

Evaluation and Evolution of the Gang Resistance Education and Training (G.R.E.A.T.) Program

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The Gang Resistance Education and Training (G.R.E.A.T.) program is a gang- and delinquency-prevention program delivered by law enforcement officers within a school setting. Originally designed in 1991 by Phoenix-area law enforcement agencies to address local needs, the program quickly spread across the United States. In this article, we describe the evolution of the program and its responsiveness to two independent national evaluations funded by the U.S. National Institute of Justice. The first evaluation revealed little program effect and contributed to a critical review and substantial revision of the G.R.E.A.T. "core" or middle-school curriculum. Preliminary findings from the ongoing second evaluation give an initial indication of the extent to which these changes have resulted in the achievement of G.R.E.A.T. program goals of helping youths to (a) avoid gang membership, violence, and criminal activity; and (b) develop a positive relationship with law enforcement.

KEYWORDS *G.R.E.A.T., youth gangs, gang prevention, violence prevention, school-based prevention, evaluation research*

The Gang Resistance Education and Training (G.R.E.A.T.) program is a gang- and delinquency-prevention program delivered by law enforcement officers within a school setting. This article describes the program and the evolution of its core curriculum in response to findings from a national evaluation. Preliminary findings from a second national evaluation currently in progress are then presented as an initial indication of the extent to which curricular changes are producing positive outcomes for students. In addition, several challenges associated with school-based prevention programming and evaluations are highlighted.

The G.R.E.A.T. Program

The original G.R.E.A.T. program was developed in 1991 by Phoenix-area law enforcement agencies to better respond to local gang problems. The basic structure and content of the program was quickly put together by Phoenix-area police officers trained in Drug Abuse Resistance Education (DARE; Winfree, Peterson Lynskey, & Maupin, 1999). As such, there were similarities between the programs, with lessons and delivery loosely resembling the original DARE program and generally lacking strong theoretical or empirical foundation (the DARE curriculum has since been revised, after numerous studies revealed little to no program effect; see, e.g., Ennett, Tobler, Ringwalt, & Flewelling, 1994; Lynam et al., 1999; Rosenbaum, Flewelling, Bailey, Ringwalt, & Wilkinson, 1994; West & O'Neal, 2004).

Despite the lack of theoretical or empirical grounding, the G.R.E.A.T. program was well-received by schools, law enforcement agencies, students, and parents (Freng, 2001; Peterson & Esbensen, 2004; Taylor & Esbensen, 2002). The core curriculum of the original G.R.E.A.T. program operated as an eight-lesson (over 9 weeks), largely lecture-based curriculum taught primarily in middle schools by law enforcement officers. Other optional components of the program included an elementary school curriculum and a summer program. Although the program was intended for local use, it spread throughout the United States as other communities and schools sought new avenues for gang and delinquency prevention and as federal funds, through the Bureau of Alcohol, Tobacco, and Firearms (BATF), became available to agencies seeking to implement the program.

The National Evaluation of G.R.E.A.T. (G.R.E.A.T. I)

In 1994, the National Institute of Justice (NIJ) funded a multisite, multiyear (1994–2001) national evaluation of G.R.E.A.T., focusing on the program's core curriculum. The evaluation design consisted of several components. A process evaluation included observations of G.R.E.A.T. officer training and classroom delivery of the G.R.E.A.T. program (Sellers, Taylor, & Esbensen, 1998). In a cross-sectional outcome study, almost 6,000 8th-grade public middle school students in 11 cities completed self-report questionnaires (Esbensen & Osgood, 1999). In a longitudinal panel study of program outcomes, over 2,000 public middle school students in 6 cities completed pretests and posttests and four annual follow-up surveys (Esbensen, Osgood, Taylor, Peterson, & Freng, 2001). Finally, surveys were conducted with key stakeholders: school personnel (Peterson & Esbensen, 2004), law enforcement officers (Taylor & Esbensen, 2002), and parents (Freng, 2001). Although the program was not explicitly theoretically based, the evaluation team examined the curriculum and tied the lesson content to existing criminological theories or risk factors to provide a framework for the evaluation (Winfrey, Esbensen, & Osgood, 1996).

The process evaluation determined that officers implemented the program with fidelity (Sellers et al., 1998) and the cross-sectional study indicated positive program effects (Esbensen & Osgood, 1999). Results from the more methodologically rigorous longitudinal outcome evaluation, however, failed to replicate the cross-sectional findings. There were a few differences (5 of 32 outcomes) between G.R.E.A.T. students and controls, but these differences were largely attitudinal and none of the program's intended behavioral goals were achieved. G.R.E.A.T. students had lower levels of victimization and risk-seeking tendencies, more prosocial peers, more negative views about gangs, and more positive views of law enforcement; however, there were no differences between G.R.E.A.T. and non-G.R.E.A.T. students in levels of delinquency, violence, or gang membership (Esbensen et al., 2001).

Importantly, the five significant differences did not emerge until 3 and 4 years after program exposure; the earlier analyses conducted just 2 years postprogram revealed no differences at all between the experimental and comparison groups (Esbensen, Freng, Taylor, Peterson, & Osgood, 2002). The significant 3- and 4-year results support lagged or “sleeper” program effects important to take into account when designing program evaluations and to keep in mind when school personnel or program providers feel they are not making a difference.

G.R.E.A.T. Curriculum Review and Revision

Based in part on these findings of little program effect, G.R.E.A.T. underwent a rigorous programmatic review that resulted in substantial program modifications, particularly in the core curriculum (see Esbensen et al., 2002). The review committee consisted of members of the evaluation team, G.R.E.A.T. officers, and experts in school-based prevention or youth gangs, as well as representatives from NIJ and BATF. This committee provided numerous suggestions for revision to bring the curriculum content and delivery more closely in line with known effective teaching methods, school-based prevention approaches, and gang prevention strategies.

Accordingly, the G.R.E.A.T. curriculum was rewritten to utilize interactive teaching techniques in a skills-building, strengths-based approach, with lessons more tightly connected and designed to address some of the known risk factors for gang involvement. In addition, the new program was to be part of a more comprehensive school, family, and community approach. Law enforcement agencies are encouraged to partner with other community organizations, such as Boys and Girls Clubs, and to implement the optional G.R.E.A.T. components (elementary school curriculums, summer programs, and G.R.E.A.T. Families; see the G.R.E.A.T. program Web site at www.great-online.org for more information).

The revised program's two main goals are to help youths (a) avoid gang membership, violence, and criminal activity; and (b) develop a positive relationship with law enforcement. The revised curriculum (see Appendix) consists of 13 lessons aimed at teaching youths the life skills (e.g., communication and refusal skills, conflict resolution, and anger management techniques) thought necessary to prevent involvement in gang behavior and delinquency. This curriculum was piloted in 2001, with full-scale implementation occurring in 2003. Currently, the program is taught in middle schools across the United States, as well as in other countries. In districts with school resource officers (SRO), the G.R.E.A.T. program is usually taught by the SROs. In other jurisdictions, law enforcement officers deliver the program as part of their assignment in community relations divisions, while elsewhere officers teach the program on an overtime basis. Regardless of officers' assignments, all instructors must complete G.R.E.A.T. Officer

Training and be certified prior to their assignment to teach in the local schools. This training (1 week for officers with prior teaching experience, such as DARE, and 2 weeks for others), introduces officers to the program, and includes sections on gang trends, middle school student developmental stages, teaching and classroom management techniques, and issues associated with officers' transition from an emphasis on enforcement to one of prevention.

Process and Outcome Evaluation of G.R.E.A.T. (G.R.E.A.T. II)

In 2006, the University of Missouri-St. Louis was awarded NIJ funding to conduct a second national evaluation of the revised G.R.E.A.T. core curriculum. G.R.E.A.T. II, which began in summer 2006 and continues through 2012, has similar design components as G.R.E.A.T. I. The process evaluation consisted of (a) numerous observations of G.R.E.A.T. Officer Training sessions to learn how officers are taught to deliver the program; and (b) hundreds of classroom observations in both experimental and control classrooms (Leugoud, Esbensen, Brick, & Taylor, 2009). The outcome evaluation, in which classrooms within schools were randomly assigned to experimental and control conditions, is a longitudinal panel study of approximately 3,800 students, selected from 31 public middle schools in seven diverse cities across the United States. Self-report data are collected annually over 5 years to examine short- and long-term program effects. We have also conducted surveys of middle school personnel (Peterson, Panfil, Esbensen, & Taylor, 2009), surveys of G.R.E.A.T.-trained officers in the seven cities, and interviews with the study schools' G.R.E.A.T. officers and their supervisors (Carson, Esbensen, Taylor, & Peterson, 2008).

A few key methodological aspects differentiate the two evaluations: First, G.R.E.A.T. I was essentially a quasi-experimental design because random assignment to treatment and control conditions was not possible in 7 of the 22 schools, while G.R.E.A.T. II adheres to a randomized experimental design. It should be noted that although random assignment of classrooms in G.R.E.A.T. I was not always possible due to such factors as G.R.E.A.T. officers' schedules, there is no reason to suspect that classes receiving G.R.E.A.T. contingent on officer availability were different in important ways from other scheduled classes. Second, different methods were employed in G.R.E.A.T. II to improve active parental consent (78%; see Esbensen, Melde, Taylor, & Peterson, 2008, for description of the procedures) compared with G.R.E.A.T. I. (57%, with 33% of parents neglecting to return a form), meaning greater representation of students in the study schools. Third, efforts were made to improve the annual retention rates in the second evaluation, achieving Year 1, 2, and 3 follow-up completion rates of 87%, 83%, and 75%, respectively, compared to 86%, 76%, and 69% in the first evaluation. Finally, multiple observations of program delivery in each classroom in

the G.R.E.A.T. II process evaluation allows for an efficacy analysis wherein an implementation fidelity score can be assigned for each G.R.E.A.T. classroom. This was not done in G.R.E.A.T. I because lesson delivery observations occurred prior to the longitudinal study.

Site and School Selection

During summer 2006, sites were selected based on three criteria: (a) existence of the G.R.E.A.T. program, (b) geographic and demographic diversity, and (c) evidence of gang activity. Research staff contacted the G.R.E.A.T. regional administrators and the Bureau of Justice Assistance (BJA) to identify cities in which the program could be considered established. A list of over 50 potential cities was developed, based on such factors as length of time the program had been in operation, number of G.R.E.A.T.-trained officers, and number of schools in which the program was offered. In addition, given the focus of the program, information about gang activity in these potential cities was obtained from the National Youth Gang Center (now the National Gang Center). After gathering additional information about G.R.E.A.T. program delivery in each of these cities, the research team selected seven cities, varying in size, region, and level of gang activity, as the primary target sites: Albuquerque, New Mexico; Chicago, Illinois; Greeley, Colorado; Nashville, Tennessee; Philadelphia, Pennsylvania; Portland, Oregon; and a city located in the Dallas-Fort Worth (DFW), Texas area. Each city's primary local law enforcement agency and school district both agreed to participate in the evaluation.

With school district approval, research staff then identified potential schools for study participation and contacted the principals. The intent in the selection of schools was to include schools that, taken as a whole, represented the districts. Given the sheer size of the school districts in Chicago and Philadelphia, however, it was difficult to identify four to six schools that would capture the district's diversity, so the samples there were as representative as possible. Ultimately, 31 schools agreed to the design specifics. Two principals declined their schools' participation. In one case, the principal had previously been a police gang investigator and, thus, "knew the program worked." In the other case, the principal would not agree to the random assignment of classrooms. In a third school, the principal initially agreed to the school's participation, but the school was unable to adhere to the evaluation design and was dropped. In each instance, other schools were selected to replace the nonparticipating schools. Due to timing of the third school's nonparticipation (i.e., it was too late in the year to select a comparable school and implement the program with fidelity), a replacement school could not be identified in time for inclusion in the 2006–2007 school year; thus, two schools selected as replacements began participation in the program and evaluation the following year.

Process Evaluation: Classroom Observations

In G.R.E.A.T. Officer Training, officers are instructed to teach the curriculum as presented (in terms of wording, ordering, and content) in the Instructor's Manual and to adhere to the suggested time frames for each component of each lesson. Members of the research team observed 33 officers teaching the G.R.E.A.T. program in the 31 participating schools from September 2006 through May 2007 (see Leugoud et al., 2009 for more information about the observations). Each observer used a detailed coding sheet to document the extent to which the officer taught the lesson in its entirety and as intended, indicating whether each lesson component was addressed, the time spent on each lesson component, and whether specified activities were conducted as intended. In addition, the observer assessed the quality of student engagement and overall lesson quality. These observations allowed for a determination of the extent to which the lesson was implemented and a rating of the overall program implementation quality in each G.R.E.A.T. classroom. Across the seven cities there were 492 separate and unique observations, plus another 26 interrater reliability (IRR) observations, in which multiple observers independently assessed the same lesson in the same classroom. Overall IRR, or percent agreement, was 85.4%. Two IRR observations had agreement of less than 69% (46% and 29%) and were based on observations of an officer who was determined not to have taught the program with sufficient fidelity.

Results from these observations indicated that, overall, the G.R.E.A.T. program was implemented with high fidelity; 27 of the 33 officers were considered to have implemented the G.R.E.A.T. program with average or better than average fidelity, meaning that if a treatment effect is detected in the outcome evaluation, it would be feasible to attribute this effect to the G.R.E.A.T. program. Three additional officers delivered the program with below average fidelity, meaning in this case that the officers taught all program components, but observers indicated the delivery was of low quality (e.g., little discussion, poor student participation). Despite lower delivery quality, students in these classrooms still received a sufficient amount of the program (dosage) with sufficient fidelity (program adherence) to link outcome effects to the program. Only three officers failed to teach the program with sufficient fidelity to reasonably expect the program to have any effect on the students in those classrooms. The clear majority of officers (a) had good to excellent time-management skills, (b) adhered to suggested program time frames, (c) made considerable effort to cover all topical areas in each lesson, and (d) stimulated student interest and participation. Variations were found across officers, but typically not across classrooms; that is, officers were generally consistent in their program delivery when teaching in different classrooms.

The observations also identified a number of areas where difficulties arose, diminishing program fidelity. These were generally due to situations outside the officers' control, such as shortened school days (e.g., assembly schedules or staff development days) or other policing duties that pulled officers from the classroom. The G.R.E.A.T. officers, however, could have remedied other situations. For example, some officers had difficulties with disruptive students, a situation exacerbated by teacher inattentiveness. In these situations, greater attention to officers' classroom management skills (perhaps in the G.R.E.A.T. Officer Training sessions) and greater involvement of the teacher would have helped to resolve these disciplinary situations.

School Personnel Questionnaire

As primary stakeholders in school-based prevention programs, teachers and principals can provide valuable insights to program quality. Therefore, school administrators and teachers in the G.R.E.A.T. grade levels (6th or 7th grades) in the 31 participating schools were asked to provide their responses to an anonymous School Personnel Questionnaire; 230 (62%) completed the surveys in spring and fall 2007 (see Peterson et al., 2009, for more information). School personnel were asked for their perceptions of problems facing their schools, crime and gangs in their schools and surrounding neighborhoods, fear of crime, victimization experiences, their school as a work environment, presence of law enforcement officers and prevention programs in schools, and prevention program content and delivery. Prior research has suggested that teachers' opinions about these topics are related to their views of the G.R.E.A.T. program and officers teaching the program (see, e.g., Peterson & Esbensen, 2004).

Educators were generally positive about having law enforcement officers in schools. In addition, school personnel were supportive of prevention programs in schools and the role of schools in prevention, although only about half agreed that teachers should incorporate prevention program lessons into their own curricula. In regard to program content and delivery, school personnel were provided a list of 11 subjects commonly covered in prevention programs (including G.R.E.A.T.) and asked to provide their opinion about the importance of each in helping youths avoid drugs, delinquency, and gangs. Over 70% of educators rated all of the components as *very important* (as opposed to *not important* or *somewhat important*), with decision-making, problem-solving, and conflict-resolution skills receiving this rating by over 90%. G.R.E.A.T. also utilizes mostly "active teaching" methods such as small group activities and role-playing, which were rated as *very effective* (as opposed to *not effective* or *somewhat effective*) means of prevention program delivery by 70% or more of respondents, as well as

class discussion, rated *very effective* by 60%. The redesigned G.R.E.A.T. program moves away from using such didactic methods as lecture and written homework, and was rated as *very effective* by only 6% and 7% of school personnel, respectively.

School personnel who were familiar with G.R.E.A.T. had positive views of the program, with about 90% in favor of having the program in their schools. This favorable environment provides legitimacy to the program's lesson content and to the officers providing the program. The majority of educators believed the program teaches students skills necessary to avoid delinquency and gangs, addresses problems faced by their students, and improves student-police relations. Only about half, however, agreed that the program plays a significant role in reducing youth gang participation in their schools and communities. Respondents' views about G.R.E.A.T. were significantly correlated with several attitudes tapped in other sections of the survey. Specifically, the greater their fear of crime in and around school ($r = .16$), the more their perception of existence and enforcement of school rules ($r = .22$), and, most importantly, the more positive their views of law enforcement ($r = .55$) and prevention programs in school ($r = .53$), the more favorable their view of G.R.E.A.T. Their views did not appear to be tied to problems in schools such as delinquency and gangs, to respondents' crime victimization, to job satisfaction or other perceptions about school as a work environment, or to whether the respondents' school has a SRO. The G.R.E.A.T. officer teaching the program was also viewed favorably by the majority of respondents in terms of both preparation for and delivery of the program, as well as their interactions in the classroom. Further, respondents' attitudes about the G.R.E.A.T. officer were positively correlated ($r = .68$) with their overall views and support of the G.R.E.A.T. program.

In sum, the process evaluation showed the program was implemented as intended and was well-received by schools. It also revealed real-world constraints that program deliverers face in attempting to remain faithful to the intended program, for example, needing to shorten or skip lessons because of fire drills, assemblies, field trips, standardized testing, and the like. Two additional findings deserve comment. First, both the observations of program delivery and the school personnel surveys pointed to difficulties among some G.R.E.A.T. officers with classroom management and with maintaining the agreed-upon delivery schedule (i.e., showing up to teach when scheduled). It is suggested that greater attention to these issues in G.R.E.A.T. Officer Training, greater incorporation of classroom teachers during G.R.E.A.T. program delivery, and better communication between G.R.E.A.T. officers and teachers can address these deficiencies. Second, the vast majority of school personnel in whose classrooms G.R.E.A.T. had been taught reported that they did not incorporate G.R.E.A.T. lesson content into their own curricula or use the extended teacher activities associated with each lesson. A major reason was lack of time due to mandated curricula, but

other key reasons were lack of relevance to subject matter or the fact that the officer had not informed the teacher that these additional activities were available. In the future, locating G.R.E.A.T. in relevant subjects (e.g., health, social studies, and language arts) may be mutually beneficial: G.R.E.A.T. content can be reinforced in the class curricula, and material related to state and federal educational standards could be reinforced through G.R.E.A.T. curricula. Improving officer-teacher communication may also help to ensure that G.R.E.A.T. is, as intended, integrated into schools' curricula, as opposed to existing as a stand-alone program.

Outcome Evaluation: Effectiveness of G.R.E.A.T.

The outcome evaluation employs an experimental longitudinal panel design in which classrooms in each of the participating schools were randomly assigned to the treatment (i.e., G.R.E.A.T.) or control condition. Students in these classrooms are scheduled to complete six waves of face-to-face, group-administered questionnaires (pretests and posttests followed by four annual surveys), following the students through their school experiences from 6th or 7th grade through 10th or 11th grade. Importantly, all students in the selected classrooms were eligible to participate in the evaluation. A total of 4,905 students were enrolled in the 195 participating classrooms (102 G.R.E.A.T. and 93 control classes) in the 31 middle schools at the beginning of the data collection process. Although G.R.E.A.T. is intended for delivery at entry to middle school, law enforcement agencies exhibited some variation in the grade level they targeted. Thus, in 26 of the study schools, the program was delivered to and the sample consisted of 6th graders; in five schools, 7th graders received the program and comprised the study sample.

Teachers assisted with active parental consent procedures, distributing and collecting consent forms (see Esbensen et al., 2008). Where allowed by districts, monetary compensation was provided for teacher assistance and where prohibited, a donation was made to the school or district in their honor. Students were also given a small personal radio, calculator, or tote bag in exchange for returning a completed consent form. Overall, 89.1% of youths ($n = 4,372$) returned a completed consent form, with 77.9% of parents or guardians ($n = 3,820$) allowing their child's participation. It should be noted that while Esbensen et al. (2008) reported a 79% consent rate, the addition of two schools to the evaluation after publication of that article resulted in the 78% overall consent rate reported here.

To date, the sample has completed pretests (98.3% completion rate), posttests (94.6%), and the first, second, and third (of four) annual follow-up surveys, with rates of 87.3%, 82.9%, and 75.2%, respectively (the latter excludes the two schools added later to the evaluation; those schools will complete the third annual follow-up in the 2010–2011 school year). These response rates are excellent, especially given the highly mobile nature of the

sample: from the original 31 middle schools, students were surveyed in 219 different schools two years after the pretests.

STUDENT SAMPLE CHARACTERISTICS

The sample is evenly split between males and females; most (55%) youths reside with both biological parents, and the majority (88%) was born in the United States. The sample is racially and ethnically diverse, with Hispanic youths (37%), White youths (27%), and African American (17%) youths accounting for 81% of the sample.

Approximately two thirds of the youths (61%) were age 11 or younger at the pretest, representing the fact that 26 of the 31 schools delivered the G.R.E.A.T. program in 6th grade. Three of the six Chicago schools and two of four schools in Albuquerque taught G.R.E.A.T. in 7th grade; thus, students in these sites were somewhat older than students in the other sites.

MEASUREMENT OF G.R.E.A.T. OUTCOMES

To reiterate, the G.R.E.A.T. program has two primary goals: (a) to help youths avoid gang membership, violence, and criminal activity; and (b) to help youths develop a positive relationship with law enforcement. To assess short-term program effectiveness, we compared responses from students in G.R.E.A.T. classes to students in control classrooms using the pretest, posttest, and 1-year follow-up questionnaires. From the numerous survey questions tapping program goals and objectives, we included a subset of seven attitudinal measures and two behavioral measures. The two behavioral measures allowed us to assess the extent to which the G.R.E.A.T. program affects gang membership and involvement in illegal activity. Specifically, we asked the students to indicate whether they are in a gang, a self-nomination approach found to be empirically valid and robust (e.g., Esbensen, Winfree, He, & Taylor, 2001; Thornberry, Krohn, Lizotte, Smith, & Tobin, 2003) and to complete a 15-item, self-reported delinquency inventory (contact the first author for a list of specific items and descriptive statistics for all measures). To measure the other key program goal, students were asked to respond to six questions tapping attitudes to the police. Additionally, we asked a series of questions measuring the students' attitudes about gangs.

The 13 G.R.E.A.T. lessons aim to teach youths the life-skills thought necessary to prevent involvement in gangs and delinquency (e.g., Hill, Howell, Hawkins, & Battin-Pearson, 1999; Maxson & Whitlock, 2002; Maxson, Whitlock, & Klein, 1998). The preliminary analyses, therefore, examined the extent to which students exposed to G.R.E.A.T. improved or enhanced their skills to better resist the lures of gang membership and resist peer pressure to engage in illegal activities. From among the skills measured in

the survey, the following were examined in the present analyses: empathy, risk-seeking, conflict-resolution skills, resistance to peer pressure, and refusal skills (contact first author for items and sample descriptive statistics).

OUTCOME ANALYSES

Our highly nested research design requires a multilevel analysis, which we implemented with the MLwiN software. The design includes two waves of observations (Level 1) for 3,427 individual students (Level 2), who are nested within 195 classrooms in which the program was or was not delivered (Level 3), which are, in turn, nested within 31 schools (Level 4) located in seven cities (Level 5). Given the small number of cities, we treated this level as a fixed effect through a set of dummy variables. The model included random effects for the remaining four levels. To insure that school differences were not confounded with the program effect, the treatment versus control contrast was centered within schools. The analysis controlled for the pretest measure of the outcome and for the difference between Waves 2 and 3 (coded -5 for Wave 2 and $+5$ for Wave 3). The treatment effect was allowed to vary randomly across schools in order to insure a conservative test. A logistic model was applied to the dichotomous measure of gang membership and a negative binomial model was used for the highly skewed measure of self-reported delinquency. All other models were linear.

RESULTS

The analyses revealed statistically significant program effects for five of the nine variables examined. Specifically, the G.R.E.A.T. students compared to non-G.R.E.A.T. students were more likely to report positive attitudes about police ($b = .070$; $p = .004$), less positive attitudes about gangs ($b = .102$, $p = .001$), more frequent use of refusal skills ($b = .043$, $p = .001$), greater resistance to peer pressure ($b = -.050$, $p = .014$), and lower rates of gang membership ($b = -.775$, $p = .001$). These findings address the two main program goals of reducing gang affiliation and improving youths' relationships with law enforcement, although we do not find the same program effect on delinquency. That is, the results for self-reported delinquency did not reach statistical significance, but the direction of the findings favored a program effect. Additionally, several program-specific skills-building objectives appear to be met, especially refusal skills. There were no statistically significant differences between the groups on measures of empathy, risk-seeking, and conflict resolution.

Readers may notice that in the School Personnel Survey, only about half of school personnel agreed that the G.R.E.A.T. program significantly

reduces youths' gang participation in their schools and communities. These findings are not necessarily inconsistent with the outcome analysis findings. The G.R.E.A.T. program is not intended to prevent or reduce gang involvement in entire communities, but rather among program participants, which it appears to do at least in the short term. To the extent that G.R.E.A.T. reaches a large majority of a school's population, we may expect to see lower rates of gang involvement at the school level. This is not the case in our study schools, however, as only half of the classes in one grade received the program. In schools in which all students, over time, have received G.R.E.A.T. training, one may expect to find school-level effects.

At this juncture, results are supportive of a 1-year postprogram effect. That is, students completing the G.R.E.A.T. program have lower rates of gang affiliation than do students in the control group, experiencing a 54% reduction in odds of gang membership. Additionally, the G.R.E.A.T. students report a number of more prosocial attitudes, including more positive attitudes to the police, than do the control students. An important question remains: will these short-term program effects be sustained across time? The longitudinal design of the evaluation will allow us to answer the question of whether the program has long-term effects on student attitudes and behavior.

Evaluation Challenges

Any research faces challenges, and school-based research has its own set of challenges. In addition to those associated with school selection mentioned previously (e.g., concerns with the experimental design), three of the most difficult challenges faced are related to high student mobility, lack of response from school administration, and lack of understanding of the importance of research design fidelity in producing scientific evidence of program effectiveness; these issues are interrelated. As in any longitudinal research, locating the study participants is quite difficult at times. Between the third and fourth year of the study, most of the study participants transitioned from middle to high school, requiring tracking students and contacting new schools. Further, transfers within and out of the district are high in some districts. In Philadelphia, for example, the sample that had been in four schools as 6th graders had moved to over 65 schools as 8th graders and 88 different schools in 9th grade.

Because the surveys are conducted by contacting students in school, gaining access to each of the schools to which participants transfer is a constant challenge. Each time a new school is contacted, the evaluation "sales pitch" must be repeated. Principals are the gatekeepers and may grant or deny access, and since loss of any school's participation can compromise the data, there is a need to constantly "hustle" to ensure that schools understand the importance of the study and are willing to participate. Simply

making contact with school principals represents the first hurdle, and various methods are used, including phone, e-mail, fax, mail, and FedEx. In some cases, none of these efforts have worked to spark a response. In those cases, “cold-calls” to the school were attempted, in which a researcher shows up to the school in person to request a meeting with the principal or other contact person, and/or intervention from another stakeholder, such as an SRO or school district administrator. In one particularly challenging case, the principal did not respond to numerous attempts at contact (i.e., mail, phone, e-mail, requests for in-person meetings, school drop-bys, asking the SRO to intervene on behalf of the research team, a personalized letter from the Bureau of Justice Assistance, and encouragement from district research personnel). Three months of attempts resulted in one e-mail response stating that researchers would not be allowed into the school to survey the students, but could use school grounds to survey after school. Two days of surveying after school yielded 11.6% of the study participants at that school.

When contact is made, it is communicated to the principal that minimizing disruption and inconvenience to the school and academic instruction is paramount. Offers are made, for example, to pull students from non-core classes like physical education, health, study halls, or other electives. Regardless, some schools insist that students may not be surveyed during any instruction time, but will allow surveying during noninstruction times (e.g., lunch or after school). Unfortunately, surveying during such times results in lower completion rates, as evidenced previously.

Much of the resistance encountered, in conjunction with efforts to maintain mandated curricula, is likely due to lack of understanding of the research process. Schools may perceive little immediate gain from presence of the researchers. Rather, for many of them, the data collection process represents an immediate burden, with impending payoff (evidence-based prevention practice) forgotten or not understood. For instance, a principal holding a PhD (i.e., degree in research) expressed a reluctance to allow researchers into the school because the principal saw no utility in longitudinal research. Other principals have said, “We don’t have those kinds of problems [i.e., gangs] in our school,” or “We don’t have that program [G.R.E.A.T.] here,” so, therefore, there is no need to survey students about those issues.

Despite these examples, most schools have been extremely accommodating and even appreciative of the evaluation efforts. Schools have allowed large groups of students to be excused from class to complete the annual surveys because they understand the importance of retaining research samples and gathering evidence of both short- and long-term effects. Even high schools, in which the G.R.E.A.T. program is not offered, are generally supportive because they understand that determining whether a middle school prevention program has long-term effects has potential to affect their school

environments. Students, as well, have given positive feedback, remembering the researchers each year, seeming excited to see them, and even thanking them for returning.

SUMMARY

The G.R.E.A.T. program is a gang- and delinquency-prevention program taught by law enforcement officers in middle schools throughout the United States. The evaluation and evolution of G.R.E.A.T. represents a somewhat unique case. Our prior work has described the public and political pressures that influenced the hurried design and implementation of a primary prevention program intended for local use. In addition, we discussed how politicians and policy-makers desperate to find ways to address gangs and appease constituents adopted and widely disseminated the program so that it is now taught in all 50 states and numerous foreign countries (Winfree et al., 1999). As is often the case, the initial evaluation of the program's effectiveness (G.R.E.A.T. I) came after this extensive adoption. In part so that reports could be made to Congress, we were asked to provide interim findings from posttest, first-year, and second-year follow-up results (Esbensen et al., 2002). Although results from the G.R.E.A.T. I cross-sectional evaluation suggested positive program impact (Esbensen & Osgood, 1999), the preliminary longitudinal study results did not replicate those findings (Esbensen et al., 2001). In part based on these findings, the G.R.E.A.T. National Policy Board and the BATF made a relatively rare decision that included neither of the following common responses to research: (a) ignoring the findings and continuing forward, or (b) eliminating the program outright because of its apparent ineffectiveness. Instead, they brought together a group of school-based prevention program experts, youth gang experts, G.R.E.A.T. officers, and G.R.E.A.T. I researchers to review the core middle school curriculum and propose changes for improvement based on extant knowledge (Esbensen et al., 2002). Curriculum writers made suggested changes to create the current G.R.E.A.T. curriculum that is presently undergoing a second independent evaluation (G.R.E.A.T. II).

At this stage of the evaluation of G.R.E.A.T. II, it appears that the program is implemented as intended and the program and officers are viewed favorably by school personnel. The program appears to have short-term effects on the intended goals of reducing gang involvement (but not general delinquency) and improving youth-police relations, as well as on interim risk or skills. Because the program was implemented with fidelity and the evaluation utilized a randomized experimental design, we can have confidence that these effects are due to the program and not to other outside influences.

The longitudinal component of G.R.E.A.T. I, the evaluation of the original nine-lesson middle school curriculum, found no short-term differences between treatment and control groups 1 and 2 years postprogram. At 3 and 4 years postprogram, just five significant program effects were found out of 32 outcomes examined. Of these, just one was a key program goal (improving relationships with law enforcement); the original curriculum did not appear to reduce gang membership or delinquency. By contrast, positive short-term effects on gang membership, attitudes toward police and a number of skills have been found in G.R.E.A.T. II, the evaluation of the revised 13-lesson curriculum. It is possible that the differences in the two evaluations' findings are attributable to the efforts to ground the program in an evidence base, given the curricular revisions based on known risk factors for gang membership, effective teaching strategies, and best practices in school-based prevention. Future analyses of additional risk factors, skills, and behavioral outcomes and analyses of additional waves of data will allow for assessment of other program effects, including whether short-term effects reported here are sustained over the 4-year follow-up period and whether short- and long-term program effects exist for other outcomes. We will also examine the extent to which program effects vary by such factors as city, level of program fidelity, and students' risk levels. Such analyses will produce a better understanding of the extent to which the curricular changes produce positive outcomes for students who receive G.R.E.A.T. training.

Collaboration between researchers and the G.R.E.A.T. National Policy Board, the regional training centers, local law enforcement agencies, G.R.E.A.T.-trained officers, school districts, school administrators, and teachers made the two national evaluations possible. A collective effort in which all parties were responsive and cooperative made the curriculum review, revision, and new curriculum dissemination and adoption possible. The continuation of this collaborative evidence-based process of evaluation, review, and revision will allow this school-based approach to be refined continually to provide the best possible contribution to gang and delinquency prevention.

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APPENDIX G.R.E.A.T. II Lessons

1. Welcome to G.R.E.A.T.: An introductory lesson designed to provide students with basic knowledge about the connection between gangs, violence, drug abuse, and crime.
 2. What's the Real Deal?: Designed to help students learn ways to analyze information sources and develop realistic beliefs about gangs and violence.
 3. It's About Us: A lesson to help students learn about their communities (e.g., family, school, residential area) and their responsibilities.
 4. Where Do We Go From Here?: Designed to help students learn ways of developing realistic and achievable goals.
 5. Decisions, Decisions, Decisions: A lesson to help students develop decision-making skills.
 6. Do You Hear What I Am Saying?: Designed to help students develop effective verbal and nonverbal communication skills.
 7. Walk in Someone Else's Shoes: A lesson to help students develop active listening and empathy skills, with a particular emphasis on understanding victims of crime and violence.
 8. Say It Like You Mean It: Designed to help students develop effective refusal skills.
 9. Getting Along Without Going Along: A lesson to reinforce and practice the refusal skills learned in Lesson 8.
 10. Keeping Your Cool: A lesson to help students understand signs of anger and ways to manage the emotion.
 11. Keeping It Together: Designed to help students use the anger management skills learned in Lesson 10 and apply them to interpersonal situations where conflicts and violence are possible.
 12. Working It Out: A lesson to help students develop effective conflict-resolution techniques.
 13. Looking Back: Designed to conclude the G.R.E.A.T. program with an emphasis on the importance of conflict resolution skills as a way to avoid gangs and violence; students also present their projects aimed at improving their schools.
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