

Overview of the Comprehensive School Threat Assessment Guidelines (CSTAG)

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This paper provides an overview of the Comprehensive School Threat Assessment Guidelines (CSTAG), previously known as the Virginia Student Threat Assessment Guidelines (VSTAG), a school-based threat assessment model developed by Professor Dewey Cornell and colleagues at the University of Virginia in 2001 (Cornell & Sheras, 2006). The [new manual](#) was released in 2018. The updated decision tree and forms for conducting a threat assessment are freely available for downloading on the [training services website](#).

Background. In response to a series of school shootings in 1990s, U.S. government authorities in law enforcement and education recommended the use of behavioral threat assessment in schools (Fein et al., 2002; O’Toole, 2000). Behavioral threat assessment (often referred to as threat assessment) is a systematic approach to violence prevention intended to distinguish serious threats, defined as behaviors or communications in which a person poses a threat of violence, from cases in which the threat is not serious and then to take appropriate prevention steps (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002).

Both the FBI and the Secret Service conducted studies of school shootings and found that these students were often victims of bullying who had become angry and depressed, and were influenced by a variety of social, familial, and psychological factors (O’Toole, 2000; Vossekuil, 2002). Unfortunately, these studies concluded that, because these characteristics can be found in so many students, it is not possible to develop a profile or checklist that could be used to pinpoint the small number of truly violent students among them. As a result, both the FBI and Secret Service cautioned schools against a profiling approach.

Nevertheless, the FBI and Secret Service did point out that almost all of the students who attacked their schools had communicated their intentions to attack through threats (and warnings) to their peers. Had these threats been reported to authorities and investigated, the shootings might have been prevented. In fact, the FBI identified a number of potential school shootings that were prevented because students reported a threat to authorities that was investigated and determined to be serious. Based on these observations, the FBI and Secret Service both recommended that schools adopt a threat assessment approach to prevent targeted acts of violence (Fein, et al., 2002; O’Toole, 2000).

What is threat assessment? Threat assessment was developed by the Secret Service to deal with persons who threaten to attack public officials and has since evolved into a standard approach to analyze a variety of dangerous situations, such as threats of workplace violence (Fein & Vossekuil, 1998). A threat assessment is conducted when a person (or persons) threatens to commit a violent act or engages in behavior that appears to threaten what is termed “targeted violence.” Threat assessment is a process of evaluating the threat—and the circumstances surrounding the threat—to uncover any facts or evidence that indicate the threat is likely to be carried out. Student threat assessment can be distinguished from profiling in part because the investigation is triggered by some form of *threatening behavior* by the student rather than some combination of demographic and personal characteristics.

Although threat assessment had become widely used by law enforcement to protect public figures and prevent workplace violence (Meloy, Hart, & Hoffmann, 2014), it could not be applied to schools without modification and further development. Youth frequently make threatening statements that are not serious and engage in aggressive behavior that ranges from horseplay to serious assault. It is important not to over-react to youthful misbehavior that does not pose a serious threat of violence. Moreover, unlike other settings where threat assessment is used, schools have an obligation and commitment to educate all young people,

regardless of their adjustment problems and difficulties. Consequently, the methods and goals of school threat assessment for students are not the same as those for other populations. In school settings, threat assessment is a problem-solving approach to violence prevention that involves assessment and intervention with students who have threatened violence in some way. *The primary goal of threat assessment is safety for everyone, but another important goal is to help the student to be successful in school.*

CSTAG Model

In response to the 1999 FBI conference on school shootings, a group at the University of Virginia led by Dr. Dewey Cornell developed a threat assessment model for schools. This model integrated recommendations from FBI and Secret Service studies of school shootings (Fein et al., 2002; O'Toole, 2000) with practical advice and field-tested experiences obtained from educators working in Virginia public schools (Cornell & Sheras, 2006). *School-based threat assessment must be a flexible and efficient process that can quickly resolve threats that are not serious and concentrate efforts on the small number of serious threats.* Notably, the CSTAG model provides teams with guidelines to distinguish whether a threat is transient (not serious) or substantive (poses a continuing risk to others). Accurately distinguishing between transient and substantive threats helps the school team both to avoid over-reacting to threats that are not serious and to focus its attention on serious threats that merit protective action (Burnette, Datta, & Cornell, 2017).

A transient threat is a broad category including all threats that do not reflect a genuine intent to harm others (Burnette, Datta, & Cornell, 2017; Cornell & Sheras, 2006). Most student threats are transient threats that reflect expressions of humor, anger, frustration, or fear (Cornell et al., 2004; Nekvasil & Cornell, 2012). Transient threats include a variety of qualitatively different threats that are not serious. Some examples are a student shouting "I'm gonna kill you" as a joke or playfully using his or her fingers to shoot another classmate. Another student might say "I'm gonna kill you" as a competitive statement during a game. Still other transient threats are expressions of anger that do not reflect a serious intent to harm someone, such as a student stating rhetorically "I'd like to kill that jerk" in anger but not actually possessing an intent or plan to kill anyone (Cornell & Sheras, 2006). Transient threats can be provocative and disruptive, but from a threat assessment perspective, they do not reflect a real intent to harm others.

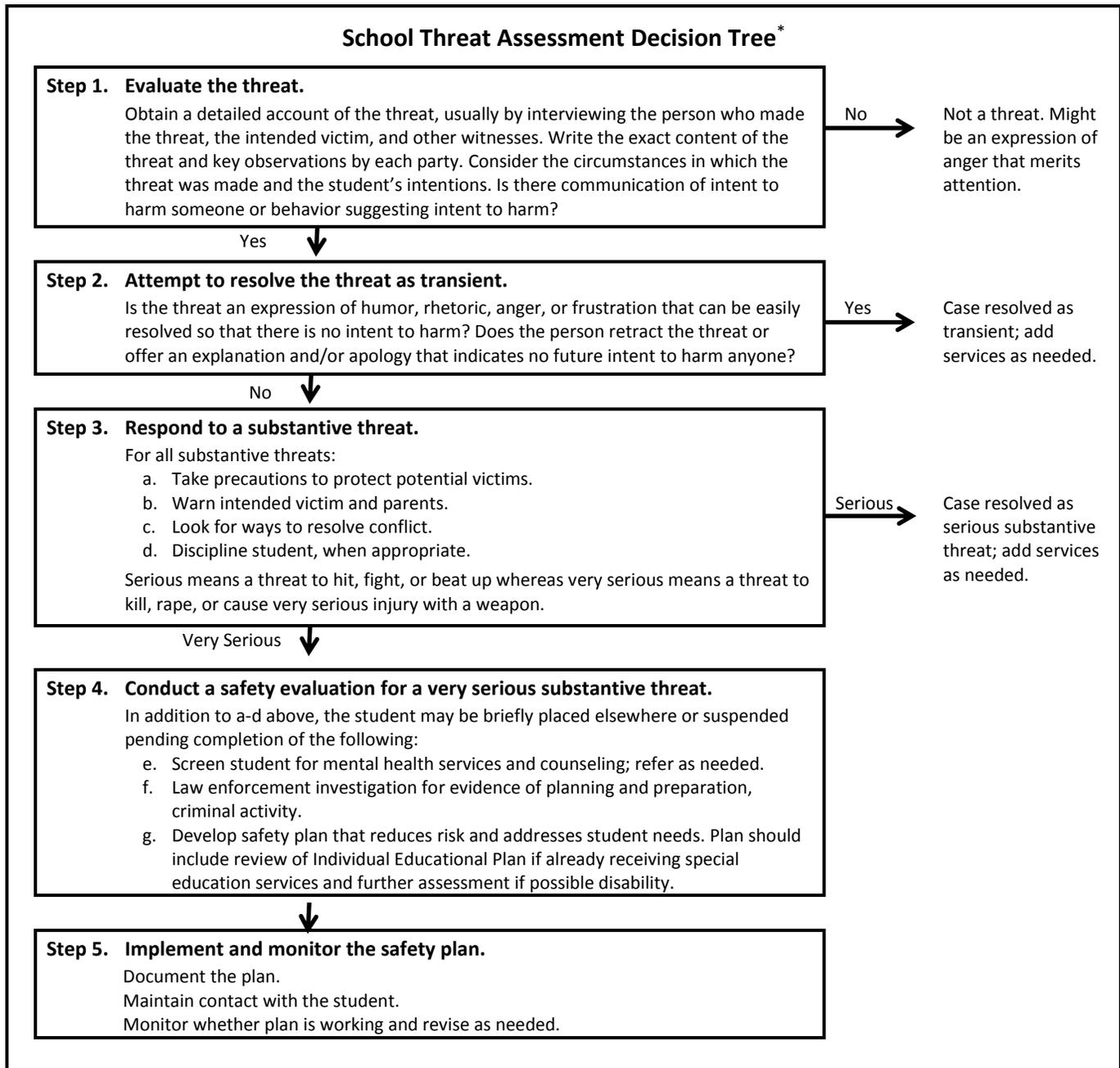
In contrast to transient threats, substantive threats are behaviors or statements that represent a serious risk of harm to others (Cornell & Sheras, 2006). According to the CSTAG model, substantive threats are characterized by qualities that reflect serious intent, such as planning and preparation, recruitment of accomplices, and acquisition of a weapon. Examples of likely substantive threats include a student threatening "I'll get you next time" after a fight and refusing mediation for the dispute, or a student who threatens to stab a classmate and is found to have a knife in her backpack.

The distinction between transient and substantive threats is critical to determining appropriate responses and management strategies. The CSTAG model guides school teams in resolving and responding to student threats according to a decision tree. The first version of the decision tree had seven steps. The new version (see below) is reconfigured to highlight five main steps, but describes the same process and involves the same decisions and actions.

Decision Tree Process

At Step 1, the team evaluates the threat by interviewing witnesses, noting the exact content of the threat, and gathering information on the circumstances in which the threat was made. In most cases, the threatening student is interviewed and given an opportunity to explain what he or she meant by the threatening statement or behavior.

School Threat Assessment Decision Tree*



At Step 2, all available information is used by the school teams to consider the credibility and seriousness of the threat. A threat is considered transient if it can be determined that the student has no intent to

carry out the threat. If the student is cooperative and provides a convincing explanation or apology, the threat is considered transient and the assessment is concluded here. Transient threats do not require protective action or security efforts. On the other hand, if the team is unable to resolve the threat or they are unsure about the threat's status, then the decision tree directs them to respond to the threat as a substantive threat.

At Step 3, teams respond to a substantive threat. All substantive threat responses require protective action, which varies depending on the circumstances of the threat and how the threat might be carried out. At a minimum, protective action typically involves notifying the intended victim and his or her parents, as well as contacting the parents of the student who made the threat. Protective action could also involve increased monitoring or supervision of the threatening student. Depending on the nature and credibility of the threat, substantive threats are further classified as either "serious substantive" or "very serious substantive" threats.

Threats involving a simple assault or a fight are classified as “serious substantive” and resolved at this point. In contrast, a “very serious substantive” threat typically involves a threat to kill or a threat to use a lethal weapon or inflict severe injury on someone.

Step 4 is undertaken for very serious substantive threats. In addition to the protective actions taken at Step 3, the school team will take three additional actions. First, the student will be screened for mental health services or counseling. This typically involves interviewing by a mental health professional with the goals of determining whether the student needs mental health services and understanding what conflict or problem underlies the threat. Second, there is a law enforcement investigation of the case. This investigation will look for evidence of planning and preparation, to determine whether a crime has been committed, and assess what additional protective actions might be needed. The third action is to integrate findings from the mental health assessment and law enforcement investigation into a safety plan. The student might be suspended from school for several days until this plan can be formulated. The safety plan determines the conditions under which the student can return to school or have a change in placement.

At Step 5, the team implements and monitors the safety plan formulated at Step 4. The team maintains contact with the student and makes any necessary changes to the safety plan. In some cases the student may need ongoing monitoring and long-term services.

Research Support

The Comprehensive School Threat Assessment Guidelines has been examined in a series of studies involving hundreds of schools. After three controlled studies demonstrated positive outcomes, the threat assessment model was submitted for review by the National Registry of Evidence-based Programs and Practices (NREPP). In 2013 our program became the only threat assessment program recognized as an evidence-based practice in the National Registry of Evidence-based Programs and Practices.¹ In brief, the general definition of an evidence-based program is one that has been supported by controlled studies carried out with adequate measures and analyses.

Field test and training studies. The first two CSTAG studies were field-tests that demonstrated that school-based teams could carry out threat assessments in a practical, efficient manner without violent outcomes (Cornell et al., 2004; Strong & Cornell, 2008). Notably, across approximately 400 cases, nearly all of the students were permitted to return to school and few of the students received long-term suspensions or transfers to another school. Students receiving special education services made more threats than students in general education, but they did not receive disproportionately higher rates of school suspension (Kaplan & Cornell, 2005).

Another group of studies examined the effect of CSTAG training on staff attitudes and knowledge (Allen, Cornell, Lorek, & Sheras, 2008; Cornell, Allen, & Fan, 2012; Cornell, Gregory, & Fan, 2011; Cornell, Sheras, Gregory, & Fan, 2009; Cornell et al., 2004; Strong & Cornell, 2008). After training, school personnel showed decreased fears of school violence and reduced support for a zero tolerance approach. They showed knowledge of threat assessment principles and the ability to classify cases reliably. These changes were observed across groups of school administrators, counselors, psychologists, social workers, and school resource officers.

Another study examined the performance of CSTAG teams in a sample of 844 cases from 339 schools (Burnette, Datta, & Cornell, 2017). Inter-reliability for the transient versus substantive distinction was 70% ($Kappa = .53$). Logistic regression analyses examined transient and substantive threat differences in

¹ NREPP was a program of the Substance Abuse and Mental Health Services Administration (SAMHSA) in the Department of Health and Human Services. The Executive branch of the federal government closed the NREPP website in 2018, despite protests from the scientific community and members of Congress.

threat characteristics and outcomes. Threats were more likely to be classified as substantive when they included warning behaviors (e.g., history of violence, weapon use, leakage, etc.), were made by older students, mentioned use of a bomb or a knife, and involved threats to harm self as well as others. Although only 2.5% of threats were attempted, substantive threats were 36 times more likely to be attempted than transient threats. Substantive threats were more likely to result in out-of-school suspension, change in school placement, and/or legal action. Overall, these results supported the transient/substantive distinction.

Controlled studies. Five controlled studies have compared schools using CSTAG to control group schools. The first controlled study was a retrospective comparison of 95 high schools reporting use of CSTAG, 131 schools reporting use of locally developed procedures, and 54 schools reporting no use of a threat assessment approach (Cornell et al., 2009). Students at schools using CSTAG reported less bullying at their school, greater willingness to seek help for bullying and threats of violence (such as a student with a gun) than students in either of the other two groups. Students in CSTAG schools reported more positive perceptions of school staff than students in control schools. School records indicated that there were one-third fewer long-term suspensions, after controlling for school size, minority composition and socioeconomic status of the student body, neighborhood violent crime, and the extent of security measures in the schools (Cornell et al., 2009).

The second controlled study demonstrated that 23 high schools using the Virginia Guidelines experienced a 50% reduction in long-term suspensions over a two-year period, whereas 26 control group schools showed no statistically significant change (Cornell, Gregory, & Fan, 2011). For bullying infractions, the control group had a slight increase, while CSTAG schools had a decline of 79%.

The third study was a randomized controlled study of 40 schools where half of the schools were randomly assigned to receive threat assessment training and 20 delayed training for one year and served as a control group (Cornell, Allen, & Fan, 2012). During one school year, there were 201 students identified as making threats of violence (approximately half in each group). The critical issue was how schools authorities would respond to these threats and the extent to which they would rely on school suspension or transfer as a response. Compared with control students, students in CSTAG schools were approximately four times more likely to receive counseling services and two-and-a-half times more likely to receive a parent conference. Notably, students in the intervention group were about one-third as likely to receive a long-term suspension and one-eighth as likely to be transferred to a different school.

Although the results of randomized controlled study were strongly supportive of the CSTAG model, there was a wide range of implementation fidelity (Cornell et al., 2012). Schools that more closely complied with the CSTAG model achieved more positive results than schools that followed it less closely.

The fourth study examined suspension rates in secondary schools that had adopted CSTAG across the state of Virginia (JustChildren and Cornell, 2013). Among Virginia's 663 secondary schools (middle, high, or combined schools), the 398 schools that used the Virginia Guidelines recorded 15% fewer short-term suspensions and 25% fewer long-term suspensions per year than the other 265 schools. This study was particularly concerned with the racial disparity between black and white students, since black students across all schools were twice as likely as white students to be suspended from school. A noteworthy finding was that short-term and long-term suspension rates were lower for both white and black students in schools using the Virginia Guidelines, and the lower rate for black students substantially reduced the racial disparity in long-term suspensions.

The fifth study compared 166 middle schools using the CSTAG model to 47 middle schools using either an alternative model or 119 middle schools using no threat assessment approach (Nekvasil & Cornell, 2015). The number of years a school used the CSTAG model was associated with lower long-term

suspension rates, lower levels of general victimization, higher student reports of fairer discipline, and higher teacher perceptions of school safety.

Distinguishing Features

Many schools have developed their own threat assessment model, typically based on general principles derived from the Secret Service and Department of Education reports (Fein et al., 2002). There are several books describing student threat assessment that also outline general principles of threat assessment and some assessment procedures (McCann, 2002; Mohandie, 2014; Van Dreal, 2011). However, *we were unable to locate any alternative models of threat assessment that are supported by controlled studies*. There is little research on other models of threat assessment. One exception is the German NETWASS program, which was based in part on the CSTAG model (Leuschner et al., 2017).

There are at least five features of CSTAG that distinguish it from other identified models of threat assessment:

- 1) CSTAG has a detailed, 145-page manual with explicit instructions and a decision-tree.
- 2) CSTAG introduces the concepts of transient and substantive threats as a critical distinction in conducting every threat assessment.
- 3) Training for multidisciplinary teams is standardized in an interactive workshop that has been evaluated in several studies.
- 4) CSTAG emphasizes a flexible, non-punitive approach that discourages the use of school suspension in most cases and gives educators an alternative to zero tolerance practices.
- 5) A comprehensive mental health assessment is described in the manual and reserved for the most serious cases.

Threat assessment should be considered one component of a comprehensive approach to maintaining a safe school (Osher, Dwyer, & Jackson, 2004). Threat assessment identifies students who may be in need of additional services, as well as more general problems in the school environment—such as bullying—that merit focused attention. Wilson, Lipsey, and Derzon (2003) reviewed 221 studies of school-based interventions for aggressive or disruptive behavior by students, and found that well-implemented demonstration programs are highly effective.

The foundation for a safe school rests on the creation of a caring community where students feel safe and secure (Catalano et al., 2004). Safety and security derive from two conditions: (1) an orderly, predictable environment where school staff provide consistent, reliable supervision and discipline; and (2) a school climate where students feel connected to the school and supported by their teachers and other school staff. A balance of structure and support is essential, and requires an organized, schoolwide approach (Mayer, 1995; Sprague et al., 2002; Sugai et al., 2000). The good news is that there *are* effective programs and approaches, and threat assessment can help school authorities to use them more efficiently by identifying student conflicts and problems before they lead to violence.

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