

Summary Report

THE SCHOOL ENVIRONMENT AND SCHOOL CRIME:
CAUSES AND CONSEQUENCES

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Evidence continues to mount that education and school crime are critical concerns in contemporary America, despite cautions from historians that similar problems have existed for centuries (Newman & Newman, 1980). Approximately 40% of high school seniors reported theft victimization and over 20% reported being threatened at school or on the way to school (Maguire & Flanagan, 1991, p. 303). Additionally, about 12% of eighth graders have reported not feeling safe at school (Ogle, 1991). The extent of such concerns has led to calls for greater discipline and control in schools through such diverse mechanisms as using armed security guards and metal detectors to the establishment of profit making schools (Ellis, 1992).

While these concerns over academics and safety in the school have grown dramatically, no consensus exists on the impact of various forms of discipline and control measures to eliminate or curtail in-school victimization. The 1989 National Crime Survey: School Crime Supplement (SCS) offers an opportunity to examine several important school crime issues including perceived levels of school crime, its correlates, and factors which may assist school administrators and officials in reducing or preventing school crime. Although the 35-item supplement administered to junior- and senior-high school students does not allow for an exhaustive examination of school crime and its causes, it does address several critical issues such as school discipline/control over students, visitors, and intruders; drug availability and prevention strategies; fear; and responses to crime. An analysis of these matters is important in the continuing efforts to make school environments safe so that students need not fear victimization and so that the fundamental goal of academic achievement can be attained.

HYPOTHESES

This study builds on prior research by focusing on the relationships between school victimization and various individual, societal and school factors. Past research has presented varied evidence on the impact of different factors related to school misbehavior and victimization. The primary hypothesis of the study is:

School discipline/control is negatively related to the level of in-school victimization.

Individual discipline/control items considered in the primary hypothesis, such as being allowed to leave school at lunch time, the type of discipline used in school, and control over visitors and intruders in the school are examined individually. Other factors, including school environment, public versus private schools, drug availability, and demographic variables are also considered. Besides simply being the outcome of various school and social factors, victimization can be a cause of other outcomes. The study also investigates the impact of in-school victimization on fear, avoidance behavior, and carrying weapons for protection.

DATA

The study uses secondary data taken from the School Crime

Supplement (SCS) which was conducted from January to June of 1989. This supplement includes responses given by students in junior and senior high school, aged 12 to 19. A total of 15,353 youths were included in the survey, of which 10,343 were in either junior or senior high school for at least one of the prior six months. The analyses are based on only those youths who attended school for some portion of the six months prior to data collection.

The sample is roughly evenly split between male and female respondents (49.7% and 50.3%, respectively). Approximately 83% of the sample is white with all other racial/ethnic groups comprising the nonwhite category. In terms of age, about 14% of the sample comprised each individual age from 12 through 17. The proportion of subjects aged 18 and 19 decreased (10.7% and 6.1%, respectively), largely due to the school attendance requirement. The vast majority of the respondents attended public schools (91.3%).

The SCS included questions on victimization, school discipline/control, school make-up, and student responses to victimization. The larger NCS provides additional information on age, sex, ethnicity, city size, urban/rural setting, and victimization outside of school.

VARIABLES AND OPERATIONALIZATIONS

Victimization. Sixty-six youths (0.6%) report being a robbery victim at school, 1,256 (12.2%) report theft victimizations, and 304 (2.9%) fell victim to a physical assault.

Due to the relatively low numbers, victimization was dichotomized as being a victim or non-victim of any offense in school during the past six months.

School Discipline/Control. A variety of SCS questions probed school discipline/control. Among these are questions asking whether students were "allowed to leave the school grounds to eat lunch," whether students "spend most of the schoolday in the same classroom," whether teachers "monitor the halls," whether "anyone (else) patrols the hallways during school hours," whether visitors "are required to report to the school office," and if the school attempts to prevent the availability of drugs or alcohol and in what ways. Each of these variables was measured in simple yes-no dichotomies. Discipline was also measured through inquiries regarding the response of school personnel to four types of misconduct (i.e., being disrespectful to teachers, fighting, being drunk or drinking, and cutting classes). The possible responses to discipline issues ranged from doing nothing to suspension from school.

School Climate. The SCS provides a number of variables which can be used to assess school climate. Respondents were asked how easy it is to obtain alcohol, marijuana, cocaine, crack, uppers/downers or other drugs at school. Responses ranged from "impossible" (1) to "easy" (3). Other questions probed whether lockers were safe for storing valuables, if gangs were present in the school, and if teachers had been threatened or attacked (measured as yes or no), and the frequency of gang

fighting in school (never=1 to almost every day=5).

Responses to Victimization. Three possible responses to victimization—fear, avoidance, and carrying protection—could be evaluated with the data. Fear was measured on a scale from "never" being afraid of attack or harm to being afraid "most of the time." The SCS included ten questions dealing with avoidance behavior, including staying home due to fear of attack and avoidance of certain places associated with school (yes or no). The survey also asked about bringing something to school for protection (measured on a scale from "never" to "most of the time"). The fear and response categories were considered in the analyses as subsequent to school discipline/control and victimization.

RESULTS

A number of variables appear in the SCS which could be considered as elements of discipline or control in the school. Using the most serious penalty for being disrespectful, fighting, drinking, and cutting classes as an indicator of the level of discipline used in the school, a factor analysis was undertaken of the four items. All four items loaded heavily on the same factor, with the lowest factor loading of .644 for "being disrespectful." This single factor accounts for almost 20% of the total variance. These results indicated that a single measure of school discipline could be derived from the data and used in subsequent analyses.

Ten questions in the SCS tapped some type of control in the school. Four distinct factors emerged using principal component analysis with a varimax rotation. The first factor, which we refer to as "tight control," represents teacher efforts to monitor any changes of classes, requirements that visitors report to the school office, the use of patrols to look for drugs, and the general use of hall patrols during the day. Factor 2, "moderate control," is made up of the primary reliance on one classroom for students during the day, locker searches for drugs, and checking restrooms for drug use. A factor we labeled as "perimeter control" loads heavily with restricting students to the school grounds for lunch and hall patrols by teachers. The last factor, "other control," is represented by a catch-all category of "other" things done to control drug possession/use. These factors account for 28%, 13%, 10% and 10% of the variance, respectively.

Besides the primary independent variables of discipline and control, a number of SCS questions provide possible indicators of the school climate, which may influence the level of discipline and control and contribute to in-school victimization. Three climate factors emerged in the data. "Drug availability" is the strongest of the three. All six of the individual drug categories load very highly on this factor which accounts for more than 45% of the total variance. The second factor appears to be a measure of "perception of danger" in as much as it represents the presence of gangs, threats/attacks on teachers, and a lack of locker safety (14.7% of the variance). The final factor represents "gang fights" in school and accounts for just over 10% of the variance.

The final factor analysis sought to identify groupings of avoidance behavior in the data. Avoidance is one possible response to in-school victimization. Specific avoidance behaviors probed in the SCS ranged from staying home (not including dropouts) to avoidance of various places (such as certain entrances, halls, or restrooms). The results show a single avoidance dimension in the data.

We examined the causes of in-school victimization using both Probit and Ordinary Least Squares regression techniques due to the dichotomous nature of the dependent variable, victimization, and found that the two techniques presented substantively the same results. We thus opted to report OLS results in order to make interpretation more straight forward.

The analytic results for the hypothesized impact of school discipline/control on in-school victimization appear in Table 1. An inspection of the standardized regression coefficients reveals

that the model explains little variation in victimization (3.4%) and, more importantly, the discipline and control dimensions do not fare well in comparison to the demographic and climate variables. Age is the strongest predictor of in-school victimization, with younger students reporting more victimization than older respondents. The results also show that victimization increases as drugs are considered easy to obtain in school. Of the discipline/control dimensions, moderate control has no significant influence, perimeter control has a small relationship with lower reported victimization, and the remaining variables (discipline, tight control and other control) are related to higher victimization. These latter results suggest that increased discipline and control leads to greater in-school victimization.

A number of variables were examined in an attempt to identify potential precursors to discipline and control in the school. The primary variables of interest were school climate and the distinction between public and private school. We also looked at the influence of place size, victimization outside the school, and the means of transportation to and from school on victimization.

The independent variables have little explanatory power for any of the discipline/control dimensions (see Table 2). Less than 4.0% of the variance is explained in any of the five equations. Of the variables considered, the public/private

school distinction is the most influential in three of the equations and second in the other two. Interestingly, while we expected that the public/private variable would have a consistently positive relationship with the dependent measures (indicating private schools provide stronger discipline and control), the results indicate that public schools use harsher discipline than the private schools. An explanation for this apparent discrepancy may be that control is taken prior to an event while discipline is a response to something that has already happened. Consequently, the results suggest that private schools take more preventative measures, thus negating the need for harsh responses. Public schools, on the other hand, are more reactive and must rely on after-the-fact disciplinary measures.

The coefficients for place size, while modest in magnitude, show a consistent tendency for less discipline and control in schools located in larger population areas. Drug availability shows modest significance levels in relation to most of the discipline/control dimensions, with greater discipline but less control associated with easier drug availability. No other independent variable shows any consistently strong impact.

Besides estimating parameters for in-school victimization, we proposed that victimization would impact on fear of crime at school, avoidance behavior, and carrying weapons for protection. For the fear equation, the strongest predictor is in-school victimization ($\beta = .116$), with victims expressing more fear than non-victims. Perception of danger, or the fact that gangs and attacks on teachers exist in the school, also has a relatively large impact on the level of expressed fear ($\beta = .102$). While a total of nine variables significantly affect fear, their combined explanatory power is only 7.0%.

The results for both avoidance behavior and carrying weapons for protection reveal that few variables impact on these behaviors. For avoidance, fear is almost the sole contributor to the 9.4% explained variance ($\beta = .309$). Clearly, subjects expressing fear of school respond by avoiding school or certain places in and around school. Victimization has a significant impact in the opposite direction to that hypothesized. Victimization predicts lower avoidance. The explanatory power of the independent variables on carrying weapons for protection is almost non-existent. Only 2.8% of the variance is explained by the variables. As expected, fearful youths are more likely to carry weapons for protection ($\beta = .108$). Victimization, however, fails to significantly impact on the carrying of weapons.

SUMMARY

In most respects the results of the hypothesis tests are disappointing. The hypothesis that discipline and control are negatively related to in-school victimization does not receive the expected support. The results indicate that schools which exert greater control over the student body and the school day, and which resort to harsher sanctions for inappropriate behavior tend to have higher in-school victimization. Coupled with these contradictory influences on victimization is the fact that the independent variables in the victimization equation explain only

a small portion of the variance (3.4%).

One possible explanation for the dismal results is that the original model misspecified the time-order between the independent variables. It is conceivable that the level of discipline and control in a school is more a reaction to misconduct and deviant behavior than a preventive measure. While a finding of a "reactive" disposition in schools would be discouraging, it could explain our findings. An attempt to probe the time-order for in-school victimization and the discipline/control dimensions (using LISREL for simultaneous equations, and simply reversing time-order), however, did not provide stronger or more clear results. Rather, victimization did not significantly contribute to equations for three of the control dimensions and only slightly influenced "other control" and "discipline." In addition, the total explained variance for these alternative equations fared no better than when victimization was the dependent measure.

As hypothesized, private schools do tend to exert more control than public institutions, however, public schools resort to harsher discipline. The hypothesis that private schools will have lower victimization, however, receives little support. In terms of consequences, victimization is the strongest predictor of fear, only a weak predictor (and in the opposite direction expected) of avoidance, and has no significant influence on the decision to carry weapons to school. Victimization holds an indirect influence through fear on both avoidance and carrying protection.

Even in instances where the results do correspond to the hypotheses, the strength of the relationships is very small. The regression equations explain little variance and most beta weights are extremely modest. It is hard, therefore, to draw any firm conclusions about the influence of the independent variables on victimization.

DISCUSSION

The finding that stronger discipline and control are related to higher levels of in-school victimization raises questions over why this emerges. One potential factor may involve the measurement of key variables in the SCS. Past literature has demonstrated that discipline can mean quite different things. Unfortunately, the recent School Crime Survey used limited measures of discipline which tapped a custodial pupil control ideology rather than a humanistic ideology, to use Lunenburg's (1991) terms. The items in the School Crime Supplement suggest that some straightforward and simple disciplinary practices—keeping students in the same classroom, monitoring halls during class changes, patrolling hallways, requiring visitors to report to the school office, detaining and suspending students, and cracking down on the availability of drugs at school—will solve all problems. The measures simply do not represent the state of the art on the topic of discipline. The School Crime Survey simply did not deal with all the factors that need to be analyzed in any comprehensive, state-of-the-art examination of school discipline. We feel that the superficial measures of discipline in the School Crime Supplement imply that there is one way to

improve schools.

If the School Crime Supplement is repeated, it is our contention that the measurement of school discipline has to be improved dramatically. First, more sophisticated items have to be included which allow for the analysis of more complex dimensions of school discipline. For example, there has to be some examination of the student's perceptions about the fairness of discipline, the use of rewards as well as punishments, and a focus on helping students achieve self-discipline as opposed to only externally imposed discipline. Second, the ideal study would obtain teacher and/or administrator measures of school discipline, as well as student perceptions. Perhaps what is needed is not another School Crime Supplement but a school-based study which includes teachers and administrators in the sampling design.

The School Crime Supplement also may be misleading in its emphasis on drugs. Four of the thirty-five items concerned drugs or alcohol and one item was a six-part question. We question the prominence given to the drug items in the Supplement relative to the breadth of the crime problem in society. Drug use is indeed problematic but it does not necessarily represent the pervasive epidemic that some portray it to be. First, surveys of high school seniors have shown steadily declining trends in drug use from 1978-1980 to 1990 (see Johnston, O'Malley & Bachman, 1991). Second, other research suggests that the drug problem may be overrated (or be extremely subject to sensationalized reporting and political rhetoric) (Carpenter, Glassner, Johnson & Loughlin, 1988). Third, we are not so sure that drugs cause school problems as much as they reflect other, underlying factors which contribute to school problems, delinquency, and drugs (see, for example, White, 1990). Thus, to focus on drugs may divert attention away from causes to effects.

Another potential problem facing this analysis entails the small number of victimizations reported in the SCS. As noted early on, of the 11,446 respondents, only 66 reported being the victim of a robbery at school, 1,256 reported thefts, and 304 reported being assaulted. Based on these figures, victimization is certainly a problem, but it is not at the epidemic levels suggested by some media reports. The possibility that the low levels of victimization in the data set are a contributing factor to lack of significant findings in the analyses is a mixed blessing. It would be desirable to find stronger results, but it is reassuring that the victimization problem is not as large as typically portrayed.

There also is a wide range of other variables which were not measured in the SCS or NCS (or which were not adequately measured) which have both practical and theoretical significance for the understanding of victimization. Among these are offending, community variables, social disorganization, and school climate.

Concerns over the time-order proposed in the study's model arose as we proceeded through the data analysis and no clear resolution appeared. While we grappled with the ordering of the relationships, our efforts were, at best, exploratory. The SCS

data are cross-sectional and, therefore, do not allow for inspection of any true causal ordering in the data. The time-order in this study is based on past research and common wisdom. To truly test the hypotheses, it would be necessary to use longitudinal panel data on all of the key variables: school climate, discipline, control, victimization, fear, avoidance, and protective measures. Such longitudinal information would allow comparison of changes in victimization levels over time to changes in discipline/control strategies. Without such longitudinal data, studies such as this one which rely on cross-sectional data are at a severe disadvantage for untangling the influence of discipline/control on in-school behavior.

SUMMARY

Given these problems, the results of the study should be seen as exploratory. While it is possible that discipline and control really do have little influence on the level of in-school victimization, we do not feel that this is very probable. The results of past research, as well as common sense, suggest that victimization and deviant behavior in schools can be altered through the efforts of teachers, administrators, students and parents. We believe that the failure to find strong support for the hypothesized relationships in this study is due primarily to limitations in the survey instrument. As presented above, the operationalization of many key variables is somewhat limited. The use of cross-sectional data also hinders the hypothesis testing. A true test of this study's hypotheses will require the use of more appropriate data in the future.

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Table 1. Standardized Regression Coefficients for In-School Victimization.

| Variable | Victimization |
|----------------------|---------------|
| Discipline | .044* |
| Tight Control | .065* |
| Moderate Control | -.005 |
| Perimeter Control | -.072* |
| Other Control | .035* |
| Drug Availability | .115* |
| Perception of Danger | -.014 |
| Gang Fights | -.065* |
| Sex | -.025* |
| Crime | .056* |
| Age | -.132* |
| Place Size | .050* |
| Race | -.005 |
| Public/Private | .008 |
| R2 | .034 |

* Significant at the .05 level.

Table 2. Standardized Regression Coefficients for School Discipline and Control Factors.

| Variable | Discipline | Tight Control | Moderate Control | Perimeter Control | Other Control |
|----------------------|------------|---------------|------------------|-------------------|---------------|
| Drug Availability | .118* | -.039* | -.031* | -.051* | -.023 |
| Perception of Danger | -.008 | -.019 | .008 | -.008 | -.005 |
| Gang Fights | -.048* | .054* | .028* | .058* | .005 |
| Place Size | -.044* | -.075* | -.059* | -.032* | -.037* |
| Crime | .006 | .011 | .013 | .005 | .012 |
| Public/Private | -.107* | .158* | .058* | .149* | .084* |
| Transportation | -.010 | .017 | -.021* | .024* | .006 |
| R2 | .036 | .034 | .010 | .034 | .010 |

* Significant at the .05 level.