Commentary

The Unconvincing Case For School-Based Conflict Resolution Programs For Adolescents

by Daniel W. Webster

Interpersonal violence has a dramatic impact on the health of American youths. Homicides, the most salient and easily measured impact, account for one of every five deaths among youths ages fifteen to twenty-four and 58 percent of deaths among black males ages fifteen to nineteen.[1] From 1985 through 1990 firearm homicide rates increased 141 percent for all fifteen-to-nineteen-year-olds and nearly tripled among black males in this age group.[2] Rising levels of violence have stressed many urban trauma care systems to their limits, and many trauma centers have been forced to close because the vast majority of gunshot wound victims are uninsured.[3]

Frustration with the limited ability of the criminal justice system to stem the tide of youth violence has created considerable political pressure on governments and public agencies to do something about the problem. Statements by President Clinton and his secretaries of education, justice, and health and human services, as well as the actions of state and local officials, suggest greater future priority on public health approaches to violence, with their emphasis on primary prevention.

While many interventions stress primary prevention, school-based conflict resolution programs for adolescents have been one of the most popular public health strategies to reduce violence.[4] A major focus of these programs is to teach and encourage students to use nonviolent methods of resolving disputes. In addition, these programs often present information about risks of victimization and use various methods to challenge attitudes that support the use of violence.

Conflict resolution programs now exist in thousands of middle and high schools. Some states are considering making these programs mandatory in public schools. The Centers for Disease Control and Prevention (CDC) has promoted and funded school-based conflict resolution programs, especially within the context of broader community programs. In practice, however, most school-based conflict resolution programs are implemented

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with no significant complementary efforts to address aspects of youths' environment (family, peers, and community) that foster violent behavior.

As with many other health-related social problems that affect youth (for example, substance abuse, teen pregnancy, and sexually transmitted diseases), school-based programs that heighten awareness, discourage risky behavior, and teach relevant social skills are an intuitively appealing and politically expedient response. Because of this and the desperation of many schools and communities, these programs have been widely implemented without adequate scrutiny to determine the scientific rationale and evidence of efficacy.

I am skeptical that existing conflict resolution programs can reduce interpersonal violence, for the following reasons: (1) There is no evidence that such programs produce long-term changes in violent behavior or risk of victimization; (2) in the absence of other supporting interventions, classroom-based curricula generally have failed to produce sustainable behavior changes for other health and social problems among youth; (3) the assumptions regarding conflict resolution programs and violence are questionable; and (4) the programs provide political cover for politicians, bureaucrats, and school officials and distract the public from the structural determinants of youth violence.

Effectiveness Of Conflict Resolution Programs

Violence Prevention Curriculum for Adolescents. This ten-session curriculum is perhaps the most widely used conflict resolution program in the nation.[5] It was designed to teach adolescents about their risks of being injured or killed by violence, how to recognize and cope with anger, and how negative consequences of fighting usually outweigh any positives. Students are encouraged to find ways to deal with their anger and interpersonal conflicts other than with physical violence and are provided opportunities to role-play hypothetical conflict situations.

The short-term effectiveness of this curriculum was evaluated in a study involving tenth-graders at six inner-city high schools around the country.[6] A teacher from each of these schools attended a one-day training session on how to use the curriculum. These teachers assigned classes (nonrandomly) to either an intervention or a control group. Teachers also were responsible for administering pretests two weeks before implementing the curriculum and posttests one month after the curriculum was completed. Usable data were available for only four of the sites.

When data for these four schools were combined and pretest measures were accounted for in the statistical models, no significant differences were found in posttest scores on knowledge about violence, attitudes about ways

to handle conflicts, acceptance of violence, violence locus of control, self-esteem, self-reported fighting, drug use, or weapon carrying. Had the significance level not been adjusted for multiple comparisons, the lower rate of self-reported fights in the intervention group would have been statistically significant (p=.013). If the reported treatment effect was not a statistical artifact, one must consider the possibility that some students may have been more reluctant to report that they had gotten into a fight after participating in the program. Also, if the curriculum was responsible for reducing fights, one would expect that such an effect would be mediated by changes in attitudes. No such change was detected.

When the analyses were stratified by school, compared with the control group, the treatment group had greater gains in knowledge in one school; had greater gains in self-esteem in another; and were less likely to believe that people other than themselves bear responsibility for preventing fights in two of the schools. These isolated successes within certain schools could be attributable to disparities in instruction, differences in receptivity among the students, or chance.

The evaluators gave two possible reasons for lack of program effect: poor implementation and targeting the program to the wrong age group. Implementation by classroom teachers is likely to be a problem for any packaged curriculum. One of the barriers to program success most cotnmonly cited by youth violence prevention practitioners is that teachers are usually over-burdened with other educational responsibilities, and some have not bought into the idea of conflict resolution.[7] With regard to the appropriate age group, the evaluators suggested that the program would have been more effective with middle school students than with high school students. Considering the early onset and relative intractability of aggressive behavior patterns, such a program actually may be more appropriate for children under age ten.[8]

Any inferences about the effectiveness of this program must be made with caution, given the numerous methodological limitations of the evaluation. For example, the evaluators monitored neither the implementation of the program nor the data collection procedures. Also, high-risk students in the intervention group were more likely to drop out of the study than were such students in the comparison group, potentially biasing the results. And, most importantly, the amount of follow-up was insufficient to determine the program's long-term effects on behavior.

Washington (DC) Community Violence Prevention Program (WCVPP). This primary prevention program tries to address social information-processing deficits as well as belief systems associated with aggressive behavior and is modeled on the Viewpoints curriculum.[9] The fifteen-session curriculum also has modules that address risks associated with

weapon carrying, substance abuse, and drug dealing. The curriculum is taught by a trauma nurse, an emergency medical technician, an attorney, and a former drug dealer who is partially paralyzed from a gunshot wound.

All fifth-grade students in two public elementary schools and three seventh-grade classes at a junior high school participated in the program in spring 1991. Fifth- and seventh-grade students enrolled in the same inner-city schools in fall 1991 served as nonintervention comparisons. Students completed questionnaires one to three days prior to participation and one to two weeks after completion of the program. As part of the testing, students were asked to consider a hypothetical situation with potential for social conflict with a peer in which it was ambiguous whether the peer's actions were intended to be malevolent.

Program participants were less likely than the comparison group to define the hypothetical problem in terms of the presumed adversary's malevolent intentions and to suggest hostile or violent solutions to the problem. Participants were more likely than the comparison group to identify the negative consequences of responding to the hypothetical problem in a violent way but significantly less able to devise plausible nonviolent solutions to the problem.

The intervention was associated with a small (4 percent) and marginally significant ($p=.06$) decrease in condoning the use of physical aggression. Although the program increased students' knowledge of risk factors for violence, their attitudes about these risk factors did not appear to change. The program did not affect students' desire to have a weapon for protection and, among males, was negatively associated with levels of perceived risk from dealing drugs.

In sum, positive gains were detected for some of the easier tasks described above that are vulnerable to social desirability biases. However, the program had a negative impact on the more difficult task of devising viable nonviolent solutions to social problems, a major focus of the program that cannot be easily "faked." Also, necessary motivators of behavior change such as beliefs about the legitimacy of using violence or perceived risks of weapon carrying and drug dealing were virtually unaltered.

Positive Adolescent Choices Training (PACT). This violence prevention program, designed specifically for African American adolescents, applies cognitive training methods in small-group settings (ten to fifteen youths) in six skill areas: giving positive feedback, giving negative feedback, accepting negative feedback, resisting peer pressure, solving problems, and negotiating. Middle school teachers select students for participation based on social-skill deficiencies, problems with aggressive behavior, or history of victimization. Training is provided twice a week in fifty-minute sessions for half of the school year. Two African American doctoral-level psychology

students facilitate the training and are aided by a high-quality videotape that demonstrates the skills in realistic situations.1°0Students are given ample time to model and practice the skills. An incentive system is used to reward active participation and appropriate behavior during training. "Success dollars" are given that can be exchanged for such items as cassette tapes and t-shirts.

An evaluation compared fourteen PACT participants with thirteen youths who were referred on similar criteria but did not receive training.[11] Two observers blinded to the study-group status of the youths rated demonstrations of target skills before and after training. Teachers, who were not blinded to the study group of the students, and the students themselves also undertook before- and after-intervention ratings.

PACT participants showed improvement in all skills measured by observers, while no changes in the comparison group were reported. No statistical tests were reported for pre- and posttraining differences. The teachers' ratings of PACT participants were similar to the observers' ratings. No change was reported for the seven members of the comparison group for whom data from teacher observations were available. None of the PACT participants was suspended or expelled from school for fighting; however, there were two expulsions and seven suspensions for fighting in the comparison group. What one can infer from this evaluation, however, is limited by (1) the small sample size, (2) missing observational data on more than half of the control group, (3) lack of statistical tests, (4) lack of measurement of out-of-school behavior, and (5) the relatively short follow-up period.

Despite the limitations in the evaluation, the findings are more promising than are the other evaluations discussed here. This is probably because of key differences between PACT and the other two curricula. First, PACT focused on youths with identified skill deficits and behavior problems, therefore increasing the likelihood of measurable impact in the short term. (Depending on one's definition of primary prevention, PACT could be considered a treatment or secondary prevention program.) Second, PACT was much more intensive than the other conflict resolution curricula in that it included nearly four times as many sessions with about half as many students. Third, it is likely that the quality of cognitive social-skill training provided by highly trained facilitators and the aforementioned video was better than in many schools that have classroom teachers implementing conflict resolution programs. Fourth, the training, including the choice of facilitators and video, was designed to be culturally relevant for African American male teens. Fifth, rather than introducing the curriculum to a large class of students with no particular affinity to one another, PACT was conducted in small groups that were called "clubs" and that may have

functioned to some degree as such. Although this aspect of PACT was not discussed fully in the evaluation report, the clublike atmosphere may be a key to altering peer-group norms, which in turn can facilitate individual change. Finally, PACT also used incentives to encourage participation and appropriate behavior.

One could rightfully argue that the lack of evidence that conflict resolution programs produce sustainable behavior change is due as much to inadequacies of the evaluations as to inadequacies of the programs. None of the evaluators had funding to collect data on aggressive behavior or victimization over one or more years. Clearly, funders interested in supporting school-based conflict resolution programs should place a priority on evaluations with long-term follow-up. Funding several short-term evaluations that tell us nothing about programs' effects on behavior and victimization over several years is of questionable value.

But how likely is it that adolescent conflict resolution curricula, in the absence of changes in families and communities, will produce significant reductions in serious injuries resulting from violence? Although empirical data to answer this question directly are not available, the chances of such an outcome seem remote, given what is known about the efficacy of other health education curricula for adolescents and the dubious scientific rationale for conflict resolution curricula.

Effectiveness Of Other Adolescent Prevention Curricula

Although no long-term evaluation of conflict resolution curricula has been conducted, there is an adequate body of evaluation research on curricula directed toward preventing other high-risk behavior among adolescents. While these evaluation results are not directly generalizable to conflict resolution programs, they offer several relevant lessons.

Project ALERT, a brief school-based curriculum to prevent substance use, delivered in the seventh grade with booster sessions in the eighth grade, could be compared with some of the brief conflict resolution curricula in use today. The program addressed social skills and peer influences, which are relevant to violence as well as to substance abuse. Despite initial promising findings, a large-scale experiment found that once the lessons stopped, so did the program's effect on drug use.[12]

Joy Dryfoos reviewed a broad array of evaluations of prevention programs addressing delinquency, substance abuse, and teen pregnancy.[13] In general, she found that curricula that simply provided information about risks and used scare tactics were ineffective at changing behavior. A similar conclusion was made by the House Select Committee on Children, Youth, and Families concerning adolescent curricula to prevent human immunodefi-

ciency virus/acquired immunodeficiency disease syndrome (HIV/AIDS).[14]

Evaluations of more intensive curricula to prevent substance use that involve training in a variety of social skills including resisting peer pressure show more promising results.[15] Dryfoos found that social-skill training was often a component of successful programs to prevent high-risk behavior among adolescents when the programs were relatively intensive and included follow-up booster sessions.[16] She concluded, however, that there was no good evidence that social skill-oriented programs can prevent delinquency and that substance abuse programs that rely on social-skill training are generally ineffective with high-risk youth.

In her synopsis of the effectiveness of adolescent health education curricula, Dryfoos concluded, "We cannot rely on brief classroom-based curricula to alter complex socially derived patterns of behavior."[17] Well-designed curricula could, however, be useful components of more comprehensive communitywide strategies that involve parents, community leaders, mass media, advocacy, and law enforcement. In its analysis of the limitations of stand-alone HIV/AIDS prevention curricula, the Select Committee on Children, Youth, and Families added to the call for more comprehensive interventions the necessity of providing "assistance in escaping the social and economic conditions that foster risk-taking."[18]

Basic Premises Of Conflict Resolution Programs

Many adolescent conflict resolution curricula are based on the following premises, which lack empirical support.

(1) Violent *behavior is similar to other health behavior, and models of individual health behavior change can be readily applied to* the problem of *violence.* Clearly, the behavior of perpetrators and potential victims of violence has important health consequences. The extent to which this behavior fits models designed to predict and alter other health behavior, however, is much less clear. For example, it is commonly presumed that a person's desire to be healthy and safe will be a key tnotivator for reducing or avoiding high-risk behavior. These desires, and in some cases, instincts, could actually encourage high-risk behavior when it comes to violence. Many inner-city youths believe that to survive, one must be tough, be willing to fight, carry a gun, and be willing to shoot it. Convincing youths otherwise is extremely difficult when they feel that they cannot rely on the police or others to protect them.[19]

Based on the assumption that an insufficient level of perceived risk often prevents persons from making health behavior changes, many health education efforts include efforts to increase individuals' levels of perceived risk. Paradoxically, this also may increase violent behavior. Not only does a

heightened sense of risk often prompt gun acquisition and carrying, but it also may exacerbate feelings of hopelessness already pervasive in many poor inner-city areas. Some youths in these areas engage in high-risk activities partly because they believe their chances of living beyond age thirty are slim anyway.

More broadly, key determinants of interpersonal violence often differ from determinants of other health behavior in nature and intensity. In the vast majority of acts of interpersonal violence by youth, there is an explicit intention to harm another person. The motives for such acts vary-extreme anger, revenge, self-protection, greed, desire to control or dominate s o m e o n e-but are largely unique to violence. These motives can be intense, particularly in the heat of the moment, when a person may be overwhelmed by anger or fear. Individual-focused health education models and methods, therefore, may be inadequate for altering or overcoming these motivations.

(2) The violence prevention training needs of each student are similar enough that all would benefit from participation in a standardized program. In the spirit of primary prevention, conflict resolution programs often are delivered in blanket fashion, rather than being targeted to high-risk groups. While this makes a program relatively easy to administer within schools and avoids stigmatizing persons deemed to be at high risk, it does not adequately address the widely different needs of students.

Longitudinal studies of delinquency have found consistently that about 6 percent of boys become chronic offenders and commit 50 percent of juvenile crimes.[20] This high-risk subgroup accounts for an even higher proportion of violent crimes within their cohort once they become adults.[21] This select group of violent youth usually have multiple risk factors for violence at the individual level (low IQ, school failure, high impulsivity), family level (large family size, harsh discipline, poor supervision), and community level (low income, high unemployment, high crime). The majority of this high-offending group could be classified as "early starters," whose antisocial behavior problems develop between the ages of four and nine within seriously dysfunctional families.[22] Their problem behavior generally is accompanied by substantial social-skill deficits. Preventing violent behavior among this group demands early, comprehensive, and intensive interventions that include social-skill training as well as services for dysfunctional or overstressed families.

It is believed that late starters-those whose antisocial behavior patterns begin during adolescence-generally do not have significant social-skill deficits. Needs for social problem-solving skills are likely to differ substantially among early starters, late starters, and adolescents who are not abnormally aggressive.

Conflict resolution programs are designed and promoted as primary prevention. Their focus on enhancing social problem-solving skills of adolescents, however, seems to be out of step with the developmental research in this area, which suggests that social-skill deficits of most aggressive youth begin in early childhood.[23] Based on this research, a National Research Council (NRC) expert panel on the control of violent behavior recommended testing conflict resolution programs with children at around the third-grade level.[24] Conflict resolution curricula in middle schools conceivably could function as primary prevention against late-starter antisocial behavior, but late starters typically do not have substantial social-skill deficits.

(3) Adolescents who engage in violent behavior do so because of deficiencies in social information processing or other skills needed to solve social conflicts nonviolently. Cognitive and developmental psychologists have detected positive correlations between aggressive behavior and what they have described as social information-processing deficits.[25] The measurement of many of these deficits usually involves presenting respondents with a series of questions (some forced-choice and some open-ended) pertaining to hypothetical conflict situations. Using these measurement procedures, researchers have reported positive associations between the inability to derive multiple ways of effectively handling social conflicts and aggressive behavior.[26] The idea of training youths to derive multiple nonviolent alternatives to handling social conflicts is based partly on this research. Unfortunately, researchers rarely consider the possibility of motivational differences that confound the associations between measured social problem-solving skills and aggressive behavior. In my experience administering questionnaires that include social problem-solving tasks in middle and high schools, disruptive and low-achieving students (who are more likely to be aggressive) appear to put less effort into deriving and writing down numerous solutions than do other youths. Such youths also are more likely to have academic deficits and poor attitudes about school that make it more likely that they will not perform well on cognitive-oriented tests. Regardless of the degree to which skill measures are obscured by differing levels of effort and academic ability, the validity of social problem-solving skill measures has yet to be demonstrated adequately.

Measures of social information processing also are associated with respondents' attitudes about violence, and these attitudes are associated with aggressive behavior.[27] Thus, associations between social information-processing deficits and aggression may be confounded by attitudes about violence. For example, tendencies to assume hostile intent of presumed adversaries when none is explicit in the hypothetical vignettes may simply be realistic assumptions based on experiences with aggressive family mem-

bers and peers rather than "hostile attributional biases."

Direct causal connections between various social information-processing skills is made more dubious by evaluations that indicate that improvements in these skills generally do not lead to behavioral changes outside of controlled settings.[28] An evaluation of an intervention to remediate cognitive factors correlated with aggression within a juvenile correctional facility indicated that the reduction in aggressive behavior associated with the program was virtually unrelated to changes in any of the seven measures of social problem-solving skills. Only changes in attitudes about the legitimacy of using physical aggression were predictive of behavioral change.[29] Causal links between social problem-solving deficits and serious acts of violence are even more tenuous than are those for less deleterious acts of aggression, on which virtually all studies in this area are based.

There are many plausible explanations for the difficulty in producing behavioral change despite having measurable improvements in social skills. The degree to which social skills are enhanced may be statistically significant but still insufficient in magnitude to change behavior. Some argue that most social behavior is largely unthinking in nature and is driven by overlearned social scripts, particularly in moments of crisis.[30] It seems unrealistic to expect youths to use brainstorming techniques practiced a few times in school to come up with alternative ways of handling spontaneous social conflicts. It is much more plausible that they would rely instead on their well-learned scripts, Alternatively, some minimum level of social skill may be critical for avoiding aggressive behavior problems; however, the benefits from increasing skill levels beyond this point may diminish rapidly.[31] Another likely explanation is that social-skill enhancements may be necessary but not sufficient to produce behavioral changes without concomitant attitudinal changes.

Programs that focus primarily on social-skill deficits are likely to be futile if youths are not motivated to use the skills. There are many reasons why they would not be so motivated. Aggressive youths tend to believe that aggressive behavior increases status among their peers, particularly in the short term, and provides tangible rewards.[32] Acting tough and maintaining a reputation as someone willing and able to commit serious acts of violence is considered a necessity within gangs and groups involved in drug trafficking. Even outside of delinquent groups, there is considerable social pressure for youths, particularly males in low-income communities, not to back down when provoked. Although attitudes about violence often are discussed in conflict resolution programs, brief adult-led curricula cannot be expected to produce sustainable attitude change, particularly because adolescents are in a developmental stage characterized by defiance of adults.

(4) *The most important social skill needed to reduce the risk of violence is*

how to negotiate one's way through conflicts. The apparent reasoning behind this premise is that for a large proportion (30 percent) of homicides, the circumstance surrounding the incident is classified as an "argument."[33] To my knowledge, no one has studied police report narratives in an attempt to refine the "argument" category for homicide circumstances, but it is likely to include a wide variety of circumstances surrounding hostile interpersonal interactions.

For most middle-class adults, arguments usually stem from disagreements and competing interests. These conflicts often can be solved through negotiation. Negotiation skills may be of little relevance in a wide variety of other situations that involve heated interpersonal exchanges, particularly for youths in low-income neighborhoods. In my observation of conflict resolution programs in crime-ridden neighborhoods, it is rare for students to bring up incidents that fit the negotiated solution model well. More often, students talk about taunts, put-downs, competition over girlfriends and boyfriends, shake-downs, gang retaliation, and attempts to assert dominance over adversaries. Fights between boys in their early and middle teens are usually about status and respect.[34] This is not surprising when one considers the heightened concern for respect among young people living in ghetto areas who generally are disrespected by society and deprived of legitimate opportunities to acquire symbols of status.

Potential Dangers Of Promoting Conflict Resolution Programs

Regardless of how one interprets the existing research relevant to adolescent conflict resolution programs, opportunity costs must be considered in decisions to promote these programs. It is difficult to determine the amount of resources being devoted to adolescent conflict resolution programs. These programs are inexpensive to implement compared with other interventions; that is a big part of their appeal. Nevertheless, they are very popular, and in the aggregate, they consume considerable resources. Private companies are scrambling to fill the market's need for curriculum development and delivery. Thousands of teachers, counselors, health educators, and volunteers are spending countless hours in financially strapped schools and communities delivering programs to captive audiences of students.

In the absence of convincing evidence that adolescent conflict resolution programs reduce violence, these efforts may be better used in ways that are more likely to prevent violence or that have other socially desirable payoffs. For example, individualized attention to enhance students' academic performance could reduce school failure-often a precursor to antisocial behavior and a contributor to economic conditions that spawn violence. While there are many reasons why our schools have failed our

youth, the ever-growing (and unrealistic) demands upon schools and teachers to solve students' social problems undoubtedly interfere with the teaching of necessary academic and vocational skills. Inadequate parental supervision and attention is another strong risk factor for delinquency. Resources thus could be devoted to mentoring and supervised recreation. Alternatively, more resources could be devoted to comprehensive early interventions for high-risk children.

In addition to these opportunity costs, promoting conflict resolution programs may actually hinder violence prevention by diverting attention from social and economic conditions that engender violence, the failure of governments and other social institutions to improve these conditions, and politically contentious issues such as strict gun control. Taking on powerful interest groups is difficult. Promoting conflict resolution programs as the solution to youth violence lets politicians off the hook by giving them something to point to when they are asked about what they are doing to reduce violence.

Recommendations To Prevent Adolescent Violence

Fund long-term evaluations. Government agencies and foundations interested in adolescent conflict resolution as a strategy to reduce youth violence should fund long-term evaluations with sufficient sample size and follow-up time to detect possible changes in perpetration and victimization involving serious injuries. While plenty of resources are being devoted to delivering adolescent conflict resolution programs, no one has been willing to invest in long-term evaluations that will tell us whether those resources are being well spent.

Restructure program content. Behaviorally oriented youth violence prevention programs should address known risk factors consistent with the developmental stage of the target audience; include training on how to handle put-downs and deescalate volatile situations; and include training in street survival skills.

Programs that focus on enhancing social information-processing skills and other social skills should be targeted to children ages four to nine. Adolescent programs then should focus on problems of school failure, the absence of attachments to positive adult role models, the lack of supervised recreational opportunities, and allegiances with antisocial peer groups.

Better formative research on the situations that spark violent encounters involving youth is needed to ensure that youth violence prevention programs prepare adolescents to avoid or respond appropriately to potentially violent situations, Currently, there is more convincing evidence that status attacks and macho posturing are more common precursors to violence than

situations that would usually call for negotiation skills. No curriculum can alter the root causes of often deadly battles over respect, but students may benefit from being taught ways of handling perceived put-downs or insults nonviolently without losing face.[35] The efficacy of such teaching could hinge on the implementation of programs and policies that offer real opportunities to build self-esteem and of peer-led programs to promote nonviolent social norms for responding to status attacks.

Teaching adolescents nonviolent street survival skills is an untested strategy that warrants evaluation. Schools and didactic curricula are generally best suited to imparting information that is useful to students. They are generally less proficient at teaching relatively complicated social skills and promoting certain values such as nonviolence. Adolescents growing up in high-crime areas are very concerned about predatory crime and need information about how to avoid being victimized and how to avoid being seriously hurt if they are victimized. Safety tips that students consider useful, delivered by credible sources, would be more likely to stick with them than would more complicated social skills or attitudes about violence that are not shared in their homes and communities.

Intensify and broaden interventions. Brief interventions that are not reinforced outside the immediate training environment cannot be expected to alter difficult-to-change behavior. Students must practice the social skills they are taught in situations that are as realistic as possible, and the acquired behavior patterns must be reinforced over time and across settings. Programs that fail often do so because of inadequate consideration of and control over the ecological context in which violent behavior is learned and reinforced.[36] Intensive, comprehensive, and long-lasting interventions with young children are expensive and unlikely to produce immediate reductions in violence, but they have a much greater likelihood of producing significant and lasting behavior change than do current adolescent conflict resolution programs.

Focus on broader environment. School curricula have an obvious individualistic bias in their orientation. We have learned the limits and dangers of individual-centered approaches to other health and social problems.[37] These problems are only magnified when it comes to violence prevention.[38] A recent report from an NRC panel on high-risk youth broke with individual-centered traditions.[39] The report documents how the environments in which youth and their families live have deteriorated during the past ten to twenty years for a large segment of society, and how various social institutions that should be supporting youth are failing them. Violence prevention advocates should heed the recommendations of this NRC panel and focus their efforts on improving the environments in which underprivileged youth live, enhancing opportunities for them to live pro-

ductive lives so that they have a stake in society, and altering the social institutions that affect their quality of life.

Schools' efforts to prevent youth violence traditionally have focused on controlling students' behavior. While behavior must be controlled, school officials should focus on ways in which school environments and policies either could contribute to or could prevent violence. In the short term, schools in neighborhoods where youths often carry weapons should invest in stationary metal detectors and security systems. For the long term, schools should adopt policies to reduce school failure, which places youth at increased risk of becoming involved in crime and violence. Such policy changes might include making schools smaller, curtailing ability tracking and grade retention, providing high-risk students with individualized attention and instruction, assigning teachers to cohorts of students rather than to specific grades, and linking academic learning with vocational learning and opportunities.[40] Some school improvements require increased funding for schools in poor communities. The public needs to be taught that investments in schools, when properly managed, are investments in crime prevention.

Reduce availability of guns. Governments, schools, communities, and families should make concerted efforts to reduce the availability of handguns and gun carrying among youth. The recent epidemic in youth homicides is almost entirely an epidemic of gun violence. Significant reductions in the most lethal forms of youth violence cannot be expected to decline if the availability of guns to youth is not curtailed. This requires greater restrictions on handgun sales, more controls on those licensed to sell guns, more intensive efforts to combat illegal gun trafficking by law enforcement with the cooperation of communities, and parents removing guns from the home.

NOTES

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