







Influencing Behavior:

The Power of Protective Factors in Reducing Youth Violence



Youth violence affects every  community and region in the United States. Understanding what places youth at risk for committing  violence, however, is only half the equation. The individual factors, the qualities in families, schools and communities that buffer teens  against involvement in violent acts against themselves or others is the other half of that  equation. And the core questions is: Can these protective factors outweigh the risks?

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Introduction

Adolescent involvement in violence is



influenced by the

strengths and vulnerabilities of individuals and by the characteristics of

the settings



in which they lead their lives.

These settings—the schools they attend, the neighborhoods they call home, their communities, families and their friends—play an important, but incompletely understood role in the violent behavior of youth. Indeed, the 2001 Report of the Surgeon General on Youth Violence concluded that protective factors embedded in these settings warrant more research attention.

Are teens more likely to perpetrate violence when they have easy access to a weapon? Does the school environment make a difference? What about the role of parents? Can protective factors offset the negative effects of risk factors? This report sheds light on these urgent questions.

Understanding Risk and Protective Factors

Risk factors are those aspects of a teen's life that are associated with an increased likelihood of violence or other behaviors that threaten health and well being. Protective factors are those aspects of a teen's life that are associated with a reduced risk of engaging in violence or other behaviors dangerous to oneself or to others.

Risk and protective factors are sometimes mirror images of each other. Poor academic performance is a risk factor and high academic performance is a protective factor. An imbalance—too many risk factors, not enough protective factors—may be a cause of violent behavior, or merely a “red flag”

indicating that a youth is at higher or lower risk for specific problems. The relationship is often complex. For example, while teens may choose friends who do what they like to do, they are also influenced by their friends' behavior. Whether viewed as "red flags" or a cause, or some of both, understanding risk and protective factors can help improve the lives of youth by identifying where and how to intervene.

Scope of the Research

The information reported in this monograph is based on data from the National Longitudinal Study of Adolescent Health (Add Health). During the 1994-1995 school year, over 90,000 adolescents in grades 7 through 12 were surveyed in school in 80 different communities around the country. A survey was also administered to the school administrators in these communities.

More than 20,000 students, randomly chosen from those who participated in the survey and from school rosters, participated in in-home interviews in 1995. The 90-minute computer-assisted

The National Longitudinal Study of Adolescent Health (Add Health)

The Add Health Survey, from which these data come, is a comprehensive school-based study of the health-related behaviors of adolescents in the United States. The principal investigator is J. Richard Udry, Ph.D., Kenan Professor of Health Affairs, Carolina Population Center, University of North Carolina. Initially, surveys were conducted in two phases. In phase one, over 90,000 students in grades 7-12 attending 134 schools around the US answered a brief questionnaire about their lives, including their health, friendships, self-esteem, and expectations for the future. Before students could participate, parents had to give their permission through procedures approved by each school.

In phase two, with written consent of both the parent and adolescent, over 20,000 in-home interviews of students were conducted between April and December 1995 (Wave I). This "in-home" sample is composed of both a nationally representative core sample (approximately 12,000) and a dozen special samples that can be used to examine questions in special groups that would otherwise be too small for analysis (for example, twins, Cuban Hispanics, and disabled youth). No paper questionnaires were used. Instead, all data were recorded on laptop computers with sensitive questions asked privately using a pre-recorded audiocassette. A follow-up (Wave II) of 15,000 adolescents, interviewed again at home, was conducted between April and August of 1996.

A parent of each adolescent who was interviewed at home, usually the mother, was asked to complete an interview as part of Wave I. Eighteen thousand parent interviews were completed (approximately 85% of all adolescent participants).

Wave III of data collection was completed in April 2002 when the entire original sample, (15,197) all of whom are now young adults, was interviewed for a third time.

interview included a wide range of questions on health, risk behaviors, protective factors, family dynamics, adolescent attitude and expectations.

Between seven and 14 months later just under 15,000 completed the same interview a second time. (See sidebar, *The National Longitudinal Study of Adolescent Health*, page 5, for more details on the survey.)

The findings reported here include just over 13,000 teens that completed both the first and second interview. Teens involved in violence were identified on a scale based on their

answers to seven questions (listed below) during the second interview.

In the past 12 months how often did you:

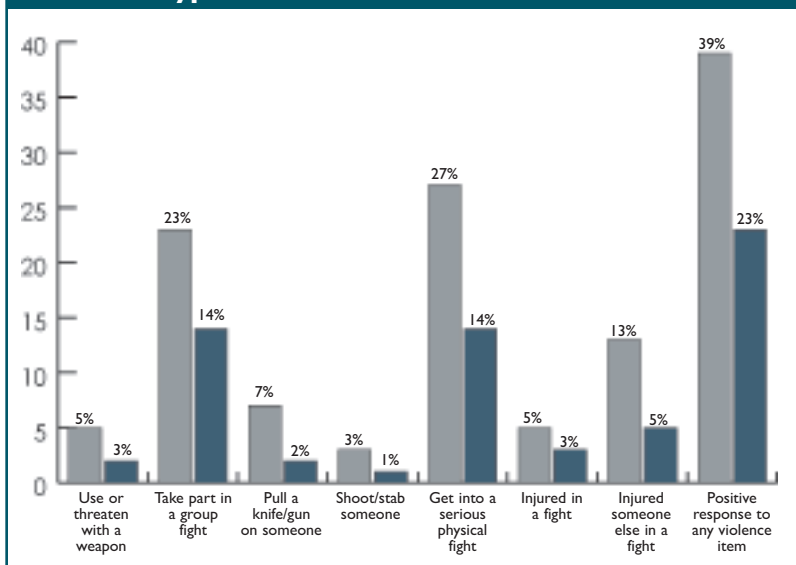
- Use or threaten to use a weapon?
- Take part in a group fight?
- Pull a knife or gun on someone?
- Shoot or stab someone?
- Get into a serious physical fight?
- Get in a fight where you were injured and had to be treated by a doctor or nurse?

Measuring Violence

For this analysis, the sample was comprised of adolescents from the core sample and from special over samples, that completed an interview at both Time 1 and Time 2, over 13,000 youth.

The Time 2 outcome variable of interpersonal violence perpetration was based on a scale measuring involvement in various aspects of violent behavior. The items comprising the scale included the following; In the past 12 months how often did you: Use or threaten to use a weapon to get something from someone? Take part in a group fight? Pull a knife/gun on someone? Shoot/stab someone? Get into a serious physical fight? Get in a fight where you were injured and had to be treated by a doctor or nurse? Hurt someone badly enough to need bandages or care from a doctor or nurse? The overall Cronbach's alpha for this scale is 0.83.

Percentage of Boys & Girls Who Report Various Types of Violent Behavior at Time 2



- Hurt someone badly enough to need bandages or care from a doctor or nurse?

This report provides an analysis of which risk and protective factors identified during the first interview predicted being involved in violence during the second interview.

Fifth in a Series

This is the fifth in a series of reports based on the Add Health Survey and focusing on connections that make a difference in the lives of young people developed in the Division of General Pediatrics and Adolescent Health at the University of Minnesota. The others are *Reducing the Risk: Connections That Make A Difference in the Lives of Youth* (1997), *Protecting Teens: Beyond Race, Ethnicity and Family Structure* (2000), *Improving the Odds: The Untapped Power of Schools to Improve the Health of Teens* (2002), and *Mothers' Influence on Teen Sex: Connections that Promote Postponing Sexual Intercourse* (2003).

Who is Included? Who is Not?

Analyses are based on the nationally representative “core sample” of teens interviewed at their home. It is precisely because the survey is so representative of teens across the United States that, despite its size, some of the numbers are small. For example, Native Americans represent 1.2% of the population, and they represent 1.2% of the Add Health teen sample, so only 120 Native American youth actually participated in the study—too small a number to be analyzed separately. The same is true for other racial and ethnic groups as well. Thus, we have limited our analyses to comparing results for boys and girls.

In addition, because Add Health used a school-based design, findings do not apply to out of school youth, for whom we might expect a higher overall prevalence of violence involvement.



Community, Family and Individual Factors Influence Adolescent Violence

Resilience—the ability to rebound from stressful
is at the heart of this report.



circumstances—

The number and specific nature of stressors—risk factors—influence young people’s involvement in interpersonal violence. Adolescent behaviors are also influenced by the presence of protective factors.

The Add Health data organize risk and protective factors according to individual, family and community characteristics, because these are the broad contexts of teen development. In this report community factors include school-related factors because the school is often the primary community of identification for young people.

Slightly fewer than 40 percent of boys and more than 20 percent of girls said they participated in some form of violent behavior at Time 2.

Community Factors Make a Difference

Add Health researchers have explored many aspects of the communities where teens live and the schools they attend. Students’ feelings of connectedness to school were measured by a series of questions that asked whether students feel that their teachers treat them fairly, feel close to people at school, and feel a part of the school. Students were also asked if they think students attending the school are prejudiced.

Both boys and girls are less likely to be involved in violent behavior when they:

- Perceived being connected to school,
- Reported feeling connected to adults outside of their immediate family, and
- Reported feeling safe in their neighborhood.

However, both boys and girls reported greater violence involvement when they:

- Perceived prejudice among students in their school,
- Reported having a friend who had attempted or completed suicide.

Family Factors Make a Difference

Family factors were measured through questions that addressed feelings of connectedness to parent and family, parent and adolescent shared activities, parental presence at consistent times in the home, household access to guns, household access to substances, family suicide or attempts, and parental attitudes and expectations.

Both boys and girls are less likely to be involved in violent behavior when they:

- Are able to discuss problems with parents,
- Believed their parents had high expectations for school performance,
- Felt connected to their family, and
- Reported frequent shared activities with parents.

Both boys and girls are less likely to be involved in violent behavior when at least one of the parents was consistently present during at least one of the following times:

- When awakening,
- When arriving home from school,
- At evening mealtime, or
- At bedtime.

Risk factors for reporting violence perpetration during the second interview for both boys and girls were:

- Suicide attempt of a family member,
- For boys, easy access to firearms in the home.

Individual Characteristics Make a Difference

Adolescents' attitudes, beliefs and past experiences also have important effects on their likelihood of being involved in violent behavior. The Add Health survey addresses a wide range of factors such as self-esteem, religious identity, employment, repeating a grade and school performance.

Both boys and girls are less likely to be involved in violent behavior when they identified themselves as valuing religious observance and when they had a high grade point average.

Two of the strongest associations with violence perpetration among risk factors include:

- Violence involvement reported during the first interview, and
- A history of violence victimization.

Four risk factors for violence involvement are related to school:

- Carrying a weapon to school,
- Learning problems,
- Skipping school, and
- Repeating a grade.

Four risk factors for violence are related to health status:

- High level of somatic complaints,
- Poor self-assessed general health,
- A history of treatment for emotional problems, and
- High levels of emotional distress.

Four behavioral risk factors include the reporting of at least one prior suicide attempt, and frequent use of alcohol, marijuana and other illicit drugs. Working 20 hours or more per week for pay during the school year is an associated risk factor among boys only.

Can Protective Factors Offset Negative Effects of Risk Factors?

Resiliency research suggests that the presence of protective factors can reduce the impact of risk factors.

We compared the likelihood of boys and girls being in the top 20% of those involved in violent behavior based on different combinations of risk and protective factors.

The risk factors used for boys were:

- Repeated a grade,
- Carries a weapon to school, and
- Victim of violence.

The risk factors used for girls were:

- Carries a weapon to school,
- Emotional distress, and
- Victim of violence.

The protective factors used for boys were:

- Feelings of connectedness to adults (other than parents),
- Parental school expectations, and
- High grade point average.

The protective factors used for girls were:

- Feelings of connectedness to family,
- Religiosity, and
- High grade point average.

It turns out there is a relationship between the number and combination of risk factors and protective factors operative in the lives of youth.

Among boys who had all the specific risk factors and none of the three protective factors, 71% were predicted to be involved in violent behavior at the time of the second interview. For boys who had none of the risk factors and all three protective factors, only 18% were predicted to be involved in violent behavior.

Risk and Protective Factors for Youth		
Community	Boys	Girls
School connectedness	Protective	Protective
Perceived student prejudice	Risk Factor	Risk Factor
Feels safe in neighborhood	Protective	Protective
Friend suicide	Risk Factor	Risk Factor
Other adult connectedness	Protective	Protective
Family		
Easy access to gun in the home	Risk Factor	Risk Factor
Discuss problems with parents	Protective	Protective
Suicide of family member	Risk Factor	Risk Factor
Parental school expectations	Protective	Protective
Family connectedness	Protective	Protective
Parental presence	Protective	Protective
Activities with parents	Protective	Protective
Individual Factors		
Religiosity	Protective	Protective
Emotional distress	Risk Factor	Risk Factor
Self-esteem	Risk Factor	Risk Factor
T1 violence perpetrator	Risk Factor	Risk Factor
Victim of violence	Risk Factor	Risk Factor
High grade point average	Protective	Protective
Cuts/skips school	Risk Factor	Risk Factor
Learning problems	Risk Factor	Risk Factor
Somatic complaints	Risk Factor	Risk Factor
20+ hours worked per week	Risk Factor	Risk Factor
Carried a weapon to school	Risk Factor	Risk Factor
Treated for emotional problems	Risk Factor	Risk Factor
Poor general health	Risk Factor	Risk Factor
Repeated a grade	Risk Factor	Risk Factor
Suicide attempt	Risk Factor	Risk Factor
Alcohol frequency	Risk Factor	Risk Factor
Marijuana use	Risk Factor	Risk Factor
Other illegal drug use	Risk Factor	Risk Factor

Likewise, for girls who had all the risk factors and none of the three protective factors, 61% were predicted to be involved in violent behavior at the time of the second interview. Among girls who had none of the risk factors and all three protective factors, only 7% were predicted to be involved in violent behavior.

What was found to be most interesting was the question of the extent to which protective factors could offset

the effect of risk factors. When boys and girls had all the risk factors present, but also had the three protective factors present, the likelihood of being in the top 20% of violence perpetration also dropped substantially, demonstrating the potential for protection to offset effects risk (see table on page 13).

When all of the factors associated with violence are analyzed in one model together, which emerge as the most powerful predictors?

What Puts Boys at Risk?	
Previous violence involvement	****
History of victimization	****
Repeated a grade	***
Carried a weapon to school	***
Marijuana use	**
Alcohol use	**
Treatment for emotional problems	*
Learning problems	*

**** — * Most predictive to protective

What Puts Girls at Risk?	
Previous violence involvement	*****
History of victimization	****
Carried a weapon to school	***
Alcohol use	***
Emotional distress	***
Marijuana use	**
Repeated a grade	*
Somatic problems	*
Learning Problems	*

**** — * Most predictive to protective

What Protects Boys?	
Parental school expectations	*****
Discusses problems with parents	***
Connectedness to other adults	**

**** — * Most predictive to protective

What Protects Girls?	
Grade point average	*****
Family connectedness	***
Religiosity	***
School connectedness	*

**** — * Most predictive to protective



While it is important to identify which risk and protective factors are among the most potent predictors of violence, it is also important to understand how these factors interact with each other. To put it another way, when adolescents have had experiences in their lives that put them at increased risk for violence perpetration, can these risks be offset by protective factors?



Percentage of Youth Predicted to Participate in Violent Behaviors at Time 2 Based on Number and Combinations of Time 1 Risk and Protective Factors							
Protective Factors				Risk Factors			
# of Protective Factors	Boys: Adult Connectedness Girls: Family Connectedness	Boys: Parental School Expectations Girls: Religiosity	Boys & Girls: Grade Point Average	All High		All Low	
				Boys %	Girls %	Boys %	Girls %
0	low	low	low	70.5	60.8	40.9	28.6
1	high	low	low	63.5	52.5	33.6	22.2
1	low	high	low	68.4	48.1	38.6	19.3
1	low	low	high	52.6	38.8	24.4	14.1
2	low	high	high	50.1	27.5	22.6	8.9
2	high	low	high	44.7	31.1	19.0	10.5
2	high	high	low	61.2	39.8	31.4	14.6
3	high	high	high	42.3	21.3	17.6	6.5

Most likely to participate in violent activities
 Somewhat likely to participate in violent activities
 Somewhat less likely to participate in violent activities

Protective Factors and Risk Factors Exert Influence

The combination of  fewer risk factors and more protective factors substantially diminishes the likelihood of youth  being involved in serious violence.

In this national sample of students, the more protective factors that are present, the less likely a youth will be involved in serious violence, even if all risk factors are present.

This is good news, and supports other research findings. Other investigators have also identified the importance of such protective factors:

- Caring and connectedness with adults,
- The quality of family dynamics,
- Consistency of supervision, and
- Monitoring and expression of norms, values and expectations.

Add Health data have also demonstrated that family relationships and dynamics, as well as school and peer-related factors, are more robust predictors of adolescent participation in high risk behaviors than are family structure, social class, race and ethnicity.

Suicide and Interpersonal Violence

While knowing a person who has attempted suicide is not one of the top three predictors of participating in violent behavior, it clearly increases the risk of violence perpetration by adolescents. It seems that interpersonal and self-directed violence share many of the same risk factors. (See, *Adolescent Suicide Attempts: Risks and Protectors* on page 19.)

Now What

A generation ago, many believed there was little or nothing that could be done to prevent teen violence, particularly among young people living in challenging, stressful environments. Today we know differently. The growing weight of evidence suggests that we can influence behavior through the dual strategy of reducing risk factors and promoting protective factors in the lives of teens.

There is an array of programs that work and we are learning how to measure success.

The analyses of Add Health data demonstrate that the schools our youth attend, their neighborhoods, their communities, families and friends can protect them from becoming involved in violence and can also put them at risk. This greater understanding challenges adults working with and on behalf of youth.

We must make better use of resources that:

- Strengthen families,
- Enhance positive relationships with adults,
- Encourage a sense of connection with school, and
- Improve academic performance.



We also must commit to reducing those behaviors and circumstances that put our youth at risk of engaging in violence, including:

- Weapon carrying,
- Substance use,
- School problems, and
- Emotional distress.

Finally, and most importantly, we know that witnessing or experiencing violence and being exposed to suicide attempts (and completions) of friends and family members endanger the lives and well-being of our youth. Health professionals and youth workers, parents teachers, advocates, and policy makers can support programs that provide anticipatory guidance, reduce access to lethal weapons, improve the safety and quality of the environment, and promote discussion and understanding.



Violence Turned Inward

Suicide continues to be the third leading cause of death among children and adolescents age 10-19 in the US. And children and youth who attempt suicide once are at greatest risk of additional attempts. While suicide is characterized as “quietly disturbed behavior,” and interpersonal violence is characterized as “acting out behavior,” there are similar risk and protective factors for both forms of violence. Clearly there is a relationship between the two.

A recent study, *Adolescent Suicide Attempts; Risks and Protectors* was published in *Pediatrics*. (Borowsky IW, Ireland M, and Resnick MD. *Pediatrics* 2001; 107:485-93.) Using Add Health data, the authors sought to identify the key risk and protective factors associated with suicidal behaviors among White, Black and Hispanic youth.

The study was limited by the small numbers of youth who had attempted suicide and even smaller number based on race or ethnicity. However, the factors found to predict suicide attempts regardless of gender or race included:

- Suicidal behavior of a friend or family member,
- Somatic symptoms,
- Violence victimization or perpetration, and
- Substance use.

These are certainly similar to the findings discussed in this report, *Influencing Behavior: The Power of Protective Factors in Reducing Youth Violence*.

And while the protective factors differed somewhat along gender lines, they resonate with those factors found to protect youth from involvement in violence perpetration.

Protective factors for all boys included:

- Emotional well-being,
- Parent-family connectedness, and
- Higher grade point average.

Protective factors for all girls included:

- Emotional well-being,
- Parent-family connectedness, and
- Parental presence.

Few suicide prevention strategies have been evaluated. Given their shared risk and protective factors, strategies to prevent interpersonal violence and suicide may have much in common. If this is indeed the case, programs that have demonstrated effectiveness in reducing interpersonal violence—those built on increasing protective factors and reducing risk factors—may just be successful at reducing the likelihood of suicide. These should be implemented and evaluated.

Conclusion

Worry about violence is frequently cited in



public opinion

polls and in



studies of adult concerns about young people.

Adolescents themselves also express concerns about violence



victimization.

The large body of research on violence risk factors for adolescents is now being joined by a growing number of studies that identify the factors, experiences and events that protect against violence involvement. The dual strategy of reducing risk and enhancing protection provides a framework for those involved in programs, policies and practice, so that their priorities can reflect our understandings about what works to protect young people from harm.

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Resnick, MD, Ireland, M, Borowsky IW. Youth Violence Perpetration: What Protects? What Predicts? *Journal of Adolescent Health*.

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