

# Resilience Research for Prevention Programs

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**National Resilience Resource Center**

## Protective Factors in Individuals, Families, and Schools: National Longitudinal Study on Adolescent Health Findings



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Initial results from the largest, most comprehensive survey of adolescents to date provide powerful research support for resilience-based prevention as a means of developing better youth outcomes. The National Longitudinal Study on Adolescent Health (Add Health) was funded by the National Institute of Child Health and Human Development and 17 other federal agencies.

According to the researchers, While these findings are confirmatory of other studies, they are also unique because they represent the first time certain protective factors have been shown to apply across the major risk domains (Resnick, et al.1997, p. 830). The study collects data on health-related behaviors including diet, physical activity, health-service use, morbidity, injury, violence, sexual behavior, contraception, sexually transmitted infections, pregnancy, suicidal intentions/thoughts, substance use/abuse, and runaway history.

Add Health is a school-based study of adolescents in grades 7-12. The study is designed to explore the causes of healthy and unhealthy behaviors in youth, and especially considers what protective influence families, friends, schools, and communities have in the lives of adolescents.

This massive study has an impressive roster of researchers. J. Richard Udry is the principal investigator of the Add Health study coordinating a team of adolescent-health researchers: Karl Bauman and Kathleen Mullan Harris, of the University of North Carolina; Peter Bearman, of Columbia University; John Billy and William Grady, of Battelle; Robert Blum and Michael Resnick, of the University of Minnesota; James Jaccard, of the University at Albany-SUNY; and David Rowe, of the University of Arizona.

In this analysis of what promises to be a decade of study, investigators from the University of Minnesota (UM) Medical School's Division of General Pediatrics and the UM Adolescent Health Program, in collaboration with the University of North Carolina's Population Center, have identified risk and protective factors. Factors are examined at the *individual, family, and school* levels as they relate to four domains of adolescent health: emotional health, violence, substance use (cigarettes, alcohol, and marijuana), and sexuality.

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The early analysis of the study establishes the power of *family and school social contexts* to influence adolescent behavior. Specifically, we find consistent evidence that perceived caring and connectedness to others is important in understanding the health of young people today (Resnick et al., p. 830).

The ongoing study was organized in two phases. In the first phase, started in the 1994-95 school year, 90,118 students at 134 schools (80 high schools and selected feeder middle schools) around the United States completed brief questionnaires about their lives. School survey data about existing school health services, policies, environments, and characteristics was collected from 130 school administrators in the first year. In the first phase of the study, in-home interviews were conducted among a random sample of the students, including one parent of each of those students. [The second phase of completed work, not yet reported, includes additional interviews with students, parents, and school administrators. Neighborhood and community data are being collected and will be analyzed in the future.]

In this initial analysis, researchers are reporting data from interviews with the students (12,118 total) and 1994-95 school administrators. The parent interview data and the longitudinal data will be published separately. As reported in the September 1997 *JAMA*, eight areas were assessed: student emotional distress; suicidal thoughts and behaviors; violence; use of cigarettes; use of alcohol; use of marijuana; age of sexual debut; and pregnancy history.

## Findings

### Family Context

For each of the four domains of adolescent health examined (emotional, violence, substance use, and sexuality), Add Health researchers found that *parents do, indeed, matter!* For all health-risk behaviors, across all socioeconomic levels, family structures, and races and ethnicities, When teens feel connected to their families and when parents are involved in their

### Family Context Variables

**Parent and family connectedness:**

Highest degree of closeness, caring, and satisfaction with parental relationship, whether resident or nonresident mother or father; feeling understood, loved, wanted, and paid attention to by family members.

**Parental/adolescent activities:**

Number of different activities engaged in with resident and/or nonresident parent or parents in the past four weeks.

**Parental presence:** Parent present before school, after school, dinner, bedtime.

**Household access to substances**

**and guns:** Ease of access to drugs or guns at home.

**Family suicide or attempts:** Suicidal attempts and/or completions by any family member in the past 12 months.

**Parental disapproval of sex:** Parental disapproval of adolescent s having intercourse now.

**Parental disapproval of contraception:** Parental disapproval of adolescent s using contraception now.

**Parental school expectations:**

Mother s or father s expectations for high school and college completion.

SOURCE: Blum & Rinehart (1997), p. 16.

children s lives, teens are protected (Blum and Rinehart, 1997, p. 15). A second major overall family protective factor was *parental expectations regarding school achievement*. Higher expectations for completing high school and college were associated with lower levels of health-risk behaviors. In the case of suicidal thoughts and behaviors, only parent-family connectedness was protective.

Family context variables affect alcohol, tobacco, and other drug use as follows:

- **Parent and family connectedness:** Much attention has been placed on the physical presence of a parent in the home at key times as reducing the risk for substance use. That, however, researchers note, is consistently less significant than parental connectedness (feelings of warmth, love and caring from parents) (Resnick et al., 1997, p. 830).
- **Parental/adolescent activities:** This variable was protective against cigarette use for students in grades 9-12 (and for teen pregnancy).
- **Parental presence:** This served as protection against 9th-12th graders' use of cigarettes, alcohol and marijuana and 7th-8th graders' use of marijuana as well as for emotional distress at all grade levels and violence in high school. There does not seem to be a magical time of the day when parental presence is especially critical. Rather, it is having access to a parent and perhaps parental supervision in general that matters most (Blum and Rinehart, 1997, p. 19).
- **Parental school expectations:** This variable was protective in 9th-12th graders' use of cigarettes.
- **Family suicide or attempts:** This served as a risk factor for cigarette use at all grade levels and for alcohol use in high school as well as for emotional distress, suicide attempt, early sexual debut, and violence.
- **Household access to substances and guns:** Access to substances in the home was a risk factor for use of the three substances at all grade levels. Access to guns in the home was a risk factor for violence in high school.

The researchers conclude: For each aspect of health that Add Health researchers examined, the home environment proved important. Teens' sense of connectedness to parents and family, parental presence in the home, shared activities, parents' expectations for their teens, and the presence of guns, cigarettes, alcohol, and drugs in the home all are associated, either positively or negatively, with one or more facets of adolescent health and behavior (Blum & Rinehart, 1997, p. 20).

## School Context

### School Environment Variables

**School connectedness:** From the student's perspective, teachers treat students fairly; teens feel close to people at school, and get along with teachers and students.

**Student prejudice:** From the student's perspective, extent to which students at teen's school are prejudiced.

**Attendance:** The student's average daily attendance.

**Parent-teacher organization:** Percent of parents involved with a parent-teacher organization (as identified from paid dues).

**Dropout rate:** Estimated dropout rate high vs. low.

**School types:** Comprehensive public, magnet, parochial, technical, other.

**Teacher education:** Percent of teachers with master's degrees.

**College:** Proportion of students who are college-bound.

**School policies:** School policies governing violence, cigarette use, and drugs.

*SOURCE: Blum & Rinehart (1997), p. 21.*

Overall, the Add Health research team found just one school variable to be consistently associated with better health and healthier behaviors including use of cigarettes, alcohol, and marijuana among the students: a feeling of *connectedness to school*. What seems to matter most for adolescent health is that schools foster an atmosphere in which students feel fairly treated, close to others, and a part of the school (Blum & Rinehart, 1997, p. 24). Similarly, just one school variable was identified as a risk factor: *student prejudice*. This was associated with both emotional distress and suicide attempt.

While much emphasis is placed on school policies governing adolescent behaviors, such policies appear in the

present analysis to have limited associations with the student behaviors under study. It is, once again, school connectedness, influenced in good measure by perceived caring from teachers and high expectations for student performance (Resnick et al., 1997, p. 831), that makes the critical difference. In a 1997 interview in *The Washington Post*, Blum said that of all the school context measures, Only one of those whether students felt close to their teachers made a difference in helping teenagers avoid unhealthy behavior. Overriding classroom size, rules, all those structural things, the human element of the teacher making a human connection with kids is the bottom line.

## Individual Context

### Individual Characteristics

**Self-esteem:** Extent to which adolescent agrees to having good qualities, a lot to be proud of, likes self, feels loved and wanted.

**Religious identity:** Whether adolescent affiliates with a religion and, if so, frequency of prayer and perception as religious.

**Same-sex attraction:** Ever had same-sex romantic attraction.

**Perceived risk of untimely death:** Perceived chances of dying before age 35.

**Work:** Worked 20-plus hours per week for pay during the school year.

**Physical appearance:** Appears older/younger than most age peers.

**Repeated grade:** Ever repeated one or more grades.

**Grade-point average:** Available grades in English, math, history/social studies and science in the most recent reporting period.

SOURCE: Blum & Rinehart (1997), p. 26.

According to the Add Health team, A number of individual characteristics emerged as salient correlates of risky behaviors [including substance use] across a variety of domains in this analysis (Resnick et al., 1997, p. 831).

*Students working more than 20 hours per week* were associated with higher levels of emotional distress, substance use, and earlier age of sexual debut. *Low grade-point average and grade retention* were related to emotional distress, substance use, involvement in violence, and earlier onset of sexual intercourse. Consistently, it appears that those who are academically at risk are at high risk in other ways as well (Resnick et al., 1997, p. 831).

Other risk factors for substance use include: *appearing older than peers* (associated with more frequent use of all substances across all grade levels); *same-sex attraction* (correlated with more frequent alcohol and marijuana use in older teens); and *anticipating an early death* (associated with all substance use in grades 7-8 as well as marijuana use in grades 9-12).

Individual protective factors appearing across most domains included *religious identity, self-esteem, and higher grade-point average*.

Specifically, for substance use, For both younger and older youth, personal importance placed on religion and prayer is associated with decreased frequency of cigarette smoking and drinking...and with less frequent marijuana use in older teens and correlated with delayed sexual activity (Blum and Rinehart, 1997, p. 28). High levels of *self-esteem* are also associated with lower levels of use of cigarette and marijuana use by older adolescents, and *less alcohol use among all teens*. (Resnick et al., 1997, p. 829).

# Lessons Learned

The Add Health study calls for resilience-based prevention. As the largest survey of adolescent health ever done, it bears out what the classic Kauai longitudinal resilience study first documented. Caring relationships, high expectations, and opportunities for participation have tremendous protective and connective powers to influence youth (and human) development (Werner & Smith, 1992; Benard, 1991).

**Families, schools, and any organizations serving youth must make the development and maintenance of strong relationships the top priority in their work.**

According to Resnick, Youth need as many anchoring points as possible. They must have in their repertoire experiences with competent, caring, prosocial adults (personal communication, November 30, 1998). Educators who tap student resilience with genuine rapport and deep listening while seeing the innate resilience and health of the student can be highly effective (Mills, 1997).

Naturally occurring healthy relationships with parents, neighbors, teachers, and peers are critical in a young person's life. Youth-serving institutions can increase both the quality and quantity of relationships, using relationship-based strategies such as peer helping, cross-age tutoring, mentoring, volunteers in the classroom, cooperative learning, and community service learning.

**Prevention and education reform efforts must focus on environmental change—on creating healthy, inviting climates and systems—versus “fixing” youth.**

As one of the Add Health researchers writes, The construct of resilience is closely linked with prevention and is system centered (Blum, 1998, p. 372). This means changing systems at the most fundamental levels of beliefs and relationships, and providing opportunities for participation that ultimately serve as the connective

tissue for healthy youth development. Efforts, thus, must begin by helping the *adults* in the system to realize their own health so they can be these competent and caring anchoring points for youth. (Marshall, 1998).

Efforts to change systems must also focus on providing youth the *opportunities to master and apply skills*. Resiliency researchers Werner & Smith (1992) and Add Health researchers demonstrate that these experiences are critical to healthy development. According to Resnick, The building blocks of youth development are two-fold. First, youth need opportunities to develop competence in anything poetry, music, hands-on skills, it doesn't matter. Second, they need opportunities to use and apply that skill in service to others. This is how we sparkle! (Personal communication, November 30, 1998.) Resnick continues, These must be available in all youth-serving institutions.

Furthermore, according to Resnick, these are the opportunities that help youth view themselves as spiritual people. It is important that they experience that sense of wonder, awe, and mystery, experiences that ultimately connect them to life.

**A third lesson: Prevention practitioners can successfully use the Add Health and other studies to promote resilience-based prevention efforts.**

Premier researchers like Resnick and Blum have begun to declare, Risk-reduction approaches, whether targeted at delinquency, drugs, or pregnancy, do not appear to work (Blum, 1998, p. 373). Because of their studies, signs of a sea change in prevention from risk-focused deficit models to asset-focused strengths models are beginning to appear among policymakers. For example, former Secretary of Education Richard Riley charged educators with making sure that every child in America in a school has a positive and caring relationship with at least one adult (Hoff, 1998, p. 12). Finally, we are talking the resilience talk; our challenge is to now walk the resilience walk.

## Think About It!

The Add Health study clearly underscores the importance of connectedness and caring relationships. How can adults be assisted in their efforts to create caring connections with youth? Caring relationships and the ability to encourage high expectations and meaningful opportunities for youth participation are natural by-products of an adult who is himself or herself healthy. Where can systems and organizations turn to enhance the health of the helper the key adults the Add Health study impact young people s lives?

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The Add Health findings have been presented to such key audiences as the United States Congress, WHO/UNICEF, Society for Adolescent Medicine, Consortium of Social Science Associations, International Conference of Adolescent Health, American Public Health Association, National Association of State Boards of Education, and more. For a detailed listing of presentations and publications, go to [cpc.unc.edu/projects/addhealth/files/pubs/present.pdf](http://cpc.unc.edu/projects/addhealth/files/pubs/present.pdf).

For a detailed description of the Add Health project, go to [www.cpc.unc.edu/projects/addhealth/sitemap.html](http://www.cpc.unc.edu/projects/addhealth/sitemap.html). Individual researchers e-mail addresses are provided; copies of selected publications may be requested.

### NATIONAL RESILIENCE RESOURCE CENTER

The National Resilience Resource Center (NRRC) is located at the University of Minnesota. Executive Director Kathy Marshall and associate for program development Bonnie Benard guide long-term systems change initiatives in selected school and community sites. Resilience research-based systems change training and technical assistance services are available on a fee-for-service basis. For service related requests write National Resilience Resource Center, University of Minnesota, College of Continuing Education, 202A Wesbrook Hall, 77 Pleasant Street SE, Minneapolis, MN 55455 or contact [NRRC@cce.umn.edu](mailto:NRRC@cce.umn.edu). The NRRC logo was created by John B. No Runner.

To enhance the application of prevention technologies, NRRC and the Central Center for the Application of Prevention Technologies have collaborated in disseminating this information.

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