

Chapter 2

Commentaries and Research Summaries

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Developmental Assets and Asset-Building Community

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Benson's commentary discusses the implications of functioning within a deficit-reduction model of prevention and asserts that we must shift our thinking to promoting the positive. One framework for this

approach is developmental assets, incorporating key learning from the fields of resiliency and youth development. Benson also discusses the role of schools and communities in building developmental assets in youth and lists specific steps for action.

Benson then summarizes two research articles that describe the measurement of forty developmental assets whose presence is protective against high-risk behavior patterns. Certain assets—such as positive peer influence, restraint, and school engagement—have particular power in deterring risky behavior—such as use of alcohol, tobacco, and other drugs, and violence, depression, and attempted suicide.

The research articles summarized are available from the Healthy Kids Resource Center (see the resource chapter for contact information).

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Promoting Positive Human Development: The Power of Schools

Commentary by Peter L. Benson, Ph.D.

The Dominant Paradigm

American citizens and their leaders are deeply committed to promoting the health and well-being of children and adolescents. There is, of course, much at stake. How well we do—collectively as a nation and within all of our communities—dramatically informs not only shorter-term outcomes like school success but longer-term outcomes that include parenting effectiveness, productivity in the world of work, and civic engagement.

Much of the energy and resources we now use to promote health and well-being is framed within a deficit-reduction model. This dominant paradigm focuses on naming, counting, and reducing the negative. The “negative” includes risks to healthy development (e.g., poverty, family dysfunction, unsafe schools and neighborhoods, negative peer pressure) and problem behaviors (e.g., teen pregnancy, substance use, school dropout, antisocial behavior, the violent resolution of conflict). This approach—“this way of thinking and conceptualizing”

—often dominates the way communities plan, organize, and implement youth-serving policy, program, and practice.

This way of thinking is deeply entrenched. It leads too often to a categorical approach to prevention that is supported and encouraged by federally funded streams of research and practice dedicated to reducing developmentally harmful acts and experiences. It is one important approach. But by itself, it is insufficient. In fact, one could argue that the domination of deficit-reduction thinking has unintended negative consequences. As thinking and action in our communities organizes around the reduction of complicated and seemingly intractable behavioral problems, we tend to fuel the assumption that change requires, more than anything, the expansion of professionals who have the requisite expertise to introduce programs designed to reduce negative behavior and/or build competencies and skills to inoculate youth against risk-taking choices.

The Other Side of the Coin

Beneath the headlines about youth violence, crime, pregnancy, and other problems is an even more important and urgent story: In towns and cities across America, the developmental infrastructure is crumbling.

Too few young people grow up experiencing key ingredients for healthy development. They do not experience consistent support from adults, build relationships across generations, or hear consistent messages about boundaries and values.

Most have too little to do that is positive and constructive. The failure to provide these core elements of human development helps to explain the proliferation of problem behaviors that galvanize national attention.

Thus, the challenge facing us is not only to attack deficits and risks head-on but also to shift our thinking to a new approach—one that addresses deeper causes and needs.

The real challenge is to rebuild the developmental infrastructure for our children and adolescents. Though professionals and the public sector have a role to play, much of the responsibility and capacity for the healthy development of youth is in the hands of the people.

In raising healthy and successful youth, then, deep attention must also be given to naming, counting, and promoting the positive. It is the other side of the coin. But what is the script for naming the core building blocks of human development which every child and adolescent needs? In brief, three models have emerged in the 1990s. They are resiliency, youth development, and developmental assets.

Resiliency is an area of research and practice grounded in factors, both environmental and psychological, which help children transcend adversity. **Youth development** names a set of developmental targets that are important in the second decade of life (e.g., connection, competence, and empowerment). This field places high energy in developing programs in schools and other settings to meet these developmental needs.

The framework of **developmental assets** incorporates key learnings from the fields of resiliency and youth development and extends the conceptualization of positive human development beyond those two

fields. The framework, developed by Search Institute in Minneapolis, is grounded in an expansive theory-based and research-based exploration of positive human development.

In order to rebuild the developmental infrastructure for America's children and adolescents, we need to think boldly and expansively. **Positive development in the first two decades of life is not a program or a curriculum.** There are no magic potions or quick fixes that steer lives toward success, productivity, and responsibility.

In the past several decades, a deep body of knowledge has emerged concerning elements of human experience that have long-term, positive consequences for young people. This work explores a wide range of topics, including family dynamics, support from other community adults, school effectiveness, positive peer influence, value development, and the learning of social skills. Too often, however, these areas of inquiry are disconnected from each other in both scholarship and practice, so that each by itself too easily is seen as a panacea. What has been missing in national discourse is a broad vision that names all of the core elements of healthy development and all of the community actors (family, neighborhood, school youth organizations, congregations, and so on) needed to promote these essential building blocks.

The framework of developmental assets embodies this kind of far-reaching vision. In establishing benchmarks for positive child and adolescent development, it weaves together a wide range of essential developmental building blocks requiring broad community engagement to ensure their acquisition. The developmental asset framework enables families, schools, neigh-

borhoods, congregations, employers, and youth organizations to unite around a common language and employ complementary strategies toward a shared goal: healthy children and adolescents.

Ultimately, the forty developmental assets name building blocks of development which, when present, predict healthy outcomes for all youth, regardless of key social demographics (e.g., gender, family income, race-ethnicity, town size, region). Further-

more, the assets reflect core developmental processes. Accordingly, they include the kinds of relationships, social experiences, social environments, patterns of interaction, norms, and competencies over which a community of people has considerable control. That is, the assets are more about the primary processes of socialization than the equally important arenas of economy, service, and the bricks and mortar of a city.

Asset-Building Community

Based on a five-year research effort to study the forty developmental assets in more than a thousand U.S. cities, Search Institute has developed a new stream of scientific and practical work to help mobilize the people and institutions of communities to unleash community action to build developmental assets. These cross-sector, communitywide initiatives are now under way in hundreds of American cities, from large urban centers like Seattle and Portland to suburbs and small towns. Local initiatives are grounded in a set of shared understandings with both strategic and motivational import. These include:

- The developmental assets begin to frame a territory of positive human development that benefits all children and adolescents.
- Middle school and high school students (nationally and in the community) typically experience less than half of these developmental assets.
- The developmental assets serve as important protective and thriving factors.

- The developmental assets need to be nurtured by the community at large, not just by families and schools.

Asset-building communities are places with a widely shared commitment to unleashing individual and system capacity. They are distinguished as relational and intergenerational places that emphasize support, empowerment, boundaries, opportunities, and a shared commitment to developing internal assets. Developmental assets become a language of the common good, and the commitment to engage citizens and systems pursuing this common good is visible, long-term, and inclusive.

Following are some of the images we should be able to observe in asset-building communities, as contrasted with communities not engaged in collective asset building:

- All residents build caring relationships with children and adolescents and express this caring through dialogue, listening, commending positive behavior, knowing their names, acknowledging their presence, involving them in decision making, and doing things with them.

- Neighborhoods develop intentional mechanisms to name, know, and engage children and adolescents in constructive ways.
- Families elevate asset development to top priority for their own children and their children's friends.
- Religious institutions mobilize their capacity for naturally occurring intergenerational relationships, parent education, value development, quality structured opportunities, and service to the community.
- Schools place priority on becoming caring environments for all students, provide additional opportunities for the nurture of values deemed crucial by the community, strengthen cocurricular activities, and use connection to parents to escalate parental involvement and reinforce the importance of family attention to assets.
- Youth organizations train leaders and volunteers in asset-building strategies

and provide a continuum of opportunities for healthy relationships with adults and peers.

- Businesses that employ teenagers address the assets of support, boundaries, commitment to learning, values, and social competencies. Employers develop family-friendly policies and provide mechanisms for employees to build relationships with youth.
- Through policy, training, and resource allocation, city government moves asset development to top priority.

Ultimately, rebuilding and strengthening the developmental infrastructure in a community is not a program run by professionals. **It is a movement of people and systems that arises from and continually recreates a communitywide sense of common purpose and creates a normative culture in which all members of the community are expected to promote the positive development of children and adolescents.**

Implications for Schools and Schooling

In thinking about the role of schools in building developmental assets, we begin with several assumptions:

- Schools have the capacity to promote most of the developmental assets.
- It is in the self-interest of schools to promote developmental assets. As assets become stronger, school achievement increases.
- Schools are necessary but are not the only actors required for raising asset-rich youth.
- Much asset-building energy is informal,

relational, and nonprogrammatic.

- All adults and students within schools have asset-building capacity.
- Nearly all students in a school, not just those who are underachieving or at risk, need more developmental assets.
- The power of schools to build assets is not just about the climate, vision, and daily life of classrooms and school buildings. Schools and their leaders have particularly strong catalytic power to help unleash a larger community movement.

The public schools of Minneapolis are pioneering a process to put all of the foregoing principles into action. The school board has adopted a district improvement agenda that includes “building assets in partnership with families, neighborhoods, and community.” The agenda will provide support systems, including training for school staffs, to help each school in the district develop and implement an asset-building vision and plan, with innovations to be shared at cross-school gatherings. As importantly, the school district is catalyzing a larger city movement. In the fall of 1998, the superintendent and the mayor of Minneapolis hosted an all-day conference for six hundred civic leaders designed to trigger partnerships among neighborhoods, families, congregations, employers, media, foundations, and governmental entities in promoting an asset-building city. As one observer noted, “I have never seen before in Minneapolis such a uniting of people and sectors—across race, income, and turf—to share a vision and take action.”

How does a prevention specialist begin this transformative work? In this brief introduction, let me suggest some ways to start.

- Affirm one’s own asset-building capacity. In particular, name and affirm what one already does to build assets.
- Teach the developmental asset framework wherever one can—to teachers, administrators, and other school staff (including bus drivers, coaches, nurses, and social workers). Encourage personal affirmation of what one already does and empower all to envision additional asset-building strategies. Let the paradigm bubble up. Much asset-building change can occur before anyone in authority pronounces this as an official way. In fact, making it “official” may get in the way.
- Provide occasions for school staff to share with each other how they build assets.
- Teach the paradigm to parents.
- Teach the paradigm to service organizations, employers, civic leaders, and religious institutions.
- Ask students to help you create a picture, a vision, and a set of images of what an asset-building school and an asset-building classroom look like. Capture these ideas and spread them.
- Empower students to be active in change.
- Empower students to “own” the assets in their own development.
- Empower students to recognize their asset-building power in the lives of their peers.
- Affirm asset-building where you see it.
- Incorporate asset-building into cocurricular activities.
- Be bold, noisy, and relentless in a spirit of uniting and unleashing.

Beyond the “Village” Rhetoric: Creating Healthy Communities for Children and Adolescents²

Summary by Peter L. Benson, Ph.D.

Importance

This article is a theoretical and conceptual presentation of the impact of community on the development of children and adolescents. It discusses two original frameworks useful for understanding this connection: developmental assets and asset-building community.

The first author originally developed the concept of developmental assets in 1989. This concept has evolved into a research-based taxonomy of forty “building blocks” of human development which promote child and adolescent health. The developmental assets are a synthesis of decades of research in child and adolescent psychology and the more applied literatures of prevention, protective factors, and resiliency. This research synthesis focused on integrating developmental experiences that are known to influence three types of health outcomes: (a) the prevention of high-risk behaviors (e.g., substance use, violence, sexual intercourse, school dropout); (b) the enhancement of thriving outcomes (e.g., school success, affirmation of diversity, a proactive approach to nutrition and exercise); and (c) resiliency, or the capacity to rebound in the face of adversity. In further defining the framework, developmental assets were chosen for which there is scientific evidence that they promote health across a wide range of

demographics, including gender, race, ethnicity, and family income.

The forty assets include the range of relationships, social experiences, social environments, competencies, and skills which help to inoculate youth from many kinds of health-compromising behaviors, including alcohol use, tobacco use, illicit drug use, violence, school dropout, attempted suicide, and sexual activity. In addition, many of these same so-called protective factors are also important for increasing positive outcomes, including the affirmation of diversity, the development of leadership skills, and school achievement. (The list of forty developmental assets appears at the end of this summary.)

The paradigm of asset-building community articulates the potential power of each of many sectors within a community to promote the forty developmental assets. These include families, neighborhoods, faith communities, employees, youth organizations, and schools. The article argues that assets are particularly promoted in the lives of children and adolescents when all of these sectors share responsibilities for asset development and when asset-building energy is redundantly experienced across many of these socializing systems.

²Benson, P.L., Leffert, N., Scales, P.C., and Blyth, D.A. (1998). Beyond the “village” rhetoric: Creating healthy communities for children and adolescents. *Applied Developmental Science*, 2 (3), 138-159.

Intent

The survey-based research discussed in this article documents two important findings: that American adolescents, ages twelve through eighteen, typically lack most of the

forty developmental assets and that increasing the number of assets among youth is a powerful strategy for preventing many kinds of high-risk behaviors.

Sample and Methods

A 156-item anonymous survey was administered in 213 locations across the country in the 1996-97 school year to 99,462 public

school students (grades six through twelve). The locations included urban, suburban, and rural communities.

Findings

On the average, **students in this large sample possess only 18.0 of the 40 assets.** As hypothesized, the more assets, the better. Students with 31 or more assets, for example, are 17 times less likely to exhibit a pattern of alcohol use than students with 10 or fewer assets. Percentages of students who “have used alcohol three or more times in the last month, or binge drank once or more in the last two weeks” are as follows:

If 0–10 assets	53%
If 11–20 assets	30%
If 21–30 assets	11%
If 31–40 assets	3%

Boys in this study average 16.5 assets while girls average 19.5. There is surprisingly little variability by town size in the average number of assets. Youth in small towns, for example, average about the same number as do youth in large cities like Seattle, Portland, and Minneapolis. The challenge faced in all cities is that **only about 8 percent of students in grades six through twelve experience 31 to 40 assets. Across the country 62 percent of students experience 20 or fewer.**

Limitations

To date, the studies that demonstrate the cumulative power of developmental assets are cross-sectional in nature. It is not clear yet to what degree community initiatives can improve the asset profile of youth or to what degree schools acting alone or in concert with other community sectors can increase developmental assets. Several longitudinal studies under way in Colorado and Minnesota are designed to inform these questions.

The student sample was not nationally representative, but overrepresents Caucasian youth from smaller cities and towns, whose parents have higher-than-average formal education. It is likely, therefore, that the data underestimate youths' risk behaviors, overestimate their assets, and understate the degree of concern we ought to have about the developmental infrastructure for most youth, particularly among the economically disadvantaged.

Implications for Schools

The issues for schools are as follows: (a) how to organize classrooms and buildings to promote the developmental assets and (b) how to build partnerships within community (e.g., families, neighborhoods, congregations, youth organizations) to unleash the asset-building capacity of many systems. Search Institute is in the process of developing resources to assist schools, across grades K–12, to mobilize and unleash the asset-building capacity of schools. Work is also under way to conceptualize how assets develop in age spans of 0–2, 3–5, and 6–10.

As communities across the country implement communitywide asset-building

movements (about four hundred were under way in early 1999), it is particularly important to understand that many sectors of a community have the capacity to build assets. These sectors include families, neighborhoods, employers, religious institutions, and youth organizations. Schools are a necessary but not a sufficient source of developmental assets. That is, schools matter but can't carry the responsibility alone. One of the primary accomplishments of many asset-building community initiatives is building a new kind of unity and shared vision across all the sectors of community life.

Search Institute's 40 Developmental Assets

Search Institute has identified the following building blocks of healthy development that help young people grow up healthy, caring, and responsible.

External Assets

Support

1. **Family support**—Family life provides high levels of love and support.
2. **Positive family communication**—Young person and her or his parent(s) communicate positively, and young person is willing to seek advice and counsel from parents.
3. **Other adult relationships**—Young person receives support from three or more nonparent adults.
4. **Caring neighborhood**—Young person experiences caring neighbors.
5. **Caring school climate**—School provides a caring, encouraging environment.
6. **Parent involvement in schooling**—Parent(s) are actively involved in helping young person succeed in school.

Empowerment

7. **Community values youth**—Young person perceives that adults in the community value youth.
8. **Youth as resources**—Young people are given useful roles in the community.
9. **Service to others**—Young person serves in the community one hour or more per week.

10. **Safety**—Young person feels safe at home, school, and in the neighborhood.

Boundaries and Expectations

11. **Family boundaries**—Family has clear rules and consequences and monitors the young person's whereabouts.
12. **School boundaries**—School provides clear rules and consequences.
13. **Neighborhood boundaries**—Neighbors take responsibility for monitoring young people's behavior.
14. **Adult role models**—Parent(s) and other adults model positive, responsible behavior.
15. **Positive peer influence**—Young person's best friends model responsible behavior.
16. **High expectations**—Both parent(s) and teachers encourage the young person to do well.

Constructive Use of Time

17. **Creative activities**—Young person spends three or more hours per week in lessons or practice in music, theater, or other arts.
18. **Youth programs**—Young person spends three or more hours per week in sports, clubs, or organizations at school and/or in the community.

19. **Religious community**—Young person spends one or more hours per week in activities in a religious institution.
20. **Time at home**—Young person is out with friends “with nothing special to do” two or fewer nights per week.

Internal Assets

Commitment to Learning

21. **Achievement motivation**—Young person is motivated to do well in school.
22. **School engagement**—Young person is actively engaged in learning.
23. **Homework**—Young person reports doing at least one hour of homework every school day.
24. **Bonding to school**—Young person cares about her or his school.
25. **Reading for pleasure**—Young person reads for pleasure three or more hours per week.

Positive Values

26. **Caring**—Young person places high value on helping other people.
27. **Equality and social justice**—Young person places high value on promoting equality and reducing hunger and poverty.
28. **Integrity**—Young person acts on convictions and stands up for her or his beliefs.
29. **Honesty**—Young person “tells the truth even when it is not easy.”
30. **Responsibility**—Young person accepts and takes personal responsibility.

31. **Restraint**—Young person believes it is important not to be sexually active or to use alcohol or other drugs.

Social Competencies

32. **Planning and decision making**—Young person knows how to plan ahead and make choices.
33. **Interpersonal competence**—Young person has empathy, sensitivity, and friendship skills.
34. **Cultural competence**—Young person has knowledge of and comfort with people of different cultural/racial/ethnic backgrounds.
35. **Resistance skills**—Young person can resist negative peer pressure and dangerous situations.
36. **Peaceful conflict resolution**—Young person seeks to resolve conflict non-violently.

Positive Identity

37. **Personal power**—Young person feels he or she has control over “things that happen to me.”
38. **Self-esteem**—Young person reports having a high self-esteem.
39. **Sense of purpose**—Young person reports that “my life has a purpose.”
40. **Positive view of personal future**—Young person is optimistic about her or his personal future.

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Developmental Assets: Measurement and Prediction of Risk Behaviors Among Adolescents³

Summary by Peter L. Benson, Ph.D.

Importance

This article describes, in depth, the development, measurement, and importance of forty developmental assets. These assets, individually and in combination, serve as a comprehensive framework for defining the breadth of protective factors. These forty developmental assets are strongly related to important outcomes. As assets rise in number, decreases occur in many high-risk behavior patterns, including alcohol use, tobacco use, violence, and antisocial behavior. And as assets rise in number, many indicators of thriving also rise, including school grades and school attendance. Hence, in a variety of ways, it is in the self-interest of schools to be deeply attentive to

promoting these elements of developmental strength.

The forty assets are divided into eight categories: support, empowerment, boundaries and expectations, constructive time use, commitment to learning, positive values, social competencies, and positive identity. This article defines all of the assets and each of these categories. A review of the full taxonomy suggests that schools can theoretically enhance about thirty-five of the assets via adult-student relationships, classroom dynamics, cocurricular activities, school climate, parent education, and community partnerships.

Intent

This article describes the relationship of the forty developmental assets to ten forms of high-risk behavior and pinpoints specific

assets that are particularly powerful for shaping youth outcomes.

Sample and Method

A 156-item anonymous survey was administered in 213 locations across the country in the 1996-97 school year to 99,462 public

school students (grades six through twelve). The locations included urban, suburban, and rural communities.

³Leffert, N., Benson, P.L., Scales, P.C., Sharma, A.R., Drake, D.R., and Blyth, D.A. (1998). Developmental assets: Measurement and prediction of risk behaviors among adolescents. *Applied Developmental Science*, 2 (4), 209-230.

Findings

Table 2 shows that **increases in the number of developmental assets are related to decreases in many forms of high-risk behavior**. Specifically, the table shows that the percentage of youth engaged in patterns of high-risk behavior decreases with each stepwise increase in the number of assets they possess (0–10, 11–20, 21–30, 31–40).

The relationship of assets to high-risk behavior holds even after gender, age, race, ethnicity, family composition, and level of maternal education are controlled for.

Though the assets are cumulative (i.e., the more, the better), **some assets appear to**

have particular power in deterring high-risk behavior. For alcohol, tobacco, and other drugs, the assets of positive peer influence and restraint are the most important protective factors. For violence and antisocial behavior, the most powerful protective factors are positive peer influence, restraint, and school engagement. For depression and attempted suicide, sense of purpose and self-esteem rise to the top. And for protecting against school problems, the strongest factors are achievement motivation, positive peer influence, and school engagement.

Limitations

Though the relationship between the number of assets and student health behaviors has been replicated in hundreds of community studies, more work is needed to document how well survey items and scales actually measure each of the forty developmental assets. New studies are under way to deepen knowledge about the

reliability and validity of the measures. Currently, the developmental asset survey is used only for large sample studies. **It has not yet been demonstrated how well this measurement tool captures the assets of an individual student**. New work is under way to plan the development of an individual-level measurement tool.

Implications for Schools

The findings presented here contribute to the increasing body of evidence that core elements of community life—the engagement and participation of multiple community forces, persons, organizations, and sectors—serve as important protective factors across multiple domains of child and adolescent health. These findings are pervasive, engaging us to think more broadly

about the cumulative effects or “pile up” of positive developmental features in lives of children and adolescents. The challenge (and opportunity) for schools is to discern their role in asset building. Particular, but not exclusive, emphasis should be given to mobilizing positive peer influence, the value of restraint, and school engagement.

Table 2

Percentages of Students Exhibiting High-Risk Behaviors, by Number of Assets They Possess

High-Risk Behavior Patterns		% with High-Risk Patterns			
Category	Definition	0–10 Assets	11–20 Assets	21–30 Assets	31–40 Assets
Alcohol	Used alcohol three or more times in the past month or got drunk once or more often in the past two weeks.	53	30	11	3
Tobacco	Smokes one or more cigarettes every day or uses chewing tobacco frequently.	45	21	6	1
Illicit Drugs	Used illicit drugs three or more times in the past year.	42	19	6	1
Sexual Intercourse	Has had sexual intercourse three or more times in lifetime.	33	21	10	3
Depression-Suicide	Is frequently depressed and/or has attempted suicide.	40	25	13	4
Antisocial Behavior	Has been involved in three or more incidents of shoplifting, trouble with police, or vandalism in the past year.	52	23	7	1
Violence	Has engaged in three or more acts of fighting, hitting, injuring a person, carrying or using a weapon, or threatening physical harm in the past year.	61	35	16	6
School Problems	Has skipped school two or more days in the past month and/or has below a C average.	43	19	7	2
Driving and Alcohol	Has driven after drinking or ridden with a drinking driver three or more times in the past year.	42	24	10	4
Gambling	Has gambled three or more times in the past year.	34	23	13	6

Protective Factors: Connections That Count

Researcher: Michael D. Resnick, Ph.D.

Michael D. Resnick is director of the National Teen Pregnancy Prevention Research Center, and professor and director of research in the Division of Pediatrics and Adolescent Health at the University of Minnesota, Minneapolis. He is a member of the research team for Add Health (the National Longitudinal Study on Adolescent Health), specializing in risk and protective factors relative to adolescent health and risk behavior. His general research interests include adolescent health, risk behaviors, resiliency and protective factors in the lives of youth, and translation of research into programs, policies, and practices.⁴

Resnick's commentary traces one of the roots of positive youth development to a 1973 paper written by Gisela Konopka on the fundamental requirements for healthy adolescent development. He explains that promoting protective factors for healthy

development, in addition to reducing young people's risks, offers a different view of prevention. The role of adults becomes one of fostering a sense of connection rather than providing services to adolescents.

Resnick's research summaries focus on the impact of several protective factors on the health and risky behaviors of adolescents. These factors are adolescents' perception of being cared for and connected to others. Data from two studies showed that feelings of connection with family and school protected youth from engaging in a variety of risky behaviors.

The research articles that are summarized are available from the Healthy Kids Resource Center (see the resource chapter for contact information).

⁴For more information, contact Michael Resnick at Division of General Pediatrics and Adolescent Health, D373 Mayo Memorial Building, 420 Delaware Street, S.E., Minneapolis, MN 55455-0381. resni001@tc.umn.edu

Resiliency, Protective Factors, and Connections That Count in the Lives of Adolescents

Commentary by Michael D. Resnick, Ph.D.

At times we “rediscover” ideas that were once accepted widely as valid. Across an array of professionals working with and on behalf of adolescents, whether in education, social services, health care, or juvenile justice, there is increasing attraction to the idea that young people have certain fundamental, underlying needs for healthy development. When these needs are met, it is assumed, these adolescents are more likely to develop as caring, compassionate, effective individuals with sparkle and zest for life. What are these needs of youth that must be met?

In his book, *Western Civilization in Biological Perspective*, Stephen Boyden, professor of human ecology at the Australian National University, describes the universal, underlying psychosocial needs of human beings that are conducive to health and happiness. He uses as evidence everything that had been learned about hunter-gatherer societies, the social form in which we, as *Homo sapiens*, have spent most of our time in evolutionary history. He suggests that this enumeration of needs for healthy development provides clues to the universal health needs of the human species. These universal health needs include an environment and lifestyle that provide a sense of personal involvement, belonging, responsibility, a sense of challenge, satisfaction, comradeship and love, pleasure, confidence, and security (Boyden 1987; Eckersley 1993).

What a different world it would be if our environments and lifestyles were typically characterized by these elements. What is clear to a growing number of observers is that postmodern life no longer offers these qualities (Eckersley 1993). Those persons who focus on building protective factors in the lives of young people assume that when these elements exist, or are transplanted into the lives of youth who have not had such experiences, the result will be greater health, happiness, and less destructiveness toward self and others.

Boyden’s list of needs for human growth and development may not speak to adolescence as a unique developmental period in the human experience. For that, consider the work of Gisela Konopka, who was asked more than a quarter century ago to write a paper articulating the fundamental requirements for healthy adolescent development by the Department of Health, Education and Welfare (Konopka 1973). Against a backdrop of social unrest, anti-war protests, civil rights activism, and pervasive expressions of youth culture when the media had elicited antiyouth sentiment among many adults, Konopka identified eight fundamental requirements for healthy adolescent development:

- Participating as citizens, as members of a household, as workers, as responsible members of society
- Gaining experience in decision making

- Interacting with peers, and acquiring a sense of belonging
- Reflecting on self, in relation to others, and discovering self by looking outward as well as inward
- Discussing conflicting values and formulating one's own value system
- Experimenting with one's own identity, with relationships to other people, with ideas; trying out various roles without having to commit oneself irrevocably
- Developing a feeling of accountability in the context of a relationship among equals
- Cultivating a capacity to enjoy life

At age 89, Konopka added the following to her list: participating in the creative arts, learning self-expression, and communicating deep feelings from within (Konopka 1998).

So what is the common, underlying philosophy embedded in this view? The assumption is that young people are resources to be treasured and developed, not problems to be solved (McLaughlin and others 1994). A focus on the promotion of protective factors in addition to risk reduction in young people signals a commitment to developing capacities and competencies for which the involvement of caring, compassionate adults is essential. This is a very different view from only providing services to adolescents. The role of adults here is to foster a close sense of connection, and to help open doors of possibility (Blum 1998).

And what if we are working with decision-makers who do not view as appealing the idea of promoting resiliency and healthy youth development? What about the skeptics who are not swayed by enthusiastic

descriptions of promoting a competent citizenry of youth? What do we say to those who truly believe that the world is filled with the same challenges and temptations that they faced when they were teens, and that if young people don't turn out right, it is because they're fundamentally bad kids who need to live with highly punitive consequences?

Martha Burt of the Urban Institute challenges us with a provocative and troubling question that provides material for a persuasive response: What will the consequences be if we do not make investments in resiliency and healthy youth development? There is a compelling language and logic here, because the concept of costs and benefits is widely demanded by legislators, funders, and other constituents. According to the Carnegie Council on Adolescent Development, when we look specifically at the utility of promoting school competency and achievement as a protective factor among young people, we find that:

- Each year's class of high school dropouts, over the course of their lifetime, will cost the nation \$260 billion in lost earnings and foregone taxes.
- Over a lifetime, the average high school dropout will earn \$230,000 less than a high school graduate, and contribute \$70,000 less in taxes.
- Each additional year of secondary education reduces the probability of public welfare dependency in adulthood by 35 percent, with associated reductions in public costs (Carnegie 1983; Burt 1998).

Citing Cohen's work at the Urban Institute, Burt goes on to note the social costs associated with a typical career criminal. For the victim, those costs include lost produc-

tivity, medical expenses, intangible costs like pain and suffering, reduced quality of life, and probability of premature death. Criminal justice costs include police, investigative, court, and imprisonment costs. Foregone earnings of the youth while incarcerated are also part of the social costs.

Looking at the mix of crimes that might be expected of a career criminal, the estimated monetary value of saving one high-risk youth is \$1.5 to \$2.0 million. As Burt emphasizes, even if the underlying economic assumptions inflate the estimate by a factor of 10, these savings still justify considerable investment in high-risk youth in the direction of building resiliency and promoting healthy development (Burt 1998).

A few concluding thoughts: Our real goal—whether in education, health, social services, youth work, or a related area of endeavor—is achieving a concept borrowed from statistics: the metaphor of goodness of fit. We seek to maximize the fit between the needs of young people for healthy development, and the opportunities, events, life experiences, and services we provide to them that are designed to build resiliency, competence, and confidence. We want, ultimately, as Konopka has insisted, to help young people develop the capacity to enjoy life (Konopka 1973).

We approach our efforts with a well-understood caveat. There are times when those working with and on behalf of adolescents also need to have their hope and sense of possibilities renewed. Sometimes, that kind of reinvigoration can occur through a powerful image or anecdote. The following parable is adapted from the writings of Nobel Laureate Elie Wiesel, who teaches that whatever the question or problem is,

there is always something we can do, some improvement at hand we can bring to bear:

Once upon a time there was an emperor, and the emperor heard of a very wise woman. The wise woman was known for her powers. She knew how to listen to the wind and interpret its melody as it rippled upon the waters. She could hear the symphony of the stars. She understood the language of the birds. She knew everything. So the emperor commanded she be summoned to the palace. The emperor said to her:

“Is it true you understand the language of the birds?”

“I think so.”

“Is it true you know how to read the traces the wind leaves?”

“I think so.”

“Is it true you know the symphony of the stars?”

“I think so.”

“In that case,” said the emperor, “I also heard that you know how to read someone else’s mind. Can you read my mind?”

“I think so.”

“In that case,” said the emperor, “I have in my hands behind my back, a bird. Tell me: is it living, or is it dead?”

The wise woman was afraid. Maybe the bird was still living, and then the emperor—in order to prove a point—would kill the bird. So she waited for a very long moment, and then smiled, looked straight into the eyes of the emperor and said,

“Majesty, the answer is in your hands.”

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The Impact of Caring and Connectedness on Adolescent Health and Well-Being⁵

Summary by Michael D. Resnick, Ph.D.

Importance

This article explicitly put to the test an assumption that has been growing among a wide variety of educators, practitioners, advocates, and others working with and on behalf of young people: that the involvement of caring, competent adults in the lives of youth can protect them from involvement in a variety of health-risking behaviors. Importantly, the protective

factors utilized in this study are, for the most part, amenable to intervention, meaning that schools, community-based organizations, families, and others can take actions with likely positive consequences for youth in general, and young people at high risk, in particular.

Intent

The intent of this study is to empirically investigate the impact of several risk and protective factors on the health and risky behaviors of adolescents. The health-risking behaviors of interest here comprise the sources of most morbidity and mortality affecting adolescents. They are analyzed as clusters of risky behaviors, since previous studies have consistently demonstrated that adolescents involved in one type of health-jeopardizing behavior are likely to

be involved in other behaviors as well. The analysis sought to clarify the relative importance of such protective factors as feeling close to and connectedness with family, parents, and school in comparison to other factors widely used by both professionals and the general public to explain adolescent risky behaviors. Examples of these other factors are single-parent family composition and lower socioeconomic status.

Sample and Method

Utilizing data from the Minnesota Adolescent Health Survey conducted in 1988, the investigators analyzed self-reported questionnaire data from a sample of over 36,000 girls and boys in public schools, grades seven through twelve.

Statistical techniques were utilized to identify the relative importance of variables in explaining behaviors, which were attributed to one or both of two clusters of risky behaviors: the **quietly disturbed behaviors**, and the **acting out behaviors**. Quietly disturbed behaviors included: poor

⁵Resnick, M.D., Harris, L.J., Blum, R.W. (1993). The impact of caring and connectedness on adolescent health and well-being. *Journal of Paediatrics and Child Health*, 29, suppl 1:s3-s9.

body image; disordered eating, including bingeing, deliberate vomiting as a strategy for weight loss, chronic dieting, and fear of loss of control of eating; emotional distress; and suicidal involvement. Acting out behaviors included: multiple drug use; school absenteeism; risk of unintentional injury (e.g., drinking and driving, not

wearing seatbelts, use of motorcycles or all-terrain vehicles without a helmet, riding in the back of an open pickup truck); pregnancy risk (becoming pregnant or causing a pregnancy); and delinquent involvement (antisocial behaviors such as physical fighting, vandalism, and theft). Results were reported for each of the two behavior clusters, separately analyzed by gender.

Findings

As hypothesized, **measures of caring and connectedness were more robust than other measures in their capacity to protect against involvement in both the quietly disturbed and acting out behaviors.** For girls, the rank order importance of protective factors for quietly disturbed behaviors included: family connectedness; school connectedness; low levels of family stress measured in terms of domestic violence, parental substance abuse, poverty, and unemployment; religious/spiritual connectedness; and younger age (i.e., junior high school vs. high school). Protective factors for boys in this domain included: family connectedness, school connectedness, and low family stress.

Protective factors for the acting out behaviors for girls included: school connectedness, young age, family connectedness, religious/spiritual connectedness, low family stress, and two-parent family. For the boys, protection came from school connectedness, family connectedness, religious/spiritual connectedness, younger age, low family stress, and two-parent family. **Across both clusters of behaviors, for both girls and boys, measures of closeness to and connectedness with family and school were the most salient, cross-cutting protective factors evident.** Family stress levels and an adolescent's sense of spirituality were also salient buffers against involvement in health-jeopardizing behaviors.

Limitations

This analysis is limited to one statewide survey in one region of the country. It utilized in-school youth only, clearly excluding dropouts and adolescents characterized by chronic absenteeism. Both school attendance behaviors are markers for high-risk status for all of the outcomes analyzed in

this study. The data, though a decade old, provided the foundation upon which subsequent analyses using a nationally representative sample of in-school youth were conducted.

Implications for Schools

The results highlight two key messages: (1) risk behaviors of adolescents occur in clusters and should not be addressed singly, in isolation from each other; (2) recurring, robust, cross-cutting protective factors apparently apply across those behaviors. The protective factors have the potential to promote the health and well-being of adolescents, using interventions that emanate from school, community, youth-serving

religious institutions, and certainly from the family, however it is defined or constituted for the adolescent.

For schools, the protective factor most amenable to action is increasing young people's sense of connection to school, enabling students to perceive school personnel as caring about them and to like being in school.

Protecting Adolescents from Harm⁶

Summary by Michael D. Resnick, Ph.D.

Importance

Building on previous analyses of risk and protective factors in the lives of youth, this article utilized the largest, most comprehensive longitudinal study of adolescent health, risk behavior, resiliency, and protective factors ever undertaken with a nationally representative sample of adolescents in the United States. Rather than providing yet another “report card” on the problems of youth, the analysis focused specifically on factors associated with increased or diminished likelihood of involvement by

young people in eight areas of risk, including emotional distress; suicidality; interpersonal violence perpetration; substance use, including cigarette, alcohol, or marijuana use; age of first sexual intercourse; and history of pregnancy. The analyses examined risk and protective factors at the family, school, and individual levels to identify key factors within each of those domains that might be used to protect young people from harm.

Intent

By congressional mandate, the National Longitudinal Study of Adolescent Health (Add Health) was developed to understand the determinants of adolescent health and risk behavior. The study team sought, in this first paper, to highlight risk and protective factors related to the major sources of adolescent health risk in a nationally representative sample of youth in seventh

through twelfth grades. By controlling for the effects of gender, race and ethnicity, poverty, and family composition, the study team could identify cross-cutting factors to use for health promotion and protection across a variety of populations of youth, protecting them against multiple health-jeopardizing behaviors.

Sample and Method

The Add Health study began with a representative sample of 80 high schools and 54 associated feeder schools across the United States. These included public, private, parochial, magnet, and alternative schools at junior and senior high school levels. Approximately 90,000 students responded

to a brief, self-administered questionnaire. School administrators also completed a self-administered questionnaire on school policies and characteristics. From the student sample and from school rosters, the core sample of approximately 20,000 youth was selected. Computer-assisted surveys

⁶Resnick, M.D., Bearman, P.S., Blum, R.W., Bauman, K.E., Harris, K.M., Jones, J., Tabor, J., Beuhring, T., Sieving, R.E., Shew, M., Ireland, M., Bearinger, L.H., and Udry, J. R. (1997). Protecting adolescents from harm: Findings from the National Longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278: 823-832.

were completed at Time 1 and at a one-year follow-up in the students' homes. A parent of each adolescent interviewed at home was also invited to complete a half-hour interview. Taken together, these datasets provided detailed information on the individual adolescent, her or his school, family,

Findings

While significant risk and protective factors varied for each of the behaviors studied, there were consistent, recurring results that underscored which risk and protective factors were most critical to understanding and ultimately preventing health-jeopardizing behaviors among youth. **A key protective variable in the family domain was parent-family connectedness**, measured as perceived closeness to mother and/or father, perceived caring by mother and/or father, satisfaction with parent relationships, and feeling loved and wanted by family members. Other salient family factors were shared parent-adolescent activities, parental presence in the home during any of four times (when the adolescent got up in the morning, coming home from school, during the evening meal, and when going to bed), and parental expectations for the adolescent's school completion.

While a variety of school-level variables were assessed, **the only school factor to show consistent protective effects was**

and community contexts. After developing valid, reliable, robust measures for each of the key risk and protective factors and health behaviors, statistical models were developed to identify key risk and protective factors for the risk behaviors of interest.

school connectedness, measured in terms of whether the adolescent perceived teachers to care, to be fair, and whether the teen felt a sense of belonging at school. **School connectedness was far more important a variable than any school characteristic** such as size, type of school, or specific school policies or programs.

The personal importance placed on religion and prayer was a key, recurring individual-level protective factor.

Salient family-level risk factors included easy access to alcohol, drugs, and firearms within the home; and family suicide attempt or completion. No other school-level variables showed consistent relationships across health risk behaviors.

Individual risk factors of note were: perceived risk of untimely death, paid work during the school year for 20 or more hours per week, appearing older or younger than most peers, repeating a grade as well as low grade point average, and same-sex attraction or behaviors.

Limitations

This analysis included only the initial cross-sectional dataset. Our current analyses with the one-year longitudinal data will considerably advance our understanding of risk and protective factors and how they work over time. By focusing on an initial

sample of in-school youth, the sample excludes school dropouts, although the one-year follow-up does permit analysis of students who dropped out between Time 1 and Time 2.

Implications for Schools

For an audience of educators, the initial findings underscore the important role of school connectedness as an arena of health promotion and protection for young peo-

ple, who gain that sense from perceptions that can be affected by teachers and other school personnel.

The Importance of Schools in Promoting Internal and External Protective Factors

Researcher: J. Fred Springer, Ph.D.

J. Fred Springer is director of research at EMT Associates, Inc. In this position he manages major research projects; designs and reviews research methods, instrumentation, and analysis for all EMT studies; and presents EMT research products and results in a variety of settings. Springer is also a professor at the University of Missouri-St. Louis where he teaches in the public policy doctoral program and public policy administration master's program, and serves as a fellow in the Public Policy Research Centers. He also acts as project director for the Center for Substance Abuse Prevention (CSAP) National Cross-site Evaluation Study of High Risk Youth Programs, a five-year project that tracks approximately ten thousand youth at fifty program sites nationwide.⁷

The first part of Springer's commentary is a primer on how to review prevention research and apply it. He points out that the research and practice perspectives "provide two distinct kinds of knowledge that must be synthesized"; a scientifically

validated prevention strategy will only be effective if it is appropriate to a given school or community. The second part of Springer's commentary describes the change that has occurred in the prevention field, moving from problems that need to be reduced to personal and environmental attributes that should be promoted. In this section, he comments on several of the research studies that are reviewed in this update.

The two research articles selected and reviewed by Springer confirm the importance of schools as the central forum for the formation of internal and external protective factors in youth. They also recognize that creating change in the school environment is much more difficult than adopting new prevention curricula in the classroom.

The research articles that are summarized are available from the Healthy Kids Resource Center (see the resource chapter for contact information).

⁷ For more information, contact J. Fred Springer at EMT Associates, Inc., 408 North Euclid Avenue, Second Floor, St. Louis, MO 63108. Fred@emt.org

Beyond the Magic Bullet: How We Can Achieve Science-Based Prevention

Commentary by J. Fred Springer, Ph.D.

Teachers, counselors, and other youth workers understand implicitly that there is no “magic bullet” in their efforts to promote positive development in youth. Every child is different, the world is a dynamic place in which crises arise and diversions occur, and the reaction of an individual child to any one intervention is relatively uncertain. Youth workers have their own personalities, preferences, and perspectives. They “click” with some youth and do not with others. Both practitioner knowledge and research findings support the importance of the skill and perceptiveness of the adult helper if prevention interventions are to work. **No single curriculum or scientifically validated prevention strategy will replace the skill and judgment of program designers and deliverers in constructing programs that make sense in their schools and communities.**

Such evidence about working with youth sometimes seems to conflict with the call for more “science-based” approaches to prevention activities intended to protect our young people from substance abuse, violence, school failure, early pregnancy, and similar negative behaviors and problems. Exhortations for science-based pre-

vention may be seen to imply that research produces “findings” that are superior to the accumulated knowledge and experience of youth workers. Prevention workers are naturally skeptical about these perceived claims when they read a research report or evaluation study, seeing the reasons that this particular theory or that particular program may not apply to their school or their kids and the important perspectives and circumstances that the research could not encompass in a single study.

The purpose of this commentary is to offer a perspective on science-based prevention that does not draw strict boundaries or hierarchical relations between prevention research and practice. **This perspective recognizes that science-based practice requires that youth workers know how to look for relevant material in research findings, and then know how to apply that material to the specific circumstances of their practice.** To develop and apply this perspective, I present several important themes concerning the relationship of science and applicable knowledge, reference examples of those themes, and summarize conclusions and implications for schools as forums for effective prevention activities.

Science and Applicable Knowledge

The prevention field, as other professional fields, has increasingly turned to program evaluation as a form of applied research that will identify effective practice. Similarly, funding organizations have increasingly sought to fund “proven” programs, with the major criterion for “proof” being positive evaluation results. The emergence of program evaluation as a major vehicle for promoting science-based practice has brought positive developments, but it has also provided unintended support for the idea that practitioners should look to science for a “magic bullet” approach to prevention.

Program evaluation, particularly in its more rigorous forms, focuses on whether a whole program achieves its outcome objectives. The frequently drawn inference is that the purpose of evaluation is to identify programs that “work,” and that these proven programs will constitute the “magic bullets” that practitioners can use, if they implement them with sufficient fidelity (i.e., as proven). Although program evaluation is an important contributor to science-based practice, the notion that a study can approve specific programs because they “work” disagrees with the traditional use of scientific knowledge, which is to **provide basic, reasonably generalizable understanding of complex problems so that practitioners (e.g., engineers) can design effective solutions (e.g., prevention programs), given their specific purposes and particular environment.** Thus, research-based prevention will use the general understanding of positive youth development and how to encourage it to inform the development of prevention activities in specific schools and communities. The following discussion identifies

important perspectives on the effective use of research reports and findings to build research-based prevention programs.

The Importance of Replication. One of the reasons that the impact of research on practice is not more evident is because the translation from a single study with concrete findings to actual programs and practices in the work place is not, and cannot be, simple and direct. Program evaluations, for instance, are field studies that most frequently address single programs in single locations. Specific findings about a program serving one group of children, implemented by one set of youth workers, in one community may not apply when any of these circumstances change. Thus, the one-on-one transfer of practice from a research site to actual practice in other settings is not a realistic expectation; there is no such thing as a “crucial experiment” in the social sciences.

Researchers know that because of social diversity, single studies do not provide knowledge sufficient to guide action. Some studies are more applicable to one practitioner’s particular situation than to others, but no one study provides information that applies to all situations. **Multiple studies finding complementary results in multiple settings are necessary to produce findings of general value.** Researchers call this principle “replication.” For practitioners, it means that patterns of findings over multiple studies command more attention than striking findings based on one study alone. Indeed, presenting summaries of multiple studies is one of the strengths in the approach to research utilization in *Getting Results*.

The Importance of “Big” Ideas. One of the first statements I make to beginning students in my seminars on policy research is “You won’t believe how simple-minded you have to be to conduct rigorous social research.” Doing research on the complex and dynamic social world requires simplifying assumptions—the simple definition of variables so they can be measured, the development of simple models so they can be tested, the development of simple theories so they can be understood. This simplification of the world is necessary to the researcher, but it does not easily translate into guides to action for the practitioner who must live in the dynamic complexity of reality. Practitioners must look for the “big ideas” that lie behind specific studies and provide a bridge to their application.

The Importance of Mission. One guide to fashioning concepts that are useful in a particular setting is a clear understanding of the organizational, programmatic, or personal mission that underlies the action that is being taken. Research may inform, but cannot dictate, the fundamental characteristics of mission that provide the rationale and the motivational appeal for action. As an example, this publication and other current work in the field of prevention are intended to re-orient our thinking from a risk- or deficit-based framework, to a protection- or asset-based approach. Although existing research can provide important information that is interpretable within either approach, the action implications are very different.

The asset-based approach focuses on positive youth development and building individual assets that will help youth attain a broad range of healthy outcomes

for themselves and society, while the deficit orientation focuses attention on eradicating negative attributes of experience and individual attitude and behavior. Deficit thinking leads more naturally to punitive approaches, while asset thinking links more naturally to support and development. Clear articulation and understanding of mission provides an important basis for shaping the big ideas that help us interpret specific research findings and utilize them to inform action.

The Importance of Context. Scientists value findings that can be generalized, while practitioners must apply science-based knowledge in specific settings that serve specific target populations. To be most useful in informing practice, research results must report the important characteristics of the context in which findings are developed. Practitioners correspondingly use their own knowledge of their environment to select, modify, and otherwise interpret the implications of findings for their setting.

The Importance of Applicability. The research community tends to emphasize the application of rigorous criteria of research design and analysis to determine the quality of findings, while practitioners must be more concerned with the applicability of implications of findings in their work environment and on the consistency of findings with current knowledge and practice in the field. Researchers tend to ask questions like “Is there true random assignment?” while practitioners must ask “Do the findings make sense within what we know about helping young people, and can they guide practice in the setting in which I work?”

Summary. In summary, the preceding discussion emphasizes that research and practical experience provide two distinct kinds of knowledge that must be synthesized in research-based prevention. Research can produce scientifically valid findings and interpretations that support the development of patterns of understanding useful to practitioners. These patterns must be based on multiple-site findings, whether in a single project or research program or across separate studies. Findings must be accompanied by sufficient contextual and process detail to allow practitioners to understand the strengths and limits of application to their specific environment.

On the practitioners' side, the challenge is to identify those aspects of the research that apply to their situation and to develop action steps to implement them. For example, classroom teachers interested in promoting school bonding must assess what actions might be attainable at the district, building, and classroom levels. In an unsupportive district or building environment, teachers may have to focus on those aspects of research findings that apply directly to their classroom conduct. Effective science-based prevention requires that practitioners have commitment and creativity, as well as a relevant research base.

Science-Based Prevention: Emerging Lessons

Getting Results provides a resource for the advancement of science-based prevention. It provides summaries of scientifically-credible studies that have been selected by experts as articles every school-based prevention worker should recognize. The volume is widely disseminated among school personnel as a compendium of research information from which patterns of findings relevant to different environments can be discerned. The remainder of this essay uses findings from research articles from this update of *Getting Results* to provide substantive examples of the kinds of contribution that research-based results can make to understanding prevention and providing a basis for action. We have learned a lot in the field of prevention, and the articles reviewed here support big ideas that provide relevant and science-based implications for schools as forums for prevention. These excellent pieces of research crystallize themes that are found throughout the

prevention literature.

Positive Youth Development. For years the field of prevention has been preoccupied with the concept of risk, those environmental and personal deficits in the lives of youth that increase the probability of bad personal and social behaviors and outcomes. Research focuses on the deficit end of the deficit-to-asset continuum. By focusing on assets, resiliency, or protective factors, prevention research turns to identifying environmental and personal attributes that should be promoted in youth, rather than those that should be reduced.

The implications for action of this reorientation are profound.

- The motivation and enthusiasm of youth workers is stimulated much more effectively by focusing on what is good in youth rather than on what is bad. This perspective fosters optimism, a favorable attitude for anyone under-

taking a difficult task.

- The asset orientation is more closely tied to action because many of the risk factors identified in the literature are beyond the control of youth workers in a particular setting. Risk factors embedded in the larger society leave school personnel frustrated in their inability to change things. The articles in this volume demonstrate that the protective factor orientation allows school and other youth helpers to identify those assets they can support in youth.
- The positive orientation in the assets perspective focuses on creating opportunity and fostering positive behavior rather than on punitive efforts to prohibit negative behavior. Work by Battistich et al. and others provides evidence of the desirability of creating a positive environment rather than relying on extrinsic control, which research has consistently shown to be ineffective in altering long-term behavior.
- The focus on assets, protective factors, and resiliency constitutes a change in the prevention mission. It brings a more positive and action-oriented set of criteria for identifying the contributions of research to action.

This reorientation is completely consistent with my own favorite definition of the prevention mission—**to create and support capability and opportunity for positive behavior and development**. This mission provides both an agenda for prevention research and a focus for prevention practice that reflects the scientific findings reviewed above.

Cumulative Effects. The interconnectedness of assets or protective factors is a clear theme in prevention research. The work of

Benson, Resnick, and others clearly demonstrates that these positive attributes are interconnected in the lives of youth, and that the overall number of assets is more important for positive behaviors and outcomes than the presence of any single or few critical factors. This fundamental idea also has important implications for action.

One implication is the realization that effective prevention for all youth cannot be realized only in the family, or only in the community, or indeed only in the schools. **To fashion the strongest fabric of protection for all youth requires collaboration and consistency in various aspects of the youth environment. Schools must do their best because they are a critical environment for youth, but they cannot carry the burden alone.** They must reach out to collaborate with families and other social institutions.

A second and more controversial point is that deficits—risks or problem behaviors are also interconnected. Specific problem behaviors (e.g., substance use) are sometimes defined as the products of risk and other times defined as risks for other behaviors (e.g., school dropout, violence). Like assets, deficits form a syndrome of behaviors within which it is difficult and unnecessary to define explicit causal sequences. Similarly, bad outcomes for youth and society are related to the severity and number of these outcomes that a child manifests.

Seeking to completely eliminate a particular behavior (e.g., zero tolerance policies) represents potential misdirection of effort in trying to eradicate levels and examples that are not related to the accumulation of problem behaviors that undermine a child's future and produce real social harm. Effective prevention must focus on the goal

of promoting the positive behaviors that replace the accumulation of behavioral problems, and recognize that some “deficit” behavior is normative for young people, particularly adolescents.

The Importance of Connections. Another pattern of findings across the articles in this update provides insight into the ways that protective factors work in the lives of all young people. Underlying many of these factors is the importance of connections between youth and their social milieu. Family bonding, school bonding, associations with positive peers, a sense that school is a fair and caring place where they belong—all of these factors reflect the underlying importance of connectedness to the social environment. My own current work with the National Cross-site Evaluation of High Risk Youth Programs clearly reinforces the importance of connection in the sequence of protective factors that produce positive outcomes for all youth. In that ongoing study, structural modeling for more than ten thousand youth at risk demonstrates that **family bonding is a fundamental protective factor**, enabling the exercise of other environmental protections such as parental supervision. Without bonding, close supervision drives youth away from parents; with bonding, it influences behavior. Similarly, the study reinforces the importance of **connectedness to school as a context for developing efficacy and school achievement** and connectedness to organized community opportunities for reinforcing protection.

The implication is that protective factors are not solely internal. They cannot be injected into the youth as suggested by the “inoculation” metaphor. Fostering assets and youth development is an interactive

process that requires effort and change in elements of the external environment of youth. Connectedness is not a one-way street; it requires that families and schools become more caring and supportive of positive opportunities, and that they work with youth to develop the internal orientations that will allow them to use these opportunities.

The Centrality of Schools. The final and most important point for educators is that the articles reviewed here typify the consistent findings throughout the research literature on the centrality of the school experience in building many external and internal assets for youth. In the Kumpfer and Turner article (see page 49), academic self-efficacy is a key protective element in the prevention of substance abuse among youth. The close association of school bonding and performance with motivation, self-efficacy, positive outlook, and other labels associated with internal protection is replicated in many studies of protective factors and is a key theme in the articles reviewed in *Getting Results*. Put simply, **the research clearly shows that school is a critical forum of opportunity and support for positive behavior and development in youth**. Schools are the primary place in which youth have the opportunity to contribute to social activities, to achieve, and to receive recognition. Schools are a fundamental part of prevention for youth.

An important implication follows from the major points made above. The contribution of schools to prevention is not to provide access to children for prevention workers to inoculate students against harm through curricula or presentations. **Effective prevention does not mean taking time away from the essential educational functions of school; it means permeating school activi-**

ties with an orientation to creating and supporting positive behavior and development.

This vision of schools as a forum for positive achievement presents real challenges to school administrators and staff. A detailed discussion of concrete strategies and activities to realize the vision goes beyond the purposes of this essay, and, indeed, this is the kind of context-specific activity that requires the interpretation and creativity of practitioners' experience in their own schools. Nevertheless, the articles reviewed here do provide specific suggestions from which practitioners can draw. Resnick's research summaries (pages 32–37) identify the importance of perceptions of schools as caring and fair, and as places where youth can belong. Similarly, Kumpfer and Turner (pages 49–51) find

that schools that are perceived as supportive, cooperative, and fair contribute to school bonding and self-efficacy in their students. Most explicitly, the work of Battistich, Schaps, and their colleagues (pages 46–48) at the Developmental Studies Center provides clear direction on the actions that will help schools become caring communities. For example, their research identifies teacher warmth and supportiveness, an emphasis on prosocial values, encouragement of cooperation, elicitation of student thinking and expression of ideas, and less reliance on extrinsic control as key elements of a caring school. The Center's many publications provide further detail on how to achieve these school attributes (see the resource chapter of this update for the Developmental Studies Center).

Conclusion

The intent of this commentary is to provide some thoughts on how we can more fully achieve research-based prevention. The core of this argument may be best expressed through a metaphor. The process of using science as a basis for action is more like a court room than a laboratory. The practitioner searching for science-based prevention faces an imperative to act because the lives of children do not wait for scientific verification. The practitioner must discern the pattern of evidence presented by scientific findings and determine whether it is sufficient to warrant action. This essay has attempted to

provide some instruction on how the jury of practitioners can proceed in assessing this evidence, and applying it to the specific decisions they must make. **Research-based prevention cannot lift the burden of decision from the jury of practitioners, but it can improve the chances that their decisions and actions will have a positive effect on youth.** The dissemination of research findings provides school personnel with evidence for making research-based decisions. The challenge of fashioning and applying science to prevention programs in schools is great, but the potential benefits are much greater.

Caring School Communities⁸

Summary by J. Fred Springer, Ph.D.

Importance

Despite the demonstrated importance of attitudes toward education and school (e.g., school bonding, school performance) as correlates of problem and positive behaviors, there is relatively little research concerning the influence of the school environment itself. "Caring School Communities" is an important article for

school administrators, teachers, and staff because it summarizes a focused program of research addressing the influence of school environment on student attitudes and behaviors, with relevance for substance use, violence, and associated problem behaviors.

Intent

The authors intend to summarize a cumulative set of findings from 15 years of research. The research program has focused on three major research issues.

- What is a meaningful definition of schools as caring communities, how can this concept be measured, and what is the pattern of variation in this attribute across schools and classrooms?
- Can the degree to which schools are experienced as caring communities be influenced through conscious programs of intervention, and how should these interventions be designed?

- What is the impact of a school as a caring community environment on student attitudes, values, motivation, and behavior?

This research program has produced numerous focused articles that have addressed these questions. The careful research program has provided findings related to both reduction of problem behaviors (e.g., substance use, violence) and promotion of positive behaviors (e.g., prosocial behavior, positive school performance).

Sample and Method

This article synthesizes findings from two major studies. The first was a seven-year study that followed students from first through sixth grade at three treatment and three similar comparison schools. The sec-

ond study was more extensive, involving a diverse sample of twelve treatment and twelve comparison schools from six school districts nationwide. Both studies utilized multiple methods of data collection from

⁸Battistich, V., Solomon, D., Watson, M., and Schaps, E. (1997). Caring school communities. *Educational Psychologist*, 32(3), 137-151.

students, teachers, school staff, and classroom observation. The studies represent an exceptionally thorough and varied program of analysis, including a complex assessment of the separate and interactive

effects of school, classroom, and individual student characteristics for understanding the factors that lead to experiencing school as a caring community, and the impacts of that experience on students.

Findings

Although this research has produced numerous findings reported in separate articles and reports, several major themes are broadly supported.

- Schools can be meaningfully characterized in the degree to which they are experienced as a caring community where members (a) care about each other; (b) have opportunity for active participation, influence, and decision making; (c) have feelings of belonging and identification; and (d) share norms, goals, and values. Schools vary in the degree of this experience, with degree of community poverty as a major correlate of lower sense of community for both teachers and students.
- **Particular classroom and school practices will increase the degree to which students and teachers experience the school as a caring community, and these practices can be taught.** The classroom characteristics include teacher warmth and supportiveness, emphasis on prosocial values, encouragement of cooperation, elicitation of student thinking and expression of ideas, and less reliance on extrinsic control.
- School community demonstrably produces a variety of positive attitudinal and behavioral outcomes for both students and teachers. For students these **outcomes include classroom behaviors (strengthened academic engagement, strengthened influence in the classroom, and increased positive interpersonal behavior)** and positive change in a larger set of **attitudes and behaviors related to the school environment (liking of school, enjoyment of class, learning motivation, concern for others, conflict resolution skills, democratic values, sense of efficacy, and altruistic behavior)**. The research produced evidence that these benefits are sustained and in some instances are strongest in schools where students have the greatest need (i.e., the economically poorest schools).

Limitations

This article is a summary of a strong research program that looked at multiple studies, and its major limitations are inherent in the scope of the material that is covered. This article can only skim the surface of a rich and detailed research program

that provides much more in the way of specific lessons for schools than can be summarized in one piece. (See the resource chapter to contact the Developmental Studies Center for specific findings and analyses of related studies.)

Implications for Schools

These findings have significant implications for the role of schools in promoting mediating attitudes and behaviors centrally related to the promotion of positive outcomes. The school's role as the primary societal forum for promoting efficacy and positive achievement among youth is increasingly supported in prevention research, and this article articulates the

importance of school practice and environment for strengthening that forum. While the promise is great, so is the challenge. **Promoting change in the school as a community is a much larger task than launching individually focused prevention curricula in the classroom. The research reported in this article suggests that the product is well worth the effort.**

The Social Ecology Model of Adolescent Substance Abuse⁹

Summary by J. Fred Springer, Ph.D.

Importance

Strengthening protective factors for youth is an encompassing prevention objective that can be approached through a variety of strategies. In general terms, these approaches can be divided into internal protective factors that focus on the individual attitudes, perceptions, and behaviors of targeted youth; and external protective factors focusing on peer, family, school, and community influences on attitudes, perceptions, and behavior. The tendency in research literature and practice has been to focus on either internal or external protective influences, with few empirically con-

firmed models of the ways in which these complementary sets of factors interact to influence attitudes and behavior in youth.

This article is important as a seminal piece of empirical work proposing and testing a “social ecology” model that combines external and internal protective factors, and posits an understanding of how these factors interrelate. It is a particularly important article for school personnel because it emphasizes the role of school for both external (school climate) and internal (school bonding and self-efficacy¹⁰) protection.

Intent

The major purpose of the article is to develop and verify an extension of earlier social ecology models of prevention that focus on the transactions between external and internal influences on attitudes and behavior. Of particular interest to educators, the model extension includes school and family as particularly important components of the social environment of youth. The

focused research question with respect to school is: what is the nature and strength of the influence of school climate and school-related attitudes and behaviors on self-reported drug use among youth? This question is asked within the context of other important influences on youth attitudes and behaviors (e.g., family and peers).

⁹Kumpfer, K.L. and Turner, C.W. (1990-91). The social ecology model of adolescent substance abuse: Implications for prevention. *The International Journal of the Addictions*, 25(4a), 435-463.

¹⁰Self-efficacy was a cluster variable consisting of measures of self-esteem, self-concept, and interpersonal competence.

Sample and Method

The study sample is 1,373 high school youth in a mixed rural-urban high school district in Utah. The sample is 55 percent female, and analyses are conducted separately for males and females because of initially observed mean differences on variables in the model. The authors acknowledge that the largely white and middle-class sample may support an empirical model that has characteristics unique to this geographic and socioeconomic popula-

tion, and that the generalizability of the basic ecological model will have to be tested on other samples. The main analysis utilizes structural equation modeling (LISREL) to test several alternative model configurations. This advanced statistical technique cannot confirm causal relations on this baseline sample, but it does confirm plausible models of causal relation between initial, mediating, and outcome variables.

Findings

The analysis yields several findings important to understanding the crucial role of schools in the formation of protective factors for youth.

- Replicating the findings of numerous studies of alcohol and drug use among youth, the model identifies **association and involvement with prosocial peers as the strongest direct factor influencing self-reported use.**
- The findings strongly suggest the centrality of school in the formation and support of important internal protective factors. In particular, the research suggests that **school is a primary forum for exercising self-efficacy and experienc-**

ing positive beliefs about self.

Measures of school bonding, self-efficacy, and self-esteem are so highly inter-related that they are treated as one concept (school bonding + self-efficacy) in the analysis. High scores on this construct are strongly associated with more positive peer associations and contribute to decreased alcohol and drug use through this association.

- Though not as strong an influence as family, **schools that are experienced as supportive, cooperative, and fair make a positive contribution to school bonding + self-efficacy and thus indirectly influence substance use.**

Limitations

The model fits data for males better than for females, and the authors acknowledge that additional factors may be important for protection among young women. The sample is from a single locale in Utah, and

is relatively homogeneous with respect to racial and cultural diversity. Thus, the generalizability of this model must be tested through attempts to replicate in diverse settings.

Implications for Schools

This study has important implications for schools because it provides explicit empirical confirmation of the importance of school as the central forum for the development of self-efficacy and related protective factors in the lives of youth. Family environment is a strong contributor to youth development, but schools provide the essential social environment in which

youth learn that they can be effective actors in the world, and can achieve positive outcomes. Furthermore, school administrators and staff are challenged to strengthen this essential forum for youth development through creating an environment that is perceived as supportive, cooperative, and fair.