OVERVIEW
That Prevention is an Intervention was the theme of the 2006 National Association of School Psychologists (NASP) convention is a clear statement that prevention is no longer a frill. Prevention is now a major role for school psychologists. Furthermore, prevention efforts are no longer synonymous with mental health or social–emotional interventions; prevention in the academic domain is a rapidly expanding role for school psychologists (see, e.g., Rosenfield, chapter XXX, vol. X).

Before continuing a discussion of prevention, we must start with a definition and some terminology. Historically, prevention has been defined either as activities that forestall negative behavioral consequences or that promote positive developmental growth (Barclay, 1983) or that strengthen competencies. Currently, prevention most typically is defined as decreasing the incidence (number of new cases) or prevalence (number of current cases) of some clearly defined, undesirable outcome (e.g., below-standard academic achievement, inappropriate special education placement, absenteeism, bullying, drug use, or suicide).

Definition and Terminology
Traditionally, prevention has been conceptualized according to Caplan’s (1964) three levels. In Caplan’s model, primary prevention refers to interventions with an entire population in which there is no specific indication of a problem (e.g., social skills training with all third-grade classrooms); secondary prevention refers to interventions with either presumed at-risk people (e.g., children of divorce) or people who have already evidenced minor problems (e.g., low, but not failing, grades), and tertiary prevention refers to interventions with people with full-fledged, identified problems. Prior to the mid-1990s, nearly all authors who wrote on prevention used Caplan’s terminology, and many authors continue to do so.

Beginning in the mid-1990s the prevention literature began to use terminology promoted by an Institute of Medicine (IOM) report that focused on which segment of the population an intervention targets: universal, selective, or indicated. The IOM terminology corresponds closely to the three-tiered model used throughout this book and described elsewhere (see Tilly, chapter XXX, vol. X). Simply put, the IOM terminology and the three-tiered model correspond as follows (IOM in italics; three-tiered model in bold): universal → universal interventions; selective → targeted group interventions; and indicated → intensive, individual interventions. Terminology from the three-tiered model will be used throughout this chapter.

Need for Prevention Programs
Albee (1968) suggested that there will never be adequate numbers of direct-service providers to treat all individuals in need of services. Albee concluded that approaches to prevention provide the only feasible way to reach all individuals in need. Given that in many areas of the country the school psychologist-to-student ratio exceeds the NASP-recommended standard of 1:1000, it is not realistic for most school psychology
practitioners to directly treat all individuals in need of school psychological services on an individual basis. Accordingly, school psychologists need to understand how to integrate prevention activities into their repertoire of skills and practice.

Aside from the issue of resource limitations, prevention of academic, social, and behavioral problems in school-aged children is an inherently appealing idea to school psychologists. If large numbers of children can receive high quality early educational experiences and emotional support, the need for remedial approaches and the stigmatizing effects of such methods should decline. For example, there is now promising research suggesting that providing children with research-based instruction in reading significantly decreases the chance that they will be identified as students with reading disabilities later in their educational careers (Shaywitz, 2003). Programs aimed at prevention have proven to reduce grade retention, special education placement, and school dropout (Schweinhart & Weikart, 1989). Several social competence programs also appear to dramatically improve the functioning of students who may have otherwise been referred for specialized services (Greenberg, Domitrovich, & Bumbarger, 2000).

The idea of reducing the incidence and prevalence of disabilities has far reaching consequences. School psychologists’ predominant focus on individual, diagnostic assessment tends to assume that the prevalence of disabilities is fixed and that, therefore, the school psychologist’s job is to identify these disabilities. A preventive approach, consistent with the three-tiered model, presumes that by providing appropriate levels of universal and targeted, group interventions, the number of individuals needing Tier 3, intensive, individualized interventions (currently often labeled as students with disabilities) will be reduced.

Cost-effectiveness considerations also support prevention efforts. Special education programs that target individual or very small groups of students are very costly and have not proven to be highly efficacious (Cowen & Hightower, 1990). Prevention programs provide an alternative way of reaching students before they need individualized, intensive, costly interventions. If high quality, research-based educational methods are provided to all children in our schools, the number of children in need of costly special education services should decline.

Types of Prevention Programs

Prevention programs can be categorized according to focus and scope, or according to domain(s) targeted. A program may have a person-centered focus, be environmentally or ecologically focused, or may employ a multicomponent, multimethod approach that combines both person-centered and ecological perspectives (Elias & Branden, 1988). Regarding content, school-based prevention programs primarily target either academic or social–emotional domains.

Scope and Focus

Person (student)-centered programs are the most frequently used prevention programs in schools and are familiar to most school psychologists. These programs typically use individual or group interventions focused on changing some behavioral or affective aspect of the individual. Changes targeted vary widely, including such differing goals as increased specific academic skills, improved self-concept, changed social information processing, or altered discrete social behaviors. Similarly, approaches vary in orientation from strict behavioral to cognitive-behavioral to affective or humanistic. The unifying characteristic here is that individuals are targeted for change with little focus on changing anything on a broader level. Person-centered approaches apply to all tiers of the model of school supports but are particularly appropriate for Tiers 2 and 3.

Utilizing an ecological systems framework is imperative for effective adoption of prevention practices within the school setting. Ecological models posit that layers of the environment have interacting and differential effects on individual students (Bronfenbrenner, 1989). These models emphasize the need for modification of the environment to prevent or treat learning, social, emotional, and behavioral difficulties. An ecologically oriented professional will utilize preventive approaches that include parents and other members of the community. For example, Comer (1993) found evidence for improved behavior and academic performance related to a school program that seeks to increase the involvement of low socioeconomic status parents within the school setting. As another example, the developers of the Fast Track program included parent groups, parent–child sharing time, and home visitations as after-school and outside-of-school components in their well-researched preventive intervention to reduce conduct disorders (Conduct Problems Prevention Research Group, 2000). Several other chapters in this book address ecologically oriented interventions (see Adelman & Taylor, chapter XXX, vol. X; Christenson et al., chapter XXX, vol. X; Nastasi & Varjas, chapter XXX, vol. X; Power & Mautone,
Targeted Domains

Although an ecological framework is a good foundation for prevention programs, efforts with a more specific focus may be required. Many schools will need prevention programs targeted toward students’ social, emotional, and behavioral functioning, while others will have a primary need for academically oriented preventive approaches. Academic prevention programs, such as using progress monitoring to make instructional modifications (Stecker & Fuchs, 2000; see also Fuch & Fuchs, chapter XXX, vol. X) can be inexpensively implemented and used as instructional prevention tools aimed at preventing serious learning problems. Two additional academic programs (SRA Reading Mastery and HOSTS) are described later in this chapter. School psychologists, with expertise in assessment and progress monitoring, are highly qualified to advocate preventive instructional practices.

School-based social–emotional prevention programs focus most typically on either the development of specific social interaction skills (e.g., Skillstreaming, McGinnis, & Goldstein, 1997) or on a social problem-solving model that enables students to make effective choices in interpersonal situations (e.g., I Can Problem Solve, Shure, 1992). Some interventions focus less on specific behaviors and more on improving social information processing (e.g., STORIES, Tegiasi & Rothman, 2001). Consistent with an ecological approach many of these programs (e.g., Project Achieve, Knoff & Batsche, 1995; Second Step, Committee for Children, 1997) have optional parent programs that complement and reinforce the student-focused component. Some social–emotional prevention programs are even more broadly conceptualized as “health promotion” programs (Branden-Mueller & Elias, 1991) that may target the strengthening of both physical and mental health, based on theoretical models that assume that physical, psychological, and social health are interrelated.

Many prevention programs aim to reduce the occurrence of specific problems. Chapters in this book address the prevention of school violence (Larson, chapter XXX, vol. X), pregnancy (Meyers et al., chapter XXX, vol. X), and suicide (Poland, chapter XXX, vol. X).

History of Prevention in School Psychology

Generally, prevention has a long history in professional psychology and, specifically, within school psychology. Historically, psychology has been divided regarding the etiology of educational and mental health problems. Some emphasize environmental and social–emotional causes while others stress organic/biomedical factors or deeply rooted psychopathology, particularly with regard to mental illness. Understanding this contrast is of critical importance in understanding the history of prevention in professional psychology. Preventionists tend to emphasize the former, while those who emphasize so-called internal causation tend to focus on individual treatment. Within school psychology, this dichotomy also exists regarding both the prevention of social–emotional disorders and the prevention of learning disorders through appropriate instruction. Throughout the history of the mental health fields, the emphasis placed on either of these two approaches to mental health prevention has tipped back and forth depending on who is in charge of the numerous mental health-related organizations in the United States.

During the 1960s and 1970s, much of the emphasis for prevention in psychology focused on efforts that included promotion of positive mental health and the need for social change. In the 1960s, both President Kennedy and President Johnson supported the creation of 2,000 community mental health centers in the United States. During the 1970s, President Carter established the President’s Commission on Mental Health that emphasized prevention and advocated for federal government support for primary prevention efforts. In the mid-1980s, the National Mental Health Association drew national attention to the need for prevention and recommended that P–12 schools include validated mental health and competence building programs in preschool through high school as a part of a comprehensive curriculum. However, since the 1980s the Carter Commission’s recommendations have been overshadowed by the National Institute of Mental Health’s growing emphasis on the biomedical
underpinnings of mental disorders and a concomitant focus on medical treatments.

**Advocacy by School Psychology Leaders**

Leaders in school psychology have been advocating for prevention as a major role for school psychologists for several decades. In the 1980s, Judith Alpert’s American Psychological Association (APA) Division 16–School Psychology presidential address revealed a “professional fantasy” in which broad-scale prevention efforts would form the backbone of school psychology services (Alpert, 1985). More recently, numerous publications by notable leaders in the field have focused on prevention (Doll & Lyon, 1998; Elias & Branden, 1988; Meyers, Meyers, & Grogg, 2004; Meyers & Nastasi, 1999; Short & Talley, 1997). Not surprisingly, then, the 2002 Multisite Conference on the Future of School Psychology (Cummings et al., 2004) identified as one of its four underlying principles the recognition of a need for a greater emphasis on prevention and intervention. Of the conference’s resulting 15 prioritized goals for a national agenda, three specifically target prevention issues.

**Practitioners’ Views and Actual Practice**

Practitioners’ involvement in prevention is relatively new to school psychology. Surveys of school psychologists’ practices prior to the 1990s indicated little involvement in prevention (Branden-Muller & Elias, 1991). More recent surveys (Hosp & Reschly, 2002; Olsen, Larson, & Busse, 2000) suggest that most school psychologists are engaged in some prevention activities, but the scope and nature of this involvement is less clear. On two national surveys separated by more than 15 years (Strein, 1987; Strein, Cramer, & Lawyer, 2003) both school psychology researchers and practitioners identified prevention research as the area of future research most needed in school psychology. Clearly, practitioners value prevention as a role for school psychologists.

**Prevention as a Major Role for School Psychology**

Schools are the ideal venue for prevention programs. Alpert (1985) recognized that schools have the potential to reach across racial and class boundaries to effectively prevent social, emotional, and learning problems. Because of the access to all children, Branden-Muller and Elias (1991) suggest that schools should be the principal setting of primary prevention efforts. They also point out that schools have both physical and psychological access to children and that health education and family-life education provide an already endorsed role for prevention in the schools.

Within the school setting, school psychology has generally had a major focus on crisis coping (Barclay, 1983). Whether it is working with individual students in need of support for learning disabilities or counseling a student who has threatened suicide, school psychologists are most often intervening with extant problems. However, based on their unique positions within most schools and their expertise in child development, assessment, academic and social–emotional interventions, data collection, consultation, school-based research, behavioral management, and program evaluation, school psychologists are highly qualified to be on the forefront of efforts at developing, implementing, monitoring, and evaluating prevention programs. In fact, most school psychologists seem to agree that prevention should be one of their major functions, but school psychologists may be unavailable to work toward implementing prevention programs because they are still overwhelmed by the number of evaluations they must complete for special education eligibility (Dean & Burns, 2004). School psychologists need to advocate for both a reduction in direct service functions and an increase in indirect service functions to meet the needs of the ever-growing school populations. Given the increased interest in, and media focus on, recent episodes of school violence, school-based prevention efforts have a visible and accepted function. Given their knowledge base and role within the schools, school psychologists can be at the forefront of these violence prevention efforts. In addition, school psychologists could utilize this impetus for prevention as a rationale for the development of prevention programs in other academic and behavioral domains.

**BASIC CONSIDERATIONS**

**Quality and Evidence Base for Programs**

A critical consideration when considering engaging in prevention activities is the quality and evidence base for any program under consideration. Prevention frequently has been criticized as being unsupported, especially when contrasted to a treatment approach. This assertion is simply no longer accurate. In the late 1990s, Durlak and Wells (1997, 1998) published comprehensive meta-analytic reviews of research on universal and targeted prevention programs for children and adolescents and demonstrated that prevention programs, on average, are
about as effective as more traditional treatment-oriented approaches. Several recent reviews of research support Durlak and Wells' conclusions and identify features of such programs that more likely lead to successful outcomes (see Table 1).

For social—emotional programs, the Collaborative for Academic, Social, and Emotional Learning has reviewed numerous prevention programs with regard to preset criteria and provides a remarkable consumer-guide—type report rating for each program on a variety of quality dimensions (Safe and Sound, Collaborative for Academic, Social, and Emotional Learning (2003); see this chapter’s Annotated Bibliography and Web Resources). Within the academic domain, the Florida Center for Reading Research (2006) provides excellent information regarding the identification and implementation of educational practices supported by rigorous evidence. Notwithstanding the importance of supportive evidence provided by experimental research, it is also critical to recognize that the implementation of prevention programs is highly contextual. Rigorous local program evaluation is essential for success (Meyers, Meyers, & Grogg, 2004).

Research on prevention indicates that there are several features of prevention programs that are likely to lead to successful outcomes (Greenberg et al., 2003; Nathan et al., 2003; Wilson, Gottfredson, & Najaka, 2001). These features are highlighted in Table 1.

**Knowledge and Competencies Needed to Implement Prevention Programs**

Well-prepared and experienced school psychologists need not think of the implementation of prevention programs as requiring something substantially outside of their already-acquired competencies. In fact, prevention advocates argue that school psychologists may have more competencies than they themselves believe (Larson, Smith, & Furlong, 2002). For example, many skills necessary for implementing prevention programs (e.g., progress monitoring, interpretation of data, knowledge of program evaluation, collaboration techniques, observational skills, and knowledge of current research) are competencies that many school psychologists possess.

Developing a role as a preventionist in the schools will be most effectively accomplished by basing such a role on already well-established traditions and skills (Furlong, Morrison, & Pavelski, 2000), as summarized in NASP’s domains of training and practice (NASP, 2000) and elsewhere in the literature. Although it could be argued that competencies from all 11 domains apply to prevention, data-based decision making and accountability, consultation and collaboration, school and systems organization, policy development and climate, and program evaluation stand out as helpful competency areas in regard to implementation of prevention programs. Depending on the target(s) of a prevention program, the effective instruction and development of cognitive/academic skill and/or socialization and development of life skills domains likely will inform the program’s substance.

Most school psychologists considering involvement in prevention will be stronger in some of these domains than in others. A self-perceived shortfall across several of these domains should not deter the interested school psychologist from beginning a careful approach to prevention work. However, school psychologists whose

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**Table 1. Critical Features of Successful Prevention Programs**

- **Theory driven:** The efficacy of social-competency programs that are based on cognitive behavioral and behavioral instructional methods is particularly well supported.
- **Program type/outcome match:** Certain types of programs may be differentially effective for particular outcomes (e.g., environmentally focused interventions may work particularly well for reducing substance abuse and delinquency).
- **Comprehensive:** Programs that use multiple interventions across multiple settings, including both a student focus and fostering environmental/organizational change are likely to be most successful.
- **Incorporate a variety of methods:** Include having an active skills-based component and hands-on practice or activities.
- **Program uses structured manuals/curricula:** Supports consistency in program delivery.
- **Program provides opportunities for developing more positive relationships:** For example, parent–child, student–teacher.
- **Appropriate timing:** For example, education about sexual behavior in third grade might be too early to be of value; waiting until tenth grade would likely be too late.
- **Staff implementing the program is well trained:** May require both initial training and follow-up training for newcomers to the program resulting from staff turnover.
- **Sufficient length:** Many programs are simply too short; may also need booster sessions at later points after program completion; multiyear programs are especially desirable.
- **Outcome evaluation included:** Includes formal evaluation of processes and outcomes.
current competencies focus nearly exclusively on traditional assessment and/or direct interventions with students on an individual or small-group basis will need to acquire broader competencies before launching into prevention efforts. Workshops provided by NASP or other national or local organizations can be used to strengthen such competencies. Teaming with other school psychologists or other professionals who possess such competencies is often an excellent way to begin. Obviously, knowledge of the specific prevention program(s) or techniques themselves (subsumed in NASP’s prevention, crisis intervention, and mental health domain) is required. For example, in the area of academics, recent research in reading has underscored the necessity of research-based instructional methods to prevent reading difficulties in young children. School psychologists and other school personnel should be thoroughly knowledgeable about what constitutes best practices in teaching children to read, and this information is readily available and free through the National Reading Panel publications.

School Variables That Facilitate Successful Implementation

It would be naïve to believe that all schools are equally amenable to prevention programs or to prevention as a major role for the school psychologist. Since smaller shifts in emphasis typically are easier to implement than are changes that mark substantial departure from the status quo, it will likely be easier to adopt a prevention orientation in schools where the school psychologist is already involved in a collaborative consultation approach either in a case-centered or team-centered mode. It is a much larger leap from a school psychologist’s role that strongly emphasizes diagnostic testing of individuals to a role that accents prevention than it is to shift from a consultative role that focuses on individuals to a role that focuses on larger populations. Suggestions for school psychologists facing role change challenges are discussed later in this chapter.

How the school views its mission will also affect the acceptability of prevention efforts. Universal prevention efforts targeted at social–emotional areas will be most successful when such programs are embedded in schools that have a comprehensive view that includes broad goals related to mental health (Elias & Branden, 1988). Universal or targeted group preventive interventions targeting academic mastery are likely to be acceptable in nearly all schools.

### BEST PRACTICES

#### Planning and Selecting Prevention Strategies or Programs

*Application of the problem-solving model.* The first, and most important, best practice consideration is to plan prevention strategies and programs in the same careful manner as school psychologists most typically plan interventions. That is, the general steps of the problem-solving model (see Tilly, chapter XXX, vol. X) should be applied from the beginning of the consideration of whether to start a prevention program, through the identification of goals and measurable outcomes, the selection or design of a program, program implementation, and program evaluation. Prevention efforts chosen ad hoc and implemented in quick response to a perceived need are likely to fail and, in failing, to reduce the acceptance of future prevention efforts. Every recognized advocate of prevention in school psychology has emphasized that prevention efforts must be carefully and deliberately planned, implemented, and evaluated.

*Needs assessment and program fit.* A critical first step for the effective adoption of any prevention program is to understand the needs of the school and/or system. To fully understand what type of prevention program(s) would be a good match for a particular school, a school psychologist should first plan and develop a needs assessment. Nagle (chapter XXX, vol. X) indicates that a needs assessment is a way to systematically gather and evaluate data in an effort to identify what problems should be addressed. Needs assessments range from informal, such as a school psychologist recognizing a need for a bully prevention program following numerous incidents of bullying in a school, to a more formal needs assessment technique, such as a structured survey that specifically probes informants as to the major areas of concern in a school. In trying to promote the concept of a needs assessment to school administrators, it can be useful to indicate that the school psychologist, with training in assessment and in research and evaluation methods, is highly qualified to conduct an assessment of the needs in a particular environment. This can be a good way to help school personnel recognize the multiple domains of competence of the school psychologist.

There are numerous types of needs assessments that can be conducted in a school setting. Surveys are the
most commonly used needs assessment technique and can be utilized via an interview method or by administering a questionnaire. If surveying large numbers of individuals with highly structured questions, then a paper- or web-based questionnaire is the most efficient way to establish needs in a school environment. Interviewing can also be very useful if the school psychologist seeks to gain rich qualitative information from a relatively small number of respondents. Other types of needs assessments include program inventories, social indicators, and structured groups (see Nagle, chapter XXX, vol. X, for a guide to best practices in conducting needs assessments).

In addition to establishing an accurate conceptualization of the needs in a particular school, the school psychologist must also determine at which environmental level the prevention program will have the greatest impact. For example, the school psychologist, working together with members of any relevant school-based team, should decide if the prevention program should be targeted toward the community, family, school district, school building, grade, and/or department levels. Determining which level of the school is best suited for a particular prevention program is best done through a well-developed needs assessment that specifically probes respondents to recognize their most pertinent needs. This can be a challenging endeavor that must take into account not only the actual needs, but also the resources available for a program and the buy-in of relevant administrators within a school or system. If the school psychologist determines that a particular need can be best addressed by a universal prevention program targeted toward the entire school district, then time should be taken to present the results of the needs assessment and the research base for a particular prevention program to the important district level decision makers.

As a part of the needs assessment, the school psychologist should develop a hierarchy of concerns to be addressed and compare this list to his or her areas of expertise and the resources available. If a need for a specific program is found within a system and the school psychologist has no experience in this area, it is important that any necessary education and training take place or the school psychologist gains training and/or expertise from a more knowledgeable colleague prior to the implementation of such a program.

In addition to identifying perceived needs that prevention activities might address, it is critical to assess the fit between the proposed activities and the school environment, and may include such tangibles as available resources and staff competencies—often overlooked—but should also include an analysis of how well the proposed activities mesh with the educational philosophy and general climate of the school. Acceptance of school-based prevention programs can be increased by designing the program with features that are highly congruent with the school's mission or culture. These aspects might include (a) designing a program that is considered to be a regular component of the ongoing educational process, (b) integrating the activities into the school routine (e.g., a character education program that is a part of the language arts curriculum), and (c) focusing initial prevention efforts on early interventions for at-risk students (targeted group interventions in the three-tier model), rather than beginning with universal interventions because early interventions typically have greater acceptance than do universal interventions (Meyers & Nastasi, 1999). In addition, prevention work will be more visible if tied to tangible school outcomes (e.g., absenteeism, tardiness, or improving social relationships; Herman, Merrell, & Reinke, 2004).

Once the school psychologist has completed the analysis of needs and fit, these results must be communicated to those who are critical stakeholders in adoption and implementation of the intervention. Well-developed communication skills and the preparation of materials that support the need for, and the evidence base of, a prevention program are important components to a successful meeting with key decision makers. If a school-level prevention program is needed, it is important to make school principals aware of the large impact that many prevention programs can have on a school environment and that school psychologists are prepared be at the forefront of establishing such programs. If administrators are able to recognize the potential for these prevention programs, they can help promote the idea to other school personnel and students' families. Working at the classroom or department level may be what is needed in a particular setting. If this is the case, the school psychologist must help the teacher recognize the importance of prevention programs by providing the evidence base for such programs in addition to providing meaningful information about how the program can be relevant for the teacher's particular classroom or department.

**Diversity Issues**

To adopt a prevention program that will best meet the needs of a particular environment, it is imperative that
school psychologists be mindful of the ethnic and cultural diversity present in the targeted setting. Aside from obvious difficulties encountered when implementing programs in settings with high populations of ethnic minorities (e.g., language barriers), the school psychologist should also become knowledgeable about the ways in which particular groups perceive the role of the school. Some minority groups may be reticent to accept prevention programs targeted toward mental health if they feel that schools are not the appropriate venue for such programs. For these individuals, much care should be taken to present the need for prevention in a thoughtful and meaningful way.

School psychologists must work hard to create an environment in which all members of the community feel that their needs are being addressed in a suitable way. To do this effectively, school psychologists must be cognizant of the diversity within their particular settings and knowledgeable about the best ways to reach all members of the community (see Ortiz, chapter XXX, vol. X, for best practice guidelines in this area).

**Implementation**

*Leadership issues.* Innovation requires leadership. Unless a school psychologist is working in schools where prevention programs already are in place and institutionalized as part of the school’s routine, and where prevention is an accepted part of the school psychologist’s role, moving into prevention will require considerable leadership. Branden-Muller and Elias (1991) make three observations about such leadership in reference to implementing prevention programs. First, although collaboration is critically important, initially one or two people should take responsibility for strong leadership. Strong and acknowledged leadership at the early stages is more likely to result in a stable and successful program. Second, ideally, these leaders would be very much a part of the school and would be able to inspire others with regard to program implementation. Third, no category of professional is uniquely qualified for such leadership. School psychologists may be in a good position for such leadership because of their frequently already-established leadership roles, but this advantage may be constrained because the school psychologist’s role is often crisis-oriented in the refer-and-assess model.

*Maintaining implementation integrity.* Programs work only when actually implemented, and programs are likely to be more effective when fully implemented as planned. This common-sense statement belies a critical problem with prevention and other school-based intervention programs. Many programs either are only partially implemented or are implemented poorly. For example, Reed (2004) observed teachers delivering the Second Step violence prevention program and found very low and highly variable levels of implementation of the required lesson elements. Inadequate implementation leads to two problems. First, assuming that all of the elements of a planned prevention program are necessary to produce the desired outcomes or that implementers do not know which elements are necessary, inadequate implementation is wasteful, and resources will be used with very limited benefit. Second, if an inadequately implemented program is perceived to be ineffective, policy makers may erroneously assume that this program or other similar programs do not work and, therefore, should not be attempted in the future. Essentially, there is no way to evaluate accurately a partially implemented program. Accordingly, prevention programs should include a mechanism for monitoring implementation integrity and providing support to staff where implementation is weak (see also Larson, chapter XXX, vol. X, for more information.)

**Program Evaluation**

Prevention programs are more likely to be effective if they include a formal program evaluation component (Nathan et al., 2003). A detailed discussion of program evaluation procedures is beyond the scope of this chapter (see Upah, chapter XXX, vol. X). Evaluation of prevention programs should include both formative and summative information. *Formative* evaluation refers to the collection of information while the program is being implemented and may include such information as implementation integrity, stakeholders’ feedback on program operations, or assessment of intermediate goals. For example, in a social competency development program the assessment of students’ knowledge of problem-solving steps might provide corrective feedback for modifying the remaining sessions in the program. *Summative* evaluation refers to assessing the overall outcomes of the program. So, for the same example, summative evaluation might include an analysis of the number of disciplinary referrals for fighting before and after the program was implemented or data on the demonstrated social competency skills of students who participated in the program versus those who did not. Reporting evaluation results to school staff and parents
in easily comprehensible, yet accurate, fashion is a critical piece of program evaluation.

Institutionalization

Far too often, school-based prevention programs are seen as time-limited projects, even when outcomes are successful. While projects fade, programs that are integrated into the fabric of the school endure. Several factors are key in institutionalizing successful programs. First, before adoption and implementation, the program should have been chosen to address identified needs and goals that are integral to the school's defined mission. Decreasing academic failure will always be consistent with the school's mission. For example, a program to decrease adolescents’ depression may endure only while there is enthusiasm from a particular staff member. Second, notwithstanding earlier comments about the importance of having one or two individuals who are dedicated to leading the program, broader ownership by multiple stakeholder groups (administration, teachers, parents) is more likely to result in institutionalization. In fact, the first task for the leaders may be to sell the program to such stakeholders and, if unable to do so sufficiently, reconsider whether this is the direction to go. Third, programs in which there is active involvement by larger numbers and types of staff are more likely to endure than those in which, for example, only the school psychologists or school counselors are involved. Finally, programs that require financial or labor resources in addition to those normally available to the school are very likely to last only as long as some external funding source exists. Scope is an issue; that is, do what you can with the resources that you have or are likely to obtain.

Examples of Effective Prevention Programs

It is often very difficult for teachers and school systems to sort through the numerous prevention programs that are available for use to determine which programs are grounded in research. Many resources are available that provide comprehensive lists of programs that have proven efficacy. Readers are referred to the end of this chapter for a list of resources, but three examples of effective prevention programs are described below, followed by a practical actual example of school psychologists implementing a school-wide program.

SRA Reading Mastery (universal intervention, academic domain). School-based prevention programs in the academic domain can simply equate to providing children with proper instruction. In other words, teaching children using high quality, research-based approaches can prevent future academic difficulties. Therefore, it is imperative that schools adopt universal curricular materials that have proven efficacy. One particular reading program that has successfully undergone numerous validation studies is SRA Reading Mastery (formerly known as DIstar; SRA/McGraw-Hill, 1997). Reading Mastery is a comprehensive, balanced reading curriculum designed for primer to sixth-grade–level readers. It is an explicit, systematic approach to teaching children to read via a direct instruction model. Within this highly structured program, students progress through six levels of reading materials, with screening and placement tests before each level. Formative assessments occur on a regular basis and instruction progresses through the following areas: print awareness, phonemic awareness, alphabetic principle, explicit systematic phonics instruction, fluency, blending, comprehension strategies, and writing. Reading Mastery has repeatedly demonstrated efficacy for a variety of student populations. Results from a meta-analysis (Adams & Engelmann, 1996) and from the largest educational study ever funded by the U.S. Department of Education (Project Follow Through) indicate that students taught with the Reading Mastery curriculum significantly outperformed comparison groups on reading achievement measures.

HOSTS (targeted intervention, academic domain). Although research-based curricula are critical, some children will require more intensive and more frequent instruction in targeted areas. For this reason, school psychologists should be knowledgeable regarding effective academic intervention programs. One example of a tutoring program for at-risk students is the Helping One Student to Succeed (HOSTS, 1998) language arts program. HOSTS is a language arts program designed for low-achieving K–12 students. Within this intervention package, primary focus is placed on improving the reading, vocabulary, writing, and problem-solving skills of kindergarten through sixth-grade students. HOSTS employs a one-to-one structured tutoring method that matches instructional materials to the academic and developmental needs of at-risk students. The tutors, volunteers from the surrounding school community, receive training and supervision from a HOSTS teacher/coordinator. The students meet with the tutors 30 minutes a day for at least 4 days a week to work on the areas of need that are specified by identifying the
students’ strengths and weaknesses on a battery of tests. The HOSTS curriculum is intended to supplement the general classroom curriculum by utilizing an individually focused web-based program that is diagnostic, prescriptive, and continuous in nature. Several quasi-experimental studies support the effectiveness of HOSTS for increasing the reading achievement scores of elementary-aged students. Burns, Senesac, and Symington (2004) conducted an experimental study to evaluate the effectiveness of the HOSTS program. Their results indicated that students receiving the HOSTS intervention outperformed control group students on several reading achievement outcome measures.

**PATHS (universal intervention, social–emotional domain).** PATHS (Promoting Alternative Thinking Strategies; Kusche & Greenberg, 1994) has repeatedly demonstrated proven effectiveness in the school setting. PATHS is a universal prevention program that is targeted toward elementary-aged children. This program strives to enhance social competence and social understanding in children as well as facilitate educational experiences in the classroom. The PATHS curriculum is taught three times a week for 20 minutes and consists of an instructional manual, six volumes of lessons, pictures and photographs, as well as materials to involve parents. The curricular components cover five domains: self-control, emotional understanding, positive self-esteem, relationships, and effective problem solving. In addition, the PATHS curriculum targets improving classroom and school ecology. PATHS was originally developed for use with deaf children, but has been adapted and validated for use with regular education and other special needs children. Results of several evaluations conducted with PATHS over the past 15 years indicate significant improvements for PATHS program youth (regular education, special education, and deaf) compared to controls. The studies found improved self-control, improved understanding and recognition of emotions, increased ability to tolerate frustration, use of more effective conflict-resolution strategies, improved thinking and planning skills, decreased anxiety/depressive symptoms, decreased conduct problems, and decreased symptoms of sadness.

**Practical real-world example.** Toward the beginning of the school year, a school psychologist and a school psychology practicum student (referenced hereinafter as school psychologists) who were working in a mid-Atlantic middle school conducted a needs assessment in conjunction with the school counselor. The team collected behavioral data (office referrals, suspensions, etc.) and interviewed relevant stakeholders. The resulting information indicated that sixth graders had some difficulties with social competencies, leading to formulation of specific goals. The school psychologists reviewed available literature and identified a research-based, ecologically oriented, universal intervention for use in all sixth-grade classrooms. After obtaining support from the principal, the implementers met with the sixth-grade team leader, who helped to introduce the proposed program to the sixth-grade team, which readily endorsed the program. In an innovative move, the school psychologists tapped a local foundation that provided funds to bring in an expert on the program to provide initial staff training. The program was conducted over a 10-week period with the 30-minute lessons occurring two to three times per week. School-wide activities, such as a poster contest, also were used. As discussed above as best practices, these school psychologists also provided additional training for teachers, offered consultative support to the teachers, monitored implementation integrity, and conducted some sessions for parents. Many of the sixth-grade students received a continuation of this program during their seventh grade year. The project continued over a 3-year period, involving several cohorts of students.

Program evaluation methods included data from paper-and-pencil knowledge tests and written responses to hypothetical social scenarios administered prior to program implementation, immediately at the end of the sessions, and finally at the end of sixth grade. Office referrals were used as the primary indicators of behavioral outcomes. Compared to baseline rates (i.e., rates prior to program implementation), substantial reductions in office referrals occurred each year for the program cohort. The needs assessment and program implantation details were presented at a NASP conference (Levinsohn & Klyap, 1999).

**Bumps on the Road: Overcoming Obstacles to Prevention**

Obstacles to implementation of prevention programs fall into two broad categories: (a) resistance to all prevention programs or (b) resistance to a changed role that includes prevention for school psychologists, even if prevention programs themselves are valued. One of the most common negative views of all prevention programs is a perceived lack of research support, a position that is no longer tenable. Other literature supporting the effectiveness of prevention can be used to counter this.
Role-Change Challenges

For practicing school psychologists to become leaders or even participants in prevention requires an important additional step beyond the issue of the school’s general acceptance of prevention activity: the acceptance of the school psychologist’s role as being broader than assessment (Branden-Muller & Elias, 1991). NASP’s advocacy for a broader role for school psychologists notwithstanding, most school psychologists still spend a majority of their time conducting assessments and other activity related to determining special education eligibility (Hosp & Reschly, 2002). Additionally, school-wide interventions around preventive mental health, where present, have typically been primarily the province of school counselors, especially at the elementary level. A school psychologist who is working in a largely assessment-oriented role and who wishes to move into prevention might be most successful by progressively expanding his or her current role. For example, developing early academic intervention programs for students who might otherwise be considered for special education placement may be a smaller jump from a traditional testing role than would organizing a grade-wide pilot of Second Step or some other social competency program. Another productive route would be to form working partnerships with the school counselor or social worker to work collaboratively on prevention activities that are more distant from the school psychologist’s present role. A third route might be to become a part of an existing school-wide improvement effort. Given the demands of No Child Left Behind, most schools have some sort of school improvement team that focuses on school-wide achievement and assessment issues. Involvement in such a team, although arguably not prevention, per se, involves a focus on changes in population outcomes and, hence, is a large step toward prevention.

For school psychologists looking to reduce their testing role and move in more of a preventive direction, there is an additional and well-developed path forward. Enter consultation. Teacher consultation, most typically case centered, has emerged as the second most common activity for school psychologists. Because training in consultation and collaboration is required for all NASP-approved school psychology training programs, many school psychologists have well-developed competencies in this area. Historically, and presently, advocates of the consultation role for school psychologists have stressed the idea that consultation, although typically performed after a problem has been noted, inherently contains an element of prevention because helping the teacher to work more effectively with this student will likely also increased the teacher’s effectiveness with similar students in the future. Furthermore, case-centered or teacher-centered consultation may over time evolve into system-level consultation leading to the development of universal preventive interventions (Meyers & Nastasi, 1999). Perhaps the greatest obstacle to broadening the school psychologist’s role to include prevention is simply this: We do not know much about how to change the practice of a profession, even though we have much knowledge about changing individuals and systems (Alpert, 1985). Advocacy for changes in public policy and professional practice by organizations such as NASP and APA have substantial, positive impacts, but local and individual factors are much more influential, as can be seen by the substantial variability in school psychology practice from one school system to the next. As a practical matter, one survey (Dean & Burns, 2004) suggests that school psychologists who perform a greater number of evaluations annually are less likely to be sought out for prevention activities. Administrators may also need to be educated about the value and effectiveness of an indirect services model, including prevention.

SUMMARY

Prevention activities are diverse with regard to focus and scope and according to targeted domains. Programs may have a person-centered focus, be environmentally or ecologically focused, or may employ a multicomponent, multimethod approach that combines both person-centered and ecological perspectives (Elias & Branden, 1988). Within school systems, ecological
approaches appear to be the most effective. Regarding content, school-based prevention programs primarily target either academic or social–emotional domains.

Today’s school psychologists must use interventions that are evidence-based. Whereas research supporting prevention was once sparse, comprehensive meta-analytic reviews (Durlak & Wells, 1997, 1998) and compendiums of evidence-based programs (Collaborative for Academic, Social, and Emotional Learning, 2003) now provide ample evidence to support the effectiveness of prevention. In general, prevention programs are often as effective as interventions designed to treat already-identified problems. Research on prevention identifies several features of prevention programs that are likely to lead to successful outcomes (Greenberg et al., 2003; Nathan et al. 2003; Wilson, Gottfredson, & Najaka, 2001). These features are summarized in Table 1 earlier in this chapter.

The single most important best practice issue with regard to prevention is to recognize that prevention is an intervention and to approach it as such. Specifically, prevention activities need to (a) be adopted based on clearly identified needs, (b) incorporate goals that are consistent with the mission of the school, (c) be carefully and deliberately planned, and (d) be implemented as planned, including active monitoring of implementation integrity. Program evaluation is also essential. The now common problem-solving model provides one framework for guiding school psychologists’ work in prevention.

The question is no longer whether school psychologists should include prevention in their work, but how they should engage in prevention so as to maximize the effectiveness and acceptability of these efforts. Prevention has a long history in school psychology. Since the 1970s, both national leaders and front-line practitioners have been advocating for prevention as a major role for school psychologists. Recent surveys (Hosp & Reschly, 2002; Olsen, Larson, & Busse, 2000) suggest that most school psychologists are engaged in some prevention activities. Resource limitations, cost effectiveness, and the goal of strengthening the academic and social–emotional competencies of all students support prevention as a major role for school psychologists.

As a relatively new role for many school psychologists, prevention may be less familiar territory than assessing, or providing interventions to individual students. However, prevention offers the promise of broad involvement in the life of the school and the opportunity to have a positive impact on the lives of large numbers of children and adolescents.

REFERENCES


**ANNOTATED BIBLIOGRAPHY**


Provides an extensive background history of prevention in the field of psychology. The developments in prevention from the 1950s to the present day are outlined. Specific attention is given to the differing viewpoints regarding prevention in the mental health fields.


**WEB RESOURCES**


Established in 2002 by the U.S. Department of Education. Includes information about educational interventions and their efficacy as determined through rigorous research standards. Ongoing reviews of programs in different academic and social-emotional domains are being conducted.

Collaborative for Academic, Social, and Emotional Learning: www.casel.org

Provides information about evidence-based social, emotional, and academic programs. Many free publications and downloadable reports are available on this site.

Prevention Research Center at Pennsylvania State University: www.prevention.psu.edu

Conducts research in the area of prevention in addition to disseminating information about best practices in prevention to the local, state, and national levels. Informative technical reports and information about current prevention programs being evaluated are available.
Authors Queries


Paper:

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