regulations they formulate and the consequences they deliver concerning what is a problem, what are acceptable solutions, and what are proper ways of discovering and communicating relationships among relevant variables. Perhaps a modified set of guidelines would support a tighter coupling of research and action, better optimizing the interests of client audiences beyond the academic discipline.

Some Values Guiding Behavioral Research with Communities

There are a number of potential values guiding behavioral research with communities that emerge from this discussion. The 10 values outlined here reflect the complementary contributions of various paradigms, especially those of behavioral and community psychology. They may help support efforts to combine research and action in more adventuresome and functional ways. These values, and related evaluative questions, are noted under the subsections of values for collaborative relationships, research goals and methodology, intervention and dissemination, and advocacy and community change. (These values, with a somewhat different argument for an audience of community psychologists, were first presented as an invited address to a conference on "Researching Community Psychology: Integrating Theories and Methodologies," sponsored by the Science Directorate of the American Psychological Association and DePaul University. That paper was later published in the Conference Proceedings [Tolan, Keys, Chertok, & Jason, 1990].)

Value for collaborative relationships. The proposed value for establishing collaborative relationships between behavioral researchers and participants reflects important attributes of the fields of cultural anthropology and ethnography (Agar,

1980), community organization (Rothman & Tropman, 1987), and community psychology (Chavis et al., 1983; Kelly, 1986; Serrano-Garcia, 1984). Collaboration calls for a reciprocal relationship between clients and researchers, a notion consistent with the ideal of obtaining the consent of the governed as outlined in the United States Constitution (Adler, 1987). Adherence to the value of collaboration would result in attention to new questions, the resolution of which may be particularly important to clients.

Value 1. Community researchers should form collaborative relationships with the participants with whom they do research. Several questions may help improve the quality of the collaboration: (a) Are participants' view of the community and its goals represented in the research goals, along with the researchers' perspective? (b) Is the community's influence evident in the identification or choice of new research questions that are not suggested by either the discipline or the researchers' past choices of topics? (c) Does the method system require that the researcher become sufficiently knowledgeable about local ways by participating in activities of local origin (not just research activities) before, during, and after data collection? (d) If an intervention is used, is it designed, adapted, and implemented in collaboration with participants? (e) Is the work responsive to an initiative from the community, does it encourage such initiative, and do community members describe the research and action goals as their own?

Values for research goals and methodology. The proposed values regarding research goals and methods are based on the methodology of quasi-experimentation (Cook & Campbell, 1979), applied behavioral research (Baer et al., 1968, 1987), social validation (Wolf, 1978), and the values and traditions of community psychology (Heller et al., 1984; Rappaport, 1977). These familiar methodological considerations help select for replicable method systems and results.

Value 2. Descriptive community research should provide information about the variety of behavior-environment relationships of importance to communities. Some key questions help evaluate the

contributions of descriptive research: (a) Are strengths and problems of people in communities given priority over questions of concern merely to the discipline? (b) Does the research contribute to our understanding of naturally occurring changes in behavior and environment over time? (c) Does the research contribute knowledge about behavior-environment relationships among events outside the control of researchers, such as changes in behavior targeted by new laws? (d) To what extent does the research document the variety of functional arrangements, as well as the more common forms, that enable or facilitate attainment of individual and community goals?

Value 3. Experimental community research should provide information on the effects of modifiable and sustainable environmental events on behaviors and outcomes of interest, on the generality and maintenance of the effects, and on the social importance and appropriateness of the research and action. Using within- and between-group designs and appropriate analytical methods, experimental research should yield valid and reliable answers to these questions: (a) Does the independent variable produce changes in the behaviors and processes labeled as the problem? Does the independent variable produce changes in the outcomes (e.g., productivity, incidence of disease) labeled as the problem? (Is there evidence of internal validity—that the experimental design rules out other plausible explanations of the effects?) (b) Do the effects generalize across participants? (Is there subject generality?) (c) Do the effects generalize across conditions, settings, or stimulus situations? (Is there stimulus generalization or setting generality?) (d) Over what duration are the effects sustained? (Is there maintenance of effects?) (e) Do the effects generalize to other important behaviors and outcomes? (Is there evidence of response generalization—that other behaviors and outcomes are also affected?) (f) Are the goals and target behaviors socially important from the perspective of clients? Are the procedures used in this community intervention acceptable to participants? Are the effects of the intervention socially significant from the clients' perspective? Do the effects lead people to say the problem is solved or

the goal is attained? (Is there social validity?) (g) Are the unintended consequences (positive and negative) of the intervention suggested by follow-up observations of the setting and interviews with participants? (Are there side-effects?)

Value 4. The chosen setting, participants, and research measures should be appropriate to the community problem under investigation. To judge the validity of settings, participants, and measures, the following questions are useful: (a) Are the participants studied in their natural settings? Are the normal, valued features of the context undisturbed as a result of the research? (b) If the goal of the research is to solve a problem, do the chosen participants and setting actually experience the problem at a level that is socially important? (They should not be chosen for the convenience of the investigators.) (c) Are the participants in the setting to be observed the ones who contribute to the problem, or if the locus of the problem actually at a different level? (Perhaps the source of the problem is with administrators, service providers, or decision makers and not with the targets who are insufficiently empowered to avoid the research.) (d) If the problem is with a behavior and/or community condition, is that measured, and not a rating, verbal statement, or some other proxy for the issue of interest? (e) If questionnaires are used, are additional direct measures of the behavior and conditions related to the problem also taken to avoid exclusive reliance on proxy measures?

Value 5. The measurement system used to record dependent variables must be replicable, and chosen measures should attempt to capture the dynamic and transactional nature of behavior-environment relationships. Evaluative questions for judging the reliability and sensitivity of the measurement system include: (a) Can other researchers implement the behavioral observation systems (i.e., behavioral definitions, observer scoring instructions), rating scales, and other assessment instruments used to collect dependent measures? (b) Can the observers, scoring simultaneously but independently, produce satisfactorily high levels of inter-observer agreement using the measurement system? (c) In addition to measures of the behavior of people

in communities, does the research include measures of events in the environment? (d) Does the research provide measures of transactions between people's behavior and events in the environment? (Measures of mutual aid, for example, would presumably indicate both disclosures of need and other's provision of aid.) (e) Are the measures sensitive to variations in the phenomenon over time, such as those that can be detected with time series designs and longitudinal studies? (f) Do the measures convey the influence of participants' behavior on environments as well as the influence of environmental events on behavior? (Evaluations of empowerment efforts, for example, would perhaps show evidence that the intervention affected the participants' behavior and that participants, in turn, effected changes in specific features of their environment.) (g) Are qualitative data, such as those gathered in ethnographic or structured interviews, used to help tell the story by complementing knowledge gained through quantitative measures?

Values for intervention and dissemination. Values guiding the evaluation and dissemination of community interventions are consistent with the literature on behavioral principles and procedures (see, for example, Zeiler, 1978) and on strategies for designing and disseminating social interventions (see, for example, Seekins & Fawcett, 1984). Adherence to these values may extend the technology available for community change, improve the timing and relevance of applications, and increase the adoption and use of community interventions.

Value 6. Community interventions should be replicable and sustainable with local resources. Questions helpful in evaluating community interventions include: (a) Can other community researchers and typical collaborators implement the procedures (i.e., instructions, prompts, reinforcement, environmental design changes) that make up the intervention? (b) Are the effects on the behaviors and outcomes of interest replicable in different communities, including those with similar goals but different resources and participant and setting characteristics? (c) Does the intervention rely sufficiently on local resources (i.e., people, setting features, money, equipment, and events), and is the inter-

vention maintained by the local community? (d) Do the effects of the community intervention continue after the researchers' departure?

Value 7. Community action should occur at the level of change and timing likely to optimize beneficial outcomes. The choice of level should reflect an understanding of these questions: (a) What behaviors (by whom and under what conditions) produce and maintain the community conditions labeled as the problem of interest? (b) What practical variables (implemented by whom and under what conditions) produce favorable changes in the behaviors and conditions labeled as problems? (c) What particular changes in behavior and outcomes (by whom and under what conditions) optimize desired changes in other behaviors and outcomes related to the problem or goal? (d) What timing and situational features represent the most favorable circumstances for community action?

Value 8. Researchers should develop a capacity to disseminate effective interventions and provide support for change agents. Evaluative questions regarding dissemination, technical assistance, and training include: (a) How will standards for using the intervention be established and consequences for meeting them be arranged so that long-term fidelity to the model, and resulting effectiveness, are more likely? (b) How will adaptations of the intervention or its components be arranged so that the intervention will fit local conditions while maintaining similar levels of effectiveness? (c) How will the price (in time and money) be set so that the intervention will be affordable by typical adopters? (d) How will technical assistance and support systems be used to embed the intervention in the natural environment after the departure of the disseminators? (e) How will training be provided to increase the number and quality of change agents available in local communities?

Values for advocacy and community change. The values guiding how to communicate the results of research and action efforts and judge their impact reflect ideas for combining science and advocacy (Coleman, 1972, Price, 1989), the ethics of social intervention (Warwick & Kelman, 1976), and evolving models of prevention (Price et al., 1988)

and empowerment (Fawcett et al., 1984; Rappaport, 1981, 1987). Work consistent with these values will enhance understanding of the phenomena by members of the community, the discipline, and decision makers. It can also increase the impact of the endeavor by extending local capacities for improvement and fitting small wins into a larger strategy of planned change.

Value 9. Results of community research and action should be communicated openly and effectively to clients, decision makers, and, when appropriate, to the public at large. Communication efforts should reflect several concerns: (a) Are the results conveyed to participants in a way that is demystifying, comprehensible, and contributes to understanding and future action? (b) Are the results communicated to disciplinary audiences so as to permit an assessment of the adequacy of research methods and results, and contribute to the field's understanding of communities and their capacities for change? (c) Are the results communicated to decision makers in a way that contributes to substantive actions on behalf of people living in the contexts studied? (d) Are the results framed to minimize their use to justify blaming relatively marginal and unempowered people for their problems? (e) Are the results communicated openly, even when at least some of the clients, researchers, collaborators, purchasers, or decision makers may not benefit from open communication? (See Price, 1988, for a consideration of some of the serious dilemmas of truth-telling.) (f) Does communication also flow from relevant audiences to researchers, providing the clients' perspectives on what was important about the research and action?

Value 10. Community research and action projects should contribute to fundamental change as well as understanding. Questions useful in assessing the contribution to community change include: (a) Who are the clients? How much, and in what ways, does each benefit from the research and action? (b) Does the intervention help prevent problems (not merely helping people cope with problems)? (c) Are the lives of clients of relatively marginal and disempowered status improved by the research and action? (d) Does the intervention increase the number

of people, events, and settings available to facilitate attainment of community goals? (e) Does the intervention enhance the capacities of existing resources to meet individual and group goals? (f) Are the small wins or improvements consistent with a larger plan or model for social change?

Table 1 summarizes this set of values, acknowledging contributions to the blend from both research and community perspectives.

Conclusion

These values for community research and action strike a somewhat different balance between the cherished attributes of rigor and relevance. They blend important methodological considerations with community interest in acting with (and on behalf of) those most affected by the problems under investigation.

However, embracing community values, such as maximizing client control or studying problems at higher levels in the system, may invite rejection of research studies on grounds of insufficient experimental control. Indeed, some reports of action research efforts devote more journal space to apologetics for methodological limitations than to celebrations of modest successes. Should this happen routinely, there would be a resulting loss of scientific prestige and associated problems for academic researchers in obtaining promotion, tenure, and other forms of recognition and security. The challenge, of course, is to be "adventuresome" without being suicidal. (Community psychologist Jim Kelly introduced me to the term "adventuresome" science; a graduate student reminded me that its practice may be better left to tenured faculty who can afford such risks.)

The pursuit of these values may require using different (not lesser) rules of evidence. Studying important community phenomena in uncontrolled settings may demand a switch from the "proof game" to the "plausibility game" (Baer, 1985). Experienced evaluators recommend acceptance of those reported relationships that are seemingly true—not just demonstrably true—when the potential societal benefits of innovations are large and the projected increase in false conclusions is small.

This balances an increased risk of Type I errors (adopting new methods when old ones are better) with a decreased risk of Type II errors (retaining old methods when the new is more effective). By adapting rules of inference to select for reasonable approximations and demonstrations of change, we can select for important discoveries and maintain the community research and action necessary to produce them.

These values might be communicated more explicitly in additional (not inferior) ways of "telling the story." Special issues of journals and article subheadings—such as Collaborative Relationships with Participants, Communicating Results to Clients, Taking Action, and Impact on the Community—might prompt reporting of modified forms of research activity consistent with these values. This information would impart the community aspects of the tale, complementing the analytic story (Smith, 1990).

Embracing the unique values of community research and action may provide distinct advantages. Greater involvement of clients in setting the research agenda should expand the scope of questions and enhance the significance of research endeavors desired to address them. More flexible guidelines for studying community change should encourage research on community development and systems change initiatives, such as community coalitions or public policy efforts. Communicating research results to client groups should reduce misinterpretations of the data and enhance the accuracy of conclusions. Finally, taking action with (and on behalf of) client groups should extend the capacities of communities to meet the needs of clients, especially those of relatively disadvantaged and marginal status.

This paper has outlined values of community research and action that may help to optimize the rigors of experimentation within the sometimes chaotic contexts of social problems. Like the Greek hero Odysseus, we must take precautions to avoid the lure of the Sirens of traditional methodology. By adapting cherished research traditions, we may free ourselves to follow the course of more adventuresome research. The eyes of society's victims of

Table 1

Some Values Guiding Community Research and Action: Contributions from Research and Community Perspectives

Values of community research and action	Research perspective	Community perspective
1 Researchers should form collaborative relationships with participants.	Research should be grounded in the local context.	Communities should exert some control over research that affects them.
2 Descriptive research should provide information about the variety of behavior-environment relationships of importance to communities.	Research should contribute knowledge about naturally occurring events.	Research should contribute to understanding about strengths (as well as deficits) and the variety of ways that individual and community goals can be met.
3 Experimental research should provide information about the effects of environmental events on behaviors and outcomes of importance.	The effects of research interventions should be replicable, durable, and generalizable to other people and situations.	Research should help identify goals, procedures, and effects that are important and acceptable to clients.
4 The chosen setting, participants, and research measures should be appropriate to the community problem under investigation.	Applied research should use valid measures to examine real-world problems in the natural context of people actually experiencing the concerns.	Research should target all those who contribute to the problem and should leave improved valued aspects of the community.
5 The measurement system must be replicable, and measures should capture the dynamic or transactional nature of behavior-environment relationships.	Measurement systems should be replicable by typically trained researchers.	Research findings should tell the complete story, including the role that participants play in changing their environments.
6 Community interventions should be replicable and sustainable with local resources.	Interventions should be replicable by those available to implement them.	Community interventions should be sustainable with local resources and should build on local capacities for addressing community concerns.
7 Community action should occur at the level of change and timing likely to optimize beneficial outcomes.	Interventions should produce the maximum desired impact.	Interventions should be targeted to optimize benefits for the community and its members.
8 Researchers should develop a capacity to disseminate effective interventions and provide support for change agents.	Interventions should be disseminated cautiously so that their continued effectiveness is assured.	Interventions should be adapted to local conditions and their use should enhance local capacities for change.
9 Results should be communicated to clients, decision makers, and the broader public.	Research findings should be submitted for peer review, and, if judged acceptable, disseminated to the broader scientific community	Research findings should be communicated to participants and decision makers in understandable and maximally influential ways and these audiences should help assess what was valuable about the research.
10 Community research and action projects should contribute to fundamental change as well as understanding.	Community research should contribute to understanding of environmental events that affect behavior.	Community research should contribute to prevention of problems in living, capacity building, and empowerment of people of marginal status

maltreatment, neglect, and injustice are upon us. Their plight gives meaning to our renewed attempts to understand and change the world.

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Received November 15, 1990

Initial editorial decision April 4, 1991

Revisions received July 5, 1991; September 3, 1991

Final acceptance September 5, 1991

Action Editor, R. Mark Mathews