CAUGHT ON CAMPUS

Violent incidents at academic institutions have spurred universities to adopt formal procedures designed to keep campuses safer. But do the tactics work?

BY BRENDAN MAHER

In many pictures of her online, Kayla Bourque looks like a typical college student: there are selfies of her on a coastal holiday, or smirking mischievously after an experiment in hair colour. But in 2012, Bourque, then a criminology student at Simon Fraser University in British Columbia, told a classmate that she fantasized about killing a homeless person and that she was studying forensics so that she could get away with it. She also talked about killing her family pets and neighbourhood cats.

The classmate told a teaching assistant what Bourque had said, and the department chair called campus security. This triggered a formal process called a threat assessment, in which security, university administrators and outside consultants gathered evidence and evaluated Bourque's recent behaviour. They took the allegation seriously, says Stephen Hart, a forensic psychologist at Simon Fraser who advised on the case. "Often something like this is a cry for help," he says. But her actions on several occasions suggested that she might pose a threat to other students, so simply referring her to the university's outpatient mental-health services would not suffice. The team notified the local police, and told Bourque that she would not be

able to return to university without a thorough psychological evaluation.

Then, while university employees were packing up her dorm room, they found what has been described in court documents as a 'kill kit': a bag containing a kitchen knife, a razor blade, latex gloves, a syringe and plastic ties — the kind used to restrain people. "They realized that this wasn't just a call for help," says Hart. The discovery led to a search warrant for her computer, on which police found violent pornography, disturbing artwork and more selfies, including one of her standing naked next to her disembowelled dog, Molly.

Bourque spent nine months in custody in 2012 for killing Molly, as well as her cat Snowflake, and for possession of a weapon. When she was released it was with an impressive list of probationary conditions, including not using the Internet unsupervised, informing anyone she interacts with about her crimes, never owning a pet, and staying away from Simon Fraser. As horrifying as the case is, Hart sees it as a major triumph for the growing field of threat assessment.

Although they are exceedingly rare, the number of violent incidents reported on college and university campuses has been increasing. Recently, academic institutions have served as the backdrop to a series of highly publicized attacks — and sometimes scientists are the central figures. In 2010, Amy Bishop, a biology professor, gunned down three fellow faculty members at the University of Alabama at Huntsville after being denied tenure (see *Nature* 465, 150–155; 2010). Two years later, James Holmes withdrew from his PhD studies in neuroscience at the University of Colorado Denver about a month before killing 12 people and wounding 58 at a cinema in Aurora.

In many cases, such events are preceded by an escalation in threatening or aberrant behaviour. Holmes had told a university psychiatrist that he fantasized about killing, and Bishop's behaviour allegedly prompted a dean and provost at the university to request police protection months before the attack. Both of these cases are subjects of pending wrongful-death lawsuits. But could the attacks have been prevented?

That is the goal of threat assessment, in which organizations adopt formal procedures to identify and mitigate a dangerous situation before it explodes into violence. Threat-assessment teams and plans are becoming standard at colleges and universities in the United States, and are mandatory in some states, including Virginia, Connecticut and Illinois. Other countries are following suit. "The biggest push we've seen has been in higher education," says Marisa Randazzo, a social psychologist and former US Secret Service agent who works with a threat-assessment consulting firm.

It is difficult to prove that the tactics work, and there are concerns that they may tread on civil liberties, but many see threat assessment as a necessary part of emergency preparedness. "We live in one of the most violent societies," says Reid Meloy, a forensic psychologist at the University of California, San Diego. "Anything we can do to mitigate risk is of value and something important to consider."

ROOTS OF VIOLENCE

Talk to anyone in the threat-assessment field about violence on college campuses, and Gene Deisinger's name will inevitably come up. Deisinger was clinical director of the counselling centre at Iowa State University in Ames when the institution decided to build a threat-assessment team. A number of events influenced that decision: in 1986, a former computer-science student set fire to the house of one of his professors, killing two of the professor's children. Then, in 1991, a young physicist at the University of Iowa in Iowa City killed five people and himself, reportedly because he had been passed over for a thesis prize. In response to these and some other incidents, Loras Jaeger, then chief of Iowa State's

campus police department, asked Deisinger if he would help to create a threat-management team. "I didn't know what one was, and so I started researching," Deisinger says.

The US Secret Service — tasked with protecting the president and other public officials — had a long history of developing methods to assess threats, but that work was not publicly available at the time. Deisinger turned to research on dangerous behaviour, workplace violence and dealing with students in crisis. From that work, he developed an approach for identifying behavioural concerns and intervening in a campus setting. He had a team up and running by 1994. The duties grew quickly, he says, so Jaeger created a full-time position for him within the university police department. During the first month, Jaeger asked Deisinger to report to the state police academy for training, something the 33-year-old psychologist was not eager to do at that stage in his career. But he is glad that he relented. As "a psychologist that carries a badge and a gun, a lot of doors open up", he says.

A campus threat-assessment team is interdisciplinary, and includes law-enforcement professionals, psychologists, academic administrators, representatives from student services and human resources and legal counsel. When someone reports a suspicious behaviour, such as a threat from a student, the team often starts by confronting the person about the behaviour. They may talk to peers, advisers and teachers.

By studying past attacks through the lens of psychology, researchers have identified a range of behaviours and environmental factors that may conspire to trigger violence. Individuals may exhibit extreme or sudden changes in behaviour, alienate themselves or others, or adopt unhealthy interests in weapons or violent acts. Environmental factors may include a tolerance to aggressive interactions in a workplace, an unresolved conflict, or the existence of cliques or pecking orders. And there are often precipitating events. These could be personal conflicts or work-life pressures — such as not getting tenure or a key grant — that an individual has had trouble dealing with appropriately.

Empirical data on attacks suggest that there is a 'pathway to violence': there may be some form of grievance, the development of an intention to do harm, then research, planning and preparation. Bourque,

for example, told psychologists that she had been taking a bus into town to check out potential victims, and her 'kill kit' suggested an advanced stage of preparation. But the data can tell only so much, because such attacks are rare. There are no simple checklists and no simple profile of an attacker.

If concerns are legitimate and a threat-assessment team decides that

a person may be on a trajectory towards violence, then the group works to manage the threat, often by putting the individual in touch with support or mental-health services, or by working out a way to resolve the environmental factors contributing to the situation. Team members may make regular visits, or what Deisinger describes as 'coffee dates'. These are meant to help to keep an eye on people, and unless the person has violated the law or a university rule they are considered voluntary. Most of them are cordial: "I've established a rapport with you that you would at least allow me through the front door, which would allow me to see your living circumstances," says Deisinger. "Is there evidence of psychotic deterioration? Are there weapons stacked in the corner? Are you taking care of yourself? Is there food there? Is your hygiene intact?"

It all sounds a bit Big Brother-ish, and Deisinger doesn't pretend otherwise. These individuals, he says, "know that I'm doing this. We don't play games with it, most of the time." Still, he says, it can be surprising how open people often are. Bourque "talked freely" to the threat-assessment team that evaluated her, says Hart, and even gave them permission to pack up her residence, which was where they spotted the 'kill kit'.

Threat assessment works only when people have signalled an intent to do harm. Luckily, these signals often appear. In the 1990s, the Secret

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DANGEROUS TREND

A study of attacks reported on campuses in the United States since 1900 showed that the increasing frequency of such incidents largely followed rising student numbers, but enrolment alone may not fully explain the increase.

*Data for 2009 are projected.

Service looked at 83 individuals who had attacked or come close to attacking a prominent public official or public figure. It showed that 63% had communicated some sort of threat in advance, although rarely to the intended target¹. “The people who carry out these acts, they typically tell someone what they’re planning to do,” says Randazzo. “We’ve seen many cases where they broadcast it on social media.”

20/20 HINDSIGHT

In November 2005, campus security at Virginia Polytechnic Institute and State University in Blacksburg received a report about Seung-Hui Cho, a South Korean-born student studying English who was allegedly harassing a female student. A room-mate added that Cho had made comments about contemplating suicide. Cho was assessed three times and said that the suicidal statements were a joke. He was briefly hospitalized.

In February and March of 2007, Cho bought two pistols; in April, he killed 32 people in what is, so far, the deadliest campus shooting in history.

The incident launched a national study on campus attacks by the Secret Service, the US Federal Bureau of Investigation and the US Department of Education. It collected information on 272 incidents in the United States between 1900 and 2008. The study showed that such events are rare — but that they are increasing in frequency². For instance, the report catalogues only 25 incidents between 1970 and 1979, but 83 between 2000 and 2008 (see ‘Dangerous trend’). The rise in student numbers is certainly a factor in the increase, and it is likely that more incidents are being reported than in the past. But those changes might not fully account for the trend, says Andre Simons, a behavioural scientist with the FBI who is working on a follow-up to the report.

The study also revealed the varied nature of attacks occurring in a university setting. Students or former students accounted for 60% of the perpetrators, and another 11% were employees. But the remaining 29% were not official members of the campus.

It is hard to say whether the individuals posed clear threats before their attacks. Nearly 30% of perpetrators displayed threatening behaviour, such as stalking or harassing, making verbal or written threats, or being physically aggressive towards their targets. Another 20% exhibited at least some sort of concerning behaviour to a friend, family member, work associate or police officer. But such behaviours could be vague and general, and were not always reported.

In Cho’s case, there were signs of aberrant behaviour, but no process was in place to follow him in an exhaustive way, says Deisinger. After the shooting, Deisinger consulted with Virginia Tech to help build a threat-assessment team there, and he was eventually hired as the university’s chief of police. The Virginia Tech shooting was a pivotal case that

spurred more universities to develop such teams, says Meloy, although how many exist is unclear. A self-reported survey from 2012 found that 92% of universities and community colleges in the United States have some sort of team in place³, but it included other kinds of behavioural-intervention teams that do not typically work directly with the police. The trend is not limited to the United States: universities in Australia have increasingly been taking an interest in threat-assessment procedures; and an estimated ten universities in German-speaking countries have established or developed plans for teams, says Jens Hoffmann, a psychologist at the Institute of Psychology and Threat Management in Darmstadt, Germany, and co-editor with Meloy of the *International Handbook of Threat Assessment* (Oxford Univ. Press, 2014).

SAFE AND SOUND?

These systems and tactics for managing threats cannot stamp out all targeted violence. In 2009, after Virginia Tech had established its threat-assessment team but before Deisinger had arrived, a graduate student in agricultural economics beheaded a woman who had rebuffed his romantic advances. And a team was in place at the University of Colorado where Holmes made threats to a mental-health professional, but Holmes left the university shortly after, making it difficult to follow up on the case.

There are bound to be missed signals, says Deisinger. And threat assessment is only as good as the vigilance of a community, because it relies heavily on reporting. But in the wake of recent high-profile shootings, this vigilance has improved, says Randazzo. “People are reporting things that seem not right in ways that they didn’t in the past.” Many cite the “see something, say something” campaigns that have blanketed New York City since the terrorist attacks of 11 September 2001 as having helped to encourage people to report suspicious behaviour. But a team is useless if no one knows about it, so Deisinger and others have tried to spread the word by creating websites and fliers, as well as holding training sessions on how to deal with inappropriate behaviour.

There are costs to all this watchfulness, however, says Joe Cohn, legislative and policy director for the Foundation for Individual Rights in Education in Philadelphia, Pennsylvania. “It’s not unusual for universities to engage in behaviours that chill freedom of speech in the name of safety,” he says. He cites recent examples in which a student was expelled for protesting over the construction of a parking garage and a professor was reported to a threat-assessment team for hanging posters with aggressive messages outside his office. He urges teams to include civil libertarians to better ensure that universities do not encroach on people’s rights.

It is also difficult to prove that having a threat-assessment team makes a campus any safer. There are no standards for how to report a successful case, and privacy concerns make the sharing of data complicated. Deisinger says that his team tracks cases to see whether interventions have improved the situation for the individual and the people around him or her. “Most of them, we can resolve to a level that is akin to the day-to-day moderately inappropriate behaviour,” he says. It is not ideal, “but it’s liveable,” he adds. The field is trying to set standards and collect data on how well the process works. Phase two of the FBI’s campus-attacks study, which will focus on attacks that happened between 1985 and 2010, may fill in some of these holes.

These are all concerns that weigh heavily on Deisinger. But what worries him most is the thought that someone, somewhere, is planning something that no one can anticipate. “I’m often asked, because of the cases we work, ‘How do you sleep at night?’” He does not worry so much about people who have already been identified by his team. “It’s the cases I don’t know about,” he says, “that give me difficulty sleeping.” ■ SEE EDITORIAL P. 131

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3. Van Brunt, B., Sokolow, B., Lewis, W. & Schuster, S. NaBITA Team Survey. Available at www.nabita.org (2012).