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Journal of Criminal Justice 33 (2005) 477–485

JOURNAL OF CRIMINAL JUSTICE

Reaffirming the significance of context: The Charlotte School Safety Program

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Abstract

This study reexamined the Charlotte School Safety Program, a school resource officer-delivered fear of crime reduction initiative. Initial evaluation of the program (Kenney & Watson, 1998) found increased perceptions of safety and reduced fear of crime for school youth, although structural properties of the study setting were not considered. Reanalysis of the data with a multivariate model generated qualifying findings that suggested the program may be less effective than previously determined. Minimal attention to environmental factors and the social setting reaffirmed the importance of addressing context in the criminological enterprise and the related issue of delivering empirically sound policy recommendations.

Introduction

"One of the most important things that criminologists often fail to address is the context within which they (their projects or topics) are operating. This is true whether they are proposing a new theory, testing an existing explanation, investigating an emerging phenomenon, or evaluating an intervention or program." (Lab, 2003, p. 39)

Consideration of the environmental, cultural, and social characteristics (i.e., the context) of a study's setting is a textbook standard of the criminological research process, especially for positivistic criminologists attempting to substantiate inference. Recent attention to the issue of context (Lab, 2003), however, suggested that criminologists often considered the potential effects of social setting only in a marginal fashion. One of the most straightforward forms of oversimplification is neglect of theoretically relevant structural properties that can condition perceived outcomes of various criminal and juvenile justice system initiatives (Kornhauser, 1978; Reiss & Tonry, 1986). Disregarding correlates of crime and other variables specific to a study's setting can lead to findings that suggest erroneous levels of program impact. In short, structural property indicators (e.g., poverty and population demographics) or environmental realities (e.g., unemployment rate and peer group influence) are vital to models determining program effectiveness in order to avoid arbitrary policy recommendations.

This article reconsiders findings from the Charlotte School Safety Program (CSSP), an evaluation that endorsed program continuation despite minimal attention to context. After briefly reviewing the original study, issues specific to the context question were identified and employed in a multivariate model. Findings of the reanalysis were considered in terms of their implications for school safety programs similar to the Charlotte initiative and the social science axiom of realizing an absence of spuriousness in determining causal inference.

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doi:10.1016/j.jcrimjus.2005.06.003

School safety and disorder

The American public generally believes that school disorder is a widespread and common problem, a view reinforced since 2000 through media accounts of sensational crimes at a handful of schools (Gottfredson & Gottfredson, 1985; Tucker, 2001). Many school administrators and teachers also claim that school safety has become a serious problem and that the situation is out of control (Anderson, 1998), a view expressed in policy actions such as the Federal Safe and Drug Free Schools Act (1994).

The sense of alarm, however, appears at odds with existing school victimization estimates and even the individual experiences of students. According to several studies using nationally representative data to estimate school crime (Bastian & Taylor, 1991; Kaufman et al., 1999; Maguire & Pastore, 1996; Mansfield, Alexander, & Farris, 1991; Nolin, Davies, & Chandler, 1995), much of the victimization occurring at schools was not very serious-petty theft, scuffling, and the like. The prevalence of victimization was also quite low. Bastian and Taylor (1991), for instance, concluded that only 9 percent of students reported being victimized in the prior six months, only 2 percent of which experienced violent crimes. A decade later, studies indicated that violent victimization rates at schools had significantly *decreased*, as had the percentage of students who reported victimization (Kaufman et al., 1999; U.S. Department of Education, 2001, 2003).

Fear of crime at school

Although a relatively small proportion of students report victimization, fear of being victimized is more prevalent. There was a significant increase in the percentage of students fearing victimization between 1989 and 1995, a period wherein a greater number of students reported avoiding "risky" locations within their schools (Kaufman et al., 1999). Nolin and colleagues (1995) found that 25 percent of students reported being fearful of bullying, physical attacks, and robbery while at school or on their way to or from school, yet only 12 percent of these students were victims and just 4 percent had suffered an actual physical attack. More recent research reported an alarming 39 percent of middle school students and 36 percent of high school students claimed feelings of vulnerability in the school setting (Josephson Institute of Ethics, 2001). Overall, women, minorities, and younger students generally reported greater instances of fear of victimization.

Although very little empirical research existed on what caused fear of crime among school-aged children (e.g., Hale, 1996), the dire consequences of student fear appeared to be widely appreciated among policymakers. A handful of empirical studies identified significant correlates of student fear, most notably differential association as indicated by delinquent peer group (Alvarez & Bachman, 1997; May & Dunaway, 2000; Welsh, 2001). The influence of delinquent peer contact on one's own fear is perhaps not surprising, since delinquency and association with delinquent peers are correlates of victimization (e.g., Lauritsen, Sampson, & Laub, 1991; Schreck, Fisher, & Miller, 2004; Schreck, Miller, & Gibson, 2003; Schreck, Wright, & Miller, 2002). The assumption is that delinquent peers share anecdotes of personal and observed danger with friends thus spreading fear to others through the social learning process (see Hale, 1996; Skogan & Maxfield, 1981). Similarly, those students whose friends are victimized may be more likely to witness such events thereby contributing to their own fear. This "vicarious victimization" would affect perceptions of risk which tend to be more important than actual risk (Ferraro, 1995).

Students who reported feelings of hostility and alienation toward school also tended to be more fearful of crime (Alvarez & Bachman, 1997; May & Dunaway, 2000; Welsh, 2001). These feelings indicated a lack of social integration and participation in school functioning, which consequently leads to fewer sources of protection from crime and therefore greater fear of victimization. Schreck and colleagues (2002) found that strong social bonds indeed inhibited victimization and Gottfredson and Gottfredson (1985) also found that schools with unclear and unfairly enforced rules have problems with widespread crime and disorder. Besides inadequate rule enforcement implying a higher actual risk of victimization, one may also expect that such schools will possess many fear-inducing incivilities as well (e.g., litter, unsupervised students idling about, visible crime). Therefore, it is reasonable to expect that students who feel that rules are unfair will also be more afraid.

More recently, Schreck and Miller (2003) investigated the relationship between community and school disorder, student characteristics, school security techniques, and fear of crime. Consistent with the extant literature, women, minorities and students with delinquent peers reported the greatest fear of crime. Other significant predictors of fear of crime at school included previous victimization, alienation toward school, attendance at public school, and the presence of gangs. This last finding was echoed in previous research (Miller, Ventura, Tatum, Gibson, & Schreck, 2003; U.S. Department of Education, 2001) which suggested that the presence of street gangs could be extremely disruptive to the school environment, creating fear among students and increasing the level of violence in schools. Interestingly, Schreck and Miller (2003) also found that the presence of security measures (e.g., metal detectors, locked doors, supervised hallways) increased the probability of student fear of crime. Perhaps any exposure, be it direct or indirect, to the presence of criminal activity causes students to believe the threat of victimization is greater than it in fact may be.

School districts across the country implemented numerous programs aimed at reducing fear, often without the benefit of theoretical insight and best practices awareness. Consequently, successful fear reduction was not universal,

although some promising findings emerged. Gottfredson (1997), for instance, reviewed 147 school-based crime prevention programs and found that those relying on structured lessons were generally ineffective at reducing the fear of crime, while programs emphasizing social competency (e.g., decision-making and problem-solving skills) tended to have more success. Some empirical evidence, however, suggested that the presence of policies designed to reduce student fear (e.g., metal detectors, locked doors, supervised hallways) might actually serve to bolster the perceived threat of victimization (Schreck & Miller, 2003).

Programs touting the greatest success in allaying students' fear of crime utilized a multi-faceted problem solving approach (see Miller, Midgett, & Wicks, 1992; Shure, 1994; Weissberg, Jackson, & Shriver, 1993). The Charlotte School Safety Program (CSSP), for example, was designed to create an environment wherein students join with teachers and police officers in assuming shared responsibility for reducing delinquency and disorder. Along with this shared responsibility, the Charlotte program emphasized the development of social competency skills and appropriate behavioral norms. Evaluation of this comprehensive approach suggested promising results as students reported significantly lower levels of fear following program participation (Kenney & Watson, 1998).

Although initial assessment of the CSSP was positive, the inferential claim of program effectiveness was questionable due to research design limitations. The previous bivariate analysis failed to account for the probable influence of additional independent, that is, control, variables (Kenney & Watson, 1998). It was possible that the apparent success merely reflected differences between the comparison schools that were unrelated to program components, but still relevant to fear of crime. Accordingly, the CSSP was re-examined using multivariate regression in order to examine the possible effects of other confounding variables neglected in the original evaluation.

Methodology

Data and design

Previous assessment of the effectiveness of the Charlotte School Safety Program's ability to significantly reduce fear of crime among students employed a quasi-experimental design consisting of an experimental school and a comparison school using measures collected in three different waves (spring 1994, fall 1994, spring 1995). With police department and Charlotte Mecklenburg School District cooperation, two high schools were selected for the study. West Mecklenburg High School agreed to serve as the experimental school and implemented problem-solving classes for all students completing their tenth grade school year, while Garinger High School agreed to be the comparison site. These two high schools were matched on relevant variables such as student performance, student participation and discipline, student demographics, and teacher characteristics. The total sample consisted of 372 students (230 in the experimental group; 142 in the control group).

The Effective School Battery (ESB), a tested and effective psychometric indicator of secondary school-based climates and programs (Gottfredson, 1983) was administered to students at both the control and experimental school at all three waves. The ESB captures perceptions that students have about the climate of the school and psychosocial measures of individual students (e.g., self concept, involvement in school activities, belief in rules, attachment to school and teachers).

The current analysis reexamined the Charlotte School Safety Program in order to more conservatively test Kenney and Watson's (1998) hypothesis. Specifically, multivariate regression techniques were employed in order to ascertain the effect of CSSP participation on fear of crime in relation to other germane variables.

Measures

Dependent (i.e., outcome) variables included measures of safety, peer association, involvement, attachment, social integration, belief in rules, and self-concept (see Appendix A for individual items on all scales). Consistent with the original analysis of the CSSP (Kenney & Watson, 1998), safety was measured with the same thirteen-item scale which combined both fear and safety items. Items indicated whether students avoided several different places within and around school (e.g., school restrooms, cafeterias, and school entrances) due to fear of being hurt or harassed and feelings of general safety while either at school or en route to school.

Originally, a nine-item scale was used to assess positive and negative peer influences, but only six items were retained from the original scale due to inadequate reliability. Respondents were asked whether their best friend was interested in school, attended class regularly, had college plans, belonged to a gang, and got in trouble with the police. Additionally, respondents were asked if most of their friends thought getting good grades was important. Higher scores on this scale reflected positive peer associations, whereas lower scores indicated association with delinquent or school rejecting peers. Involvement was measured by a twelve-item scale that asked students about participation in a wide variety of in-school activities.

Attachment to school was measured by a ten-item scale that assessed students' feelings about teachers, the school, counselors, and the principal. Another six-item scale measured the degree of social integration or alienation of each respondent. Belief in rules was measured by a six-item scale determining attitudes concerning "getting away" with illegal behavior, shoplifting as a victimless crime, and acting

on property crime opportunities. Items were coded as true (0) or false (1), with higher scores designating greater belief in conventional social rules. Self-concept was measured by a twelve-item scale that primarily assessed self-esteem (Gottfredson & Gottfredson, 1985). Examples of specific items included: "I think I am no good at all;" "I am the kind of person who will make it if I try;" and "I do not mind stealing from someone-that is just the kind of person I am."

The treatment variable was dummy coded, where "1" indicated the experimental group (West Mecklenberg High School) and "0" indicated the control group (Garinger High School). At post-test measurement, 230 students comprised the treatment group and 142 comprised the control group. Control variables included gender, race, and a measure of parental education. Controls were utilized to augment the original analyses which failed to account for sociodemographic factors that might have been related to the dependent variable.

Gender was coded as "0" for male or "1" for female. Both the control and experimental high schools consisted of 51 percent males and 49 percent females. Similarly, race was coded as "0" for White or "1" for other, this dichotomy determined by very little variation in minority categories. The control high school consisted of 30 percent Whites and 70 percent other, whereas the experimental high school consisted of 61 percent White and 39 percent other. Parental education was designated by two separate items measuring educational attainment of both mothers and fathers by dichotomous coding of "0" for less than high school or "1" for high school graduate or above. In the comparison school, 82 percent of students' fathers and 90 percent of mothers were high school graduates or above; 86 percent of students' fathers and 88 percent of mothers were high school graduates or above in the experimental school.

Analytic strategy

Re-analysis of the CSSP consisted of two stages. In the first stage, mean comparison tests were used to determine pre-existing differences between the experimental and comparison groups on peer association, involvement in school, attachment to school, belief in rules, self-concept, social integration, and perception of safety among students (i.e., perceptions of fear). The second stage of the analysis used Ordinary Least Squares multiple-group regression procedures, extending Kenney and Watson's (1998) analysis by simultaneously controlling for possible mitigating influence(s) specific to race (since the two schools featured different racial compositions), gender (in the event that the program was viable in a gender-specific manner), and parental education (a variable theoretically germane to a school-specific context). Two sets of regression equations were modeled, both before and after treatment (pretest and post-test). The estimated models were based on groups due to the lack of identifiers of subjects across pre and post-test waves in the data made publicly available by the original funding agency, the Police Executive Research Forum.

Results

Mean comparison results

Tables 1 and 2 show the results of the mean comparison tests for between and within group differences for the experimental and control schools across pre and post-tests. As noted, Kenney and Watson (1998) matched both high schools as closely as possible to address the lack of randomization in the quasi-experimental design. Pre-existing differences were observed, however, after comparing pre-test scores from the ESB for the experimental and control school (see Table 1). The experimental group, on average, had significantly higher perceptions of fear and/or less perceptions of safety while at school ($T = -3.05$, $p < .05$), more school involvement ($T = 2.44$, $p < .05$), stronger beliefs in prosocial rules ($T = 2.32$, $p < .05$), and higher positive self-concepts ($T = 2.14$, $p < .05$).

Table 1 also documents the results of the between group differences at post-test assessment. The experimental group, on average, had a significantly higher attachment to school ($T = 3.77$, $p < .05$), greater social integration ($T = 3.17$, $p < .05$), and increased belief in prosocial rules ($T = 4.57$, $p < .05$) compared to the control school. The safety measure became statistically insignificant between the experimental

Table 1
Experimental to control group t-test comparisons for outcome variables

Variables	Pre-test		Post-test	
	Experimental	Control	Experimental	Control
Safety	9.96 (2.89)	10.74* (2.36)	11.06 (2.49)	10.68 (2.52)
Peer association	5.15 (1.42)	4.97 (1.39)	5.23 (1.33)	4.96 (1.42)
Involvement	2.98 (2.06)	2.51* (1.97)	2.98 (2.10)	2.91 (2.26)
Attachment	6.99 (2.43)	7.14 (2.65)	7.14 (2.65)	6.08* (2.45)
Social integration	4.02 (1.71)	3.72 (1.77)	4.16 (1.73)	3.58* (1.61)
Belief in rules	4.51 (1.54)	4.16* (1.62)	4.72 (1.45)	3.94* (1.79)
Self-concept	9.96 (2.13)	8.89* (2.39)	9.40 (2.33)	9.11 (2.56)

* $p < .05$, values in parentheses denote standard deviations.

Table 2
Pre-test to post-test t-test comparisons for outcome variables

Variables	Treatment		Control	
	Pre-test	Post-test	Pre-test	Post-test
Safety	9.96 (2.89)	11.06* (2.49)	10.74 (2.36)	10.68 (2.52)
Peer association	5.15 (1.42)	5.23* (1.33)	4.97 (1.39)	4.96 (1.42)
Involvement	2.98 (2.06)	2.98* (2.10)	2.51 (1.97)	2.91 (2.26)
Attachment	6.99 (2.43)	7.14* (2.65)	7.14 (2.65)	6.08 (2.45)
Social integration	4.02 (1.71)	4.16* (1.73)	3.72 (1.77)	3.58 (1.61)
Belief in rules	4.51 (1.51)	4.72* (1.45)	4.16 (1.62)	3.94 (1.79)
Self-concept	9.96 (2.13)	9.40* (2.33)	8.89 (2.39)	9.11 (2.56)

* $p < .05$, values in parentheses denote standard deviations.

and control group at the post-test assessment, an expected outcome given pre-existing differences between the groups.

Examination of within group differences (see Table 2) indicated that the experimental school exhibited significant increases in peer association, school involvement, attachment, social integration, belief in rules, and self-concept. A statistically significant increase in perceptions of safety was also observed for the treatment group across pre and post-tests ($T = -4.50$; $p < .05$). Analysis also suggested no within group differences for the control school across pre and post-test scores for any variable and the means stayed relatively invariant across testing periods.

Although the bivariate results generally supported conclusions from the original evaluation, the extent of the treatment effect was far from certain. The small differences between groups could be attributed to random measurement error, regression to the mean, or a lack of other controls rendering the relationships spurious. Internal validity concerns, especially selection bias, gave further rise to the focal inference drawn in the Kenney and Watson study. Additionally, sample attrition, particularly that of female attrition, might well have influenced experimental group results. Specifically, given the gendered nature of fear of crime, reports of decreased fear among the treatment group participants might be attributable to disproportionate female dropout between pre and post-tests. Accordingly, the second part of the analysis addressed these issues by considering other factors that might have contributed to the treatment effect.

Multivariate regression analysis

The original analysis simply did not control for other variables that could have rendered the treatment effects as spurious artifacts. As shown in Tables 3 and 4, multiple group OLS regression models were utilized that allowed for the simultaneous control of possible influential factors while focusing on the effect of the problem-solving program on peer association, involvement, attachment, social integration, belief in rules, self-concept, and school safety.

The pre-test regression results reported in Tables 3 and 4 indicated that most of the observed pre-existing differences in the bivariate analysis disappeared after controlling for demographic factors such as gender, race, and parental education. Results suggested that after controlling for demographic characteristics, the treatment had a significant negative effect on feelings of safety ($\beta = -.13$, $p < .05$) in the pretest model (see Table 3). That is, students in the treatment school were more likely to be concerned about their safety and/or had higher levels of fear while at school controlling for race, gender, and parental education.

Tables 3 and 4 also report regression results for the post-test models. Post-test regression analyses revealed that the treatment variable had a positive and significant effect on

Table 3
OLS regression models predicting peer association, involvement, attachment, and social integration

Variables	Peer association				Involvement				Attachment				Social Integration			
	(n = 399)		(n = 329)		(n = 401)		(n = 331)		(n = 388)		(n = 317)		(n = 401)		(n = 331)	
	Pre		Post		Pre		Post		Pre		Post		Pre		Post	
	B	t	B	t	B	t	B	t	B	t	B	t	B	t	B	t
Treatment (experimental = 1)	0.06	1.17	0.06	1.03	0.10	1.86	−0.04	−0.66	0.07	1.42	0.13	2.28*	0.06	1.15	0.12	2.13*
Race	−0.03	−0.52	0.01	0.21	0.07	1.25	0.11	1.81	0.02	0.31	0.12	2.11*	0.08	1.56	0.07	1.25
Gender	−0.12	−2.29*	−0.28	−5.00*	−0.05	−1.07	−0.08	0.07	−0.13	−2.66*	−0.23	−4.15*	−0.04	−0.85	−0.07	−1.61
Mother's education	0.10	2.10*	0.04	0.66	0.04	0.88	−0.03	0.60	0.13	2.53*	−0.05	−0.96	0.09	1.87	−0.02	−0.40
Father's education	0.18	3.70*	0.15	2.81*	0.09	1.85	0.12	2.12*	0.14	2.96*	0.14	2.61*	0.08	1.57	0.05	0.95
Constant		16.60*		17.37*		5.47*		5.52*		13.13*		11.85*		9.52*		9.25*
R^2		0.06		0.10		0.03		0.03		0.06		0.11		0.03		0.03
F		5.08*		6.87*		1.92		1.73		4.96*		7.57*		2.37*		2.17*

* $p < .05$.

Table 4
OLS regression models predicting belief in rules, self-concept, and safety

Variables	Belief in rules				Self-concept				Safety			
	(*n* = 401)		(*n* = 330)		(*n* = 403)		(*n* = 334)		(*n* = 401)		(*n* = 331)	
	Pre		Post		Pre		Post		Pre		Post	
	B	t	B	t	B	t	B	t	B	t	B	t
Treatment (experimental = 1)	0.09	1.87	0.18	3.39*	0.09	1.86	0.03	0.59	−0.13	−2.43*	0.09	1.72
Race	0.08	1.55	0.15	2.86*	−0.03	−0.57	0.05	0.95	0.01	0.12	−0.04	−0.75
Gender	−0.30	−6.40*	−0.36	−7.12*	−0.24	−5.10*	−0.23	−4.22*	−0.12	−2.37*	−0.05	−0.86
Mother's education	0.05	1.12	0.08	1.61	0.08	1.68	0.02	0.28	0.03	0.62	0.01	0.19
Father's education	0.10	2.28*	0.07	1.42	0.18	3.83*	0.09	1.61	0.09	1.71	0.12	2.11*
Constant		16.07*		15.35*		21.61*		18.73*		19.83		17.44
R^2		0.12		0.20		0.11		0.06		0.04		0.03
F		10.89*		16.18*		9.36*		4.26*		3.03*		1.83

* $p < .05$.

attachment ($\beta = .13$, $p < .05$), social integration ($\beta = .12$, $p < .05$), and belief in rules ($\beta = .18$, $p < .05$) after controlling for race, gender, and parental education. These findings indicated that students in the experimental group were significantly more likely to have a stronger attachment to school, be more socially integrated, and possess more prosocial beliefs after the treatment even when controlling for race, gender, and parental education. Most importantly, findings suggested that the treatment variable failed to exert a significant effect on the school safety measure.

Discussion

The results from Kenney and Watson's (1998) analysis of the Charlotte School Safety Program found significant changes in positive peer associations, positive self-concepts, social integration, and perceived safety in the West Mecklenberg High School. In comparison, the Garinger students showed no change. Thus, Kenney and Watson concluded that the problem-solving program was successful in reducing levels of school-based perception of fear. Reexamination with minimal attention to context (called into question by pronounced pre-test differences between the schools and confirmed through matched sampling) revealed different results.

Pre-existing differences were identified among groups for key variables, indicating possible selection bias that could lead to inaccurate interpretations of the problem-solving program's impact on outcome variables such as students' perceptions of safety. Second, multivariate analysis enabled a more conservative test of treatment effects and the identification of variables that could render the initial observed treatment effects spurious. Further, examination of other related variables might assist future research in specifying a structural model of direct and indirect effects of the problem-solving program on students' perceived levels of fear and safety.

This re-analysis reaffirmed, even in basic before-after designs, the importance of including structural properties, specifically, and control variables, generally. Erroneous findings will otherwise misguide both theory and policy. For example, Kenney and Watson (1998) proposed a theoretical explanation based on a combination of bivariate statistical findings indicating that West Mecklenburg students had significant increases in positive peer associations, positive self-concepts, social integration, and perception about academic performance. Drawing on rational choice theory (Wilson & Herrnstein, 1985) and social bonding theory (Hirschi, 1969), they concluded that the process of problem solving could alter reward/punishment equations, in turn, building informal social controls to reinforce more positive actions. They added that the problem-solving program enhanced the "social bond that exists between students, students and teachers, and between students and their school" (Kenney & Watson, 1998, p. 205). As goals appeared to be accepted among problem-solving groups, the attachment, commitment, and involvement of West Mecklenburg students were deemed to increase significantly.

Implicit in Kenney and Watson's (1998) discussion was that fear of crime among West Mecklenburg students was reduced indirectly by the problem-solving program through stronger bonds. Although Kenney and Watson's (1998) theoretical explanation was logical and consistent with past research (Jenkins, 1997; Welsh, Jenkins, & Greene, 1996), it exceeded the limits of their own analyses. Their statistical techniques were simply insufficient to test hypotheses about indirect effects of the problem-solving program on safety and fear or to conclude that such effects were present in their study. Accordingly, the CSSP study should be viewed as a social experiment, which rendered inconclusive results. The observed methodological problems largely resulted from neglect of context and served warning about the prospects of alleviating school-based fear of victimization through prosocial and bonding enhancement programs.

Appendix A

A.1. School safety scale (thirteen items)

Do you usually stay away from any of the following places because someone might hurt or bother you there?
- The shortest way to school[a]
- Any entrance into school[a]
- Any hallways or stairs in the school[a]
- Parts of the school cafeteria[a]
- Any school restrooms[a]
- Other places inside the school[a]
- Other places on the school ground[a]

In this term in school, have you:
- Had to fight to protect yourself[a]
- Seen a teacher threatened by a student[a]
- Seen a teacher hit or attacked by a student[a]

How often do you feel safe while in your school building[ab]
How often are you afraid that someone will hurt or bother you at school[b]
How often are you afraid that someone will hurt you on the to way to or from school[b]

[a]indicates that these items were coded as 0 (yes) or 1 (no).
[b]indicates that these items were coded from 0 (almost always) to 1 (almost never).
[ab]indicates that the item was reversed coded, therefore, the item was coded from 0 (almost never) to 1 (almost always).

A.2. Social integration scale (six items)

Teachers here care about the students[a]
I feel like I belong to this school[a]
Life in this town is pretty confusing[b]
I feel no one really cares much about what happens to me[b]
I often feel awkward and out of place[b]
These days I get the feeling that I'm just not a part of things[b]

[a]indicates that these items were coded as 0 (disagree) or 1 (agree).
[b]indicates that these items were coded as 0 (true) or 1 (false).

A.3. Self-concept scale (twelve items)

How satisfied are you with the way you are doing in school[a]
Do most other students in your school see you as:
- A good student[ab]
- A trouble maker[b]
- Successful[ab]
- A loser[b]

I am the kind of person who will always be able to make it if I try[ac]
My teachers think that I am a slow learner[c]
I do not mind stealing from someone-that is just the kind of person I am[c]
I am not the kind of person you would expect to get into trouble with the law[ac]
Sometimes I think that I am no good at all[c]
I feel I do not have much to be proud of[c]
I like myself[ac]

[a]indicates that this item was coded as 0 (dissatisfied) or 1 (satisfied).
[ab]indicates that these items were coded as 1 (very) or 0 (somewhat or not at all).
[b]indicates that these items were reverse coded as 0 (very) or 1 (somewhat or not at all).
[ac]indicates that these items were coded as 0 (false) or 1 (true).
[c]indicates that these items were reverse coded as 0 (true) or 1 (false).

A.4. Peer association scale (six items)

Most of my friends think getting good grades is important[a]
Are the following statements true about your best friend:
- Is interested in school[a]
- Attends classes regularly[a]
- Plans to go to college[a]
- Belongs to a gang[b]
- Gets in trouble with the police[b]

[a]indicates that these items were coded as 1 (true) or 0 (false).
[b]indicates that these were reverse coded as 1 (false) or 0 (true).

A.5. Attachment scale (ten items)

How important is each of the following to you?
- What teachers think about you[a]
- The grade you get at school[a]

How do you feel about the following?
- This school[b]
- The principal[b]
- The teachers[b]
- The counselors[b]

I have lots of respect for my teachers[c]
This school makes me like to learn[c]
In class I am learning the thing I need to[d]

[a]indicates that those items were coded as 1 (important) or 0 (not important).
[b]indicates that those item were coded as 0 (don't like) or 1 (like).
[c]indicates that these items were coded as 0 (disagree) or 1 (agree).

[d]indicates that these items were coded as 0 (false) or 1 (true).

A.6. Involvement scale (twelve items)

Which of the following things have you spent time on this school term?

Varsity or junior varsity athletic teams
Other athletic teams-in or out of school
Cheerleaders, pep club, majorettes
Debating or drama
Band or orchestra
Chorus or dance
School clubs
School newspaper, magazine, yearbook, annual
Student council, student government, political club
Youth organizations in the community, such as scouts, Y, etc.
Church activities, including youth groups
Helping out at school as a library assistant
Note: all items were coded as 0 = no or 1 = yes.

A.7. Belief in rules scale (six items)

I do not have much to lose by causing trouble in school
It is all right to get around the law if you can
People who leave things around deserve it if their things get taken
Taking things from stores doesn't hurt anyone
It is ok to take advantage of a chump or a sucker
Teachers who get hassled by students usually had it coming
Note: all items were coded as 0 (true) or 1 (false).

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