

About the Developmental Studies Center

Our Mission

Developmental Studies Center (DSC) is a nonprofit organization dedicated to children's academic, ethical, and social development. Since 1980, DSC has developed school-based and after-school programs that help children develop capacities to think deeply and critically so they will continue learning throughout their lives and strengthen their commitment to such values as kindness, helpfulness, personal responsibility, and respect for others.

DSC's Programs Develop Skills and Community

Programs for use in classrooms

Caring School Community™ • Grades K–6

The Caring School Community (CSC) program is a nationally recognized, research-based program that builds community—in the classroom, across grades, schoolwide, and with families.

Making Meaning® • Grades K–8

The Making Meaning program is a reading comprehension curriculum that teaches comprehension strategies through read-alouds, collaborative structures, and reflective partner work.

SIPPS® (Systematic Instruction in Phoneme Awareness, Phonics, and Sight Words) • Grades K–12

The SIPPS program teaches decoding systematically. It is designed specifically for intervention and covers single-syllable decoding, short vowels, simple consonants, complex vowels, consonant digraphs, polysyllabic strategies, and high-frequency sight words.

Being a Writer™ • Grades K–5

The Being a Writer program is a yearlong writing curriculum—the first program of its kind to bring together the latest research in teaching writing with support for students' social and ethical development. (Available August 2007)

Programs for out-of-school time

AfterSchool KidzLit® • Grades K–8

The AfterSchool KidzLit program is a literacy enrichment program consisting of terrific read-aloud books, and discussions and activities that help kids make connections between the stories, their own lives, and the world.

AfterSchool KidzMath™ • Grades K–6

The AfterSchool KidzMath program provides academic enrichment using cooperative math games and literature-based activities. Kids deepen their understanding and practice important math skills—and have fun.

Science Explorer • Grades K–6

Science Explorer is an inquiry-based, interactive program of experiments using ordinary materials that inspire students to explore scientific principles.

Math Explorer • Grades 6–8

Math Explorer invites children to fly planes, launch rockets, learn card tricks, and make cool stuff to take home—all while practicing the important math skills middle-school students need extra help with.

For more information, please visit www.devstu.org or contact us by phone at 800.666.7270.



**DEVELOPMENTAL
STUDIES CENTER™**

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**Building on What We Have Learned:
Some Reflections on Current Issues and Future Directions
in (School-Based) Prevention**

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Invited presentation as part of the Plenary Session on Prevention Research at the Center for Substance Abuse Prevention's National High Risk Youth Learning Community Workshop, Arlington, VA, March 26-28, 1996.

The field of prevention, including school-based prevention, has advanced in a number of important ways during the past decade, and CSAP's programs have contributed substantially to these gains. As a prime example, I would cite CSAP's emphasis on distinct domains of risk and resilience, and on supporting demonstration projects that seek to have preventive effects in multiple domains. These emphases have helped to move the field of prevention from one dominated by an exclusive focus on individuals with certain "defects" to be "treated," to the recognition that a broad range of factors interact in complex, but as yet poorly understood ways to place people at risk for poor developmental outcomes. Certainly some of these risk factors are characteristics of individual people, but we now explicitly recognize that many are located "outside" of the individual, in the social groups and environmental contexts within which we, as individuals, live our lives.

Even more significant, I would argue, is the emergence of the concept of "resilience," and the emphasis in prevention programs of enhancing resiliency. This represents a further, and more radical step away from a "deficit" model of ATOD abuse, and toward a model of prevention that recognizes the importance of a qualitatively different set of influences—characteristics of individuals, groups, and environments that promote healthy development, and that enable individuals to cope effectively and positively with stressful events and adverse life circumstances. Here, I believe, lies the heart of primary prevention.

Thus, our understanding of development, and our approach to preventing developmental problems, has become more refined, encompassing, and sophisticated in recent years. As a result, ATOD prevention efforts have become more effective, as exemplified by the CSAP demonstration programs represented at this meeting. Each of you in this room have contributed to these advances, and are to be applauded for your efforts.

These general developments in the area of prevention apply to school-based prevention as well. In the remainder of this talk, I will try to identify a few salient developments, and what I see are some important issues that should be addressed in future prevention research. I will

focus on the domain of the school and illustrate my points with school-based examples, but I think that much of what I have to say applies to prevention efforts and research in other domains as well.

The first point I would like to make is that, while we have certainly broadened our views of prevention to encompass multiple domains of risk and resilience, we still have a great deal to learn about the how various factors are related to one another, and about the ways in which risk and protective factors interact with one another to produce positive or negative outcomes. For example, a great many risk factors related to schooling have been identified, including disruptive behavior at school, poor academic performance, peer rejection, and alienation from school. Are school adjustment, academic performance, and peer relationships factors that contribute independently to the risk of ATOD use, or do they interact in contributing to risk? Are they distinct influences, or do they form a coherent developmental progression? These are crucial questions that must be addressed in future prevention work if we are to continue to advance our understanding of the causal pathways and mechanisms underlying positive and negative developmental outcomes, and thus to utilize our resources where, when, and in the ways they are likely to be most effective.

Attempting to address these questions has clear implications for our future work. For one, it is critical that we not only target multiple risk/protective factors in prevention programs and measure each of these as well as possible, but that we maximize the information gained from our analyses of these data. In attempting to determine if our programs have been effective, we must move beyond merely assessing whether or not we had the desired effect on each of our targeted outcomes. At the very least, we must always examine the relationships among the risk/resiliency factors we have measured, and how (not simply whether) our intervention efforts did (or did not) affect the targeted outcomes.

Using the information gained from such "process" analyses will contribute immeasurably to improving prevention theory, and therefore, ultimately, prevention practice as well. The findings from such research will provide a sound empirical basis for developing

explicit and plausible theoretical models that can form a basis for future prevention efforts. They also will help us to, over time, identify risk/protective factors that seem to be truly causal, and to discriminate these contributing influences from other factors that are probably merely "marker" variables—factors that are signs of impending problems, but do not themselves contribute to their development. This would not only provide important guidance when selecting the particular risk/protective factors that should be targeted in preventive interventions, but also help to focus our attention on possible alternative models that might account for the findings, and that could be explicitly compared in prevention research to determine which is (are) more plausible.

A related point is that we need to clarify what we mean by "resilience," and the relationships between resilience and risk. Although I think there is no question that the concept of resilience makes a valuable contribution to our thinking about prevention, it is also the case that research on resilience is a relatively new area, and thus the concept is defined in various, often inconsistent ways, and there is as yet little consensus about the way(s) in which individual and environmental "protective" factors operate to reduce or countermand the adverse effects of risk factors. In terms of definitional issues, "risk" and "resilience" are often discussed as if they were opposite sides of the same coin. For example, "lack of affective bonds to the school" has long been regarded as a risk factor for ATOD abuse and other problems. So, more recently, "school bonding" has been described as a "protective" factor. Are "risk" and "resilience" opposite ends of continuous variables? If we regard them in this way, have we really improved our understanding in any way? If "resilience" is merely the absence of "risk," are we not just using two concepts to refer to the same phenomenon? These issues need to be seriously considered by the prevention field.

However we define resilience, how do resiliency factors operate in development? Do they "compensate" for adverse life circumstances by "neutralizing" exposure to risk? If so, we could help students become "invulnerable" to their otherwise dangerous environments by enhancing their bonding to school. Or does resilience develop *in response to stressful life*

circumstances? If this is the case, then, we don't want to prevent exposure to risk, but rather to control excessive exposure, in order to "inoculate" students, so that they become increasingly capable of coping with more serious risks over time. Or, alternatively, do resiliency factors interact with risk or other resiliency factors to reduce negative outcomes, either by mitigating the negative effects of risk factors, or by augmenting the positive effects of other protective factors? Each of these possible mechanisms has been proposed, and each is plausible. It is the task of our future prevention efforts to identify which is (are) most likely to be probable in the area of ATOD abuse.

Yet another point I would like to make is that while the concept of resilience has received increasing attention in the field of prevention, we are still overly focused, in my opinion, on risk factors and preventing negative outcomes. For example, a report to NIMH by a very distinguished panel of prevention researchers (which included David Hawkins), recently published in the *American Psychologist*,¹ offered a thoughtful and quite sophisticated conceptual framework for studying prevention. If you haven't read this paper, I urge you to do so, as I think it offers much of value to our work. Yet, the framework offered is based on a view of prevention as having the single goal of preventing human problems through knowledge of the risk factors for their occurrence.

Now, I certainly am not arguing that reducing risk is an inappropriate goal for prevention. Indeed, the risk-reduction approach to prevention has resulted in important conceptual and methodological gains in prevention science, and has made very significant contributions to prevention programs and research. But, as my friend Emory Cowen has repeatedly pointed out, there is a different, complementary goal of prevention that is not addressed by the risk-reduction model—namely, the goal of promoting health or "wellness." Enhancing wellness has broader and more basic objectives than reducing risk, and is a more proactive approach to prevention. Indeed, the conceptual and practical differences between the

¹Coie, J. D., and others. (1993). The science of prevention. A conceptual framework and some directions for a national research program. *American Psychologist*, **48**, 1013-1022.

two approaches to prevention are vast, and meeting the objectives of promoting health will require developing new expertise and new and diverse strategies. This will certainly be challenging, but I think the potential return to the field of prevention from efforts to enhance wellness is substantial.

My final point concerns an approach to school-based prevention that has received very little attention in the past, and draws most directly on the prevention work my colleagues and I have been doing recently with schools. Prevention, including school-based prevention, has been almost exclusively focused on variables associated with individual-level risk and resiliency factors, and has largely ignored the role of social institutions such as schools in reducing risk and enhancing resilience. Clearly, schools have a tremendous influence on children's development, and prevention research should consider the ways in which schools can help youth become resilient and enhance their capacity to cope with risk. A research focus on schools as promoters of resilience broadens our conceptual perspective, moving it beyond the individual to encompass the social context within which youth spend a significant portion of their lives. From this broader perspective, schools are seen not simply as places within which prevention activities take place. Rather, the school itself—its practices, goals, norms, organization, and climate—is viewed as an environment that promotes (or impedes) children's resilience.

Our own CSAP demonstration project is an example of such a contextual or ecological approach to prevention. The central goal of our intervention is to help schools to become "caring communities of learners"—social contexts in which all students feel supported and valued, can actively participate in and contribute to school life, and where there is a common commitment not only to learning, but to fairness, respect, responsibility, and concern for others. Our basic assumption is that a school that is a community meets all children's basic psychological needs for autonomy, competence, and belonging, and also facilitates their intellectual, social, and ethical development, including their knowledge of subject matter, conceptual understanding, reasoning and thinking skills, social skills, and understanding of self

and others. Satisfaction of students' basic needs is expected to result in their attachment or bonding to the school community, which, in turn, promotes commitment to and internalization of the community's prosocial norms and values, and behavior consistent with them.

Although I do not have time to go into the details here, the research we have completed to date has provided considerable support for this model. It has shown that the classroom and school-wide activities and practices in our intervention program result in significant increases in students' sense of the school as a community, and that increases in school community result in significant increases in liking for school, learning motivation, academic achievement, and commitment to education; significant increases in concern for others, conflict resolution skills, prosocial motivation, and prosocial behavior; and significant *reductions* in ATOD use and delinquent behaviors.

What I want to emphasize here is that school interventions such as ours are targeted not on individual students, but on changing the social environment of the school. Moreover, the effects we have observed are not solely due to processes at the individual level, but to a qualitatively different type of effect—an aggregate effect due to changes in the social context of the school. That is, taking into account differences among students within a school in their individual sense of the school as a community, schools where the *average sense of community* is high have more positive student outcomes, including greater reductions in ATOD use and other problem behaviors. These differences between *schools* reflect a contextual or ecological effect that is conceptually distinct and empirically independent of individual-level effects.

Although relatively neglected, ours is not the only research suggesting the importance of social context to prevention. A few other studies have demonstrated positive effects on ATOD use and other problem behaviors resulting from changes in school organization, practices, and climate,² and there is an emerging contextual perspective in theories of delinquency and crime. Indeed, although we much to learn about how contextual factors operate to influence

²For example, see: Comer, J. P. (1988). Educating poor minority children. *Scientific American*, **259**, 42-48.; Gottfredson, D.C. (1986). An empirical test of school-based environmental and individual interventions to reduce the risk of delinquent behavior. *Criminology*, **24**, 705-731.

development, it appears that contextual effects are quite common. Clearly, this is an area that should receive greater attention in future prevention research and programs.

In closing, I think that the future of prevention seems both promising and challenging. The good news is that we have made substantial strides in our understanding of the "causes" of ATOD abuse and other problem behaviors, and this increased knowledge has yielded an increase in the effectiveness of our prevention programs. The climate also seems supportive of school-based prevention in particular, given the widespread and still growing support among the public and policy makers for "character education" or "values education." At the same time, the budget cutting "mania" in Washington threatens greatly reduced support for both education and prevention in the future. It would be ironic, and tragic, if support for our efforts was eliminated after we have made so much progress, and as we stand poised on the brink of making even more substantial gains in knowledge and practice. If prevention is to survive, much less thrive, we must redouble our efforts to communicate what we have accomplished to policy makers and the public, and make the commitment to "continuous improvement" in our future programs and research.