The author(s) shown below used Federal funding provided by the U.S. Department of Justice to prepare the following resource:

Document Title:  Summary Overview Report: Student Threat Assessment as a Safe and Supportive Prevention Strategy
Author(s):  Dewey Cornell, Jennifer Maeng
Document Number:  255054
Date Received:  July 2020
Award Number:  2014-CX-BX-0004

This resource has not been published by the U.S. Department of Justice. This resource is being made publically available through the Office of Justice Programs’ National Criminal Justice Reference Service.

Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.
Summary Overview Report

Student Threat Assessment as a Safe and Supportive Prevention Strategy

2014-CK-BX-0004

PI: Dewey Cornell

Report Authors: Dewey Cornell and Jennifer Maeng

02/20/20

This project was supported by Award No. 2014-CK-BX-0004, awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice and conducted in collaboration with the Center for School and Campus Safety at the Virginia Department of Criminal Justice Services. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice or the Center for School and Campus Safety at the Virginia Department of Criminal Justice Services.
Summary Overview Report

Study Purpose

The major goals of the project were to: 1) determine how student threat assessment is implemented in statewide practice; 2) determine what student and school outcomes are associated with student threat assessment; and 3) determine whether training/technical assistance can improve student threat assessment. To address Goal 1, we collected data across five years from the annual school safety audit survey that included information on how often threat assessments occur, characteristics of the threat cases, such as student demographics and how the threats were assessed, and the outcomes of the threat. We also collected data on threat assessment training needs. To address Goal 2, we correlated threat assessment data collected under goal one with data on student and school outcomes obtained from the annual secondary school climate survey and statewide disciplinary records for school suspensions. To address Goal 3, we developed, tested, and updated four online educational programs (for students, parents, staff, and threat assessment teams). These online programs have been implemented over the past three years by schools in Virginia and at least ten other states. Results associated with each of these three goals have been disseminated in journals such as the Journal of Threat Assessment and Management, School Psychology Quarterly, and Teaching and Teacher Education as well as national conferences (e.g., American Educational Research Association, American Psychological Association).

Project Design and Method

Goal 1: Determine how student threat assessment is implemented in statewide practice

This goal was addressed through an annual statewide assessment of Virginia’s 1,900 public schools through the state’s legally mandated safety audit survey. Each school reported
information on their threat assessment team and cases they conducted each year. More in-depth information on training needs was obtained from surveys and interviews with a sample of stakeholders from across the state. Researchers used a semi-structured protocol that asked threat assessment team members to identify implementation challenges and training needs. This qualitative information was triangulated with survey data and informed the development of the online programs developed under Goal 3.

**Goal 2: Determine what student and school outcomes are associated with student threat assessment**

Analyses were conducted separately for elementary and secondary schools because of the substantial differences between these two levels in the nature of student threats, disciplinary practices and suspension rates, and the developmental needs of students. The primary school level outcomes were levels of violence and bullying, school suspension rates (overall and by race), and school climate. Student level outcomes included whether threats were resolved without violence, the types of services provided to students, and whether the student was able to continue in school without suspension. Student level data were obtained by asking each school to provide non-identifiable data on the last five student cases referred for a threat assessment evaluation. School, staff, and student level analyses included the following school level covariates: school size, percentage of student body eligible for free/reduced priced meals (FRPM), and percentage of minority students. Fidelity of implementation served as a school-level covariate when the focus was on contrasts between school employing qualitatively different threat assessment models and as a substantive predictor in a separate set of impact models for specifically evaluating how fidelity of implementation was associated with school and student outcomes. School-level outcomes were evaluated through analysis of covariance (ANCOVA)
models. Student-level outcomes were be investigated through two-level multi-level modeling in which students were nested within schools. Logistic regression was employed when appropriate for dichotomous outcomes.

**Goal 3: Determine whether training/technical assistance can improve student threat assessment**

We were unable to recruit enough schools to conduct a randomized controlled trial as planned and obtained approval to modify the study design to a quasi-experimental pre-post trial that used all available schools that completed the online training programs. This gave us sufficient statistical power to measure the immediate effects of the educational programs with the questions imbedded in the program and will allow us to assess some longer-term effects at the school level using school outcomes measured by the school climate survey and school discipline records.

**Results**

**Goal 1: Determine how student threat assessment is implemented in statewide practice**

In the five years following the 2013 threat assessment mandate, the number of elementary, middle, and high schools reporting that they had conducted at least one threat assessment during the school year increased from 40% to 74%. The number of threat assessments conducted in each school has increased from a mean of 3.9 threat assessments in 2013-14 to a mean of 6.9 cases per school in 2017-18. Notably, the mean number of cases of student threats directed toward others remained relatively stable between 2014 and 2018, ranging between a mean of 2.8 and 3.1 cases per school. Threats involving both self-harm and another person also remained stable, ranging between a mean of .22 and .39 cases per school. However, the mean number of cases of student threats of self-harm only per school has increased from
approximately 2.4 in 2014-15 to 4.2 in 2017-18. The increase in threats to harm self could be attributable to multiple factors, including a population increase in the number of students at risk for self-harm and an increase awareness by school authorities that these kinds of cases should be referred to the school’s threat assessment team.

One concern raised by stakeholders in our needs assessment was that the Virginia law directed schools to use threat assessment for students who threatened to harm themselves as well as for students who threatened to harm others. Threat assessment was designed to respond to threats to harm others, and was not intended to replace suicide assessment procedures. To shed some light on this concern, we conducted and published a study (Burnette, Huang, Maeng, & Cornell, 2019) that compared threats to harm others with threats to harm self in a sample of 2,702 cases from 926 schools. This study found that threats to self were more likely to be made by females ($OR = 3.38$) and students with fewer prior disciplinary actions ($OR = 0.48$). Threats to self were much less likely to involve a weapon ($OR = 0.07$), but more likely to be attempted ($OR = 1.50$) and result in mental health services ($OR = 2.96$). They were much less likely to result in out-of-school suspensions ($OR = 0.07$), legal action ($OR = 0.17$), and/or changes in placement ($OR = 0.53$). Overall, these findings support a clear distinction between suicide and threat assessment (Burnette et al., 2019) and were used to make recommendations to a legislative school safety task force (Cornell, 2018).

The most important and pervasive concern in our needs assessment was that school authorities wanted help in educating the larger school community of students, parents, and school staff about threat assessment (Cornell & Maeng, 2017). The Virginia law (Virginia, 2013, § 22.1-79.4) directs teams to provide guidance to students and staff on how to recognize and report threats at their schools. However, two years after the law went into effect, our school
climate survey found that the majority of secondary school teachers reported that they did not know whether their school had formal threat assessment guidelines (Cornell et al., 2016). These findings informed the development of a series of online educational programs used in Goal 3.

**Goal 2: Determine what student and school outcomes are associated with student threat assessment**

We conducted and published (Cornell et al., 2017) a study of 1,865 threat assessment cases reported by 785 elementary, middle, and high schools. This study found that threat assessment teams were more likely to identify a threat as serious if it was made by a student above the elementary grades \( OR = 0.57 \), a student receiving special education services \( OR = 1.27 \), involved battery \( OR = 1.61 \), homicide \( OR = 1.40 \), or weapon possession \( OR = 4.41 \), or targeted an administrator \( OR = 3.55 \). Student race and gender were not significantly associated with a serious threat determination. The odds ratio that a student would attempt to carry out a threat classified as serious was 12.48.

We published a second study (Cornell, Maeng, Huang, Shukla, & Konold, 2018) examining the disciplinary consequences for 1,836 students who received a threat assessment in 779 elementary, middle, and high schools. The purpose of this study was to investigate whether there were racial/ethnic disparities in the disciplinary and legal outcomes for Black, Hispanic, and White students receiving a threat assessment. This study found no statistically significant differences among Black, Hispanic, and White students in rates of school suspensions, expulsions, school transfers, or legal consequences. Weapon possession and threat classification were associated with a greater likelihood of the student receiving a suspension, being placed in an alternative setting, or receiving a legal consequence. In addition, threats by elementary school students were less likely to receive a disciplinary consequence compared to middle school
students (the reference group). These findings suggest that there was racial parity in the outcomes of student threat assessment for Virginia schools.

The parity in suspension and expulsion rates for the Black and White students receiving threat assessments contrasted markedly with the overall suspension rates in those schools (almost all of which involved students not receiving a threat assessment). School-level risk ratios for all disciplinary infractions for all students in the school showed that Black students were suspended at 3.1 times the rate of White students and Hispanic students were 1.8 times more likely to be suspended compared to White students. However, this general disparity for Black and Hispanic students was not present for the Black and Hispanic students receiving a threat assessment (Cornell et al., 2018).

Student aggression toward teachers is a national concern and problem contributing to teacher burnout and attrition from the field. Consequently, we conducted and published a study specifically concerned with threats made against teachers (Maeng, Malone, & Cornell, in press). This study examined use of threat assessment for a statewide sample of student threats against teachers (n = 226) compared to threats against other students (n = 1,228). Threats against teachers were less prevalent (15.5%) than threats against peers (84.5%). Of threats against teachers, 30% were classified as serious by the school’s threat assessment team and 5.8% were attempted. After controlling for student and threat characteristics, no difference existed in the odds that a threat against a teacher would be classified as more serious by school teams than a threat against a peer ($OR = .98, p = .93$). After controlling for student and threat characteristics, seriousness, and outcome, threats against teachers were relatively more likely to result in out-of-school suspension ($OR = 1.56, p < .05$) and placement changes ($OR = 2.20, p < .001$) than threats against peers. However, no difference existed in the odds that a threat against a teacher would
result in mental health services ($OR = 0.91, p = .55$) or law enforcement action ($OR = 0.87, p = .75$) than a threat against a student (Maeng, Malone, and Cornell, in press).

One of the most critical issues in threat assessment is the ability of school teams to distinguish serious from non-serious threats. We conducted and published a study (Burnette, Datta, & Cornell, 2018) demonstrating that threat assessment teams were able to distinguish serious from non-serious threats. Threats classified as serious by threat assessment teams typically involved students above elementary school or receiving special education services, involved battery, homicide, or weapon possession, or targeted an administrator. Threats were 12 times more likely to be attempted if they were classified as serious, however, few threats result in violent acts (Burnette et al., 2018).

Finally, we conducted a study comparing the two most commonly used threat assessment models in Virginia schools (Maeng, Cornell, & Huang, under review). This study compared disciplinary consequences for 657 students in 260 schools using the Comprehensive Student Threat Assessment Guidelines (CSTAG) with 661 students in 267 schools using the more general threat assessment approach described in the state guidelines (Maeng et al., under review). Results indicated the odds that students receiving a threat assessment in CSTAG schools would receive a suspension ($OR = .59$) or law enforcement action ($OR = .47$) were less than those in schools using the more general approach. Students in CSTAG schools were expelled at significantly lower rates (0% versus 1.7%) than students in comparison schools. These results indicate that schools using the CSTAG model are less likely to respond to student threats with exclusionary discipline (Maeng et al., under review).
Goal 3: Determine whether training/technical assistance can improve student threat assessment

In order to maximize our outreach to schools, we collaborated with 3C Institute to develop online educational programs for students, parents, school staff, and threat assessment team members. All of the programs address topics including the relative safety of schools, the purpose of school threat assessment, how a threat assessment team functions, and when and how to report threats. The staff and threat assessment team programs also include information about research supporting threat assessment, the distinction between threat assessment and other school safety measures, discipline, and case management. These educational programs include a combination of videos of the narrators speaking on screen, dramatic skits, and informational slides with images. Pre/post assessments are embedded within the programs.

We tested the online programs with samples of students, parents, staff, and threat assessment team members and revised the programs based on stakeholder feedback. We conducted and published a study (Stohlman & Cornell, 2019) demonstrating gains in knowledge and willingness to report threats in a sample of 2,338 students from six middle schools and three high schools who completed the student program. We assessed how student characteristics of gender, grade level, and ethnicity/race were associated with student knowledge of threat assessment and willingness to report threats. We then assessed whether the program increased knowledge of threat assessment and willingness to report threats. Prior to program completion, boys were less willing than girls, and older students were less willing than younger students, to report threats. Post-program questions revealed that the program significantly increased knowledge and willingness to report threats across student groups, with effect sizes (Cohen’s $d$) ranging from small (.30) to large (1.43) (Stohlman & Cornell, 2019).
We also completed a study (Maeng & Cornell, in progress) of 1,206 school staff who completed the staff online educational program. The staff included 843 teachers, 58 administrators, 33 counselors, 19 school psychologists, and 253 other staff (e.g., SROs, nurses, instructional assistants, social workers). The majority of the staff reported working in a school setting for more than 10 years (57.6%) and having less than 1 hour of professional development in threat assessment (43.3%) prior to completing the online program. Results indicated staff knowledge of threat assessment improved from pre \( (M = 5.45, SD = 2.7) \) to post program completion \( (M = 8.78, SD = 1.24) \), \( F(10, 596) = 2.22, p = .015, \) Cohen’s \( d = .39 \), after adjusting for occupational position, years of experience working in schools, and prior training in threat assessment. With the exception of an interaction between years of experience and training, \( F(30, 596) = 1.80, p = .006, \) there were no statistically significant interactions, indicating similar improvements across staff demographic characteristics.

Staff familiarity with threat assessment also improved significantly from pre \( (M = 4.03, SD = 2.1) \) to post \( (M = 6.79, SD = 1.5) \), \( F(8, 966) = 5.64, p < .001, \) Cohen’s \( d = .43 \). The majority of staff (95.7%) agreed that the program increased their knowledge of the role of the school threat assessment team. Similarly, staff willingness to talk with students about threats of violence also increased, from \( M = 5.43 \) (SD = 2.5) to \( M = 6.40 \) (SD = 2.3) after completing the online program, \( F(8, 948) = 36.58, p < .001, \) Cohen’s \( d = 1.11 \). Most staff indicated the program increased their motivation to speak with students about threats (79.6%), teach students about the difference between snitching and seeking help (90%), and encourage students to report threats (92.9%). Staff concern that a school shooting would occur at their school decreased significantly from \( M = 3.94 \) (SD = 1.9) to \( M = 3.34 \) (SD = 1.8) after completing the online program, \( F(8, \)
968) = 53.074, p < .001, Cohen’s $d$ was 1.32. There were no statistically significant interactions in these analyses, indicating similar changes across staff demographic characteristics.

**Implications for Criminal Justice Policy and Practice in the US**

This project has important implications for school safety policy and practice. Although behavioral threat assessment has been widely recommended by experts in law enforcement and education as an important school safety practice, little research on its implementation or outcomes exists. This project is the first to examine statewide implementation of threat assessment and assesses whether technical assistance can improve threat assessment implementation. The ability to improve implementation of threat assessment is critical because many educational programs suffer decrements in effectiveness when they are brought to scale. One especially important outcome is the reduction of school suspension and the accompanying racial disparity in suspension rates. Because threat assessment allows schools to resolve student problems without resorting to school suspension, and several studies have found that use of threat assessment is associated with substantial reductions in school suspension, the project contributes one tool to help ameliorate an important educational and societal problem.

This project provides important and timely information in light of the recent national surge in the adoption of school threat assessment across the nation. The project provided the first assessment of large-scale, statewide implementation of school threat assessment showing the ability of teams to resolve thousands of student threats with no violent outcome in 99% of cases. The project also documented the demographic characteristics of students receiving a threat assessment and the low use of school exclusion and legal consequences. Importantly, the project demonstrated parity of disciplinary and legal outcomes for Black, Hispanic, and White students receiving a threat assessment. To improve the threat assessment process, the project developed a
free online educational program to help students, staff, parents, and threat assessment team members learn about threat assessment and school safety. These programs serve as an important resource to support the practice of threat assessment among schools nationwide, and are already being used in 18 states and Canada.

References


Maeng, J. L. Cornell, D. & Huang, F. (under review). Student threat assessment as an alternative to exclusionary discipline.

**National Conference Presentations**


This resource was prepared by the author(s) using Federal funds provided by the U.S. Department of Justice. Opinions or points of view expressed are those of the author(s) and do not necessarily reflect the official position or policies of the U.S. Department of Justice.


**Virginia Presentations**


