

Threat Assessment and Management in Higher Education in the United States: A Review of the 10 Years Since the Mass Casualty Incident at Virginia Tech

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The April 16, 2007 mass casualty incident at Virginia Tech had an immediate, significant, and enduring impact on approaches to campus safety in the United States. In the aftermath of the incident, there were numerous campus safety reviews, not only at Virginia Tech, but across the Commonwealth of Virginia, across the nation, and around the world. Those reviews by campus administrations, state and federal government agencies, professional associations, victim advocacy groups, and law enforcement bodies, resulted in hundreds of campus safety recommendations. Many of those recommendations were intended to improve reactive aspects of physical security, emergency preparedness, law enforcement response, and emergency notification. However, several recommendations addressed preventative approaches to enhance campus safety and bolster institutions' capabilities to identify, investigate, assess and manage actual and potential threats of violence to the campus community. This article will summarize the changes in approaches to behavioral threat assessment and management among institutions of higher education in the United States, drawing on the lessons confirmed and learned from the Virginia Tech incident and those that followed through various research efforts.

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On April 16, 2007, a student at Virginia Polytechnic Institute and State University (Virginia Tech) committed a horrific, mass-casualty attack that resulted in the deaths of 32 people, and the wounding or injuring of another 27 persons. The seriousness of the incident drew significant attention to campus safety and a review of the capabilities of institutions of higher education to prepare for (and respond to) such incidents, to provide timely warnings to community members regarding significant ongoing dangers, and to physically secure campus buildings. As further information became available regarding both the perpetrator's background

and behavior prior to the attack, and the institutions' response to his behavior; colleges and universities engaged in significant systematizing of their campus systems to enable them to better identify and intervene with persons' who were engaging in concerning and threatening behavior ([Midwestern Higher Education Compact, 2008](#)).

Summary of the Incident at Virginia Tech

Shortly after 7:10 a.m. on April 16, 2007, a then-unknown perpetrator shot two victims (both students) in West Ambler Johnson Residence Hall on the Virginia Tech campus. Both victims died as a result of their injuries. Approximately 2 hr and 40 min later, the (still unknown) perpetrator chained the interior handles of the entry doors to Norris Hall, a classroom and laboratory building near the center of the campus. He then went to the second floor of the building where several classes were in session. He looked into several of the classrooms

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before initiating his attack and then entered one of the classrooms, shooting and killing the professor and then killing or wounding most of the students in the classroom. He then proceeded to other classrooms along the hallway, killing and wounding where ever he gained access, often returning to the same room multiple times. Nearly all the victims suffered multiple gunshot wounds, some as many as 17. In approximately 11 min, the perpetrator had fired over 170 rounds from two semiautomatic pistols. As responding law enforcement officers gained entry to the building and advanced to the second floor to confront him, the perpetrator took his own life. Investigation would show that he had fired 174 rounds and that he still had over 200 rounds of unexpended ammunition at the time that he killed himself (*Virginia Governor's Panel Report, 2007*).

In all, 32 persons were killed during the incident—two in West Ambler Johnson, and 30 in Norris Hall. During the Norris Hall portion of the attack, the perpetrator also shot another 17 persons, all of whom survived their injuries. At least 10 students were seriously injured as they escaped one of the classrooms through the second story windows. Within Norris Hall during the attack were another 100 or more faculty, staff, or students who were not physically injured but were exposed to the horrific consequences of the attack (*Virginia Governor's Panel Report, 2007*).

Lessons Confirmed and Learned: Policy and Practice

Reviews of the Virginia Tech Incident

The community, and the nation, were horrified by the attack. In the aftermath, there was tremendous support for the Virginia Tech community. There were also strong questions about how such a tragedy could have occurred and what, if anything, could be done to prevent such an incident or to mitigate harm. Charles Steger, President of Virginia Tech, commissioned several internal committees to review various aspects campus safety and security. These include aspects of physical security, emergency preparedness, emergency communications, student conduct policies, student mental health services, law enforcement and emergency medical services response to the incident, and how the

university had dealt with the perpetrator in the years prior to the incident (*Blythe, 2007; Hyatt, 2007; Niles, 2007*). Those committees identified several areas for modification of institutional policy and practices related to campus safety and security systems, policies, and practices. The internal reviews found that there were significant points of contact with the perpetrator (prior to the incident) in which other faculty, staff, or students had concerns about his behavior or about his welfare. The reviews also found that many people misunderstood laws and policies regarding sharing of information and that this had contributed to people not reporting concerns. This, along with the fragmented and compartmentalized information regarding the subject, lead to no entity on campus having a full understanding of the nature of his concerns or the impact of his behavior. The committees outlined several recommendations to address these concerns, including:

- Creating a threat assessment team charged with examining the most complex cases of distressed students and empowering it to act quickly, when necessary.
- Expanding case management capacity by adding case managers to the Dean of Students office and Cook Counseling Center to improve follow-up with students and to improve information flow through appropriate units about students at risk.
- Improve communications in the systems with particular emphasis on privacy law education throughout the university, clarifying policies for communications with external agencies, establishing a central university contact with a clear picture of distressed students (*Hincker, 2007*).

In addition, and at the request of President Steger, the Governor of Virginia appointed a panel of experts to conduct an external review of the incident, the perpetrator, and university and community services with whom the perpetrator had interacted. The Virginia Tech Review Panel offered over 70 recommendations directed to both Virginia Tech and to Virginia campuses broadly. Among the recommendations were several related to identification and intervention of subjects who may pose a threat to the campus. Specifically, the Panel recommended that “Virginia Tech and other institutions of higher learning should have a threat assessment team that includes representatives

from law enforcement, human resources, student and academic affairs, legal counsel, and mental health functions” (Virginia Tech Review Panel, 2007, p. 19). The panel further recommended that “Incidents of aberrant, dangerous, or threatening behavior must be documented and reported immediately to a college’s threat assessment group, and must be acted upon in a prompt and effective manner to protect the safety of the campus community” (Virginia Tech Review Panel, 2007, p. 53). These recommendations were fully consistent with the finding from the Virginia Tech internal reviews and would subsequently guide legislation in Virginia (discussed further below).

In addition to the reviews noted above, the Office of the Inspector General (OIG) for the Virginia Department of Mental Health, Mental Retardation & Substance Abuse Services (Stewart, 2007) conducted a postincident review of the services provided through state facilities or health care providers. The report summarized various points of contact with the subject who ultimately committed the mass shooting at Virginia Tech. That summary was represented in a diagram (recreated in Figure 1 below) that outline the fragmented and scattered points of concern that had existing regarding the subject during the Fall semester of 2005, nearly 18 months prior to the attack. That diagram helped emphasize the difficulty in identifying and intervening effectively with developing

concerns when information was compartmentalized. The lack of a centralized resource to gather such concerns, and then analyze and act upon them as appropriate, significantly inhibited the organization’s ability to detect and respond to developing concerns.

In addition to the internal communication challenges that limited opportunities for intervention with the subject, the OIG review (Stewart, 2007) also pointed out the shortcomings of approaches to clinical assessment of dangerousness based primarily or solely on information provided by the subject of the evaluation. The review scrutinized the process by which the subject had been evaluated during an involuntary hospitalization that had occurred in December 2005, following suicidal comments made to others. The review found that some evaluators had relied primarily on intake documentation and brief interviews with the subject to assess the danger he posed to self or others. The review stated:

Therefore, an accurate assessment of dangerousness in an individual temporarily detained under a magistrate’s order can only be accomplished by specially trained professionals who have done a thorough psychiatric evaluation and assessment using sufficient collateral information to ensure an accurate understanding of the individual, the individual’s environment, his recent behaviors, and the context of the psychological crisis that precipitated the psychiatric emergency which warranted a temporary detention order. (Stewart, 2007, p. 33)

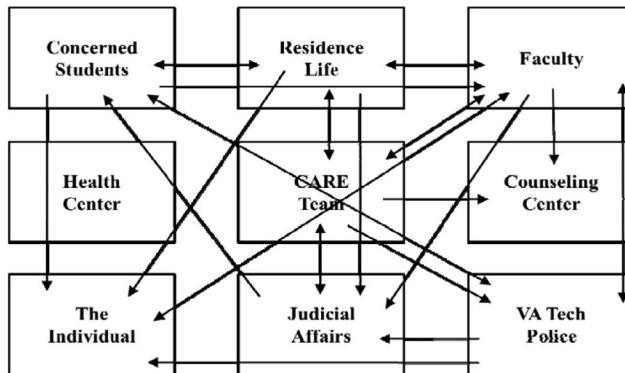


Figure 1. Diagram of communications regarding the individual within the Virginia Tech Community, Fall, 2005. Prepared based upon graphic in OIG Report #140–07: Investigation of the April 16, 2007 Critical Incident at Virginia Tech. Office of the Inspector General for Mental Health, Mental Retardation and Substance Abuse Services, Commonwealth of Virginia.

Dr. Aradhana Bela Sood, a psychiatrist who was also one of the members of the Virginia Tech Review Panel addressed similar concerns in her book (Sood & Cohen, 2015). No such comprehensive and collaborative evaluation was done with the subject from Virginia Tech nor is such an approach to evaluation typical across acute psychiatric settings (Giggie, 2015). While proactive threat assessment and management of persons exhibiting concerning behavior on campus remains important, where mental health concerns are concurrent and contributory to violence risk, and lead to acute evaluation, there needs to be a similar integrated collaborative approach in assessing and managing violence risk among patients. The Governor's Panel recommended that "The role and responsibilities of the independent evaluator in the commitment process should be clarified and steps taken to assure that the necessary reports and collateral information are assembled before the independent evaluator conducts the evaluation" (Virginia Tech Review Panel, 2007, p. 61). In Virginia and across the nation, work remains to be done to meet this standard.

State or System Campus Safety Reviews

The Virginia Tech internal reviews and the Governors Review Panel would serve as foundation and stimulus for other states (e.g., Arkansas, California, Florida, Illinois, Iowa, Massachusetts, Missouri, Nevada, North Carolina, Oklahoma, Wisconsin) to conduct similar reviews of campus safety issues (see the Appendix for a listing of some of those reviews). Indeed, approximately 1 year after the tragedy, a national survey of over 330 institutions of higher education found that 87% had already completed a comprehensive review of campus safety and security concerns that had resulted in changes to safety policies, procedures, or systems (Midwestern Higher Education Compact, 2008). Nearly all of the reviews recommended that institutions of higher education implement campus threat assessment teams (International Association of Campus Law Enforcement Administrators [IACLEA], 2008; O'Neill et al., 2008).

Legislative Approaches

The Commonwealth of Virginia became the first state to legislate a statutory requirement for

public (state owned and supported by government taxes) institutions of higher education in the Commonwealth to "implement policies and procedures for the prevention of violence on campus, including assessment and intervention with individuals whose behavior poses a threat to the safety of the campus community" (Virginia, 2008). Campuses are required to:

1. Provide guidance to faculty, staff, and students regarding threatening or unusual behavior.
2. Identify means and members of the institution where community members should report concerning behavior.
3. Establish policies and procedures for reporting of concerns.
4. Establish policies and procedures for assessing and intervening with individuals engaging in threatening behavior.

The statute further requires public campuses to develop, implement, and operate threat assessment teams. The threat assessment teams must include (at minimum) members from law enforcement; professionals from mental health, student affairs, and human resources; and (as available) legal counsel. Note that many campuses in Virginia (and across the United States) have their own campus police or law enforcement agency. Where this is not the case, campuses would develop agreements with local law enforcement agencies to fulfill the proscribed role. The teams are charged with the authority and responsibility to implement the violence prevention and intervention policies established by the campuses.

In 2008, following a mass casualty incident at Northern Illinois University, the Illinois Legislature enacted a statute requiring public and private (not state owned) institutions within Illinois to develop and implement a campus threat assessment team (Illinois Campus Security Enhancement 110 ILCS 12/20, 2008).

Similarly, in 2013, following the mass casualty incident at Sandy Hook Elementary School, the Connecticut legislature (Connecticut, 2013) enacted legislation requiring both state and independent institutions of higher education to establish threat assessment teams.

Following the mass casualty incident at Sandy Hook Elementary School, the Governor of Virginia appointed a School and Campus

Safety Task Force to review safety concerns impacting elementary and secondary schools, as well as institutions of higher education. The Task Force made several recommendations, including that the Assembly of Virginia extend the existing threat assessment statutes to be inclusive of public school divisions in Virginia. In July of 2013, Virginia became the first state in the nation to require behavioral threat assessment and management teams in all of public education, from kindergarten to postgraduate education (Virginia, 2013).

Standards of Practice

Well before the Virginia Tech incident there were established approaches, models, and guidance for dealing with persons exhibiting concerning behavior or who posed a threat to the educational community. Delworth (1989) outlined a framework for improving institutional responses to students with complex behavioral and emotional concerns. The assessment-intervention of student problems (AISP) model was ahead of its time in recognizing the need for collaborative and systematic approaches. Delworth noted that

[a]ll campuses have or should have some system in place for handling the discipline or judicial problems and the psychological problems of students. The issue often becomes one of insufficient coordination, inadequate informational flow, and a lack of shared process. (Delworth, 1989, p. 9)

While not specifically about students who posed a threat of violence, her comments on the challenges faced in addressing such concerns, were remarkably prescient. Deisinger and colleagues drew from Delworth's model in their development and implementation of a threat assessment team at Iowa State University during the 1993–94 academic year (Jaeger, Deisinger, Houghton, & Cychosz, 1993). Dunkle, Silverstein, and Warner (2008) outlined and further adapted Delworth's model specifically for use both as a campus threat assessment team, as well as for an approach to maximizing effectiveness in responding to students with complex mental health concerns.

Following a violent incident at Concordia College in Montreal Canada in 1992, the institution's Board of Governors commissioned a review lead by Dr. John Cowan. The 1994 Cowan report provided an in-depth review of

the case facts and timeline. The report also identified several issues including the need for a central clearinghouse of information to improve institutional memory and awareness of long-term behavioral concerns, the need to formalize existing crisis management processes to enhance their effectiveness, reduce compartmentalization of awareness of concerns and related decision making, the need for coordination and collective decision making regarding critical issues (Cowan, 1994). Cowan's findings would be replicated in many of the campus safety reviews that followed the Virginia Tech incident.

Following the mass casualty incident at Columbine High School in April 1999, several agencies and organizations reviewed issues related to school and workplace safety, many of which parallel the issues and challenges faced by institutions of higher education. Mohandie (2000) published a comprehensive guide to conducting threat assessment in elementary and secondary school. Also, Meloy (2000) summarized the existing literature on targeted violence as well as approaches to the assessment and management of cases across sectors. Vossekuil, Fein, Reddy, Borum, and Modzeleski (2002) conducted a review of school shootings that had occurred over several years and identified several behaviors relevant to identifying risk for escalation of violence and for guiding interventions.

Similarly, following a violent incident at a University of North Carolina system campus in 2004, in which two students were killed, the UNC system conducted a comprehensive review of campus safety issues. In the 2004 final report, the task force recommended that system campuses should train faculty and staff to identify and intervene with applicants who may pose a danger to the university community. Further the campuses should maintain campus safety committees, and conduct campus threat assessments to identify sources of threats to the campuses (University of North Carolina Office of the President, 2004). The precipitating case involved an individual that had raised concerns during the admissions processes and the recommendations were narrowly oriented around persons in the admissions process. This contributed to many of the UNC campuses not implementing

threat assessment processes until after the incident at Virginia Tech.

In 2003, The U.S. Department of Justice, Office of Community Oriented Policing Services convened a National Summit on Campus Public Safety (U.S. Department of Justice, 2004). The summit report commented on the weak coordination between senior university executives and leaders of campus safety and security functions. The report also commented on the inconsistency in prevention and security practices across campuses, noting that “There are few collective efforts and, as such, threat assessment, prevention, and response strategies may differ significantly” (U.S. Department of Justice, 2004, p. 38). The report noted the lack of any national campus safety resource center to support information sharing across campuses as contributing to the lack of information sharing and awareness of developing practices. The summit made several recommendations including campuses adopting an all-hazards (i.e., regardless of origin or type) approach to preventing and dealing with incidents. The report stated that

. . . An all-hazards approach to crisis prevention, response, and management enhances the overall coordination of activities among responding organizations, improves early warning and notification, allows for improved and continued assessment of potential consequences, and fosters continuity of operations during and after a crisis. (U.S. Department of Justice, 2004, p. 64)

Since the time of the report, many of the recommendations have been implemented, including the formation and operation of a National Center for Campus Public Safety.

In 2006, the Association of Threat Assessment Professionals (ATAP, 2006) published professional guidelines for the practice of threat assessment. While not specific to colleges and universities, the guidelines represented a basic standard of practice for threat assessment and management across sectors.

Following the Virginia Tech incident, several professional associations, governmental agencies, and independent bodies reviewed campus safety concerns and provided recommendations related to campus safety in general. Many of those also provided recommendations or guidance related to threat assessment on campus.

Professional Associations

The International Association of Campus Law Enforcement Administrators (IACLEA), a professional association for campus law enforcement and security directors, conducted a review of campus safety concerns. The review included a summary of several violent attacks impacting campuses and a summary of the state and system reviews then available. The association (IACLEA, 2008) concurred with the collective recommendations that

[i]nstitutions of higher education should have a behavioral threat assessment team that includes representatives from law enforcement, human resources, student and academic affairs, legal counsel, and mental health functions. Specifically, campus public safety should be included on the team. (IACLEA, 2008, p. 7)

McBain (2008), writing in the newsletter for the American Association of State Colleges and Universities (AASCU), noted the challenges inherent in attempting to balance student privacy, campus safety and public well-being. The AASCU document also provided several basic guidelines for institutions including educating faculty and staff about lawful information sharing, encouraging students with mental health issues to seek assistance, minimizing mental health service gaps in the community and on-campus, and the development of centralized threat assessment teams.

A survey of 342 campuses conducted in August 2008 found that approximately two thirds of campuses surveyed had some sort of multidisciplinary team to address emotional crises or concerns of faculty, staff, or students, with 93% of the teams focused on students. (Campus Safety & Security Project, 2009). Another 13% of survey respondents were in the process of developing such teams. However, less than half of campuses surveyed had an established threat assessment team to assess and manage threatening or violent behaviors. Only 37% of public 2-year campuses had such a team, while approximately 60% of 4-year campuses had such a team. Another 19% of survey respondents reported that their campus was in the process of developing such a team.

In 2010, the ASME Innovative Technologies Institute published an independent review and standard regarding campus risk analysis. This American National Standards Institute (ANSI) standard addressed both natural and human

made risks impacting on higher education. The standard recommended that “Threat Assessment Teams be put into place on campus to help identify potential persons of concern and gather and analyze information regarding the potential threat posed by an individual(s)” (ASME, 2010, pp. 9–10). The standard recognized model threat assessment management approaches that met guidelines, including those outlined in Deisinger, Randazzo, O’Neill, and Savage (2008) and Randazzo and Plummer (2009). (see Nolan, Randazzo, & Deisinger, 2011 and Deisinger, Randazzo, Marisa, & Nolan, 2014 for further discussion of the relevance of ANSI standards informing the standard of practice for threat assessment and management.)

Government Agencies

Following the Virginia Tech incident, the U.S. Secretaries of Education and Health & Human Services, along with the U.S. Attorney General provided a report to the President of the United States, outlining several recommendations regarding campus safety (Leavitt, Spellings, & Gonzalez, 2007). These included the need for:

- Greater awareness for professionals from various disciplines regarding the lawful sharing critical information on persons who pose a danger;
- More effective implementation of violence prevention programs and responses to reported threats of violence;
- Improved awareness for faculty, staff, students, and parents regarding warnings signs of violence and mental illness, as well as means of reporting concerns;
- Adequate care for persons with mental illness;
- Improved research of targeted violence in institutions of higher education.

The last recommendation resulted in a joint project of the United States Secret Service, the Federal Bureau of Investigation, and the U.S. Department of Education, focused on targeted violence related to campuses (Drysdale, Modzeleski, & Simons, 2010). The report provided an analysis of 272 incidents of targeted violence related to U.S. institutions of higher education between the early 1900s and 2008. The report spoke to the role of threat assessment teams in identifying, assessing, and managing threats

posed to the campus community. The report cautioned that “[b]lanket characterizations, demographic profiles, or stereotypes do not provide a reliable basis for making judgments of the threat posed by a particular individual” (Drysdale et al, 2010, p. 27).

In response to misunderstanding and misperceptions regarding laws related to student privacy, the U.S. Department of Education (2007) quickly provided clarity that relevant Federal law, the Family Educational Rights Privacy Act (FERPA) provided ample latitude to lawfully share otherwise protected information with other educational officials with a need to know. Further, guidance clarified that the law allowed for sharing of relevant information, even outside the institution, where public safety concerns existed. In 2008, the U.S. Department of Health and Human Services and U.S. Department of Education (2008) jointly published guidance clarifying issues related to the release of educational and treatment records regarding students. The guidance document addressed authorized releases of information and records in general, and specifically in situations in which a student was reasonably believed to be a serious danger to self or others.

While the incident at Virginia Tech had highlighted how misunderstanding of privacy laws could limit lawful information sharing, it was also important to maintain a focus on assisting students where possible and balancing the needs, well-being and privacy of the student as well as the safety of the student and others who may be impacted or harmed by the actions of the student. Several leading organizations (Higher Education Mental Health Alliance, 2013; JED Foundation, 2008; National Association of College & University Attorney’s, 2007; 2014) promulgated guidance to assist campuses with those issues.

From 2009 to 2011, the U.S. Department of Justice Office of Community Oriented Policing Services provided 10 training sessions around the nation. These sessions were provided at no cost to participants and focused on helping colleges and universities to develop and implement behavioral threat assessment and management program, using established practices, supported by research (U.S. Department of Justice, Office of Community Oriented Policing Services, 2009; see also <http://campusthreatassessment.org>).

In 2013, several agencies of the U.S. Government collaborated to provide guidelines regarding prevention, mitigation, response, and recovery to mass casualty incidents occurring at institutions of higher education (U.S. Department of Education, 2013). The guidelines recommended that campuses implement and operate threat assessment teams to help identify and intervene with potential threats.

Paparazzo, Eith, and Tocco (2013) and then the Federal Law Enforcement Training Centers and Johns Hopkins University (2014) published findings from national summits on the prevention of mass casualty incidents. Both examined the issues and challenges faced by organizations across sectors, including higher education. Both recommended that government entities and organizations “Identify and promote the use of interdisciplinary models designed to prevent multiple casualty incidents through threat assessment and intervention” (Paparazzo et al., 2013, p. 13). The summits also recommended implementation of community-based approaches (in addition to campus based) to support effective prevention and intervention efforts. Both summits reflected the need for more and better research to inform practice.

Lessons Confirmed and Learned: Research

As well-publicized attacks at universities resulted in heightened public concern regarding targeted violence on college campuses, threat assessment was frequently recommended as a strategy of choice for the prevention of targeted violence within postsecondary education (Deisinger, Randazzo, O’Neill, & Savage, 2008; Pollard, Nolan, & Deisinger, 2012; Scalora, Simons, & VanSlyke, 2010). Randazzo and Cameron (2012) detailed the evolution of behavioral threat assessment processes from the original Secret Service model used to evaluate threats against public figures, to its adaptations for workplace settings and United States K–12 schools, to its current configuration in colleges and universities. Not surprisingly, threat assessment research has followed a similar evolutionary process.

While much attention has focused upon disgruntled students as perpetrators of targeted violence within campuses, several aspects of campus are vulnerable to targeted violence, as grievances regarding workplace dismissals, ro-

mantic difficulties, and academic conflicts have motivated past campus violence (Drysdale et al., 2010; Scalora et al., 2010). Cao et al. (2013) described the range of one campus threat assessment team’s activity. Employees were the subject in 21.5% of events, students in 60.2%, and visitors in 18.3%. External threats, including assaults, threats, harassment, and stalking comprised 49.5% of cases.

Subsequent to several high-profile incidents of campus targeted violence (including that at Virginia Tech), the Federal Bureau of Investigation (FBI), United States Secret Service (USSS), and Department of Education conducted a thorough review of open-source material regarding campus attacks between 1900 and 2008 (Drysdale et al., 2010). As expected, these events were rare (i.e., 272 discoverable incidents) and involved different locations and perpetrator characteristics. Attacks were perpetrated by students, employees, alumni, and indirect affiliates of the school (e.g., a significant other of a staff member); however, around 10% of attacks involved individuals with no known connection to the school. Different motivations for the attack were observed, including intimate relationship difficulties (34%), retaliation for wrongdoing (14%), response to academic struggles (10%), and workplace dismissal or sanction (6%). The majority of incidents included indications of planning, as 73% involved the perpetrator targeting specific individuals. Threatening statements, stalking, harassing behavior, and/or physical aggression preceded targeted violence in 31% of cases. These preincident actions were observed by family, friends, employees, or the target.

The presence of preincident behavior noted in the campus attacks study is consistent with other literature noting leakage of intention and preincident indicators of violence in other targeted violence contexts (Meloy & O’Toole, 2011). Until recently, limited examination of preincident behavior was researched within collegiate settings (Hollister & Scalora, 2015; Hollister, Scalora, Hoff, & Marquez, 2014; Sulkowski, 2011; Sulkowski & Lazarus, 2011). As a result, significant effort to bystander issues within campuses received significant attention.

Initial research analyzing preincident reporting by collegiate stakeholders included responses to hypothetical scenarios of threatening behavior. A survey of 967 college students re-

sponding to vignettes of grievances and multiple threats from hypothetical individuals indicated 70% of students were willing to inform authorities (Sulkowski, 2011). Students possessing trust in campus services and connection to campus were more likely to report. Another study included college students, faculty, and staff (Hollister et al., 2012) responding to vignettes of concerning behavior. Large variability was seen in willingness to inform authorities across situations (i.e., 9%–91% for students; 39%–100% for faculty/staff), and students, faculty, and staff were more willing to inform authorities after viewing multiple behaviors, direct threats, and/or weapons. Moreover, faculty/staff seemed to have higher reporting rates than students regardless of the scenario.

Recently, information about the prevalence and distribution of campus preincident behavior observations has been examined (Hollister et al., 2014). In a sample of college students, 35% reported viewing preincident activity on campus. These individuals did not differ from those that had not seen threatening behavior in most measured variables (e.g., age, gender, ethnicity, self-reported delinquency), except higher campus connectedness related to an increased likelihood of observing concerning behavior. Those willing to report had greater trust in campus police, less feelings of safety on campus, and less self-reported delinquency. Campus connectedness and peer loyalty did not appear to influence willingness to report. Therefore, the observation of preincident behavior appeared somewhat frequently in this sample, and no demographic differences were significantly related to increased likelihood of preincident observance.

Research efforts assessed reporting activity in response to specific preincident behaviors. A general campus sample was asked if they had observed an individual displaying any of a range of preincident behaviors, and 38% indicated seeing at least one preincident behavior on campus (Hollister et al., 2014). Inquiries about responses revealed these situations are infrequently reported to police (i.e., about 25% of observers informed authorities). However, concerning specific preincident behaviors: instances of acquisition or interest in weapons (43%), suicidal statements or attempts (40%), repetitive face-to-face contact (37%), and/or assault (36%) were the most frequently reported.

Situations with vandalism or property theft (22%), threatening statements (25%), and/or threatening gestures were the most unlikely to be extended to authorities.

The attention to bystander issues overlaps with other areas of violence prevention addressed within collegiate settings. Growing awareness arose of the scope of violence against women on college campuses (Banyard, 2014). As a result, there was a need for campus threat assessment activities to potentially assist general campus violence prevention. For example, campus threat assessment efforts can also address sexual assault (Paul & Gray, 2011), stalking (Buhi, Clayton, & Surrency, 2009), and general criminal activity (Selwyn, 2008) prevention. Spitzberg (2016) noted a range of unwanted pursuit, threats, assault, and stalking behavior encountered by college students. Across two college student surveys, approximately 14% to 27% of the overall student population reported unwanted pursuit or harassment during their time on campus. Further 5% to 9% of those surveyed experienced threats, and about 1% experienced physical assault in the context of such harassment episodes (Spitzberg, 2016).

As with the threat assessment literature, research related to sexual and dating violence on college campuses also reveal significant underreporting of such victimization by victims (Sabina & Ho, 2014). In a review of 45 empirical articles and reports, Sabina and Ho (2014) found that rates of informal disclosure were considerably higher than rates of formal disclosure. Recent research has evaluated the impact of bystander intervention programs related to sexual assault on campuses (Cares et al., 2015; McMahon, Banyard, & McMahon, 2015). Coker et al. (2016) performed a multiyear evaluation of a bystander intervention's campus-level impact on reducing interpersonal violence victimization and perpetration behavior on college campuses. The authors found that violence rates were lower on intervention versus comparison campuses for unwanted sexual victimization, sexual harassment, stalking, and psychological dating violence victimization and perpetration.

The above detailed research implies that many preincident behaviors overlap across multiple areas of violence encountered within campuses. Hollister and Scalora (2015) suggest the

generalizability of campus threat assessment across collegiate bullying, intimate partner, stalking, and workplace violence concerns given the overlap of preincident behaviors across various activities. The overlap of preincident behavior for various types of campus violence had been reviewed through self-reports from collegiate stakeholders (Hollister et al., 2014). Students who observed an individual engaging in preincident behaviors were separated into individuals that encountered physical assault, sexual assault, or neither activity. Most participants who witnessed preincident behaviors for physical assault (84%) as well as those for sexual assault (56%) observed preincident behaviors in addition to assault such as physical following, repetitive unwanted face-to-face contact, threatening gestures, and threatening statements.

Campus Threat Assessment: Today and in the Future

Over the past 10 years, campus threat assessment and management has evolved from a seldom used novelty, to a part of the standard of care at institutions of higher education. While there have been no published surveys of broad samples of higher education institutions, available data indicate that the use of campus threat assessment teams is much broader now than it was prior to April of 2007. *Campus Security Report* (2014) published their survey of a small sample of campus from across the country. They found that 94% of campuses surveyed had established teams to assess and or intervene with individuals who may pose a threat.

In 2012, the U.S. Department of Defense, Defense Science Board (2012) published an analysis of incidents of targeted violence across sectors, and a review of existing approaches to prevent such violence. The task force report, despite being titled *Predicting Violent Behavior*, concluded that such prediction was not possible and that prevention should be the accepted goal. The task force concluded that behavioral threat assessment and management teams offered an effective means of prevention, and that improved information sharing was critical to the success of those efforts. Of note, the report cited the Virginia Tech Threat Assessment Team as an example of a program for consideration by

organizations implementing such approaches. Virginia Tech had come a long way.

The threat assessment field was enhanced with the publication of the *International Handbook of Threat Assessment* (Meloy & Hoffman, 2014). The editors and contributors providing a comprehensive review of the science and practice of threat assessment and management across sectors, disciplines, and around the globe. The practice of threat assessment and management in educational settings was directly addressed in four chapters (Deisinger et al., 2014; Hoffmann & Zamboni, 2014; Mohandie, 2014; Mohandie & Meloy, 2014) and referenced in several others.

A Final Note and a Dedication

The field has advanced considerably. The practice of threat assessment and management has grown across campuses in the United States. Increasingly, that practice is informed and guided by research, often with active partnerships between practitioners and academics. There remains much to do as we work to prevent violence where possible and to mitigate harm where necessary. But the work done over the past 10 years, honors the memory of those at Virginia Tech, and across the nation, who have given so very much that we might learn, grow and develop. Their memory reminds us all of who and why we serve. That memory challenges us to become better as professionals, and as a profession.

This article is dedicated to the memory of the Virginia Tech victims, survivors, responders, and community. Ut Prosim.

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Appendix

Partial Listing of State or System Campus Safety Reviews Conducted in the Aftermath of the Incident at Virginia Tech

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