Contributing to the development of intervention strategies that lead to improvements in the lives of people is the defining feature of the field of applied social psychology and, in our view, is the most exciting thing about being an applied social psychologist. Imagine the great sense of accomplishment and gratification that Sherif (1966b) and his colleagues must have experienced when they, in fact, did reduce conflict between rival groups of boys by using a strategy that involved having the groups work together toward common goals. Imagine how rewarding it is for those who are involved in designing community-based interventions that influence people to adopt healthier lifestyles (e.g., engaging in regular exercise, employing safe-sex practices), thereby reducing the incidence of serious health problems (e.g., heart disease, sexually transmitted diseases). Throughout the remainder of this book, you will be provided with many examples of successful interventions that are grounded in social psychological theory and research. Likewise in this chapter, several social psychologically based interventions are reviewed. In particular, the chapter focuses on an intervention strategy that has been implemented on many college campuses to deal with the high rates of alcohol abuse.

Given that interventions are so central to the field of applied social psychology, it is important for you, as a student of the field, to have a good understanding of their nature. The major goal of this chapter is to consider how applied social psychologists draw on their understanding of theory, methods, and research evidence in the design and evaluation of interventions. The chapter takes you through the steps involved in developing and evaluating interventions, using examples of actual interventions to illustrate the steps. It also recognizes social psychology's role in influencing social policy, which is another very important way of applying social psychology and is closely related to the application of the field through the implementation of interventions. Near the end, the chapter considers some of the practical and ethical issues that are confronted by people who practice applied social psychology.

DESIGN OF INTERVENTIONS

Nature of Interventions

An intervention may be defined as a strategy (or procedure) that is intended to influence the behavior of people for the purpose of improving their functioning with respect to some social or practical problem. Some interventions might not target people's behavior directly, for example, those that are designed to increase knowledge or awareness (e.g., of the environmental benefits of recycling) or are designed to change attitudes (e.g., becoming more supportive of recycling). However, the ultimate goal of most interventions is behavior change (e.g., increased recycling). As pointed out in Chapter 1, interventions can be conducted at different levels of analysis (e.g., individual, group, organization, community). Although interventions can be directed at different levels, it can be argued that ultimately they are directed toward individuals in that for changes to occur, such as in a group or in an organization, the individual members must change in some way.

Moreover, to understand the focus of this chapter, it is helpful to distinguish between two broad types of intervention: personal and programmatic. Personal interventions are those that people carry out in the course of their daily lives, that is, when they use their knowledge of social psychology to improve their own circumstances or those of people around them. Examples of personal interventions were provided in Chapter 1 where "personal uses" of social psychology were considered (e.g., waitpersons improving their tips). Clearly, all of us can benefit from applying social psychology in our lives. However, personal interventions are not the focus of this chapter, which deals with programmatic interventions. However, they are considered in Part 3, which includes chapters that focus specifically on personal interventions.

In the current chapter, our primary concern is with programmatic interventions, which commonly are referred to simply as programs. In this chapter (and in the book as a whole), the terms intervention and program are used interchangeably. Royse, Thyer, Padgett, and Logan (2006) defined a program as "an organized collection of activities designed to reach certain objectives" (p. 5). In the context of applied social psychology, the activities that comprise a program are directed toward addressing a social or practical problem with the objective of preventing, reducing, or eliminating its negative consequences. In some instances, interventions may be directed at reinforcing and strengthening a positive situation (e.g., improving the productivity of an already effective work group). Except for the personal... all of the

interventions discussed so far in this book fall under the category of programmatic interventions. For example, one program involved the procedures and activities that Hodges, Klaaren, and Wheatley (2000) employed in getting female college students to engage in comfortable safe-sex discussions, and another example entailed the set of procedures and activities that Sherif (1966b) used to get groups of boys to work cooperatively toward superordinate goals.

We also can identify some interventions as trial interventions. Trial interventions are those that are implemented to determine whether the interventions, as designed, in fact have the intended positive consequences. These are also known as program efficacy studies (Crano & Brewer, 2002). Trial interventions typically are associated with programmatic interventions, although theoretically personal interventions can be "tried out" as well. There are two basic kinds of trial interventions. One is when researchers design a study to test out a possible intervention strategy. The interventions of Sherif (1966b) and Hodges and colleagues (2000) represent this type of trial intervention. The second kind of trial intervention is when an organization conducts a pilot program to determine its effectiveness before implementing it on a more permanent basis or before implementing it on a wider scale. For example, as some police departments in North America have attempted to transition to community policing, which is a new model of policing, they frequently test the efficacy of the model by trying out a community policing unit in one or two neighborhoods. Many interventions considered in this book are trial interventions, particularly those that involve a research test of an intervention design. We now turn to a consideration of the main tasks in intervention design and delivery.

Key Tasks in Intervention Design and Delivery

The process of intervention design and implementation follows four overarching steps that reflect the general problem-solving approach adopted by many areas of applied psychology and are applicable whether the recipient of the intervention is one individual or many individuals. These steps are (a) identifying a problem, (b) arriving at a solution, (c) setting goals and designing the intervention, and (d) implementing the intervention (Oskamp & Schultz, 1997).

Step 1: Identifying a problem. Programs are initiated to address social problems or practical problems. The first step in program design is to identify the existence and severity of a problem. A problem usually is identified and defined by stakeholders. Stakeholders are individuals or groups who have a vested interest in the possible development of a program in that they may be affected by it in some way. Stakeholders include not only the potential recipients of the program but also individuals such as program funders, administrators of the organizations responsible for delivering the program, program managers, and frontline staff members (i.e., the employees who actually carry out the program activities). As you might imagine, difficulties arise when different stakeholders disagree about whether a problem exists, how serious a problem is, or which problems should be given highest priority.

Needs assessment is the term that is commonly used to refer to the process of establishing whether or not there is a need or problem (these words are used interchangeably) to sufficiently warrant the development of a program. A needs assessment may be informal in nature, for example, when a coach determines that a team-building exercise is necessary based on her own experience with her team or when a manager decides that his department needs a workshop on sexual harassment after overhearing some of his staff members making sexually inappropriate remarks. In general, we have more confidence in the conclusions of a formal needs assessment that relies on systematic research procedures for collecting data that are relevant to problem severity and prevalence. Problems may be investigated using a variety of qualitative and/or quantitative procedures (see Chapter 3), for instance, by means of interviewing representatives of various stakeholder groups or administering questionnaires to them. Also, a formal needs assessment gauges the availability of existing programs or services as well as possible barriers to or gaps in service.

Step 2: Arriving at a solution. Ascertaining the existence of a problem or need is one thing; determining how best to address it is quite another. To arrive at a solution, it is important to identify the factors responsible for causing the problem. When identifying causal factors, one should distinguish between precipitating factors (i.e., those that triggered the problem) and perpetuating factors (i.e., those that sustain the problem and

keep it from being solved). Making the distinction between precipitating factors and perpetuating factors is critical to the design of an intervention because the factors or events that lead to a problem are not always directly involved in its continuation. For instance, factory employees may be laid off for one reason (the precipitating factor may be a slowdown in the economy) but unable to secure new employment for another reason (the perpetuating factor may be a lack of skills that are demanded by alternative jobs). In this case, one must identify the perpetuating cause—lack of important skills—as the factor to be targeted so as to solve the problem (inability to find new employment).

Once causal factors have been identified, the next step is to find out (often through a literature review) whether interventions that have effectively addressed the same needs already exist. Such interventions can be used to guide the development of a solution to the current problem. If previous interventions cannot be located, then a solution must be developed independently. When possible, solutions should be based on relevant social psychological theory and research evidence as well as theory and evidence from any other field that may contribute to a solution. Recall that Chapter 3 ended by noting that Ross, Lepper, and Ward (2010) identified the "nonobviousness" of experimental outcomes as an important theme of social psychology research. Ross and colleagues also extended this observation to include the non-obviousness of the outcomes of intervention strategies. Some 19 years earlier, Ross and his colleague Nisbett (1991) cautioned against the development of interventions based on conventional lay understanding and intuition because "lay predictions are often both wrong and too confidently made" (p. 18). They added, "The hard won lessons of social psychology . . . constitute a repertoire of strategies with which to supplement the guidance of common sense in constructing interventions" (p. 245).

Consider the following example of an effective smoking prevention intervention that was based on McGuire's (1964) research on the "inoculation effect." McGuire discovered that just as it is possible to be immunized against a disease, such as polio, by being inoculated with a vaccine containing a weak strain of the virus, so too is it possible for people to be immunized against attacks on their beliefs. In a series of laboratory experiments, he demonstrated that if participants are immunized by first receiving a small challenge to their beliefs and have an opportunity to prepare a rebuttal to this weak attack, they are better able to resist a subsequent more powerful attack. In a creative leap from research to application, McAlister, Perry, and Maccoby (1980) wondered whether it is possible to apply the inoculation effect to an actual social problem, namely, helping seventh-grade students resist inducements to smoke. Drawing on McGuire's (1964) inoculation theory and his innovative methodology, McAlister and colleagues (1980) developed a program involving role-playing that was successful in getting children to resist peer pressure to smoke.

For clarity of conceptualization and communication, solutions to problems should be expressed as intervention hypotheses (Lodzinski, 2003). Intervention hypotheses are "if–then" statements that summarize the intervention and the expected outcomes. In the case of McAlister and colleagues' (1980) smoking prevention program, the intervention hypothesis could be stated as follows: "If seventh-grade students are provided the opportunity to rehearse rebuttals to inducements to smoke in realistic role-playing, peer pressure scenarios, then in their daily lives they will be more likely to resist pressures to smoke and less likely to begin smoking."

Step 3: Setting goals and designing the intervention.
Once the need and the proposed solution have been determined, it is necessary to develop the program activities, which refer to the specific components and procedures of the program. The best place to begin this process is to set the goals and objectives of the intervention. Knowledge of goals and objectives serves to guide the selection of program activities. Goals refer to the ultimate or long-term outcomes that one hopes to accomplish through an intervention. For example, a goal for a substance abuse program might be to have the clients abstain from alcohol and other drugs. Once goals have been established, it is important to define the program objectives. Objectives refer to short-term outcomes (e.g., during or immediately after an intervention) and intermediate-term changes (e.g., one or two months later) that occur as a result of the intervention and are required for (i.e., support) the attainment of the program goals. In other words, goals refer to the ends, whereas objectives refer to the means or steps by which the ends are achieved. For instance, if the goal is for clients with substance abuse
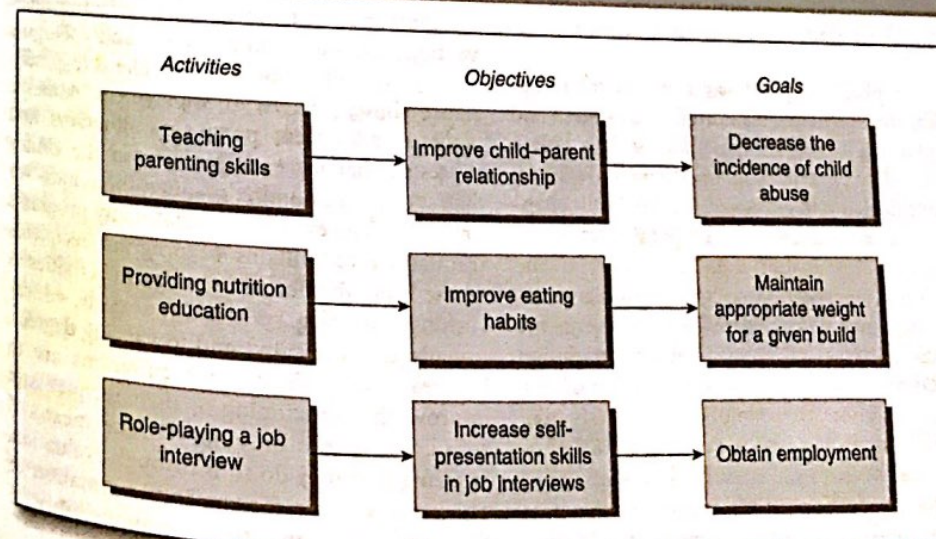
problems to remain abstinent, one objective might be for them to understand why they use drugs in the first place.

Once the goals and objectives have been set, the next step in intervention design is to determine the program activities. When choosing activities, one of the most important questions is the following: What objective (and ultimate goal) will the proposed activity help to meet? For example, for clients to learn the reasons for their drug use (objective), they might need to have individual counseling sessions with a certified counselor (activity). Figure 4.1 illustrates additional examples of intervention activities, objectives, and goals.

The process of specifying the various components of a program—goals, objectives, and activities—requires a sound rationale, often referred to as a program logic model. A program logic model is an explanation or a blueprint of how the program activities lead to the attainment of the program objectives and, in turn, how the objectives logically and operationally contribute to the eventual achievement of the program goal(s) (Wholey, 1983). Logic models vary in complexity and detail, but all of them stress a "cause and effect" flow as expressed in the intervention hypothesis. Program logic is the glue that holds the activities, objectives, and goals together.

Fundamental to a program logic model is its theoretical basis (Unrau, Gabor, & Grinnell, 2001). That is, a logic model should be based on a theoretical rationale that explains the causal connections among its various components, for example, why rehearsing rebuttals will induce resistance to peer pressure to smoke. From the point of view of intervention design, this means that one should be able to point to any component of the intervention and indicate not only what its contribution is but also why the effect should occur. The use of a program logic model ensures a careful theoretically and empirically based articulation of the program and increases the likelihood of its success. This, of course, helps to ensure that program resources are used as effectively as possible. Unfortunately, in applied settings, too often it is the case that programs are designed without formal articulation of logic models. Some evaluators have begun to employ the notion of a theory of change model instead of program logic to underscore the need to make explicit an intervention's underlying theory including the steps involved along the path to desired change, the assumptions being made, and the preconditions that may enable (or inhibit) the desired change (Mackinnon, Amott, & McGarvey, 2006; Organizational Research Services, 2004).

| Figure 4.1 | Examples of Activities, Objectives, and Goals for Three Programs |

Activities	Objectives	Goals
Teaching parenting skills	Improve child–parent relationship	Decrease the incidence of child abuse
Providing nutrition education	Improve eating habits	Maintain appropriate weight for a given build
Role-playing a job interview	Increase self-presentation skills in job interviews	Obtain employment

Step 4: Implementing the intervention. As the term implies, implementation refers to the actual process of enacting the intervention activities, that is, of delivering them to the recipients of the intervention. A point worth noting is that there are many practical details that might need to be in place to implement programs properly. Depending on the complexity of an intervention, determined by factors such as its size and structure, practical details might include securing an appropriate facility, hiring staff members, ensuring adequate training, and developing things such as operating budgets, management structures, job descriptions, performance appraisal methods, promotional strategies, and cross-agency referral protocols. Moreover, an intervention always should be designed and implemented in such a way that its degree of effectiveness can be evaluated.

EVALUATION OF INTERVENTIONS

Donald Campbell, a leading authority on research design in the social sciences, spoke often and strongly on behalf of the need for program evaluation. More than 40 years ago, Campbell (1969) called for a culture of evaluation:

> The United States and other modern nations should be ready for an experimental approach to social reform, an approach in which we try out new programs designed to cure specific social problems, in which we learn whether or not these programs are effective, and in which we retain, imitate, modify, or discard them on the basis of apparent effectiveness. (p. 409)

Campbell's proposal was driven by the recognition that no matter how carefully conceived and convincing a program hypothesis is, it is only a proposition until the program is actually designed, implemented, and *evaluated*. Although this chapter considers evaluation in a separate section, be assured that evaluation is an integral part of the process of intervention design and implementation and may be considered a fifth step in the process. In fact, a good intervention design includes a plan for program evaluation (Lodzinski, 1995). Testimony to the importance of evaluating interventions is the existence of a separate field in the social sciences called evaluation research (or program evaluation). It is worth noting that program evaluation recently was cited in the *Monitor*

on Psychology as "one particularly hot growth area for psychologists" (DeAngelis, 2008). In fact one author of this chapter (Motomura) defines evaluation research as her main vocational area, and a second author (Lodzinski) regards program design and evaluation as being at the core of his consulting practice; it is noteworthy that both individuals received their graduate degrees in applied social psychology.

Reasons for Evaluating Interventions

The effectiveness of *all* programmatic interventions should be subjected to evaluation. (Actually, this also applies to personal interventions in the case of individuals who want to avoid repeating the same mistakes in their lives.) There are several reasons why programmatic interventions should be evaluated (e.g., Lodzinski, 1995). A major one is *scientific* and stems from the tradition of Lewin (Cartwright, 1951), who viewed all applied work as being guided by theory and as contributing to the development of theory. That is, a major reason for evaluation research is to test the theoretical assumptions underlying the intervention (i.e., the foundation of the program logic model or theory of change). If the intervention is implemented as designed, its degree of effectiveness informs those involved in its design of the validity of the theoretical rationale on which the intervention is based. This evaluative feedback is important with respect to attempts to develop theories that have utility in the world of application.

Another important reason for evaluating interventions is an *ethical* one. Royse and colleagues (2006) listed 14 major social problems (e.g., substance abuse, poverty, unemployment, domestic violence, adolescent pregnancy, illiteracy) and suggested that for each problem in the United States, there are hundreds—often thousands—of programs. The existence of that many programs translates into millions of program recipients whose lives are affected by program activities in various ways (e.g., physically, socially, educationally, economically) and to varying degrees. Whereas the goals of such programs are to improve the functioning of their recipients in various ways, the only appropriate means of ensuring that they do so is through evaluation. Those responsible for the implementation of programs have an ethical responsibility to

determine whether their recipients are receiving the intended benefits *and* whether they are experiencing any unintended undesirable consequences. The ethical responsibility also extends to a readiness to modify or even discontinue ineffective programs and to improve on programs that have been evaluated as effective. Later in this chapter, further ethical issues in the design and evaluation interventions are considered.

The need for *financial accountability* is another reason for program evaluation. Imagine the billions of dollars needed to fund the many thousands of social programs that exist. Most of us likely would say that the money is worth it—if the programs in fact do improve people's lives as intended. On the other hand, most of us would be pretty put off if all those tax dollars (our money) were being wasted on ineffective programs. Royse and colleagues (2006) pointed to a government-sponsored $2 billion antidrug media campaign that was initiated when there were "no well-controlled studies showing that media campaigns are effective in changing behavior" (p. 15). This astonishing example of fiscal irresponsibility very clearly highlights the need for rigorous research on the effectiveness of programmatic interventions. For the sake of the funders of programs, there should be accountability in the sense of convincing demonstrations of program effectiveness. Moreover, even if a program is found to be effective in accomplishing its goals, the program might be too costly. That is, an effective program might cost too much given the available resources that might instead be used for other purposes, including the implementation of other beneficial, yet less expensive, programs.

Finally, *program development* may be viewed as the overriding reason for evaluation research. Programs are evaluated as part of the process of developing the most effective programs possible. In fact, the three reasons for evaluation mentioned previously dovetail into program development by seeking to ensure that programs (a) are based on sound empirically tested theoretical assumptions, (b) are conducted with appropriate ethical safeguards, and (c) have a satisfactory ratio of benefits to costs.

Ineffective Interventions

As suggested, programs must be subjected to evaluation research because their success—even that of the most carefully rationalized and

designed ones—cannot be assumed. If we can generalize from the literature on program evaluation, the intervention world is replete with ineffective programs. For example, one systematic review of "Scared Straight" programs that involve organized visits to prison facilities by juvenile delinquents or children at risk of becoming delinquent found that not only do the programs not deter criminal behavior, but they actually lead to an increase in offending behavior (Petrosino, Turpin-Petrosino, & Buehler, 2002).

Now we will discuss in some detail an early dramatic example of a failed intervention, the Cambridge–Somerville project (described in Ross & Nisbett, 1991). What is especially noteworthy about the intervention, as observed by Ross and Nisbett (1991), is the fact that although the program was the "kind of multifaceted intervention that many social scientists would love to see implemented today" (p. 214), it turned out to be a dismal failure. A major goal of the intervention was prevention, that is, to reduce the likelihood of young boys from lower-class backgrounds in a Boston suburb—some of whom were identified as delinquency prone—going down a criminal path. The program was a model of intervention design, with approximately 250 boys randomly assigned to the program and another 250 or so randomly assigned to a control group. The boys were involved in the program for 5 years and received a wide variety of supports (i.e., program activities). For instance, all boys received twice-monthly visits to their homes from caseworkers, and substantial percentages received academic tutoring, psychiatric attention, medical attention, and opportunities for involvement with the Boy Scouts and summer camps.

The long-term effects of the program were evaluated in a series of studies for (remarkably) 40 years following the intervention. Two kinds of evaluative data sharply contradicted each other. On the one hand, the subjective impressions of caseworkers and many program participants presented a positive picture of the benefits of the program. On the other hand, the more reliable statistical evidence indicated that the program participants, as compared with the control group, had no fewer juvenile and adult offenses and did not fare better on a number of other indicators such as health, mortality, and life satisfaction.

Ross and Nisbett (1991) offered several plausible explanations for the failure of the

Cambridge–Somerville project, including the fact that the situational factors (i.e., program activities) that were manipulated as the intervention, although impressive in terms of expenditure of time and human resources, were "trivial" compared with the environmental forces that the boys faced on an ongoing basis. They also mentioned the possibility that being identified with the program might have had a stigmatizing effect on the boys, such that they and others would have viewed them as troubled and delinquency prone, with such a view becoming a self-fulfilling prophecy (see Chapter 9). This explanation raises the unfortunate possibility that the intervention actually may have had a harmful effect on the boys. In fact, on several indicators (e.g., multiple offenses, alcoholism, achievement of professional status), the program participants during adulthood were less well-off than the control participants during adulthood. Another possible reason why the program may have worked to the detriment of the participants is that because the boys could be seen as already receiving help from the program, the usual community sources of help (e.g., clergy, teachers, social service agencies) might have been less likely to provide their assistance. The possibility of unanticipated negative consequences must always be recognized and assessed in the evaluation of a program.

Our main purpose here is not so much to account for the failure of the Cambridge–Somerville project as to underscore that an apparently well-designed and intuitively compelling intervention can fail. If the program evaluation had not been properly designed (i.e., if it had relied solely on the subjective testimonies of key stakeholders), its failure would not have been detected; in fact, it may very likely have been deemed a success and regarded as an exemplary model of prevention. As suggested by the possible explanations for the failure of the Cambridge–Somerville project, there is a wide variety of factors that can contribute to the failure of an intervention to achieve its goal(s).

Here are four more possible reasons for program failure. One is that the theoretical rationale—the program logic model—may be inadequate and require revision. A second is that the program might not be implemented as designed (see next section on process evaluation) despite a sound theoretical and research basis.

A third cause of program failure can be the operation of reactance in program recipients (Rothman, Haddock, & Schwarz, 2001). Reactance refers to the idea that when a source of influence threatens people's sense of freedom to think or behave as they see fit, people will act against the influence to protect their freedom (much like Romeo and Juliet did when their families opposed their love for each other) (Brehm & Brehm, 1981). Thus, even though an intervention is intended to help people, if the people feel pressure to change, they might resist the social influence attempt that the program represents. Thus, designers of interventions often must take steps to minimize the undermining effects of reactance, for instance, by avoiding the use of overly strong (i.e., reactance-triggering) persuasive communications and by helping (as much as possible) to sustain in individuals a sense of choice or control about being exposed to program activities. For instance, one study showed that grade school and high school students who viewed an antismoking video evaluated the message and its source more favorably if the message was implicit as opposed to explicit, that is, if it minimized its persuasive intent and did not impinge on the viewer's freedom of behavior, for example, by strongly advising against smoking (Grandpre, Alvaro, Burgoon, Miller, & Hall, 2003). The potential undermining role of reactance speaks to the need for program designers to understand and anticipate how program recipients will define the program's objectives, goals, and activities (Ross et al., 2010).

A fourth reason for program failure may stem from an incompatibility between program design and cultural context. An example of major magnitude occurred during the 1990s when the United Nations came to recognize, after a number of failure experiences, that HIV/AIDS prevention programs that are effective in some countries or regions are less effective or completely ineffective in other countries or regions. For example, school-based HIV/AIDS prevention programs are regarded as perhaps the most effective way in which to reduce rates of HIV/AIDS (Gallant & Maticka-Tyndale, 2004). However, their potential in some developing countries is curbed enormously by the fact that the majority of children do not attend school and are illiterate and, thus, would be unable to benefit from information-based

program activities in the first place. Also, the goal of condom use, which is a fundamental component of HIV/AIDS prevention programs, is opposed by very powerful cultural forces in many countries where having children is an important symbol of sexual and economic potency as well as a tremendous source of pride and status. The paramount importance of addressing culture in the design of intervention efforts was formalized in UN policy during the late 1990s (e.g., Kondowe & Mulera, 1999).

Types of Evaluation

In assessing the effectiveness of an intervention, there are two main types of program evaluation: process and outcome (Posavac & Carey, 2007). **Process evaluation** (also known as *formative evaluation*) is undertaken to determine whether the program has reached its target audience (as identified in the intervention hypothesis) and whether the program *activities* (as outlined in the program's logic model) have been implemented in the prescribed manner. Basically, one wants to answer the following question: Is the program being implemented in the way in which it was planned? For instance, if an alcohol addiction program's activities include giving addicted people five individual counseling sessions and five group counseling sessions, a process evaluation would ensure that the clients were in fact addicted to alcohol and did indeed receive the prescribed number and types of counseling sessions.

Outcome evaluations typically are conducted after process evaluations. An **outcome evaluation** (also known as *summative evaluation*) assesses how well a program meets its objectives (i.e., short-term outcomes as described in the program logic model), and in a more comprehensive evaluation, it also assesses how well the program is achieving its goals (i.e., long-term outcomes, also part of the logic model). Essentially, the overriding purpose of an outcome evaluation is to determine whether the hypothesized improvement in functioning occurs among the recipients of the program as a result of exposure to its activities. For example, an outcome evaluation of an alcohol treatment program might assess whether participants publicly (e.g., among all other participants) express strong commitment to long-term abstinence by

the end of the program. Evaluation of the goal of actual long-term abstinence would occur after a specified period of time (e.g., 1 year) following completion of the program.

As suggested previously, program evaluation is an integral part of program development. The results of a program evaluation often will lead one to revisit and revise the program logic model and, accordingly, to make changes in the goals, objectives, and activities. For instance, the logic model for an alcohol addiction program might have to be amended to include the important role of family support, thereby necessitating the inclusion of new program activities (e.g., family counseling) and objectives that emphasize family involvement.

Evaluators also have recognized the important role evaluation can play in supporting the process of innovation and learning within an organization. This type of evaluation has been coined **developmental evaluation** (Patton, 1994) and can be used when interventions are in a stage of early innovation or in situations of high complexity, like poverty or homelessness, where the causes and solutions to the problem are unclear and intervention stakeholders are not on the same page. A developmental evaluation typically involves testing or experimenting with new approaches to a problem—perhaps involving multiple trial interventions—with the intention of developing an innovative solution that can be subjected to process and outcome evaluation approaches (Gamble, 2008; Patton, 2011).

Importance of Research Design in Evaluating Interventions

Chapter 3 stressed the advantages of experimental designs in the study of causal relationships. Heightened confidence in *internal validity* (i.e., the independent variable did in fact cause changes in the dependent variable) comes with sound experimentation. Similarly, as Campbell (1969) and others (e.g., Crano & Brewer, 2002) have argued, if we want to know whether an intervention does indeed result in its intended consequences, evaluators are in a much stronger position to reach a confident conclusion with an intervention that is conducted as an experiment. In such a case, potential program participants

are randomly assigned to either the intervention group or a "no intervention" control group. Assuming that all other environmental factors are similar for the two groups (this assumption becomes less tenable with interventions in the field than with those in the laboratory), differences between the groups (e.g., gains in students' self-esteem) can be attributed to the intervention with some confidence.

Confidence about program effects will be lower in the case of interventions conducted as quasi-experiments, for example, when random assignment is not used and the outcomes for the intervention group are compared with those for a group of individuals whom the researchers deemed to be similar to the intervention group (e.g., the groups may be matched on a few characteristics such as income level and IQ). This is not to say that evaluations of interventions conducted as quasi-experiments are not of value. In fact, when it comes to interventions in the "real world," experimentation frequently is not feasible for a variety of practical reasons (e.g., an agency cannot afford to run a program as an experiment, random assignment cannot occur because the evaluator is faced with an intervention group that is preselected). When experimental procedures are not possible, quasi-experimental procedures should be employed. However, with such procedures, conclusions about program effectiveness must be more guarded (Campbell, 1969).

Evidence-Based Interventions

In step with increasing demands on programs and policies for accountability, whether to a program funder, the government, or the general public, is the continually increasing emphasis on the employment of evidence-based interventions or "best practices." For instance, in the field of education, the No Child Left Behind Act of 2001 (2002) required that practices and policies adopted by schools and school districts be "scientifically based," a phrase that is mentioned over 100 times in the legislation. This trend has spawned many books and clearinghouses on evidence-based practices across many disciplines and social problems. Some notable examples of clearinghouses include the What Works Clearinghouse set up by the U.S. Department of

Education to provide evidence regarding what works in education; the Cochrane Collaboration that provides systematic reviews of research in human health care and health policy; and the Campbell Collaboration that produces systematic reviews of interventions in education, crime, social justice, and social welfare.

Some organizations have also introduced evidence-based decision-making tools that guide practitioners to critically assess research and apply research findings to their program decisions. In this context, Biglan and colleagues recommended standards that scientific organizations should apply before promoting programs and policies directed toward the prevention of behavior problems in youth (Biglan, Mrazek, Carnine, & Flay, 2003). Such organizations include, for example, the Center for the Study and Prevention of Violence and the Center for Substance Abuse Prevention. Biglan and colleagues proposed that before an organization recommends adoption of a given prevention program or policy, its positive outcomes for the target group should be demonstrated by at least two well-designed experimental trials or three well-designed interrupted time series experiments (one of the more rigorous quasi-experimental designs, as described in Chapter 3). According to Biglan and colleagues, the use of this "standard would mean that scientific organizations would put their resources into disseminating the programs and policies that . . . would concentrate the limited resources of scientific, government, and nonprofit organizations on the policies and programs that are most likely to have an impact" (p. 436).

As another example, the Centers for Disease Control and Prevention has a panel of scientists assign HIV/AIDS programs to a four-tiered system that reflects the programs' levels of efficacy and scientific rigor. A program's tier can be adjusted up or down in accordance with the availability of new evidence (Price, 2008). Now, drawing on such systems for rigorously evaluating existing programs, decision makers in many fields have a much greater opportunity to select programs that have scientifically established records of effectiveness.

The following section further clarifies intervention design and evaluation by taking you through each step of the design and evaluation of an actual program.

AN INTERVENTION EXAMPLE: REDUCING ALCOHOL PROBLEMS ON CAMPUS

As noted previously, when designing an intervention, it is important to draw on relevant theory and research to develop the most effective intervention possible. This section describes an intervention that involves the direct application of social psychological theory and research evidence. The goals of the intervention, which was developed and implemented at Northern Illinois University (NIU), were to reduce high-risk drinking among students and to reduce the incidence of injuries due to alcohol consumption. The intervention was conducted by the Health Enhancement Services Office of the University Health Service at NIU and was initially funded by a grant from the U.S. Department of Education's Fund for the Improvement of Postsecondary Education (Haines, 1996).

Identifying the Problem

Alcohol consumption is a very big problem on many college campuses. The level of alcohol consumption among college students has long been a concern of school administrators, parents, and other community members. The Harvard School of Public Health surveyed students at 119 colleges and universities in the United States (Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994; Wechsler et al., 2002). The results showed that, overall, 44% of students had engaged in "binge drinking" (defined as having 5 or more drinks in a row) during the 2 weeks prior to the survey. The survey also showed that a higher percentage of binge drinkers had experienced alcohol-related problems since the beginning of the school year than had non–binge drinkers. Frequent binge drinkers were 7 to 16 times more likely than non–binge drinkers to have reported the following: missed class, fallen behind in schoolwork, engaged in unplanned sexual activity, had sex without protection, found themselves in trouble with campus police, damaged property, and been physically hurt or injured. A survey of NIU students (details reported later) confirmed that NIU was not an exception with respect to having a serious campus-wide alcohol problem.

To deal with problem drinking on campus, many colleges, including NIU, have tried "traditional" methods of intervention such as alcohol education and awareness campaigns, which are based on the idea that increased knowledge of the negative consequences of alcohol consumption will reduce drinking levels. However, there is little research evidence that education-oriented programs reduce alcohol consumption among college students (Moskowitz, 1989). Consistent with the research, NIU found that these traditional methods did not reduce drinking rates or alcohol-related injury rates among its students. It was clear that there was a need for a new kind of intervention to deal with problem drinking among NIU students.

Developing a Solution: Forming the Intervention Hypothesis

To reduce alcohol consumption among NIU students, an intervention that represented an application of social norm theory was designed (Berkowitz, 2004; Perkins, 2003). Fundamental to social norm theory is the central role that norms play in people's lives. Norms refer to shared beliefs about which behaviors are acceptable and which behaviors are not acceptable for members of a given group to engage in. Essentially, norms are prescriptions for how people should act in particular situations. There is ample research evidence that people do tend to guide their behavior in accordance with what they perceive to be the situation-relevant norms (Cialdini & Goldstein, 2004). Social psychologists have long recognized the influence of social norms on people. However, what is distinctive about social norm theory is its emphasis on the idea that people often perceive norms incorrectly and use such erroneous perceptions to guide their actions. In fact, social norm theory is based on the following three principles. First, individuals tend to conform to what they perceive to be the norm for a particular behavior. Second, in some instances, individuals may behaviorally conform to misperceived norms. Third, if misperceptions of norms are corrected, individuals will change their behavior to agree with the corrected perceptions.

Research on social cognition has identified some thinking errors that can lead people to misperceive norms. Two are particularly relevant

to the problem of drinking on college campuses. One cognitive error is false consensus, which is the tendency for people to believe that others are like them when in fact they are not (Ross, Green, & House, 1977). For instance, heavy drinkers may believe that most of their peers (e.g., students at their school) are also heavy drinkers when in fact they are not. We can see how this kind of thinking would allow heavy drinkers to rationalize their own levels of alcohol consumption as normative—socially acceptable—and, thus, help to sustain their excessive drinking. Another way in which norm misperception can occur is through pluralistic ignorance, which is when the majority of individuals incorrectly assume that others' behavior or thinking is more different from theirs than it actually is (Toch & Klofas, 1984). For instance, students may believe that others drink more than they do when in fact they do not. In fact, survey studies on a variety of college campuses have shown that these two types of misperception, especially pluralistic ignorance, are very common. That is, most students think that other students on their campuses drink more than is actually the case (Graham, Marks & Hansen, 1991; Perkins, Haines, & Rice, 2005). At NIU, a 1988 survey indicated that less than half (43%) of students reported that they drink more than 5 drinks when they "party," whereas 70% of students reported that they believed most NIU students drink more than 5 drinks when they party. Thus, at NIU, the norm was that most students did not drink more than 5 drinks when partying, yet a solid majority misperceived the norm (suggesting the operation of pluralistic ignorance).

As the second principle of social norm theory suggests, not only do college students misperceive the norm for drinking behavior to be higher than it really is (e.g., "everyone is doing it"), but they also behave in ways that conform to this misperception. As evidence of this, studies have determined that if students believe that their peers are drinking more than they themselves are drinking, drinking rates tend to rise (Graham et al., 1991; Prentice & Miller, 1993).

The third principle of social norm theory—that people will conform to corrected perceptions of norms—leads directly to the hypothesis that if misperceptions of the drinking norm are corrected, levels of high-risk drinking will

decline. Social norm theory and related research, therefore, led NIU to use the following intervention hypothesis for the design of its program: If NIU students are led to perceive the campus norm for drinking levels more accurately (i.e., the levels are lower than believed), drinking levels among students should decrease.

Goal Setting and Designing the Intervention

The main *goals* of the intervention were to reduce high-risk drinking and alcohol-related injuries among students at NIU. The *objective* of the intervention was to reduce the misperception of the amount of drinking on campus. It was reasoned that reaching this objective would lead to the achievement of the main goals of the intervention. The campaign plan was to target all students who drank alcohol. Because nearly all students (90%) at NIU drank alcohol, a campus-wide intervention was planned. Four rules used to guide the development of the campaign message to the student body were to (a) keep it simple, (b) tell the truth, (c) be consistent, and (d) highlight the norm of moderate drinking. Reflecting these rules, the message was that most NIU students (55%) drink 5 or fewer drinks when they party.

Because of the limited resources available (one full-time staff person) for this project and the large number of students at NIU (23,000), it was decided that the main program activity would be to use a mass media campaign. Given that most students at NIU reported that the campus newspaper was their primary source of information about campus activities, it was decided that a print media campaign would reach the largest number of students at the lowest cost. The print media campaign included campus newspaper advertisements, a campus newspaper column, press releases, flyers, and posters (see Figure 4.2). It was also important that students perceived the source of the message as credible. A survey determined that NIU students rated health professionals as more believable than educators and friends. As a result, a print media campaign that was endorsed by health professionals on campus was deemed to be the most effective method of communicating the intervention message to NIU students.

| Figure 4.2 | One Poster Used for Social Norm Media Campaign at Northern Illinois University |

SOURCE: Courtesy of Northern Illinois University.

An additional program activity involved a means of increasing the likelihood that students would read and remember the campaign message. This entailed rewarding students who remembered the message and spread the message to others. For example, groups of students were approached at random and asked, "Who knows how many drinks most NIU students drink when they party?" The student with the correct answer received $1. Students also received $5 for putting campaign posters on their dorm room walls.

Implementing the Intervention

The media campaign was first implemented at the beginning of the fall semester in 1989. The long-term intervention strategy was to initiate the media campaign at the beginning of each fall semester and to keep it highly visible until spring break. The messages would taper off after spring break and begin again at the start of the following academic year. Because new students arrive every year bringing their own misperceptions about drinking levels, it was important to conduct the intervention at the start of each school year. This social norm-based intervention has been ongoing at NIU since its inception during the early 1990s.

Evaluating the Intervention

An outcome evaluation of the social norm media campaign at NIU was conducted to determine whether the intervention was able to reach both its main objective and its two key goals. The evaluation sought to answer three questions. First, did the perceived rate of high-risk drinking (defined as having more than 5 drinks when partying) among peers decrease to a more accurate perception? Second, did the rate of accurate perception? Second, did the rate of actual high-risk drinking decrease? Third, did the rate of alcohol-related injuries decrease? To answer these three questions, baseline information was collected from the students in 1988, that is, before the intervention was implemented. Baseline information refers to data that are collected on the target population prior to an intervention (i.e., the pretest) and that are compared with data collected after the intervention has been implemented (i.e., the posttest). A student survey was used in 1988 to collect three pieces of

information about NIU students: the perceived rate of high-risk drinking among other students, the actual rate of high-risk drinking, and the rate of alcohol-related injuries. This pretest information was used both to justify the need for the intervention and to compare with data collected after the intervention was implemented (posttest). To rule out other possible explanations of the evaluation results (i.e., high-risk drinking is reduced because of reasons beyond the intervention), data on national drinking levels among U.S. college students during this same time period were also recorded. This evaluation study demonstrates a quasi-experimental design because a nonequivalent comparison group of U.S. college students was used.

Data were collected at the end of each academic year from 1988 to 1998 (see Figure 4.3).

From 1989 to 1990, after the first year of implementation, researchers found that there was a 12% reduction in *perceived* high-risk drinking and an 8% reduction in *actual* high-risk drinking but no significant reduction in alcohol-related injuries to self or others. Over a span of 10 years using the social norm media campaign, NIU experienced a 37% reduction in perceived high-risk drinking, a 30% reduction in perceived high-risk drinking, and a 20% reduction in actual high-risk injuries to self or others (Haines, 2003). In addition, the overall rate of binge drinking among U.S. college students (i.e., the nonequivalent comparison group) remained virtually the same over the same time period (Johnston, O'Malley, & Bachman, 1999). These data suggest that the NIU social norm intervention has been very successful in reaching its goals.

Figure 4.3 Effects of the Social Norm Media Campaign at NIU on Students' Perceptions of and Actual High-Risk Drinking Behavior
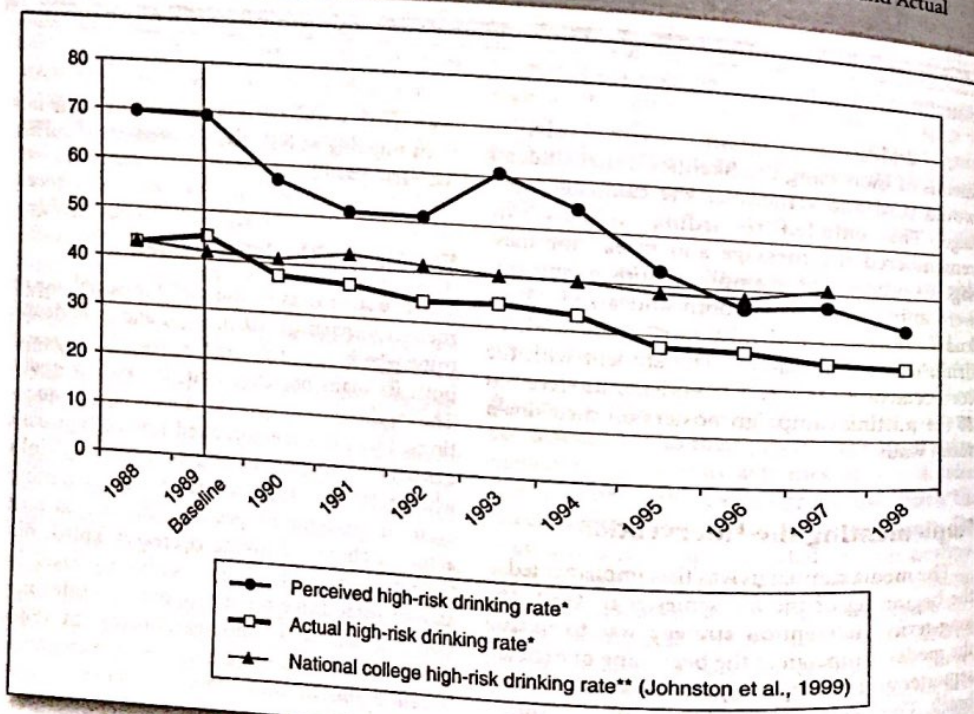
SOURCE: From Haines (2003).

*High-risk drinking defined as having more than 5 alcoholic drinks when "partying."

**High-risk drinking defined as having 5 or more alcoholic drinks at a sitting within the past 2 weeks.

Further Applications of Social Norm Theory

The social norm approach has also been used to reduce high-risk drinking among students at many other colleges and universities across the United States (Berkowitz, 2004). In fact, a survey of 118 schools in 2002 indicated that nearly half had adopted some form of norms-based intervention to combat binge drinking (Wechsler et al., 2003). Social norm theory also has been applied to other social issues where individuals tend to misperceive the norm, including, for example, cigarette smoking, driving while intoxicated, seatbelt use, gambling, tax compliance, risky sexual behavior, and energy conservation. In 2006 the National Social Norms Institute opened its offices on the campus of the University of Virginia with the mission of supporting research, evaluation, and the dissemination of information related to social norms programs with respect to a diversity of health issues and populations. The institute's website is an excellent source of information concerning current and past work on social norms interventions (http://www.socialnorms.org).

The application of social norm theory in programmatic interventions that successfully reduce a variety of high-risk behaviors aptly demonstrates the potential for the development of beneficial interventions based on social psychological theory and research. The following section describes two other examples of applying social psychological theory to intervention design and also underscores that many social problems can be very complex and call for complex solutions.

OTHER INTERVENTIONS

Examples of Other Interventions

Among the many excellent examples of how social psychological theory can be applied successfully to the amelioration of social problems is the work of Stice and colleagues on eating disorders. In the context of the severe functional impairment and health problems, including mortality, commonly associated with eating disorders and the reluctance of many people suffering from eating disorders to seek treatment, a large number of eating disorder *prevention* programs have been

initiated. One of the most effective interventions, developed by Stice and his coresearchers, relies on the application of Festinger's (1957) cognitive dissonance theory (discussed in Chapter 2). In four published articles, Stice and colleagues report separate trial interventions that were based on the same program logic model and used essentially the same intervention strategy (e.g., Stice, Chase, Stormer, & Appel, 2001; Stice, Mazotti, Weibel, & Agras, 2000; Stice, Shaw, Burton, & Wade, 2006; Stice, Trost, & Chase, 2003). The thinking behind the intervention is that a woman's internalization of the thin ideal of beauty (resulting from sociocultural pressures) leads to body dissatisfaction, negative affect (e.g., sadness, anxiety), dieting, and eating disorder symptoms. Therefore, they undermine a woman's internalization of the thin ideal, and improvements should follow in the other negative factors.

Young women (early teens into the 20s) with body image concerns who did not meet the criteria for having an eating disorder (e.g., anorexia nervosa) participated in a 3-hour (spread over three occasions) dissonance intervention in which they voluntarily argued against and critiqued the thin ideal (e.g., wrote essays, role-played). According to Festinger's (1957) theory, such counterattitudinal behavior would generate psychological discomfort (called dissonance) that would motivate the individual to internalize the thin ideal less, which in turn would cause decreases in body dissatisfaction, dieting, negative affect, and eating disorder symptoms. The key variables were measured by interviews and surveys for each study at pretest and posttest and then, depending on the study, at follow-ups of 1, 3, 6, or 12 months. Across the four studies and all follow-up intervals, compared with control participants who had also reported eating disorder concerns, the women in the dissonance condition showed reductions in the three risk factors (i.e., thin-ideal internalization, body dissatisfaction, and negative affect) and also in the dieting and eating disorder symptoms. Stice, Marti, Spoor, Presnell, and Shaw (2008) conducted a 2- and 3-year follow-up of the intervention reported in Stice and colleagues (2006) and notably found that all of the reductions in the key factors had been sustained for either 2 or 3 years, as well as finding a lower risk of the onset of an eating disorder at 3 years. Extrapolating from the latter result, the researchers estimated that out of every 100 women who participated in the

intervention, 9 fewer would develop eating pathology. Needless to say, these results are remarkably promising, perhaps especially for a relatively simple 3-hour intervention. Add to this that Stice and colleagues (2008) cite five other research teams who also have demonstrated the efficacy of the dissonance intervention. Clearly this is an excellent example of an evidence-based intervention.

There are also interventions that incorporate more than one theory into their designs. For instance, Hansen, Meissler, and Ovens (2000) used aspects of social learning theory and the fundamental attribution error to create group play-therapy programs for children with attention deficit/hyperactivity disorder (ADHD). The major tenet of social learning theory is that we learn new behaviors by observing and imitating others (e.g., role models) as well as by observing consequences of behaviors (Bandura & Walters, 1963). The group play-therapy program allows children to learn from others through the process of modeling and the enforcement of positive or negative consequences for actions. As reported in Chapter 1, the fundamental attribution error refers to the notion that people tend to underestimate the role of situational determinants of people's behavior and tend to overestimate the role of dispositional determinants (e.g., personality) (Ross, 1977). For children with ADHD, this means that the behaviors that they display (e.g., excitement) tend to be attributed (e.g., by significant others) to their condition, whereas situational influences (e.g., fun events) are ignored. The group play–therapy intervention attempts to reduce this bias in judgment by conducting the therapy groups in a community-based setting away from stigmatizing mental health facilities and by increasing awareness of the attribution error and its potential consequence for children with ADHD.

Complex Problems Require Complex Solutions

Although many of the problems that we have considered in this chapter for the purposes of explaining the design and evaluation of interventions/programs were presented as relatively unidimensional, it is important to recognize that many social and practical problems that occur in our incredibly multidimensional and complex physical and social world are anything but unidimensional. Without a doubt, many of the most

serious social issues confronted by social scientists reflect very complex problems that are embedded in a highly interconnected cluster of causal variables and, thus, are apt to be extremely challenging to solve. Examples include environmental sustainability, raising a child, mental illness, and poverty. Highly complex problems tend to require resource-intensive, multifaceted holistic interventions that are able to take into consideration the interconnectedness of multiple key variables and address multiple causes. The following quotation from David Shipler (2004) centering on the issue of poverty aptly illustrates what we are suggesting:

Every problem magnifies the impact of the others. And all are so tightly interlocked that one reversal can produce a chain reaction with results far distant from the original causes. A rundown apartment can exacerbate a child's asthma, which leads to a call for an ambulance, which generates a medical bill that cannot be paid, which ruins a credit record, which hikes the interest rate on an auto loan, which forces the purchase of an unreliable used car, which jeopardizes a mother's punctuality at work, which limits her promotions and earning capacity, which confines her to poor housing. . . . If problems are interlocking, then so must solutions be. A job alone is not enough. Medical insurance alone is not enough. Good housing alone is not enough. Reliable transportation, careful family budgeting, effective parenting, and effective schooling are not enough when each is achieved in isolation from the rest. (p. 11)

The following are two intervention efforts that have attempted to take a more holistic approach: (a) comprehensive community initiatives, which aim to transform distressed neighborhoods by engaging a variety of neighborhood stakeholders (e.g., residents, community agencies, businesses, government) around a common plan for change (Kubisch, Auspos, Brown & Delwar, 2010); (b) wraparound initiatives, which target high-risk children and their families by assembling a diverse team of formal and informal support persons and agencies in their community (e.g., community leaders; representatives of natural or informal community support agencies/groups such as recreation, faith, business, and service clubs; representatives of the formal child, family, and adult services) (Bruns & Walker, 2008).

For the Applied Social Psychologist, It Is Not Enough to Know Only That an Intervention Has Worked

Although this chapter has emphasized the importance of developing a program logic model to explain why an intervention will result in a particular outcome or set of outcomes, the applied social psychologist involved in designing and evaluating interventions may be the only stakeholder who is particularly concerned about understanding the intervening processes that link intervention to outcome. Generally speaking, other stakeholders care little, if at all, regarding how intervention outcomes come about as a result of program activities (cf. Mark & Bryant, 1984). For them, the bottom line is whether the intervention works. An overriding emphasis on results makes sense for most stakeholders because their investment in the intervention is predominantly practical. Program funders want visible, cost-effective returns on their dollars, program managers and staff members want to demonstrate their value to the organization through program accountability, and the only important thing for program recipients is that they experience the purported benefits of the intervention. Needless to say, it is of great importance to the applied social psychologist that the intervention proves to have its intended beneficial consequences. However, unlike other stakeholders, focusing on the practical aspects is not enough. As a scientist, it is necessary for the applied social psychologist to avoid giving insufficient attention to understanding why an intervention works and why it does not work. It is vital that the applied social psychologist does not compromise the scientific integrity of the intervention–evaluation process by dwelling only on the practical "does it work" question (i.e., the question of cause and effect) and giving insufficient attention to the "why it works" question (i.e., the question of explanation). For example, if we were to develop an intervention aimed at improving grade school students' academic performance by improving their self-concepts, it would not be sufficient from a social scientific perspective only to demonstrate that the students' grades improved after the intervention; it also would be important to confirm that their self-concepts improved significantly and that students whose grades increased the most tended to be those whose self-concepts improved the most, and those whose grades increased the least had self-concepts that improved the least. Evidence that addresses the program logic model as a whole is required for applied social psychology to move toward fulfilling its potential as a social science to contribute to a better world (Ross et al., 2010).

INFLUENCING SOCIAL POLICY

This chapter would be remiss if it did not recognize another avenue of application—influencing the development of social policy. The potential of psychology and other social sciences to contribute to public policy has long been recognized. Also long recognized is the existence of a considerable gap between the actual amount of social scientific knowledge about social issues and the impact of this knowledge on social policies (Hennigan, Flay, & Cook, 1980; Miller, 1969). Ten years ago two recent American Psychological Association (APA) presidents, DeLeon (2002) and Zimbardo (2002), challenged psychologists to become more involved in public policy development. Zimbardo noted that many of the most serious problems facing the United States (e.g.,

animosity of the Arab world against the United States, education failures, addictions) have psychological causes and/or consequences and that "psychologists need to be heard and to be at the table of influential leaders and policy makers because psychologists have more to say about these issues than do members of any other discipline" (p. 432).

Probably the best-known example of social psychological research having a role in policy formation occurred in 1954 when the U.S. Supreme Court, in its Brown v. Board of Education ruling, struck down the 1892 Plessy v. Ferguson ruling, thereby making separate but equal doctrine in public schools unconstitutional (Benjamin & Crouse, 2002). In making its ruling, the court cited seven social science publications as having a role in its decision. The main

thrust of the social science argument was that segregation negatively affected the self-esteem of African American children and also fostered interracial prejudice. This event is particularly noteworthy because it marked the first time that the Supreme Court had recognized psychological research in a decision, and the ruling was perhaps the most socially significant one made during the 20th century. In recognizing the 50th anniversary of *Brown v. Board of Education* and the important influence of Kenneth B. Clark on the court's decision, Tomes (2004) appropriately titled his article "The Case—and the Research—That Forever Connected Psychology and Policy."

Another example of social science research contributing to policy development comes from the criminal justice field in North America, which during the past 25 years has witnessed a shift in philosophy and operational strategy. The change has been from less emphasis on the traditional law enforcement model of policing (a reactive, response-driven approach) to more emphasis on the community-oriented model of policing (a proactive, police–community partnership approach). In embracing this transition, leaders in policing and relevant government agencies drew considerably on the research evidence that pointed to the limited effectiveness of the core operational procedures used in traditional policing and to the need for more attention to quality-of-life issues and improving police–community relations (Schneider, Pilon, Horrobin, & Sideris, 2000).

Thus, social psychology can contribute to both the development of policy and the development of interventions. The difference between policy and intervention is that policy refers to a general course of action endorsed by an organization, whereas an *intervention* refers to the specific concrete action(s) (i.e., program activities) that the organization chooses to take to implement the policy. For instance, on the one hand, the leadership of a police agency may decide on the policy of implementing community policing on an organization-wide basis. On the other hand, interventions pertain to exactly how the agency chooses to implement the policy, that is, the actual steps taken to carry out the policy of community policing (e.g., involving officers in courses on community policing principles, setting up a neighborhood mini-station, conducting foot patrols).

Without a doubt, influencing social policy is a very important applied function of the social

science disciplines, including social psychology. However, instead of focusing on social policy influence, this chapter (and this book overall) concentrates on the role of social psychology in the design of interventions that are viewed as the sine qua non of applied social psychology. The path from social psychological knowledge to influencing social policy is seldom straightforward. Many factors that preclude the direct use of knowledge in policy decision making have been identified (e.g., Hennigan et al., 1980), including the failure of researchers to adequately communicate research findings to policy makers, time pressures on decision makers that undercut thorough assimilation of research evidence, resistance to change stemming from comfort with the status quo, pressures from stakeholders whose positions do not accord with the scientific evidence, and so forth. In the case of the development of interventions, the route from knowledge to practice is more direct in that there are likely to be fewer obstacles to application than is the case for social policy. In Chapter 12 further consideration is given to the topic of influencing social policy.

INTERVENTION ISSUES

Process Issues

The focus of this chapter has been on programmatic intervention. We have described the basic steps in the design of interventions, and although these steps are fundamental to the development of effective programs, it is important to recognize that they are not carried out in a vacuum. All interventions—and, by extension, intervention designs—have to operate within constraints, and it is sometimes very challenging to both work within these constraints and maintain the integrity and effectiveness of the interventions. The most prevalent constraint is budgetary. Other constraints are subtler. Following are three general constraints.

First, interventions must be paid for, and funding typically is rooted in policy directions that, in turn, are embedded in the funder's broader political philosophy or ideology (whether conservative or liberal). Thus, the view that interventions are driven exclusively by the emergence of empirically validated methodologies is naive (Mark & Bryant, 1984). To be sure, empirical

validation is critical to the successful application of social psychological theory and knowledge, but interventions based on such insight must, to varying degrees, conform to funders' needs and wants. Ideas for interventions, no matter how well validated, will always have to be vetted for approval by those who have been approached to fund them.

Second, intervention design is a collaborative process in which the responsibility always is shared among stakeholders. For example, intervention design often involves professionals from different disciplines (sometimes together with program participants) working as a team. Hence, designing an intervention to assist in relapse prevention in a substance abuse clinic is likely to involve—in addition to the applied social psychologist—medical professionals and clinical psychologists as well as social workers and counselors. Each professional group will contribute a unique experience and perspective on the design of the intervention. To be effective, therefore, an intervention's designer(s) must be able to take into account a wide range of stakeholder ideas while at the same time ensuring that the key elements of the design remain linked with one another both logically and operationally to form a cohesive and integrated whole. Also note that the challenge is not only intellectual but also interpersonal given that listening, relationship building, and negotiating become part of the toolbox of every applied social psychologist involved with intervention design. (You likely will find that your grounding in basic social psychology is extremely helpful in this regard. For an excellent chapter on the practice skills of the applied psychologist, see Fisher, 1982.)

Third, constraints that are specified by the law, and by various organizational policies and established procedures, also exist. Organizational constraints that must be accommodated include restrictions to access, availability of facilities, hours of operation, staffing availability, and scheduling restrictions.

None of these constraints can be ignored, so all must be addressed in the process of intervention design and eventual implementation. Sometimes it is possible to work around them, and sometimes it is not. For example, some constraints are nonnegotiable (e.g., maintaining confidentiality of client records, being required to accept nonvoluntary participants), whereas others may be negotiable to varying degrees. Typically, designers have to advocate for certain

parameters, for example, getting more flexible intake or referral criteria to give access to more people and getting agreement from management to change the program delivery model in response to participant feedback.

Ethical Issues

As this chapter has illustrated, applied social psychologists contribute to improving the quality of life and the betterment of society as a whole through the application of social psychological theory and research. Recall from Chapter 3 that social psychological research undertaken to develop an understanding of social phenomena is guided by codes of ethics (American Psychological Association, 2010; Canadian Psychological Association, 2000). Just as ethical issues exist in the conduct of basic research, concerns also can arise around the ethical use of both research methodology and research findings in applied settings. In fact, the focus on effecting change in the functioning of individuals, groups, and organizations raises a host of ethical issues beyond those that typically emerge in understanding-focused research. Ethical issues can arise in both the design and the evaluation of interventions, and they can challenge a practitioner's professionalism and integrity.

Although psychologists are guided by their national associations' codes of ethics, and often by specialty-specific codes of ethics such as those for clinical and educational psychologists, some have pointed out (e.g., O'Neill, 1989, 1998) that ethical standards for much of applied psychology focus on issues that typically arise between a psychologist and an individual client. These writers point out that these ethical guidelines have been designed specifically to protect the *individual rights of clients* (e.g., maintenance of confidentiality, prohibition of sexual contact). As such, they are not wholly adequate for dealing with issues that arise with regard to programmatic interventions that by definition involve multiple stakeholders (e.g., program participants, program holders (e.g., program participants, program personnel, funders, members of the community at large). Two key questions that arise from this observation were voiced by O'Neill (1989). The first question is to whom (i.e., which stakeholder group) is the applied psychologist responsible? The second question is for what (i.e., which end product or deliverable) is the applied psychologist ultimately responsible?