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Research in Brief

Toward Safe and Orderly Schools—The National Study of Delinquency Prevention in Schools

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ABOUT THIS REPORT

Schools are expected to provide a safe environment and to play an active role in socializing children for participation in a civil society. Most schools have programs to prevent problem behavior and serious misconduct such as drug use and violence. But how good are these programs? A recent national study surveyed principals, teachers, program implementers, and students about school safety and the programs used to prevent problem behavior and promote a safe and orderly environment.

What did the researchers find?

Nearly all U.S. public schools are using a variety of delinquency prevention programs and disciplinary practices. Some programs and practices may be of poor quality. Problem behavior was found to be pervasive, and most common in urban schools and among children at the middle school level. Although many programs were judged potentially effective, nearly half failed to meet the study's criteria for quality. Staff training, program monitoring, and other organizational support from school leaders were found to be related to program quality. A school's organizational capacity—staff morale and stability and a history of implementing programs—predicted the extent of program use and student participation. These findings suggest that to improve delinquency prevention programs and promote safety, schools should focus on supervision, staff development, and overcoming organizational problems that have thwarted program implementation in the past.

What were the study's limitations?

The research was based on a sample survey in which respondents completed questionnaires to describe their schools and programs. Response errors are always a potential problem in surveys. For example, respondents may have withheld information that reflected badly on their schools or programs. Urban secondary schools participated at a lower rate than other schools. Although weighting was used to correct for this, differential participation still may have biased the results.[1]

Gary D. Gottfredson, Denise C. Gottfredson, Ellen R. Czeh, David Cantor, Scott B. Crosse, and Irene Hantman

Toward Safe and Orderly Schools—The National Study of Delinquency Prevention in Schools

What have schools been doing to prevent delinquency and promote school safety? What are the extent and quality of school-based delinquency prevention programs? What can schools do to improve their programs?

This Research in Brief is based on "National Study of Delinquency Prevention in Schools," final report to the National Institute of Justice, July 2000, NCJ 194129, available at www.gottfredson.com/national.htm or from the National Criminal Justice Reference Service at www.ncjrs.org/pdffiles1/nij/grants/194129.pdf.

About the Authors

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A national study completed in 2000[2] found that despite the increase in knowledge about "what works" in school delinquency prevention, most of the Nation's schools use prevention practices that are either unproven or known to be ineffective. Much of what schools do has not been studied by scientists to develop knowledge of effectiveness. In many schools, poor implementation may limit program effectiveness, even for programs known to be effective when well implemented.

The typical school's delinquency prevention practices often fall short of models found through research to be effective. For example, only half of the prevention curriculums and one-fourth of the school-based mentoring programs in this study held as many sessions as programs that were found effective.

How well programs are implemented is as important as program design. However, achieving quality implementation requires a complex base of support that may not be found within many schools. This is particularly a problem if they attempt to put in place an ambitious array of programs.

An abundance of programs—but how good are they?

Minor forms of problem behavior that interfere with education are common in schools. Serious problem behavior such as fighting, attacks, and carrying weapons occurs less frequently, but still altogether too often. Schools differ greatly in levels of disorder and crime, with middle schools on average experiencing the greatest problems.

A large number and wide variety of prevention activities are currently under way in schools. Although multiple approaches may increase the likelihood that a school will succeed in reducing delinquent behavior, they also may spread resources too thin, diminishing the quality of each effort.

Prevention programs and practices

Schools use very few of the possible methods of influencing student behavior.

Growing evidence suggests that specific categories of interventions or arrangements in schools can reduce or prevent delinquent behavior, drug use, and school disorder.[3] This evidence has been followed by an increasing attempt by government to identify and use knowledge- and science-based interventions.

Popular guides and lists of programs provided to schools for delinquency prevention are dominated by curriculum packages.[4] But schools are also using many other strategies to try to reduce problem behavior. Study researchers classified the myriad school prevention activities (see exhibit 1) into three broad categories:

- *Direct services to students, families, or staff.* These include group instruction, provision of instructional materials, and a variety of interventions to prevent problem behavior, promote school orderliness, and counsel students or their families. Interventions such as community service, peer mediation, and student courts are seldom used compared to other responses to misconduct. Schools use very few of the possible methods of influencing student behavior, such as rewards for desirable behavior.

- *Organizational or environmental arrangements.* Schools make substantial use of architectural and structural arrangements to prevent problem behavior and promote school safety. Urban schools are more likely than schools in other locations to use gates, fences, walls, and barricades, and to physically block off sections of the building.

- *Discipline or safety management activities.* Virtually all schools have strict rules about dangerous behavior and the possession of weapons, and virtually

Exhibit 1. Prevention activities to reduce problem behavior or promote school safety

Prevention activity	Percent of schools using activity
Direct services to students, families, and staff	
Provision of isolated information*	90
Prevention curriculum, instruction, or training	76
Counseling, social work, psychological/therapeutic interventions	75
Behavioral or behavior modification interventions	64
Recreational, enrichment, and leisure activities	64
Individual attention, mentoring, tutoring, coaching	58
Services to families	55
Treatment or prevention interventions for administrators, faculty, or staff	49
Organizational and environmental arrangements	
Reorganization of grades, classes, or school schedules	81
Architectural features of the school	76
Use of external personnel resources in classrooms	72
Distinctive culture or climate for interpersonal exchanges	66
Improved instructional methods or practices	62
Improved classroom organization and management methods or practices	57
School planning structure or process—or management of change	57
Improved intergroup relations or interaction between school and community	57
Altered school composition	32
Discipline and safety management	
Rules, policies, regulations, laws, or enforcement	100
Security and surveillance	55
Youth roles in regulating and responding to student conduct	40

*Such as pamphlets about alcohol, tobacco, drug use, or risky sexual behavior.

all principals report that they communicate those rules. Most schools report that they apply severe consequences when these rules are broken. Schools are very likely to suspend or expel a student for possession of a gun, knife, alcohol, or other drugs. Suspension or expulsion for physical fighting, possession of tobacco, and use of profane or abusive language is also common. The high percentage of schools reporting the "automatic" suspension or expulsion of students is surprising, given that U.S. Supreme Court decisions[5] mandate some degree of due process even for short-term, out-of-school suspensions. Study findings suggest that school administrators may treat due process requirements casually and that after-school and weekend detentions are used less than they might be.

Schools are engaging in many approaches to preventing problem behavior that have received scant attention in scientific research. Although much has been written about instructional, behavioral, and cognitive-behavioral approaches, little research has focused on architectural changes, school-wide discipline improvement, or strategies that alter the school's physical or interpersonal environment.

Program implementation

Previous research has established that (1) high-quality activities can make a measurable difference in problem behavior, and (2) activities known to be effective do not work if poorly implemented.[6]

For this study, researchers developed extensive quality criteria to measure the adequacy of prevention activities. They set thresholds that the identified activities must reach to plausibly be expected to have a measurable effect, that is, to be likely to reduce problem behavior or increase safety (see exhibit 2). Averaging the ratings for the nine quality indicator categories shown in the exhibit, only 57 percent of the Nation's school-based delinquency prevention activities were judged to be adequate.

The study linked high-quality program implementation with several school or program characteristics:

- *Aspects of a school's climate.* Schools with high-quality programs tend also to have high faculty morale, organizational focus on clear goals, open identification of problems, and open communication between teachers and the principal.
- *Leadership.* Faculty assessment that the principal is a good educational leader is associated with a high level of prevention activity and extensive student exposure to activities.
- *Training and monitoring.* How thoroughly program implementers are trained, monitored, and reviewed is associated with the quality of schoolwide discipline and prevention activities.
- *Local planning and responsibility.* Program quality is greater for activities that are a regular part of the school program. Although schools make extensive use of programs developed outside the school district, quality of implementation tends to be higher when program implementers solicit input from local district personnel or experts.

Poor implementation abounds. Despite their prevalence, delinquency prevention activities in the Nation's schools are generally of poor quality—47 percent received a failing grade when judged by the researchers' quality criteria.[7] Classroom- and school-level activities seem to be implemented with somewhat higher quality than activities targeting individual students. Many activities are implemented with insufficient strength and fidelity to be effective.

For example, only 10 percent of the Nation's schools report using what the study's researchers consider to be minimally adequate discipline practices (see exhibit 3). The majority of schools either do not use available methods of influencing behavior or do not apply consistent disciplinary responses.

Prevention activities of all types fall short in some areas. For example, both instructional and behavioral programs often fail to include

Program quality is greater for activities that are a regular part of the school program.

Exhibit 2. Survey results: adequacy of prevention activities

Quality indicator*	Criterion for "adequate" rating	Percent judged adequate*
Level of use by school personnel	One or more persons conducting activity on a regular basis	61
Best practices—Content	Uses 70% or more of identified best practices	61
Best practices—Methods	Uses 70% or more of identified best practices	33
Number of lessons/sessions		37
• Prevention curriculum, instruction, and training	≥ 16	
• Mentoring	≥ 52	
• Tutoring; recreation, enrichment, leisure	≥ 26	
• Improvements to instructional practices/methods	≥ 30	
• External personnel resources for classroom	≥ 25	
Duration		70
• Prevention curriculum or training; counseling, social work, psychological or therapeutic activity; tutoring; recreation, enrichment, leisure	• Longer than a month	
• Mentoring	• At least 1 school year	
• Planning structure or management of change; security and surveillance	• More than 1 full school year	
Frequency of participation—Students		61
• Culture, climate, or expectations; intergroup relations and school-community interaction; planning structure or management of change	• At least 2–3 times per month	
• Prevention curriculum or training; counseling, psychological or therapeutic activity; mentoring, tutoring; recreation, enrichment; services/programs for family members; external personnel resources for classrooms	• At least weekly	
• Improvements to instructional practices or methods	• More than once per week	
• Behavioral programming or modeling; security	• At least daily	
Frequency of participation—Staff		60
• Culture, climate or expectations; intergroup relations and school-community interaction; planning structure or management of change	• At least 2–3 times per month	
• Security and surveillance	• At least daily	

*Feature or characteristic of the program used as a measure of intervention potency.

Exhibit 2 (continued). Survey results: adequacy of prevention activities

Quality indicator*	Criterion for "adequate" rating	Percent judged adequate*
Proportion of students exposed or participating		60
• Culture, climate or expectations; intergroup relations and school-community interaction	≥ 70%	
• Youth participation in discipline	≥ 10% or referrals to a student court or peer mediation	
Frequency of operation		75
• Culture, climate or expectations; intergroup relations, school-community interaction; planning structure or management of change; security and surveillance	Continually throughout the year	
Mean proportion of activities/programs judged adequate		**57**

*Feature or characteristic of the program used as a measure of intervention potency.

state-of-the-art methods. Even for security and surveillance activities—where implementation may seem more straightforward than for other types of prevention activity—only 71 percent of the activities occurred daily.

In light of these findings, improving the quality of implementation of school-based prevention activities is a high priority.

Recommendations for practice

Through analyses of aggregate-level correlations between school characteristics, prevention activities, and the average quality of implementation in schools, researchers identified seven elements linked to quality implementation (see exhibit 4). These predictors of well-implemented programs closely track many of the researchers' original hypothesized predictors (see "The National Study of Delinquency Prevention in Schools").[8]

Most schools lack some or all of these elements. How can this situation be improved? Study researchers offer some ideas, derived by coupling known best practices with areas of need identified by the study.

Focus on schools with the greatest need. By monitoring levels of problem behavior through annual surveys of students and teachers, rather

Exhibit 3. Percentage of schools with adequate disciplinary practices

Category of practice	Percentage
Communication of rules and policies and documentation of disciplinary actions	93
Consistent discipline	48
Predictable disciplinary decisionmaking	31
Range of appropriate responses to misconduct	27
Range of responses to desirable conduct	20
Adequate disciplinary practices (composite score)*	**10**

* Each category comprises numerous practices. Researchers classified a school as having adequate disciplinary practices if the school used 70% or more of the practices in each category. Under these criteria, 10% of schools studied had adequate disciplinary practices.

than relying on school administrators' reports, school districts are more likely to identify schools that have the most problems with disorder. Focusing resources on these schools may be appropriate. For example, schools with relatively high levels of problem behavior might be provided training and technical assistance, and principals and other implementers might be monitored more closely. Districts might emphasize the assignment of first-rate administrators and faculty to such schools.

Start within the school. If the school climate is poor (low morale, little focus, poor communication, low regard for the principal) or organizational support is lacking, it may be advisable to address infrastructure problems in the school as a whole before launching a program. Implementation of high-quality prevention activity may be thwarted unless the school principal supports the effort.

Improve training and supervision. Quality prevention programming calls for more and better training and supervision of school personnel, including principals, and close monitoring of their activities.

Use more promising practices. Potentially valuable practices—such as intervention with the families of students, use of the full range of sanctions and rewards for

student behavior, and promoting youth roles in the regulation of student behavior—can lead to improvements in schoolwide discipline. Improving day-to-day responsiveness of school discipline systems is an appropriate way to address concerns about student behavior; suggestions to impose stricter sanctions appear to miss the mark.

Involve school staff, the community, and experts. Because local planning and greater use of available data are linked to quality programming, schools could benefit by encouraging more local involvement while adhering to program standards and guidelines.

Exhibit 4. Predictors of high-quality delinquency prevention activities

Training is extensive and of high quality.
Training for program-specific activities and, more generally, in classroom management and behavior management is provided.

Program activities are supervised at all levels.
Program implementation and school disciplinary practices are closely supervised by the principal, and the principal is supervised by district personnel.

The principal supports prevention programs.
The principal openly supports prevention activities and is perceived by staff as an effective education leader. Faculty morale is high, the organization is focused on clear goals, and the principal sees few obstacles to program development. Communication between the principal and the faculty is open.

Activities are highly structured.
Programs are scripted, follow manuals and implementation standards, and use quality control mechanisms.

Programs are locally initiated.
Programs are started and run by school insiders, researchers, or district personnel. But these programs are not necessarily locally developed. Researchers found that externally developed programs tended to be of higher quality than locally developed programs.

Multiple sources of information are used.
Activities are selected from a wide variety of sources, including district personnel and outside experts.

Activities are integrated into the regular school program.
Implementing the program is a formal part of the implementer's job. Activities are a regular part of the school program, do *not* depend on volunteers, and are conducted during the school day (not after school or on weekends).

The National Study of Delinquency Prevention in Schools

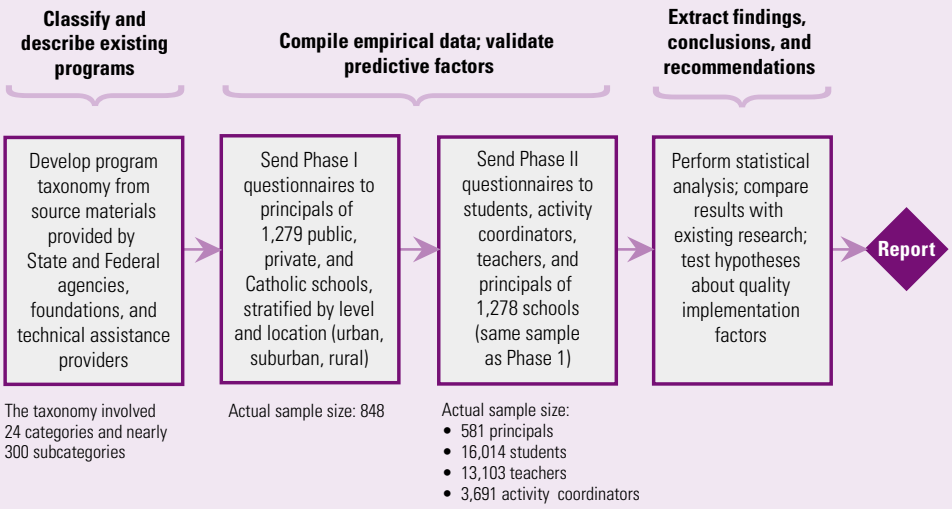
To gather information about school delinquency prevention programs, the researchers surveyed elementary, middle, and secondary level schools (see exhibit 5).

After identifying and classifying existing programs, researchers hypothesized that several factors were important for successful implementation of delinquency prevention programs—

- Organizational capacity of the school, especially staff morale and stability and the school's experience with prevention programs.
- School leadership, staff traits, and past accomplishments.
- Budget and resources.
- Organizational support (training, supervision, principal support).
- Program structure (manuals, implementation standards, quality control mechanisms).
- Integration into normal school operations, local initiation, and local planning.
- Program feasibility (match between program design and regular school activities; few obstacles).
- Level of disorder.

To test the hypotheses and gather data, two phases of surveys were used. All of the factors received some support from the data except budget and resources.

Exhibit 5. Study methodology



Implications for research

Despite the great variety of prevention strategies in use, most research on school-based delinquency prevention has focused on curricular and behavioral programs. Studies clearly show that the strength of the implementation effort affects program outcomes—in other words, even a well-designed program requires careful implementation by school staff.[9]

Research is needed especially on approaches that have not been studied but are widely used, such as school security practices, architectural arrangements, counseling approaches to problem behavior, and other practices identified by this study.[10] Studies that involve multiple schools to test for interactions of school characteristics with preventive interventions would be useful. Research plans should include incentives for school participation.

By comprehensively cataloging existing programs and isolating the factors that affect program success, this study has revealed the size and complexity of the problem of preventing delinquency and maintaining safe, orderly school environments.

The measures of program quality developed for the study may be useful for program assessment and determining schools' technical assistance needs. Further research on these issues is desirable.

Quality rests on capacity

In view of the large amount, wide variety, and limited quality of prevention activity under way, it may be wiser for many schools to improve the quality of what they are already doing than to adopt new programs.

The evidence that program quality depends on school capacity—morale, focus, communication, strong leadership—suggests that school district administrators have a role to play. Districts can foster these critical aspects of school infrastructure by providing resources for planning and organization development, selecting effective leaders, setting standards,[11] and holding schools accountable for the quality of their prevention activities.

State and Federal agencies can encourage local initiation of prevention activities and can promote quality by

disseminating information about the *characteristics* of effective programs, rather than just distributing lists of recommended or exemplary programs. Such lists may be misleading if they direct attention to program names without also providing guidance on concrete standards for program implementation.

That schools universally want to ensure a safe and orderly environment and prevent delinquent behavior is evident from this study. Some schools face considerable obstacles to effective implementation of even widely acclaimed programs. These schools may be better served by shifting their focus away from the adoption of more programs to building the organizational capacity to support high-quality implementation of fewer, carefully selected programs.

Notes

1. Researchers expected to find a lower level of quality implementation in urban schools, but found the opposite. This may be because many schools in the most disorganized and high-crime urban settings did not participate, or it may be because urban schools have more assistance in or place higher priority on programs to reduce problem behavior. See Gottfredson, G.D., D.C. Gottfredson, E.R. Czeh, D. Cantor, S.B. Crosse, and I. Hantman, "National Study of Delinquency Prevention in Schools," final report to the National Institute of Justice, Ellicott City, MD: Gottfredson Associates, Inc., 2000: 4-20, NCJ 194129.

2. Supported largely by the National Institute of Justice (NIJ) in cooperation with the Bureau of Justice Assistance (BJA), surveys were conducted in 1997 and 1998. See Gottfredson, G.D. et al., "National Study of Delinquency Prevention in Schools": 1-16 to 1-27. NIJ and BJA saw the study as a precursor to rigorous outcome evaluations of school-based delinquency prevention programs.

3. See, e.g., Gottfredson, D.C., *Delinquency and Schools,* New York: Cambridge University Press, 2001; Hansen, W.B., and P.M. O'Malley, "Drug Use," in *Handbook of Adolescent Health Risk Behavior,* R.J. DiClemente, W.B. Hansen, and L.E. Ponton, eds., New York, NY: Plenum Press, 1996: 161–192; Institute of Medicine, *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research,* Washington, DC: National Academy Press, 1994; and Weissberg, R.P., and M.T. Greenberg, "School and Community Competence-Enhancement and Prevention Programs," in *Handbook of Child Psychology: Child Psychology in Practice,* vol. 4, W. Damon, I.E. Sigel, and K.A. Renninger, eds., New York: Wiley, 1997.

4. See *Making the Grade: A Guide to School Drug Prevention Programs* (updated and expanded edition), Washington, DC: Drug Strategies, 1999.

5. *Goss* v. *Lopez,* 419 U.S. 565, 95 S. Ct. 729, 42 L. Ed. 2d 725 (1975); and

Wood v. *Strickland,* 420 U.S. 308, 95 S. Ct. 992, 43 L. Ed. 2d 214 (1975).

6. A relation has been found between level of implementation and effectiveness for school-based and other kinds of programs. See Alper, J., "The Nurse Home Visitation Program," in *To Improve Health and Health Care,* vol. V, S.L. Isaacs and J.R. Knickman, eds., The Robert Wood Johnson Anthology, San Francisco: Jossey-Bass, 2002; Botvin, G.J., E. Baker, L. Dusenbury, E.M. Botvin, and T. Diaz, "Long-Term Follow-up Results of a Randomized Drug Abuse Prevention Trial in a White Middle Class Population," *Journal of the American Medical Association* 273(1995): 1106–1112; Botvin, G.J., E. Baker, L. Dusenbury, S. Tortu, and E.M. Botvin, "Preventing Adolescent Drug Abuse Through a Multimodal Cognitive-behavioral Approach: Results of a 3-Year Study," *Journal of Consulting and Clinical Psychology* 58(1990): 437–446; and Henggeler, S.W., G.B. Melton, M.J. Brondino, and D.G. Schere, "Multisystemic Therapy With Violent and Chronic Juvenile Offenders and Their Families: The Role of Treatment Fidelity in Successful Dissemination," *Journal of Consulting and Clinical Psychology* 65(1997): 821–833.

7. The study's "report card" on the quality of U.S. school-based delinquency programs gave an "A" to only 18 percent of schools nationwide. See Gottfredson et al., "National Study of Delinquency Prevention in Schools": 4-21 to 4-22.

8. See ibid., chapter 6, for detailed discussion of how the predictors were derived. The study's hypotheses are discussed in chapter 1.

9. See Botvin et al., "Preventing Adolescent Drug Abuse." Also see Gottfredson, D.C., G.D. Gottfredson, and S. Skroban, "Can Prevention Work Where It Is Needed Most?" *Evaluation Review* 22(1998): 315–340.

10. For a detailed taxonomy of school-based prevention activities and objectives, see Gottfredson et al., "National Study of Delinquency Prevention in Schools": 3-5 to 3-32 and appendix D.

11. One structure for integrating implementation standards with planning and program development is described in Gottfredson, G.D., "A Theory-Ridden Approach to Program Evaluation: A Method for Stimulating Research-Implementer Collaboration," *American Psychologist* 39(1984): 1101–1112; also see Gottfredson, G.D., D.E. Rickert, Jr., D.C. Gottfredson, and N. Advani, *Standards for Program Development and Evaluation Plans* (2d ed.), Ellicott City, MD: Gottfredson Associates, 1999.

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