NATIONAL
ASSOCIATION OF
SCHOOL
PSYCHOLOGISTS

Prevention Is an Intervention

NASP 2005-06 Presidential Theme Task Force[1]
Annotated Bibliography of Prevention[2]

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[2] Except as otherwise noted, abstracts were prepared by Jeff Charvat, PhD, NASP Director of Research and Information Services. This draft was completed in March 2006. Additional resources will be added and posted at this location on the NASP website: www.nasponline.org/prevention.

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Preface

This annotated bibliography was prepared at the request of 2005-06 NASP President, Bill Pfohl, to support his presidential theme, *Prevention Is an Intervention*. Along with Bill, each of the members of the NASP Presidential Theme Task Force contributed to its conception, development, and organization.

The purpose of this bibliography is to make available to school psychologists and students prevention information for use in their practice, training, research, and advocacy efforts. It is important to recognize that, with the vast number of prevention articles published over the past few decades, just a few of the many excellent articles that school psychologists are likely to find useful can be included. Thus, this document should be considered an additional resource to supplement those available elsewhere (e.g., the websites of the Collaborative for Academic, Social, and Emotional Learning; the UCLA School Mental Health Project, Center for Mental Health in Schools; U.S. Substance Abuse and Mental Health Services Administration; etc.).

Additional resources will be added periodically and posted at this location on the NASP website: www.nasponline.org/prevention.

Getting Started

Adelman, H. S., & Taylor, L. (2000). Moving prevention from the fringes into the fabric of school improvement. *Journal of Educational and Psychological Consultation*, *11*, 7-36. Available free by request from smhp@ucla.edu. A list of other available prevention articles can be seen at http://www.smhp.psych.ucla.edu.

Contends that the focus on risk factors in schools and the resulting overemphasis on observed problems as discreet entities has led to the marginalization and fragmentation of school-based prevention initiatives and the creation of a vicious cycle of unsatisfactory policy and practice. The authors conceptualize prevention as one end of a comprehensive, multifaceted continuum of intervention and explore this continuum in terms of barriers to learning and development. They provide several extensive tables and figures illustrating their comprehensive approach, including an outline of 10 key facets of school-oriented prevention efforts (e.g., degree of integration with other interventions, scope of implementation, etc.) and examples of the focus and types of intervention on the continuum. Characterizing current school reform policies as "seriously flawed," the authors call for a basic policy shift from a two-component to a three-component model of school reform and restructuring. The new model adds an "enabling" component to the already existing "instructional" and "management" components. This third component is conceived as making possible the integration into a school's instructional mission of interventions that effectively address barriers to learning and development. Emerging trends in policy, research, practice, and training are highlighted.

Collaborative for Academic, Social, and Emotional Learning. (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs*. Chicago, IL: Author. This document and others like it are available online at http://www.casel.org/projects_products/safeandsound.php.

Provides information on the background and theoretical basis of social and emotional learning (SEL), an extensive guide to SEL programs and how to implement them, and additional resources (e.g., links to other program review websites). SEL is defined as the process for helping students develop the ability to recognize and manage emotions, develop caring and concern for others, make responsible decisions, form positive relationships, and handle challenges effectively. The authors assert that SEL can provide schools with a framework to prevent problems and promote students' well-being and success. The guide provides information on 80 programs including program design, ratings according to five "key" SEL instructional practices (self-awareness, social awareness, self-management, relationship skills, and responsible decision making), a rating of program effectiveness (11 were rated strong; 12 promising; 23 marginal; and 34 weak), and more.

Conceptual Issues

Albee, G. W. (2004). Prevention of mental disorders. In W. E. Pickren, Jr., & S. F. Schneider (Eds.), *Psychology and the National Institute of Mental Health: A historical analysis of science, practice, and policy* (pp. 295-315). Washington, DC: American Psychological Association.

Traces the history of the National Institute of Mental Health (NIMH) in terms of the debate over the definition of prevention, its value compared to treatment, and two competing conceptions of the causes of mental disorders: social-environmental versus brain defects, genetics, and related physical pathology. Albee reviews relevant commission and task force reports that recommended strengthening prevention and asserts that while some progress was made on primary prevention within NIMH during the 1960s and 1970s, conservative forces opposed to the use of federal funds for such purposes because of a bias toward biological explanations for mental illness reversed the early progress in the field of prevention. In the late 1970s a task panel report of the President's Commission on Mental Health recommended strengthening prevention efforts, and in the mid-1980s a commission report of the National Mental Health Association agreed. This latter report also recommended the inclusion of competence promotion as part of prevention efforts and suggested that mental disorders exist on a continuum from mild to severe (rather than as discrete entities). The NIMH was not convinced, however, and has since the early 1980s emphasized the "biological—brain defect—genetic theory" of the origins of mental illness. In addition, the recommendations of a 1996 NIMH workgroup on prevention research significantly extended the definition of primary prevention to include treatment and relapse prevention. According to Albee, "little remained of primary prevention" and "research on the social causes of emotional disorders largely disappeared" (p. 308).

Albee, G. W. (1996). Revolutions and counterrevolutions in prevention. *American Psychologist, 51*, 1130-1133.

Challenges the prevention model promulgated by the National Institute of Mental Health (NIMH) and the Institute of Medicine, contending that it is the result of a powerful bureaucracy exerting control based upon narrow assumptions about the causes of mental illnesses. In the 1960s and '70s (the revolution in prevention), the focus was on epidemiological data which suggested that mental disorders were socially acquired adjustment problems resulting from social stresses such as poverty, child abuse and neglect, unemployment, racism, etc. According to Albee, a counterrevolution occurred in the 1980s in which the emphasis changed to a search for the underlying causes of mental illness in biology, neurology, and genetics. In the 1990s, this search manifested in the NIMH's Decade of the Brain, with its focus on "functional abnormalities of the brain." Ultimately, these cultural changes resulted in the erroneous exclusion from the prevailing prevention model of mental health promotion efforts and a narrow focus on addressing specific disorders as catalogued in the *DSM-IV*. According to Albee, the fact that people who grow up feeling secure, loved, competent, safe, and supported have low rates of mental disorders suggests

that social conditions are implicated in the cause of mental illnesses and, thus, addressing these must logically be included in any effective prevention strategy.

Biglan, A. (2004). Contextualism and the development of effective prevention practices. *Prevention Science, 5*, 15-21.

Contrasts mechanistic and contextualist assumptions about scientific inquiry, suggesting that their implications for the relationship between science and practice are distinctly different. In the mechanistic system, valid models are the goal of basic research and the integration of research and practice is not necessary. Research founded on contextualist assumptions, however, has direct implications for practice because its goal is the identification of variables that predict and influence the phenomenon of interest (the focus is on outcomes). According to Biglan, prevention science would be furthered by explicit adoption of a contextualist framework. Research based on single-case experimental designs (schools or districts) is needed. Identification of variables and replication in subsequent individual cases allows inductive development of theoretical principles concerning how to influence adoption, implementation, and maintenance. Randomized trials can follow. This process shifts the focus to pinpointing variables that can be manipulated to contribute to the goal of prediction and influence of the incidence and prevalence of problems.

Biglan, A. (2003). Selection by consequences: One unifying principle for a transdisciplinary science of prevention. *Prevention Science, 4*, 213-232.

Suggests that the principle of selection (of behavior) by consequences be used as a basis for integrating disciplines and areas of concern in prevention science. The principle states that the organization of living systems is shaped and maintained by the consequences of that organization at any given time. Its role can be summarized such that the amount of a behavior is a function of the rate of reinforcement for that behavior relative to that for alternative possible behaviors (the matching law). Biglan argues against the notion that reinforcement undermines intrinsic motivation and notes that two widely disseminated parenting programs tell parents that rewarding their children's behavior will have that result—and neither program has been shown to be efficacious. He applies this to cultural practices in order to argue for the systemic application of these principles (e.g., to organizational practices). With regard to schools, he notes that funding is not contingent upon adoption of effective instructional practices, though federal education legislation is moving in that direction. Vouchers, charter schools, and magnet schools are designed to create contingencies between school practices and consequences. He concludes that research on the influence of financial consequences on the practices of organizations is essential for the widespread adoption of effective prevention practices.

Cowen, E. L. (1997). On the semantics and operations of primary prevention and wellness enhancement (or will the real primary prevention please stand up?). *American Journal of Community Psychology*, 25, 245-255.

Notes that the definition of primary prevention was moderately well-accepted as embracing prevention of psychological dysfunction and promotion of wellness until it was largely replaced by the definition promulgated by the Institute of Medicine (IOM; 1994), which excludes promotion activities. Cowen compares the IOM review of primary prevention programs with a second influential review by Durlak and Wells (1997), expecting to find major domains of overlap. He notes that, although both reviews are presented as clarifying the accomplishments of the uniform field of primary prevention, 93% of the research citations that form the basis of the two studies do not overlap. This reflects the differences in emphases that characterize the two approaches, a focus on risk factors and preventing major disorders in the former case and on short-term outcomes and wellness goals in the latter. Ironically, the 16 research studies common to both reviews seem to adhere to no particular pattern, reflecting both problem reduction and wellness enhancement goals. In addition, the comparison revealed major differences in the sources for the documents used in the reviews (e.g., types of journals, dissertations, etc.). Thus, despite the fact that each review's goal was to summarize the state of primary prevention based upon the finite field of methodologically sound research—and that they both drew positive conclusions regarding the status of primary prevention—they were, in fact, addressing two different conceptions of primary prevention. Cowen suggests that the field seems to be moving toward the delineation of two different, though equally legitimate, subworlds within primary prevention. He concludes that the differences and areas of convergence suggest that they should best be seen as complementary rather than competing approaches.

Greenberg, M. T., & Weissberg, R. P. (2001). Commentary on "priorities for prevention research at NIMH." *Prevention & Treatment, 4*. Retrieved October 31, 2005, from http://journals.apa.org/prevention/volume4/pre0040025c.html.

Expresses support for the central goals and conclusions of the report on priorities for prevention research by the National Advisory Mental Health Council Workgroup, but voices some concern in the areas of the expansion of the definition of prevention research and lack of emphasis on wellness and competence promotion. Suggesting that the logic of its proposed definition is largely political, the authors contend that the definition is a step backward in that it creates a classification system that confuses treatment and prevention. They applaud the workgroup's inclusion in the definition of mental health promotion, but characterize it as puzzling and troubling that it embraces a categorical distinction between prevention and promotion. They also lament the fact that the report fails to recognize wellness and competence as valuable goals for their own sake. The authors suggest that the single most important recommendation in the report is its call for greater development of research on service systems.

Kaplan, R. M. (2000). Two pathways to prevention. *American Psychologist, 55*, 382-396.

Argues that traditional secondary prevention may produce relatively little public health benefit, while primary prevention has greater potential to enhance public health. These two "pathways" to prevention result from two fundamentally different paradigms: the first medical and the second behavioral. Where the former is based on linear and mechanistic thinking, the latter is based on an outcomes model, which views the body as a system. The outcomes model emphasizes quality and duration of life rather than clinical measures of disease process. Secondary prevention is based on diagnosis, and this often obscures or confuses the importance of some health problems because (1) they do not always lead to effective treatment, (2) they are not always correct, and (3) they are not essential when poor outcomes are the result of risky behavior or exposure to risk factors. The author compares three secondary prevention approaches (screening for prostate cancer, breast cancer, and high cholesterol) and three primary prevention approaches (tobacco use, physical activity, and injury control) and shows that a cost/benefit analysis dramatically favors primary prevention. The implications for psychologists are as follows: (1) evaluations often confuse primary and secondary prevention programs, (2) primary prevention must be recognized as distinct from health care, (3) more resources should be devoted to primary prevention research, and (4) prevention must be recognized in public health policy.

Kellam, S. G., & Langevin, D. J. (2003). A framework for understanding "evidence" in prevention research and programs. *Prevention Science, 4*, 137-153.

Presents a framework for prevention research that was created by the Society for Prevention Research, under a contract with the Center for Mental Health Services. Six themes about evidence in prevention emerged: (1) at least four prevention-research strategies are currently in use; (2) the distinct phases of prevention research have distinct definitions for evidence; (3) prevention addresses different segments of the population regarding risk; (4) economic analysis must become a central part of research; (5) collaboration is required at all levels; and (6) acceptance of a multidimensional framework for understanding evidence will require increasing participants. The four current prevention strategies (#1 above) are (1) developmental epidemiology (discovering specific risk factors early); (2) more immediate risk (focus on proximal risk factors much closer to outcome); (3) community (multiple interventions involving media, school-based education); and (4) community/societal (new laws). There are similarities and differences in these four strategies as to what constitutes evidence. Five phases of prevention research are identified: (1) efficacy, (2) effectiveness, (3) sustainability, (4) going-to-scale, and (5) sustaining systemwide. The authors claim that although the latter three phases are in need of just as much rigorous testing as the first two, the current political climate places these three in limbo regarding funding, applying new programs, and training. The next five themes (#2-6 above) are also discussed extensively.

National Advisory Mental Health Council Workgroup on Mental Disorders Prevention Research (1998). *Priorities for prevention research at NIMH* (Publication Number 98-4321). Bethesda, MD: National Institutes of Health.

Noted that there was no universally accepted definition of prevention research, and criticized the tendency to consider primary prevention as being characterized strictly as intervening before the onset of symptoms. Citing what it viewed as the need for effective preventive interventions after symptoms appear as well as before, it criticized the Institute of Medicine's adoption of the terms *universal*, *selective*, and *indicated*. The workgroup recommended that the National Institute of Mental Health (NIMH) adopt a broader definition of prevention research to include expanded pre-intervention research (beyond traditional risk factors); prevention of relapse, co-occurring illnesses, disability, and the consequences of severe mental illness for families; and emphasis on the critical importance of integration across pre-intervention, preventive intervention, and preventive services research. It emphasized the importance of a developmental perspective, understanding of multiple causal factors (both risk and protective), and contributions and collaboration of multiple disciplines. Further, it recommended nine major research initiatives and four NIMH leadership and continuity activities that apply to the reorganization of NIMH and its grant review process.

Society for Prevention Research. (2004). *Standards of evidence: Criteria for efficacy, effectiveness and dissemination.* Falls Church, VA: Author. Retrieved October 31, 2005, from http://www.preventionresearch.org/StandardsofEvidencebook.pdf.

Prepared by the Standards of Evidence Committee of the Society for Prevention Research, this 12-page document presents a very concise summary of the important criteria for judging preventive interventions to be efficacious and effective. It is intended to provide shared standards for use by diverse organizations in identifying tested and effective prevention programs that are worthy of replication, adoption, or dissemination. Two of its three main sections, Criteria for Efficacy and Criteria for Effectiveness, present concise standards for the intricacies of such topics as specificity of efficacy and effectiveness statements, intervention descriptions and outcomes, clarity of causal inferences, generalizability of findings, and precision of outcomes. The third section, Criteria for Dissemination, presents four brief standards that a program must meet in order to claim readiness for broad dissemination: it must have met the criteria for effectiveness (which includes having met the criteria for efficacy), have the ability to go to scale, present clear cost information, and be amenable to monitoring and evaluation with tools available to providers.

Weissberg, R. P., Kumpfer, K. L., & Seligman, M. E. P. (2003). Prevention that works for children and youth: An introduction. *American Psychologist, 58*, 425-432.

Presents a brief introduction to the history, rationale, and controversies in prevention in this special issue focused on efforts targeted at children and youth. A major controversy is the degree to which prevention encompasses health promotion, youth development, competence enhancement, etc. The 1994 Institute of Medicine report recommended drawing a distinction between prevention and promotion efforts and the Task Force on Prevention of the American

Psychological Association (APA) endorses the broader perspective. The authors present an overview of the articles in this special issue, which was an outgrowth of the APA Task Force. They recommend that "rather than categorical funding to promote research on one part of the child development puzzle, a more productive strategy would bring prevention researchers and practitioners together to examine interventions that affect multiple outcomes across multiple delivery sites…" (p. 430).

Implementation Issues

Biglan, A., Mrazek, P. J., Carnine, D., & Flay, B. R. (2003). The integration of research and practice in the prevention of youth problem behaviors. *American Psychologist, 58*, 433-440.

Describes the developing integration of science and prevention practice in terms of four trends: (1) the use of epidemiological evidence to guide selection of targets of prevention efforts; (2) an emerging system for monitoring incidence and prevalence of youth problems and their context; (3) improved ability to identify interventions that are worthy of dissemination; and (4) increased advocacy for the use of empirically evaluated practices. The authors advocate creating a registry of prevention trials and developing consensus standards regarding which ones to include. They argue that the framework used by the National Institutes of Health, in which "demonstration and implementation" is designated as a phase after "effectiveness studies," implies that implementation itself is not a topic for research. According to the authors, research is needed on the practices of provider organizations, the number and types of organizations involved, and the proportion of target populations who are reached by the prevention programs. Analyses are needed of the factors that influence organizations to use empirically based practices.

Botvin, G. J. (2004). Advancing prevention science and practice: Challenges, critical issues, and future directions. *Prevention Science, 5*, 69-72.

Argues that program effectiveness may be limited by lack of implementation fidelity. Barriers to implementation fidelity in schools are identified, including lack of training and support, limited resources, classroom overcrowding, classroom management and disciplinary problems, low teacher morale and burnout, multiple competing demands, and time restrictions due to an increased emphasis on basic academic areas and preparation for standardized testing. The author supports others who have argued for adaptation of programs to better address local needs, increase "buy in," and increase cultural relevance. Little is known about the relative benefits and risks of adapting programs to different populations. He concludes that progress in prevention science and practice requires embracing "a new blended model of prevention research that involves conducting prevention research in practice settings with the active collaboration of researchers and practitioners" (p. 72).

Castro, F. G., Barrera Jr., M., & Martinez Jr., C. R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science, 5*, 41-45.

Briefly addresses the fidelity-adaptation tension as it applies to cultural issues. This tension involves two competing aims: (1) providing universal prevention interventions, implemented with fidelity and (2) designing culturally competent prevention interventions. The authors present a table that categorizes sources of program mismatch and their consequences. For example, one source of mismatch lies in the target group's characteristics such as language, ethnicity, socioeconomic status, and so on. Others lie in characteristics of the program delivery staff and administrative/community factors. Programs that are mismatched by ethnicity would, for example, be those in which validation of the program occurred with a non-minority population while the consumers of the program are from an ethnic minority group. The mismatch effect (as presented in the table) could potentially include conflicts in beliefs, values and/or norms. The remainder of the article presents some culturally informed research approaches from program adaptation guidelines to specific elements of program adaptation. This latter category includes cultural adaptation (moving beyond surface structure to deep structure), dimensions of adaptation (cognitive-information processing, affective-motivational, environmental), and forms of adaptation (delivery, content modification).

Collins, L. M., Murphy, S. A., & Bierman, K. L. (2004). A conceptual framework for adaptive preventive interventions. *Prevention Science, 5*, 185-196.

Notes that there has been an increase in adaptive preventive interventions (varying composition and dosage to meet individual needs), and offers a conceptual framework for such interventions. The five aspects of adaptive interventions are interdependent and include (1) treatment, (2) tailoring variables, (3) measurement of tailoring variables, (4) decision rules, and (5) implementation of decision rules. Tailoring variables are the individual's values on variables that are expected to moderate the effect of the treatment. In adaptive interventions, not only the treatment but numbers 2 through 5 above are considered a part of the intervention itself. These four are discussed in depth using the Fast Track program as an example. The roles of clinical judgment and statistical analysis are also considered.

Dusenbury, L., & Hansen, W. B. (2004). Pursuing the course from research to practice. *Prevention Science, 5*, 55-59.

Discusses the Diffusion of Innovation Theory (DIT) in light of the authors' claim that the overall success of prevention depends upon understanding the interrelated aspects of the process: diffusion of innovations and program fidelity. The authors add that there is little empirical evidence concerning the factors that can be manipulated to influence program adoption, implementation, and maintenance. DIT classifies "adopters" into five categories in order of adoption: innovators (5%), early adopters (15%), early majority (30%), late majority (30%), and laggards (20%). Research-based prevention programs are probably at the beginning of the early majority phase. Implementation and institutionalization follow

adoption. Research has not yet evaluated these three factors. According to DIT, programs that are likely to succeed have five characteristics that facilitate diffusion: (1) advantages over other methods, (2) fitting within existing values and needs, (3) being relatively simple to use, (4) being tried and evaluated locally, and (5) having a positive reputation.

Elliott, D. S., & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science, 5*, 47-52.

Reports the findings from a major prevention program dissemination and replication project. (1) Site selection: most replication failures result from limited site capacity, preparation, or readiness. (2) Training: the most serious challenges were absenteeism and staff turnover. (3) Technical assistance: among some programs, there were problems in not being proactive (waiting for problems to arise); providers were sometimes hard to reach and slow to respond to questions. (4) Implementation fidelity: there was generally a high rate of implementation of programs' core components. However, there was much more limited success in achieving dosage levels (only one-third to one-half of teachers taught lessons at recommended levels). (5) Sustainability: in interviews with 42 site coordinators six months later, 35 reported sites were still implementing programs. The authors argue against those who suggest a fidelity/adaptation balance, citing evidence that the need for and effectiveness of adaptation is greatly overstated and not supported by research. They conclude that, while programs can be implemented on a wide scale with fidelity and sustainability, sites are seldom prepared to do this, and grants that simply pour money into communities cannot help without knowledge of their capacity and willingness to deliver the program.

Greenberg, M. T. (2004). Current and future challenges in school-based prevention: The researcher perspective. *Prevention Science, 5*, 5-13.

Notes that much progress has been made in school-based prevention, and much of it is due to adoption of the public health model and the advent of prevention science. Policy changes have accompanied this progress (e.g., the Safe and Drug Free Schools Act of 1999 and the No Child Left Behind Act of 2001). Three challenges are evident in the next stage of linking prevention science, policy, and practice: systems integration (1) across developmental stages; (2) across levels of care; and (3) across institutional structures. Based on these challenges, the author offers six future directions for the field of school-based prevention research: (1) development of new programs and models; (2) development of standards and accountability systems related to schools success; (3) moving from efficacy to effectiveness, (4) understanding broad dissemination ("going to scale"); (5) program integration with ongoing school and community programs and activities; and (6) sustainability.

Kaftarian, S., Robinson, E., Compton, W., Davis Watts, B., & Volkow, N. (2004). Blending prevention research and practice in schools: Critical issues and suggestions. *Prevention Science, 5*, 1-3.

Introduces this special issue of *Prevention Science*, based on a 2003 NIDA conference on what schools think about prevention research. The conference was partly a result of the

increasing perception that the demand to focus on "basics" has led to decreased access to schools for prevention research and diminished interest by schools in investing time and money in prevention. The articles explore three main themes: (1) the necessity of innovative research designs and methodologies that have bearing on the value and applicability of research-based programs in practice; (2) the importance of building the capacity of practitioners for successful implementation of research-based programs in real-life settings; and (3) the dynamic tension between fidelity of implementation and program adaptation.

Pentz, M. A. (2004). Form follows function: Designs for prevention effectiveness and diffusion research. *Prevention Science, 5*, 23-29.

Examines two prevention research questions: (I) What is the current burden of proof of effectiveness of prevention programs? Six reasons are offered for how the context has changed (e.g., no competing programs, novelty effects, regression toward the mean, etc.). Five designs for future prevention effectiveness trials are noted: (1) randomized trials with a control group, (2) blocking designs, (3) taking into account the trend of decreasing drug use, (4) including communities and schools, and (5) use of a randomized two group block design to elucidate program effects on mediators. (II) How can we increase the use of effective programs? Five barriers to diffusion: (1) inadequate funding, infrastructure, guidance, etc.; (2) inadequate staffing, training, and support; (3) unplanned adaptation; (4) loss of funding, resources, or personnel; and (5) lack of positive communication about the program. Five designs for future prevention diffusion research are presented: (1) three group design (training, no training, and control) to address lack of adoption; (2) designs relevant to length of core program, testing, and coaching to address poor implementation; (3) mediator-driven designs to address unplanned adaptation; (4) various designs depending upon whether lack of dissemination is internal or external to the system; and (5) time-series designs of funding continuity and lack of sustainability.

Ringwalt, C. L., Vincus, A., Ennett, S., Johnson, R., & Rohrbach, L. A. (2004). Reasons for teachers' adaptation of substance use prevention curricula in schools with non-white student populations. *Prevention Science, 5*, 61-67.

In this study involving 1,905 predominantly minority schools that included middle school grades, the authors found that teachers in minority schools were much more likely to adapt prevention curricula than those in schools with lower minority populations. Three of eight reasons for adaptation were found to be statistically significant: youth violence, limited English proficiency, and various racial and ethnic cultural groups. The authors cite the work of Kreuter et al. (2002) in offering classifications of reasons for adaptations: (1) peripheral characteristics of the population (e.g., designs to enhance receptivity); (2) evidential (epidemiological data of particular pertinence to the group); (3) linguistic (direct translations or ones that carry particular cultural "weight"); and constituent-involving (incorporating speakers from the community).

Comprehensive Approaches

Adelman, H. S., & Taylor, L. (2000). Moving prevention from the fringes into the fabric of school improvement. *Journal of Educational and Psychological Consultation*, *11*, 7-36.

Contends that the focus on risk factors in schools and the resulting overemphasis on observed problems as discreet entities has led to the marginalization and fragmentation of school-based prevention initiatives and the creation of a vicious cycle of unsatisfactory policy and practice. The authors conceptualize prevention as one end of a comprehensive, multifaceted continuum of intervention and explore this continuum in terms of barriers to learning and development. They provide several extensive tables and figures illustrating their comprehensive approach, including an outline of 10 key facets of school-oriented prevention efforts (e.g., degree of integration with other interventions, scope of implementation, etc.) and examples of the focus and types of intervention on the continuum. Characterizing current school reform policies as "seriously flawed," the authors call for a basic policy shift from a two-component to a three-component model of school reform and restructuring. The new model adds an "enabling" component to the already existing "instructional" and "management" components. This third component is conceived as making possible the integration into a school's instructional mission of interventions that effectively address barriers to learning and development. Emerging trends in policy, research, practice, and training are highlighted.

Berryhill, J. C., & Prinz, R. J. (2003). Environmental interventions to enhance student adjustment: Implications for prevention. *Prevention Science, 4*, 65-87.

Reviews interventions that target academic, behavioral, and socioemotional outcomes by focusing on modifying school or classroom environments. These interventions are grouped by the type of pattern of interaction (or social regularity) that they are intended to impact: student-student interactions, teacher-student interactions, a combination of these two, school organization, and a combination of relational and organizational elements. A table with an extensive summary of key studies with outcome and follow-up data is presented (pp. 67-69). The authors are optimistic that the creation of effective environments through this type of intervention could reveal that good socioemotional and behavioral outcomes mediate academic outcomes among some students. They offer this conclusion regarding this type of interventions: "Some of the aspects of environments that promote risk and provide protection have been mitigated or enhanced, and the result has been better academic, behavioral, and socioemotional outcomes. However, there is nothing resembling a coherent state-of-the-art in school and classroom environmental interventions; at present there are only some signposts that indicate the direction is fruitful" (p. 80).

Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2002). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *Prevention & Treatment, 5*. Retrieved October 31, 2005, from *http://journals.apa.org/prevention/volume5/pre0050015a.html*.

Summarizes the state of the field of positive youth development by systematically examining evaluations of programs that met specified criteria. Suggests that the fields of positive youth development and prevention science are merging, with the recognition that positive youth development—with its person-in-environment and developmental perspectives—is an effective strategy for preventing youth problems. Both fields have become increasingly dissatisfied with the single-problem focus of many prevention efforts. The authors defined positive youth development programs in terms of 15 objectives and provided operational definitions for each. Of the 77 programs selected for analysis, 25 were found to be effective, with 22 of these having school components. Effective programs were found to be aimed at strengthening social, emotional, cognitive and/or behavioral competencies, self-efficacy, and standards for healthy social and personal behavior. Seventy-five percent also focused on increasing bonds between youth and adults, opportunities for participation in positive social activities, and recognition and reinforcement for such participation. The programs employed a variety of strategies for producing outcomes that included better school attendance, higher academic performance, healthier peer and adult interactions, improved decision-making abilities, and less substance use and risky sexual behavior. Two features were generally present in effective programs: the use of structured program guidelines or manuals and allowing for sufficient program intervention time to permit behavior change to occur and be measured. In addition, two-thirds of effective programs combined the resources of the family, community, and schools. The overall conclusion was that positive youth development approaches produce positive behavior outcomes and the prevention of youth problem behaviors.

Collaborative for Academic, Social, and Emotional Learning. (2003). *Safe and sound: An educational leader's guide to evidence-based social and emotional learning (SEL) programs*. Chicago, IL: Author. Retrieved October 31, 2005, from http://www.casel.org/projects_products/safeandsound.php.

Provides information on the background and theoretical basis of social and emotional learning (SEL), an extensive guide to SEL programs and how to implement them, and additional resources (e.g., links to other program review websites). SEL is defined as the process for helping students develop the ability to recognize and manage emotions, develop caring and concern for others, make responsible decisions, form positive relationships, and handle challenges effectively. The authors assert that SEL can provide schools with a framework to prevent problems and promote students' well-being and success. The guide provides information on 80 programs including program design, ratings according to five "key" SEL instructional practices (self-awareness, social awareness, self-management, relationship skills, and responsible decision making), a rating of program effectiveness (11 were rated strong; 12 promising; 23 marginal; and 34 weak), and more.

Durlak, J. A., & Wells, A. M. (1997). Primary prevention mental health programs for children and adolescents: A meta-analytic review. *American Journal of Community Psychology*, *25*, 115-152.

Presents a meta-analysis of 177 primary prevention programs for children and adolescents based upon a conception of primary prevention that includes mental health promotion. The authors offer a model of primary prevention with two major dimensions: level of intervention (person or environment centered) and selection method for target populations (all members of a population, at-risk members, or members experiencing stressful life events). Studies were included if they aimed to reduce the future incidence of adjustment problems in currently normal populations, aged 18 or under (either through risk reduction or health promotion); had a central mental health thrust; involved a control condition; and were reported by the end of 1991. The primary setting for the interventions was schools in 73% of cases; the mean age of participants was 9.3 years; and the race of participants was not reported in 48% of cases. The analyses found strong empirical support for the proposed model of primary prevention. The findings indicate that environment-centered programs in school settings were effective, but not those focusing on parent training; person-centered programs focusing on affective education were effective across age groups and those focusing on interpersonal problem solving were effective among children ages 2-11, but not among children over age 11; other person-centered programs not fitting these two categories were effective, with those using behavioral techniques nearly twice as effective as those using nonbehavioral ones. In terms of the type of outcomes produced, most categories of programs significantly reduced problems and significantly increased competencies, with the exception of parent training, which impacted neither, and problem solving for children ages 2-11, which did not reduce problems but did increase competencies. Additional analyses suggested that the large effect sizes of the interventions reflect their real-world impact, and that they impact participants functioning in multiple adjustment domains. The authors conclude that primary prevention is not a single strategy producing uniform results, but a collection of distinct approaches necessitating investigation of the many factors that contribute to outcomes.

Durlak, J. A., Weissberg, R. P., Quintana, E., & Perez, F. (2004). Primary prevention: Involving schools and communities in youth health promotion. In L. A. Jason, C. B. Keys, Y. Suarez-Balcazar, R. R Taylor, & M. I. Davis (Eds.), *Participatory community research: Theories and methods in action* (pp. 73-86). Washington, DC: American Psychological Association.

Provides a definition of health promotion (including its relationship to prevention), developmental perspectives on health promotion, and three examples of collaborative health promotion projects. Health promotion is defined as any effort to promote young people's specific skills and competencies or to enhance their overall adjustment and quality of life. The authors note that health promotion is a major component of many prevention efforts—though this fact often goes unacknowledged. They briefly review the frameworks of influential theorists and researchers regarding developmentally appropriate health promotion strategies based on the specific competencies emerging at various levels of development. One example of a community-based health promotion project (the Chicago Project for

Violence Prevention) and two examples of school-based projects (the New Haven Social Development Project and the Collaborative for Academic, Social, and Emotional Learning) are briefly reviewed. According to the authors, these projects illustrate the potential for schools and neighborhoods to develop collaborative, ecologically sound, coordinated approaches to effective youth health promotion.

Fleming, C. B., Haggerty, K. P., Brown, E. C., Catalano, R. F., Harachi, T. W., Mazza, J. J., & Gruman, D. H. (2005). Do social and behavioral characteristics targeted by preventive interventions predict standardized test scores and grades? *Journal of School Health, 75,* 342-349.

As part of a larger study on the efficacy of the Raising Healthy Children (RHC) project, the authors examined the relationship between social and behavioral characteristics of students and their academic achievement (see Brown et al. in this document for a description of the RHC project). Drawn from a larger RHC study sample, a total of 576 students in 10 public schools in Seattle participated in this study beginning in grades 1 and 2. Of the students in the original sample, however, 457 had moved to other schools and were thus excluded from further participation. This precluded exploration of the project's impact on achievement, but not the relationship between social and behavioral characteristics (targeted by the RHC project) and standardized test scores and grades. Students were 53% male, 84% white, 24% from families with only one parent, and 14% from low-income households. Matched according to risk factors, five schools were assigned randomly either to the intervention or control condition. Annual surveys were completed by students, parents, and teachers and risk and protection factors were assessed with a battery of tests completed by the students, parents, and teachers during grade 7. Academic achievement was assessed in grades 4 and 10 with standardized test scores and students' self-reports of their grades. The study revealed that good social, emotional, and decision-makings skills are related to both higher test scores and better grades, even after controlling for demographic variables and prior test scores. The authors concluded that there is strong evidence that interventions focusing on social and behavioral characteristics can improve academic achievement.

Greenberg, M. T., Weissberg, R. P., Utne O'Brien, M., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist, 58*, 466-474.

Contends that there are numerous successful, multiyear, school-based interventions that promote positive social, emotional, academic, and health behavior and they present representative meta-analyses and research syntheses of school-based prevention programs. The authors suggest that "there is a solid and growing empirical base indicating that well-designed, well-implemented school-based prevention and youth development programming can positively influence a diverse array of social, health, and academic outcomes" (p. 470). Despite this, and with the new emphasis on accountability and scientifically based practice, many schools do not use them because of the difficulty in changing school programming and because the emphasis on academic accountability leads school personnel to make the false choice of emphasizing academics only. The key strategies for effective school-based

prevention involve (1) teaching social and emotional learning skills and opportunities for student self-direction, participation, and school or community service; (2) fostering respectful, supportive relationships among students, parents, and staff; and (3) supporting and rewarding positive social, health, and academic behavior through systematic school-family-community approaches. They offer specific research questions that need to be addressed regarding replication, program coordination, professional development, and sustainability so that prevention practice can be advanced.

Kumpfer, K. L., & Alvarado, R. (2003). Family-strengthening approaches for the prevention of youth problem behaviors. *American Psychologist, 58*, 457-465.

Reviewed two federal studies (Strengthening America's Families and Preventing Substance Abuse Among Children and Adolescents) to determine which family-centered approaches are effective in preventing youth problem behaviors. The review identified three effective family-centered prevention approaches: (1) behavioral parent training (focus on cognitive, affective, and behavioral changes in the parent); (2) family skills training (separate group training for parents and children, with combined family practice sessions); and (3) family therapy (similar to number 2, but implemented with individual families by licensed mental health professionals rather than prevention specialists and often focused on youth with minimal but detectable signs foreshadowing mental disorders). The review also identified 13 principles of effective family-focused interventions: (1) multi-component programs are more effective than single-component programs; (2) family-focused programs are more effective than either child- or parent-focused programs; (3) components of effective programs include strategies to improve family relations, communication, and parental monitoring: (4) effects endure if they produce cognitive, affective, and behavioral changes in family dynamics and environment; (5) increased dosage or intensity is needed with higher risk families; (6) programs should be age and developmentally appropriate (and updated as children mature); (7) the timing of interventions should coincide with participants' receptiveness to change; (8) if parents are very dysfunctional, interventions early in the life cycle are most effective; (9) interventions tailored to cultural traditions of the family have a range of positive effects; (10) incentives improve family recruitment and retention; (11) program effectiveness is highly tied to the personal characteristics of the trainer (e.g., warmth, humor, empathy, etc.); (12) program effectiveness is greater for interactive skills training than for didactic methods (especially with low socioeconomic level parents); and (13) parent resistance and dropout is reduced by developing a collaborative process in identifying solutions.

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

Prepared for members of Congress as a stand-alone document, this 67-page summary is based on the 605-page report of a project conducted by the Institute of Medicine's Committee on the Prevention of Mental Disorders, pursuant to a contract with the National Institute of Mental Health. It summarized what was known about the prevention of mental disorders and the promotion of mental health and outlined the prospects for knowledge advancement and application in the subsequent decade. The often-cited and sometimes

controversial aspects of the report are its attempts to arrive at commonly agreed upon definitions by redefining the classification of preventive interventions and excluding the promotion of mental health. The committee recommended that the term *prevention* be used only for interventions that occur before the onset of a disorder. And, instead of the public health classification system of primary, secondary, and tertiary, suggested that preventive interventions be divided into universal, selective, and indicated (though differently than how this system has been applied to medical conditions). Universal preventive interventions are targeted to the general public or a whole population group, selective preventive interventions are targeted to at-risk individuals or a subgroup of a population, and indicated preventive interventions are targeted to high-risk persons who have the signs foreshadowing a disorder but who do not meet the diagnostic criteria for the disorder. The committee also recommended that the term *prevention research* be limited in the same manner (e.g., excluding such topics as identification of risk factors and etiology). The full report can be retrieved from http://lab.nap.edu/nap-cgi/discover.cgi?term=reducing%20risks%20for%20mental%20disorders&restric=NAP.

Munoz, R. F., Mrazek, P. J., & Haggerty, R. J. (1996). Institute of Medicine report on prevention of mental disorders: Summary and commentary. *American Psychologist, 51*, 1116-1122.

Provides a summary and commentary on this 605-page report that was mandated by the U.S. Congress. The report is organized into three sections: a new definition of prevention for the mental health field; sources of knowledge that could be used to inform the field of mental health prevention; and a research agenda. The committee recommended that the term *prevention* be used only for interventions that occur before the onset of a disorder, and that these preventive interventions be divided into universal (targeted to the general public or a whole population group), selective (targeted to at-risk individuals or a subgroup of a population), and indicated (targeted to high-risk persons who have the signs foreshadowing a disorder but who do not meet the diagnostic criteria for the disorder). The committee excluded promotion of mental health from inclusion in the definition of prevention, concluding that there are major conceptual and philosophical differences between promotion activities (which focus on enhancement of well-being) and prevention activities (with its emphasis on illness). They did, however, acknowledge that they are not mutually exclusive, that they may use the same techniques, and that they merit exploration and evaluation. The committee also recommended that the term *prevention research* be limited in the same manner as the term *prevention* (e.g., excluding such topics as identification of risk factors and etiology). The committee viewed treatment and prevention as part of a spectrum of interventions for mental disorders, rather than in opposition to each other. They recommended that prevention trials follow the established methods of treatment research—using rigorous, controlled trial methodologies, with clear, theory-driven, operationally defined protocols.

Nation, M., Crusto, C., Wandersman, A., Kumpfer, K. L., Seybolt, D., Morrissey-Kane, E., & Davino, K. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist, 58*, 449-456.

Using a review-of-reviews approach across the four areas of substance abuse, risky sexual behavior, school failure, and juvenile delinquency and violence, the authors identify nine characteristics associated with effective prevention programs: five were associated with program characteristics: (1) comprehensive, (2) include varied teaching methods, (3) provide sufficient dosage, (4) theory driven, and (5) opportunities for positive relationships; two were related to matching programs to targeted groups: (6) appropriately timed and (7) socioculturally relevant; and two were related to program implementation and evaluation: (8) include outcome evaluation and (9) involve well-trained staff. Some limitations are discussed. The authors note these implications for the future of prevention research and practice: (1) practitioners may not be getting information on what works and should search for prevention programs that reflect these principles; (2) many practitioners cannot afford to implement research-based programs and should use these principles to identify cost-effective ways of implementing essential elements of programs; (3) researchers should examine the relationship between previously ignored issues and program outcomes; and (4) this review offers a rationale for multiple-problem prevention programs since at-risk children tend to be at-risk for multiple negative outcomes.

Nelson, G., Westhues, A., & MacLeod, J. (2003). A meta-analysis of longitudinal research on preschool prevention programs for children. *Prevention & Treatment, 6*. Retrieved October 31, 2005, from http://journals.apa.org/prevention/volume6/pre0060031a.html.

Conducted a meta-analysis of the effectiveness of preschool prevention programs on children's cognitive development, social-emotional behavior, and parent-family wellness. Over 5,000 abstracts from multiple sources were reviewed using seven criteria to select the 34 studies used in the analysis. Program components most frequently involved home visitation (71%), parent training (68%), and preschool education (68%), with 79% of programs having three or more program components. Analyses supported these conclusions: (1) programs that include a preschool education component had larger cognitive effect sizes measured both in preschool and K-8 than those without this component; (2) programs that include a follow-through component into elementary school had a larger cognitive effect size at the K-8 level than those lacking this component; (3) programs that are longer than one year had significantly greater preschool cognitive effect sizes and significantly greater K-8 social-emotional effect sizes than those shorter than a year; (4) programs with more than 300 sessions had both significantly greater preschool cognitive effect sizes and significantly greater K-8 parent-family effect sizes than those with fewer than 300 sessions; and (5) programs serving predominantly African American children and families had larger effect sizes than those serving other groups in terms of preschool cognitive outcomes, K-8 social-emotional outcomes, and K-8 parent-family outcomes. Overall, the effect sizes for cognitive outcomes were at the medium level, and all other outcome effect sizes fell between the small and medium levels. The authors conclude that preschool prevention programs have positive effects on children's cognitive and social-emotional functioning and parent-family wellness,

enduring into grades K-8; programs with a direct teaching component have a stronger impact on children's cognitive skills than parent-centered programs without this component; programs with a follow-through education component in elementary school have greater cognitive impact at the K-8 level than those without it; and greater length and intensity of programs for children are related to more positive outcome effect sizes.

Osher, D., Dwyer, K., & Jackson, S. (2004). *Safe, supportive and successful schools step by step*. Longmont, CO: Sopris West.

Provides a comprehensive review of school improvement programs, from identifying funding sources and financial planning to assessing family involvement and staff support strategies. By describing 30 research-validated prevention and intervention programs that are currently operating in schools, it provides school personnel with information on which programs work in schools and how to implement them. These programs cover three major areas: schoolwide intervention for all students (focused broadly on social, ethical, and emotional development); early interventions for some students (focused on those who require more targeted behavioral support); and intensive interventions for few students (focused on those with significant emotional and behavioral disorders).

Payton, J. W., Wardlaw, D. M., Graczyk, P. A., Bloodworth, M. R., Tompsett, C. J., & Weissberg, R. P. (2000). Social and emotional learning: A framework for promoting mental health and reducing risk behaviors in children and youth. *Journal of School Health, 70*, 179-185.

Suggests that the implementation difficulties schools face in adopting programs to address the social and health issues faced by students (e.g., poor coordination of programs, competition for scarce resources, etc.) have resulted in growing national support for more comprehensive and coordinated approaches. One of these, social and emotional learning (SEL), provides a framework for fostering students' development in multiple domains including academic achievement. The Collaborative for Academic, Social, and Emotional Learning (CASEL) has been instrumental in promoting this framework, which identifies the key SEL competencies (skills, attitudes, and values) essential to healthy development and the critical program features that enhance them. Citing the inadequacy of any single model, the framework combines elements from many perspectives and builds upon four interrelated elements: (1) awareness of self and others, (2) positive attitudes and values, (3) responsible decision making, and (4) social interaction skills. Each of these elements is described in terms of specific capacities or intentions. CASEL's review of the prevention, promotion, and education literature led to the development of best practice features of quality SEL programs under four categories: (1) program design, (2) program coordination, (3) educator preparation and support, and (4) program evaluation. Specific features of each of these categories have been identified. Identification of the key competencies of the SEL framework and features of quality SEL programs have made possible the development of operational definitions, rating scales, and examples to be used in evaluating school-based prevention and promotion programs.

Wandersman, A., & Florin, P. (2003). Community interventions and effective prevention. *American Psychologist, 58*, 441-448.

Briefly reviews the definition and rationale for community-level interventions. The authors review the promising results for research-driven prevention (i.e., substance abuse, smoking, and high-risk drinking and alcohol trauma) and community-driven prevention (i.e., adolescent pregnancy, immunization, arson, and substance abuse). Though these results demonstrate that prevention can work, they note that overall reviews and evaluations provide mixed results. The authors offer these reasons why more community interventions don't show more results: (1) difficulty detecting outcomes from community-level interventions; (2) difficulty of actually producing outcomes through the process of community-level interventions (e.g., expensive to get the dose that would demonstrate effectiveness); and (3) developing and implementing a coalition is complex. They propose that the capacities of community-driven prevention providers must be enhanced and that funders should contribute to capacity building through technical assistance. One useful tool (to address the accountability movement) is Getting to Outcomes: Methods and Tools for Planning, Evaluation, and Accountability (GTO).

Weissberg, R. P., & Kumpfer, K. L. (Eds.). (2003). Prevention that works for children and youth [Special Issue]. *American Psychologist, 58*(6/7).

An outgrowth of the Presidential Task Force on Prevention of the American Psychological Association (established in 1998), this special issue includes an introduction and seven articles on the following topics: 1) enhancing school-based prevention; 2) integration of research and practice; 3) principles of effective programs; 4) the federal role in prevention initiatives for children; 5) community interventions; 6) family-strengthening approaches; and 7) prevention in health care settings. For further information, see the summaries of the introduction and articles 1 through 5 in this bibliography.

Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. *American Psychologist, 60*, 628-648.

Briefly reviews the meta-analytic findings regarding the impact of prevention and treatment strategies and concludes that the evidence base on both shows substantial benefit. The authors present a conceptual model integrating prevention (including mental health promotion) and treatment. Their model includes (from most universally applicable to narrowly focused): health promotion/positive development, universal prevention, selective prevention, indicated prevention, time-limited therapy, enhanced therapy, and continuing care. Intervention settings are classified (from least to most restrictive): home, school, neighborhood agency, primary care clinic, outpatient mental health, day treatment program, residential facility, and inpatient unit. These two, interventions and intervention settings, are applied to youth, family, community, and culture. Examples (with outcomes) are presented of intervention programs that span the promotion/prevention-treatment continuum. The authors present a comprehensive review of the strengths, gaps, and future directions

regarding the evidence base on youth prevention and treatment. They conclude that a substantial foundation for their model exists and that, despite the scientific support for such programs, most youths have little access to beneficial programs, partly because of gaps in the evidence base and partly because of the continuing divide between research and practice.

Targeted Approaches

Brock, S. E., Lazarus, P. J., & Jimerson, S. R. (Eds.). (2002). *Best practices in school crisis prevention and intervention.* Bethesda, MD: National Association of School Psychologists.

Offers mental health professionals, educators, and relevant community service providers the latest in theory and practice across the spectrum of issues related to school crisis prevention and intervention. This 818-page book is organized into six sections by topic area: introduction to crisis theory, primary prevention, secondary prevention (with the focus on immediate crisis response), secondary prevention (with the focus on specific crises), tertiary prevention, and special issues (legal, ethical, advocacy, research, and evaluation). Thirty-seven chapters cover topics ranging from preventing school violence, bullying, and suicide to preparing for and responding to natural disasters, unexpected deaths at school, and children's grief.

Hosman, C., Jane-Llopis, E., & Saxena, S. (Eds.). (2005). *Prevention of mental disorders: Effective interventions and policy options*. Oxford: Oxford University Press.

This is the full report summarized in the World Health Organization report of the same name, which was published in 2004. The book covers a range of topics including the individual, social, and environmental determinants of mental disorders; the relationship between prevention of mental disorders and promotion of mental health; the effectiveness of preventive interventions; the conditions needed for effective interventions; and the implications for public policy and practice. Several of its 21 chapters focus on the prevention of specific disorders and problem behaviors including conduct disorder, child abuse and neglect, anxiety disorders, suicide, depression, and violence.

Cost-Benefit Analysis

Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennucci, A. (2004). *Benefits and costs of prevention and early intervention programs for youth.* Olympia, WA: Washington State Institute for Public Policy. Retrieved December 19, 2005, from http://www.wsipp.wa.gov/rptfiles/04-07-3901.pdf.

Tasked by the 2003 Washington State Legislature, the Washington State Institute for Public Policy conducted a study to determine the benefits and costs of research-based programs in the state in terms of seven outcomes: 1) reduced crime, 2) lower substance abuse, 3) improved educational test scores and graduation rates, 4) decreased teen pregnancy, 5) fewer

teen suicide attempts, 6) less child abuse or neglect, and 7) reduced domestic violence. The authors reviewed over 3,500 documents containing program evaluations conducted in the U.S. since 1970. They screened each for design quality, eliminating those that lack a scientifically valid research design (and discounting those that did not meet standards such as the use of a randomized research approach or being carried out in highly controlled research settings). They then assigned monetary values to changes in the seven outcomes based upon a cost-benefit model. "Bottom-line" estimates were developed to permit direct comparisons across programs. The benefits, costs, benefits per dollar of costs, and benefits minus costs are presented for 61 programs in seven areas from pre-kindergarten education programs to juvenile offender programs. Their principal conclusion was that certain well-implemented prevention and early intervention programs can provide significantly greater benefits than costs. However, this is not true for all programs; for 23 of the 61 programs considered, costs exceeded benefits (in some cases, dramatically). Noting that new evaluations will become available in the coming years, the authors suggest that the relative rankings assigned to the various programs may change over time. In addition, the fact that not all funded programs in the state have been rigorously evaluated means that there is insufficient evidence to make a determination of the benefits and costs of many other programs in use.

Caulkins, J. P., Liccardo Pacula, R., Paddock, S., & Chiesa, J. (2004). What we can—and cannot—expect from school-based drug prevention. *Drug and Alcohol Review, 23*, 79-87.

Presents a quantitative cost-benefit analysis of the value of prevention programs as they relate to the lifetime use of cocaine, marijuana, cigarettes, and alcohol. Using a ten-factor model involving "best guess" estimates of prevention's impact, the authors arrived at two fundamental findings: (1) The dollar value of the social benefits of model school-based drug prevention programs exceeds their costs (an estimated $840 social benefit per participant in a model program compared to an estimated cost of $150); and (2) the benefits associated with the reduced use of cigarettes and alcohol are greater than—perhaps twice as great as—the benefits of reduced cocaine and marijuana use (the relative proportions of benefit are estimated at cigarettes, 43%; alcohol, 31%; cocaine, 22%; and marijuana, 3%). The authors conclude that the greatest uncertainty regarding these estimates is with regard to how to value instances of drug use that are deferred but not completely prevented. The model includes estimates of these factors: (1) baseline use (over the lifetime); (2) baseline proportion of cohort initiating (those who would use in the absence of prevention); (3) a discount factor (to convert short-term prevention effects into estimates of lifetime consumption); (4) prevention's short-term effectiveness (on past month prevalence); (5) reduction in lifetime use; (6) causation/correlation ratio (to account for the possible over-reliance on the correlation between age of initiation and lifetime consumption); (7) scale-up factor (assumes a loss of program effectiveness of 30-50% when reproduced widely); (8) social multiplier (accounts for the possibility that one new user induces others to start); (9) market multiplier (to account for possible increased benefits from law enforcement made possible by a reduction in the number of illicit drug users); (10) social cost per unit of use (based on loss of earnings and medical costs, but not impaired productivity).

Policy

Ripple, C. H., & Zigler, E. (2003). Research, policy, and the federal role in prevention initiatives for children. *American Psychologist, 58*, 482-490.

Contends that the current sociopolitical context affects federal policies in two ways: (1) the new federalism results in pressure to devolve programs from federal to state control; and (2) federal prevention policies tend to focus on treating problems in isolation, resulting in the marginalization of target populations. The authors review a selection of federal prevention initiatives including Project Head Start; lead poisoning prevention; Medicaid; Special Supplemental Program for Women, Infants, and Children (WIC); and the Earned Income Tax Credit. They suggest that federal policy can strengthen primary prevention by (1) shifting from a focus on isolated problems toward a whole-child and family approach; (2) promoting universally accessible programs; (3) using the tax code as a potent federal prevention strategy; and (4) continuing to promote and fund prevention program evaluation.

World Health Organization. (2004). *Prevention of mental disorders: Effective interventions and policy options: Summary report.* Geneva, Switzerland: Author. Retrieved October 31, 2005, from http://whqlibdoc.who.int/publications/2004/924159215X.pdf.

This is a summary created from the full report edited by Hosman, Jane-Llopis, and Saxena and published by Oxford University Press in 2005. It offers an overview of international evidence-based primary prevention programs for preventing mental illness. It briefly summarizes the information in the full report on the individual, social, and environmental determinants of mental disorders; the relationship between prevention of mental disorders and promotion of mental health; the effectiveness of preventive interventions; the conditions needed for effective interventions; and the implications for public policy and practice.

Program Evaluations and Manuals

I Can Problem Solve[3]

dos Santos Elias, L. C., Marturano, E. M., de Almeida Motta, A. M., & Giurlani, A. G. (2003). Treating boys with low school achievement and behavior problems: Comparison of two kinds of intervention. *Psychological Reports, 92*, 105-116.

A clinical sample of 39 boys with presenting behavior problems and low school achievement were randomly assigned to either a) a modified Interpersonal Cognitive Problem Solving (ICPS) intervention designed to teach social-emotional skills (translated into Brazilian), or b) a language workshop, consisting of only academic activities. ICPS was modified to include additional reading and writing activities associated with the original lesson (to read and write the feeling words, solutions to problems, etc.). While both groups improved in behavior

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[3] The abstracts in this section (I Can Problem Solve) were written by Myrna B. Shure, PhD, and have been included with her permission.

problem scores (aggressive and antisocial behaviors), conduct problem scores, and school achievement, the ICPS group had better effects on all measures, as well as in their cognitive ability to solve typical interpersonal problems. This research supports the hypothesis that while teaching language and reading is effective, it may be more effective to teach social/emotional skills such as interpersonal cognitive problem solving. Once behaviors mediated through interpersonal cognitive problem solving skills do improve, children can better meet the task-oriented demands of the classroom, and subsequently, do better in school.

Feis, C. L., & Simons, C. (1985). Training preschool children in interpersonal cognitive problem-solving skills: A replication. *Prevention in Human Services, 14,* 59-70.

Thirty-five low-income Head Start children were randomly assigned to either an Interpersonal Cognitive Problem Solving (ICPS) group or a no-treatment control group. Trained children showed a significantly greater increase than controls on ability to think of alternative solutions to interpersonal problems, both in total number and in number of different categories, and with no significant differences at pretest, ICPS-trained youngsters showed fewer negative behaviors at post-test than controls. ICPS training had a significant impact on children's anxious/fearful behaviors, hyperactive/distractible behaviors, and total negative behaviors as measured by the Behar and Stringfield Preschool Behavioral Questionnaire. Importantly, ICPS-trained children received significantly fewer referrals to the mental health consultant, suggesting that "training moderated the types of troublesome classroom behaviors that led teaching staff to seek outside professional consultation for a child" (p. 67).

Kumpfer, K. L., Alvarado, R., Tait, C., & Turner, C. (2002). Effectiveness of school-based family and children's skills training for substance abuse prevention among 6- 8-year-old rural children. *Psychology of Addictive Behavior, 16*, 565-571.

A sample of 655 1st graders from l2 rural schools was randomly assigned to receive the *I Can Problem Solve* (ICPS) program alone (social/emotional skills training) or combined with the Strengthening Families (SF) Program, or SF parent training only. ICPS alone resulted in significant improvement in school bonding and self-regulation behaviors compared to the control group, as they were in the ICPS plus the SF program (consisting of parent skills training, children skills training, and family life skills training). Self-regulation, measuring impulsivity, hyperactivity, and aggressive/disruptive behaviors are behaviors found to be impacted by ICPS in previous research. Measures of school bonding are new and important in light of theories of social control emphasizing the importance of the bonds and commitment and attachment to school as a protective factor against violence and juvenile crime.

Shure, M. B. (2000). *Raising a thinking child workbook: Teaching young children how to resolve everyday conflicts and get along with others*. Champaign, IL: Research Press. Also available in Spanish: *Ensenando a nuestros ninos a pensar* (2004).

This workbook provides parents of 4 to 7-year-olds with concrete interactive exercises that can serve as a training manual for educators to set up weekly workshops, and can be included as part of the parent involvement initiative in a school. This workbook can also be used with individual children by school psychologists either as a supplement to the classroom curricula, *I Can Problem Solve,* or as a stand-alone with high-risk youngsters to help them learn how to cope with, and resolve everyday conflicts that come up with peers and adults. The parent-child problems are divided into rooms of the house: kitchen, bedroom, bathroom, and living room, and problems that typically come up in these rooms (e.g., climbing for cookies in the kitchen, not cleaning their bedroom). The first room covers ICPS vocabulary words (e.g., same/different); the parents asks questions using those words, and the child chooses a picture to color that answers each question. The second room covers the words plus feeling concepts (building upon the vocabulary words, e.g., whether two people feel the *same* way or a *different* way about something), the third room adds solutions to problems (including thinking of a *different* way to solve the problem), and the fourth room, consequential thinking. Parents are provided with a problem solving ladder, with each rung representing a different style of parenting: Rung 1 shows examples of the *Power Approach* (punishments, yelling, etc.); Rung 2, the *Suggesting Approach* (telling kids what to do); Rung 3, the *Explaining Approach* (explaining why they should do it); and Rung 4, the *Problem Solving Approach* (involving the child in the decision of what and what not to do, and why). The second half of the workbook illustrates child/child problems (e.g., one child won't play with another), and parents ask questions that provide an opportunity for the children to relate to pictures and other activities such as their own drawings, or stories–activities designed to help children travel along the problem solving road to social and emotional competence.

Shure, M. B. (l993). *Interpersonal problem solving and prevention: A five year longitudinal study* (Report #MH-40801). Rockville, MD: National Institute of Mental Health.

A quasi-experimental design divided 562 kindergarten children into four groups: a) one year of ICPS training by teachers, in kindergarten; b) two years of ICPS-training in kindergarten and first grade; c) trained by teacher in kindergarten and mothers in grade 1; and d) never-trained controls. With all ICPS-trained groups superior to controls, the greatest immediate impact appears to have been on boys trained by their teachers, and on girls trained by their mothers or mother-surrogates. With some disappearance of behavioral impact one and two years following the training, the youngsters trained by their teachers in both kindergarten and first grade emerged at the end of grade 4 as the least impulsive, the least shy, and the most pro-social as measured by the Achenbach Child Behavior Checklist: Direct Observation Form. Importantly, within the mother-trained group, the linkage between mothers' application of the training to real life and both boys' and girls' behavior gains remained as long as they were studied, through grade 4. Lessons included in the intervention that focus on people's feelings and the manner in which the interpersonal concepts are woven into story telling and literature served to increase standardized achievement test scores in social studies,

language arts, and reading. This study shows that immediate impact of an intervention which seems to lose power can show sleeper effects several years later.

Shure, M. B. (1992). *I Can Problem Solve (ICPS): An interpersonal cognitive problem solving program for children (preschool)*. Champaign, IL: Research Press.

Shure, M. B. (1992). *I Can Problem Solve (ICPS): An interpersonal cognitive problem solving program for children (kindergarten/primary grades)*. Champaign, IL: Research Press.

Shure, M. B. (1992). *I Can Problem Solve (ICPS): An interpersonal cognitive problem solving program for children (intermediate elementary grades)*. Champaign, IL: Research Press.

I Can Problem Solve (ICPS), originally called Interpersonal Cognitive Problem Solving (also ICPS) is published in three separate manuals: for preschool, kindergarten and the primary grades, and the intermediate elementary grades. ICPS is a culture-free school-based prevention program that teaches children ages 4 to 12 *how* to think, not what to think, in ways that help them resolve interpersonal problems that arise with peers and adults. Through games and role-plays, children learn a) understanding of their own and other's feelings, b) alternative solution thinking skills, c) consequential thinking skills, and d) beginning at age 8, how to plan sequenced steps toward an interpersonal goal. Teachers learn a problem solving style of talk (called "ICPS dialoguing"), an approach which helps children use their newly acquired ICPS skills in real life, and to associate how they think with how they behave. Each manual incorporates age–appropriate interpersonal skills with academic subjects as reading, math, social studies, language arts, and science.

Shure, M. B., & Healey, K. N. (1993, August). *Interpersonal problem solving and prevention in urban 5th- and 6th-graders.* Paper presented at the annual convention of the American Psychological Association, Toronto, Ontario.

A quasi-experimental design compared 222 5th- and 6th-graders assigned to an Interpersonal Cognitive Problem Solving (ICPS) group, now called *I Can Problem Solve* (also ICPS), with those assigned to a comparison Critical Thinking (CT) group focusing on impersonal reasoning skills, deductive logic, impersonal alternative thinking (e.g., ways to use a newspaper) and generating means-ends plans (e.g., finding a culprit in a detective story). ICPS-trained children gained significantly more than the CT-group in the ICPS skills of alternative solution, consequential, and means-ends planning, as measured by teacher behavior ratings, peer sociometrics, or ratings by independent observers. CT-trained youngsters improved more than the ICPS-trained on measured CT-thinking skills, suggesting that the two groups did not receive differential attention. At the end of grade 5, ICPS-trained children were significantly superior in prosocial behaviors and by the end of grade 6, showed significantly greater reduction in impulsive and shy behaviors–suggesting the viability for ICPS training for this age group.

Shure, M. B., & Spivack, G. (1982). Interpersonal problem-solving in young children: A cognitive approach to prevention. *American Journal of Community Psychology, 10,* 341-356.

The Interpersonal Cognitive Problem-Solving program (ICPS), designed to reduce and prevent impulsive and inhibited behaviors in preschool and kindergarten children and now called *I Can Problem Solve* (also *ICPS*), was implemented by teachers and evaluated over a two year period. In the first year, 113 black low-income four-year-olds were trained and l06 comparable youngsters were not. The 131 still-available in kindergarten were divided into four groups: Twice-trained (n = 39); Once-trained, Nursery (n = 30); Once-trained, Kindergarten (n = 35), and Never-trained controls (n = 27). Children were trained in the ICPS skills of perspective-taking, alternative solution, and consequential thinking around typical, everyday interpersonal problems. Results for three months of daily 20-minute lessons showed that a) trained children improved more than controls in the trained ICPS skills as well as behaviors describing impulsivity and inhibition, and the gains were independent of measured IQ; b) trained children who most improved in the trained ICPS also most improved in behavior, suggesting a direct link between the trained ICPS skills and behavioral gains; c) ICPS impact on behavior lasted at least one full year (as far as measured); d) training was as effective in kindergarten as in nursery; and e) for this age and income group, one year of intervention had the same immediate behavioral impact as two. Importantly, well-adjusted children in nursery were less likely to begin showing behavioral difficulties over the two-year period than were comparable controls, highlighting implications of the ICPS approach for primary prevention.

Shure, M. B., & Spivack, G. (1979). Interpersonal problem-solving thinking and adjustment in the mother-child dyad. In M. W. Kent, & J. E. Rolf (Eds.), *Primary prevention of psychopathology: Vol. III. Social competence in children* (pp. 201-219). Hanover, NH: University Press of New England.

A training program for parents, which evolved as a logical step from a series of research studies examining teacher impact on training interpersonal cognitive problem solving (ICPS) skills at school was implemented by mothers and mother-surrogates at home. Forty black four-year-olds (20 trained and 20 controls), all attending federally funded day-care and evenly divided by sex of child, were evaluated pre- and post-intervention for alternative solution and consequential thinking regarding typical everyday interpersonal problems. Their mothers or mother-surrogates were interviewed on how they disciplined their children around parent-child and child-child problems, ranging from physical and psychological punishments, suggestions, explanations, and problem solving techniques of discipline. Results showed that a) the trained preschool children gained in ICPS skills more than controls, b) there is a direct link between gains in ICPS skills and observed impulsivity and inhibition, and c) parents who best learned the problem solving approach to discipline (allowing the child to use his/her newly acquired ICPS skills to solve a problem) had children who most improved in the trained ICPS skills and behavior. Importantly, with teachers unaware of the intervention rating the children's behaviors in the classroom, results showed that youngsters trained in one setting (the home) could generalize their behavior to a different setting (the school).

Project DARE

Lynam, D. R., Milich, R., Zimmerman, R., Novak, S. P., Logan, T. K., Martin, C., Leukefeld, C., & Clayton, R. (1999). Project DARE: No effects at 10-year follow-up. *Journal of Consulting and Clinical Psychology, 67*, 590-593.

Evaluated the long-term outcomes of the Drug Abuse Resistance Education (DARE) Program in a sample of 1,002 20-year-olds who had participated in the program as sixth-graders in schools in a Midwestern metropolitan area. The sample was 57% female and 75% White. An attrition analysis regarding the 427 individuals who did not respond to the survey suggested that attrition had little effect on the evaluation results. A control condition was made of the 24% of the sample who had not received DARE, but had received drug education by health teachers who had considerable latitude in what was taught. Participants completed a 30 to 45 minute survey that included questions regarding the use of alcohol, tobacco, marijuana, and other illegal drugs; positive and negative expectancies about drug use; peer-pressure resistance skills; and self-esteem. DARE had no effect on cigarette, alcohol, marijuana, or other illegal drug use. It was also found to be unrelated to expectancies and peer-pressure resistance levels. Surprisingly, lower self-esteem at age 20 was associated with participation in the DARE Program 10 years earlier, though the authors suggest that this relationship was due to chance rather than the impact of the program. The authors concluded that the DARE Program provides no beneficial long-terms effects, either in terms of actual drug use or attitudes toward drug use.

Raising Healthy Children

Brown, E. C., Catalano, R. F., Fleming, C. B., Haggerty, K. P., & Abbott, R. D. (2005). Adolescent substance use outcomes in the Raising Healthy Children project: A two-part latent growth curve analysis. *Journal of Consulting and Clinical Psychology, 73,* 699-710.

Examined the efficacy of the Raising Healthy Children (RHC) project, a theory-based intervention with four distinct target areas in the lives of children and adolescents: (1) opportunities for involvement with prosocial others; (2) academic, cognitive, and social skills; (3) positive reinforcement for prosocial involvement; and (4) healthy beliefs and clear standards regarding substance use. The focus of the RHC interventions in the elementary school years is the family and school though, in accordance with the Social Development Model upon which this project is based, it gradually shifts toward individual- and peer-related factors as the students approach adolescence. Intervention strategies are focused in four key domains: the school, individual students, peers, and the family. RHC seeks to reduce risk factors (e.g., family conflict, antisocial behavior, academic failure, etc.) and enhance protective factors (e.g., bonding to family and school, social and emotional skills, etc.). A total of 959 students in 10 public elementary schools in Seattle participated in the study beginning in grades 1 and 2, and substance abuse outcomes were assessed in grades 6-10. Matched according to risk factors, five schools were assigned randomly either to the intervention or control condition. Students were 54% male, 82% European American, and 28% from low-income households. Using a two-part latent growth model, the evaluation

addressed the project's efficacy in reducing both the likelihood that students will use alcohol, marijuana, or cigarettes and the frequency at which they are used. No significant differences were found between intervention and control groups with regard to the use or nonuse of alcohol or marijuana. In terms of frequency of use, however, there was a significant intervention effect with students in the intervention group exhibiting greater decline in the frequency of alcohol and marijuana use in middle to high school compared to those in the control group. The intervention did not have an effect on cigarette use versus nonuse or the frequency of use. In fact, the frequency of cigarette use in both groups of students increased throughout grades 7-10. The authors conclude that interventions that promote students' bonding with those with prosocial beliefs and standards can keep them from more frequent alcohol and marijuana use. Limits to the generalizability of the findings are discussed.

SOS Suicide Prevention

Aseltine, Jr., R., H., & DeMartino, R. (2004). An outcome evaluation of the SOS Suicide Prevention Program. *American Journal of Public Health, 94*, 446-51.

Presents the results of an evaluation of the school-based suicide prevention program, Signs of Suicide (SOS). This relatively new program combines curricula to raise awareness of suicide and related issues with a brief screening for depression and other risk factors associated with suicide. Through this program high school students are taught to recognize the signs of suicide and depression in themselves and others and to take appropriate action as a result. The specific actions taught are represented by the acronym ACT: *acknowledge* the warning signs of suicide, let the person know that you *care*, and *tell* a responsible adult. The evaluation employed an experimental design with a control group and posttest-only data collection. A total of 2,100 ethnically and economically diverse high school students from five urban public schools participated in the study. About three months after implementation of the program, students in both the treatment and control conditions were asked to complete a short questionnaire in which they provided information on their (1) suicide attempts and ideation, (2) knowledge and attitudes about suicide and depression, and (3) help-seeking behaviors. Analysis revealed that exposure to the SOS program was associated with significantly fewer self-reported suicide attempts. It also indicated that participation in the program was associated with modest improvements in knowledge of, and attitudes toward, depression and suicide. No significant effects were found with regard to suicidal ideation and help-seeking behaviors. Limitations of the evaluation are discussed. To address the issue of the generalizability of the findings, the authors suggest that the study be replicated in rural and suburban settings with fewer disadvantaged youth.

Violence Prevention

Molina, I. A., Dulmas, C. N., & Sowers, K. M. (2005). Secondary prevention for youth violence: A review of selected school-based programs. *Brief Treatment & Crisis Intervention, 5*, 1-3.

Reviews seven school-based secondary violence prevention programs for at-risk youth. The studies selected were published after 1989, employed experimental research designs, evaluated interventions that target at-risk elementary school children during school time, and did not include interventions that address suicide or other self-directed violence. Selection methods for intervention participants included teacher ratings, peer ratings, parent ratings, self-reports, information on socioeconomic status, or a combination of these. Sample sizes for the studies ranged from 52 to 453, with a mean of 179. Studies included outcome assessments at a variety of points from two months to five years. Many dependent variables were measured, including aggression, self-control, school disciplinary referrals, anxiety, parent depression, parent behavioral management practices, antisocial involvement, drug use, teacher instructional practices, and more. Most of the studies assessed the efficacy of interventions based on teachers' and peers' ratings of participants' functioning at school. There were beneficial findings for five of the seven interventions studied and mixed results for two. The significant beneficial findings (compared to control groups) include (1) greater improvements in self control among students receiving interventions to address their ability to detect others' intentions; (2) fewer externalizing behavior problems in students who received social skills training; (3) reduced behavior problems among children who took part in a didactic program to improve self-control and social skills; (4) significant improvements in prosocial coping, aggression, and social skills among children who received training in peer coping skills; (5) reductions in the bias to presume hostile intent and a preference for aggression among students receiving a cognitive intervention to address attribution of intent; (6) significant reductions in aggression and social rejection and improvement in prosocial behavior toward peers among students who took part in a social relations training program. Implications for future research are discussed.