

**Impact of Terrorism Awareness Training on Civilian Likelihood to Report
Pre-Incident Behaviours**

By

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LIKELIHOOD TO REPORT PRE-INCIDENT BEHAVIOURS

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The above committee determined that the thesis is acceptable in form and content and that a satisfactory knowledge of the field covered by the thesis was demonstrated by the candidate during an oral examination. A signed copy of the Certificate of Approval is available from the School of Graduate and Postdoctoral Studies.

LIKELIHOOD TO REPORT PRE-INCIDENT BEHAVIOURS

Abstract

This study investigated whether terrorism awareness training impacts the likelihood to report pre-incident behaviours associated with terrorism using infographics from the U.S. “See Something, Say Something” campaign. Additional factors were considered to gain a comprehensive understanding of variables that influence reporting. With a sample of 342 students, mixed ANOVAs revealed a higher mean likelihood to formally and informally report pre-incident behaviours than nonempirical indicators, regardless of training. For pre-incident behaviours, regression analyses revealed likelihood to formally report increased as diffusion of responsibility and perceptions of community safety decreased, whereas informal reporting increased as delinquency decreased. For nonempirical indicators, the regression model for likelihood to formally report failed to reach significance, whereas informal reporting increased for those impacted by terrorism or not exposed to training, and as positive police perceptions and social disconnectedness increased. This expands the research on terrorism-related reporting and offers novel insight into factors that influence reporting decisions.

Keywords: terrorism; pre-incident behaviours; reporting; awareness training; See Something, Say Something; pathway to violence

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Author's Declaration

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The research work in this thesis that was performed in compliance with the regulations of Research Ethics Board/Animal Care Committee under **REB Certificate number 15495**.



RENEE BENCIC

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Statement of Contribution

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication. I have used standard referencing practices to acknowledge ideas, research techniques, or other materials that belong to others. Furthermore, I hereby certify that I am the sole source of the creative works and/or inventive knowledge described in this thesis.

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Impact of Terrorism Awareness Training on Civilian Likelihood to Report Pre-Incident Behaviours

Although it is challenging to conceptually define and systematically study terrorism, there has been a growing body of empirical literature in recent decades. Researchers have attempted to identify the behavioural patterns that often precede acts of terrorism (e.g., Meloy & Gill, 2016; Meloy et al., 2019; Nance, 2013) and evaluate the public's likelihood to report these relevant indicators (e.g., Jenkins & Butterworth, 2018) to ultimately improve prevention efforts before other attacks occur. Civilian reporting is one strategy that can assist law enforcement with identifying potentially threatening individuals that may have otherwise gone undetected with more traditional counterterrorism measures (e.g., metal detectors, surveillance, informants).

A cardinal example of a terrorism prevention initiative that capitalizes on civilian reporting is the "If You See Something, Say Something" campaign (Department of Homeland Security, 2010). Introduced on a national level by the U.S. Department of Homeland Security (DHS) in 2010, the "See Something, Say Something" campaign is a public safety initiative designed to assist law enforcement efforts in preventing attacks by increasing the public's likelihood to report observable indicators of terrorism planning to the proper authorities. This is done by training the public on the behavioural commonalities (i.e., "pre-incident" behaviours) that often precede acts of terrorism and/or encouraging them to immediately report suspicious behaviour to the proper authorities.

Identifying potentially threatening individuals is critical for the terrorism prevention process because once detected, an investigation can be launched to assess the threat level, and strategies can be implemented to mitigate that level.

Curiously, there is a lack of empirical literature assessing the overall effectiveness of the “See Something, Say Something” campaign. The current study sought to address this gap by evaluating whether the “See Something, Say Something” initiative increases civilian reporting of relevant (pre-incident) indicators of terrorism while at the same time not increasing their likelihood to report nonrelevant (nonempirical) indicators of terrorism. Additional factors known to influence reporting rates for other types of targeted violence were also considered in the current study to gain a more comprehensive understanding of variables that specifically influence terrorism-related reporting.

To fully appreciate the rationale behind the current study, it is important to first understand the relevance of pre-incident behaviours, as well as the low reporting rates of such behaviours and factors known to influence those rates. As such, the current thesis begins with a review of these topics within the context of terrorism and other, more empirically-evaluated forms of targeted violence (e.g., school violence). Next, the paper considers the role civilian reporting can play in helping to prevent acts of terrorism. Finally, the “See Something, Say Something” campaign is discussed in further detail and the current study is introduced as a means to address the lack of publicly-available literature that assesses the effectiveness of this public safety campaign. This research expands the scant literature on terrorism prevention initiatives that capitalize on civilian reporting as a form of intelligence to identify threats.

A Brief History of Terrorism

There is a growing consensus among academics and practitioners that terrorism can be differentiated from other forms of violence based on four elements: (1) motivation, (2) targets, (3) consequences, and (4) desired goals. More specifically, many scholars agree that terrorist attacks are typically ideologically motivated, committed against non-combatants, intended to

influence or intimidate, and used to achieve a larger objective (Egbo, 2009; Hoffman, 2006; Meloy, 2017). The Criminal Code of Canada recognizes a similar definition in their anti-terrorism legislation and offers several examples of intentional outcomes associated with terrorism. This includes acts that result in death, bodily harm, endangering a life, a risk to the public's health and safety, substantial damage, or "interference or disruption of essential services, facilities, or systems" (Criminal Code of Canada, 1985, p. 78).

Despite what is portrayed in the media, terrorism is not a new phenomenon (Bakker & de Graaf, 2010; Smith et al., 2015). Rapoport (2002) proposed a wave theory of "modern" terrorism to account for the succession of four prominent, ideologically-motivated extremist movements that dominated between the 1880s and now. The three previous "waves" of terrorism were fueled by anarchism (e.g., Narodnaya Volya), anti-colonialism (e.g., Irish Republican Army) and left ideologies (e.g., Red Army Faction), respectively (Rapoport, 2002). The fourth, and arguably current wave, emerged in the late 1970s and is considered to be primarily motivated by extreme religious ideologies (Rapoport, 2002, p. 16). The Islamic State of Iraq and Syria (ISIS) and al-Qaida are current examples of terrorist organizations that use religious rhetoric to promote and justify violence (Public Safety Canada, 2019; Rapoport, 2002).

Within Canada, the Integrated Terrorism Assessment Centre (ITAC) is responsible for determining the national terrorism threat level (Public Safety Canada, 2019). Canada has remained at a medium level since October 2014, which suggests "a violent act of terrorism *could occur*" and therefore "additional measures are in place to keep Canadians safe" (Public Safety Canada, 2019, p. 6). In a 2016 public safety report, the former Commissioner of the Royal Canadian Mounted Police (RCMP), Bob Paulson, claimed terrorism to be the primary threat to Canada's national security, followed by espionage, cyber threats, and the proliferation of

chemical, biological, radiological, and nuclear (CBRN) weapons (RCMP, 2016). Canada's 2018 Counter-terrorism Strategy report further specified the three main terrorist threats to Canadian citizens at home and abroad: domestic and international violent Sunni extremism (e.g., ISIS); domestic, single-issue extremism (e.g., white supremacy); and "other international" extremism (e.g., FARC; Public Safety Canada, 2018, p. 6).

Although not a new phenomenon, Canada's current threat level, and terrorism more generally, is problematic for a variety of reasons. First, the underlying intent is typically to undermine, influence, or intimidate the government or a group of individuals (Criminal Code of Canada, 1985; Hoffman, 2006). This is typically achieved by increasing fear, doubt, or instability among its intended targets, which are often innocent civilians (English, 2009). Second, terrorist attacks are known to inspire "copy-cat" attacks (Bakker & de Graaf, 2010), which may account for the rise of lone actor attacks seen in recent decades (Spaaij, 2010). Finally, lone actors are particularly problematic due to the nature of their attacks and their lack of involvement with larger terrorist networks. Individuals who engage in lone actor terrorism often commit less sophisticated attacks and tend to rely on easily-accessible weapons, such as knives or cars, which can be equally as effective as other, more elaborate weapon choices (Bakker & de Graaf, 2010; Michael, 2012). Their choice of weapons, coupled with their inherent reclusiveness and limited interactions with larger networks that are already being monitored by agencies, increases the likelihood that lone actors will go undetected prior to committing their attacks (Bakker & de Graaf, 2010; Zierhoffer, 2014).

In summary, both lone actor and group-based terrorism pose national security concerns. The suspected increase in lone actor terrorism is especially problematic from a prevention perspective in that traditional methods of intelligence gathering that exploit the group-based

setting of larger networks (e.g., informants, communication interception) are conceivably less effective due to the reclusive nature of solo actors. This increases the likelihood that those who operate in smaller cells, or alone, will go undetected. It is therefore important to capitalize on additional methods of intelligence gathering to maximize the threat detection rate and, ultimately, violence prevention process.

Pre-Incident Behaviours Indicative of Future Violence

Compared to general crime, which is more reactive in nature, terrorism can be considered a form of targeted violence in that it is goal-oriented, predatory, and often directed towards specific targets (Fein et al., 1995; Meloy, 2017). Other forms of targeted violence include school violence, workplace violence, public figure violence and intimate partner violence (Calhoun & Weston, 2003).

Various methods have been suggested to improve the rate of detecting targeted violence plots, which is the first step towards prevention (Fein et al., 1995). One method is to train the public to recognize the behavioural patterns that often precede acts of targeted violence, including acts of terrorism, with the hope that this will translate into increased (and more accurate) civilian reporting. This is based on previous research which found various forms of targeted violence, including acts of terrorism, are often preceded by behavioural commonalities (i.e., “pre-incident” behaviours or “relevant” indicators) that suggest an individual may be considering, planning, preparing, or about to commit a violent act (Calhoun, 1998; Calhoun & Weston, 2003; Drysdale et al., 2010; Fein et al., 1995; Fein & Vossekuil, 1998; Hoffmann and Dolitzsch, 2006; James et al., 2007; Meloy et al., 2012; Meloy et al., 2014).

Although several types of targeted violence attacks are preceded by similar behavioural trends, non-terrorism related targeted violence, such as school or workplace violence, is often

conceptualized according to the pathway to intended violence model (Calhoun & Weston, 2003; Fein et al., 1995). Conversely, the behavioural indicators of terrorism are often conceptualized according to either the pathway model or the terrorist planning cycle (U.S. Army Training and Doctrine Command, 2007). Both models will be described below.

Non-terrorism related forms of targeted violence. Within the context of non-terrorism related forms of targeted violence, the pathway to intended violence model suggests attackers progress along a six-step path: grievance, violent ideation, research and planning, preparing, probing and breaching security, and attacking (Calhoun & Weston, 2003). Each stage consists of a variety of covert and overt indicators, with overt behaviours occurring in greater frequency during the latter stages (see Figure 1).

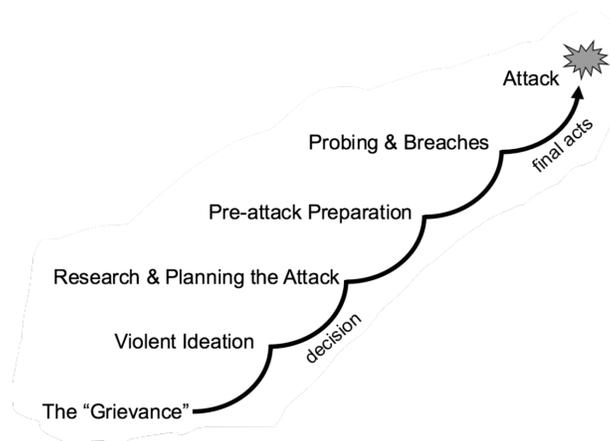


Figure 1. The pathway to intended violence (Adapted from Calhoun & Weston, 2003).

According to the pathway model proposed by Calhoun and Weston (2009), attackers first experience a triggering event that results in a fixated and overly-exaggerated emotional response (“grievance” stage). The trigger can be any event, including a recent political decision, a breakup, or an argument at work. When the obsession turns malicious, and individuals consider violence to be their only reasonable option, they are in the second stage of the model (“ideation” stage). Individuals in this stage may exhibit a keen interest in former attackers or closely follow

an infamous online extremist movement. Individuals transition to stage three (“research and planning” stage) once they consider violence to be their only option and begin to explore various methods of attack. This might include gathering information on targets or acquiring materials to create weapons. Once individuals formulate a plan and begin to take the necessary steps to prepare for an attack, they have entered the fourth stage (“preparing” stage). Individuals in this stage might test weapons to ensure they are working, arrange travel to their attack location, or write goodbye letters. The final two stages typically occur in close proximity to one another. In the fifth stage (“probing and breaching security” stage), individuals may need to breach security to reach their intended targets in order to ultimately carry out their attacks. This might involve disarming a target’s security team or bypassing physical security measures. The sixth, and final stage (“attacking” stage) occurs the moment the attack begins (Calhoun & Weston, 2009; Fein et al., 1995).

It is important to note that as individuals progress along the pathway to intended violence, their behaviours shift from being predominantly covert to predominantly overt (Calhoun & Weston, 2009). This makes sense, given that the earlier phases are driven by internal motivations and ideations, whereas the latter phases require a series of overt behaviours be carried out in order to commit a violent act.

Threat assessors highlight the importance of identifying individuals who exhibit behaviours that are indicative of the middle phase of the pathway model (e.g., “research and planning”) because behaviours become more overt, and thus detectable, but there are still opportunities to intervene (Calhoun & Weston, 2009). Conversely, it becomes critical to identify individuals who exhibit behaviours indicative of the latter phase (i.e., “probing and breaching security”), given that opportunities to intervene are limited (Calhoun & Weston, 2009). It is for

these reasons that those involved in the targeted violence prevention process often focus their efforts on identifying behaviours indicative of the “research and planning” and “preparing” stages when attempting to identify potentially threatening individuals. It is also understandable why terrorism awareness campaigns, such as the “See Something, Say Something” campaign highlight these indicators in their training material (DHS, 2010).

There is an abundance of research to support that behavioural commonalities do, indeed, precede a variety of non-terrorism related forms of targeted violence attacks in a loose, pathway-like fashion. This includes research on targeted violence perpetrated against politicians, public figures, workplaces, primary and secondary schools, and college campuses. There is also a growing body of empirical literature to suggest similar behavioural commonalities precede acts of terrorism.

The literature on public figure violence, for example, suggests that most attackers exhibit pre-incident behaviours prior to committing attacks. A notable study conducted by the U.S. Secret Service found that a vast majority of individuals who attacked or attempted to attack public figures between 1949 and 1999 had initially experienced a grievance (67%) and engaged in preparatory behaviours (90%), such as possessing information about their targets (Fein & Vossekuil, 1998, 1999). The study also found that most attackers (63%) made direct or indirect threats, further suggesting elements of ideation, planning, and preparation.

A study conducted on a sample of 3,096 threatening or inappropriate statements made to federal judiciary officers similarly found evidence of pre-incident behaviours (Calhoun, 1998). Violence was 40 times more likely to occur in cases with suspicious individuals who exhibited planning or predatory behaviours, such as appearing outside the courthouse at peculiar hours, compared to cases with suspicious individuals who only made threatening statements (Calhoun,

1998). Behavioural commonalities known to precede public figure attacks have also been observed in non-American samples. A European study on a limited sample of politician attacks ($N = 12$) found attackers exhibited pre-incident behaviours, including writing inappropriate letters to politicians, making threats, and telling others about their violent intent in 46% of cases (James et al., 2007).

Research on workplace violence provides additional support for the existence of observable, behavioural patterns that tend to precede such acts. For example, a study conducted on a limited sample of German workplace attackers ($N = 20$) found that the vast majority (90%) exhibited overt behaviours indicative of the research and preparatory stages of the pathway model (Hoffmann & Dolitzsch, 2006). This included activities such as purchasing or designing weapons and conducting surveillance on targets. The study additionally found 30% of workplace attackers exhibited “final act” behaviours (Hoffmann & Dolitzsch, 2006), which are preparatory behaviours that foreshadow a fatal outcome (e.g., writing goodbye letters or closing bank accounts; Meloy et al., 2012, p. 9).

Pre-incident behaviours have also consistently been documented in K-12 school and campus violence research (Drysdale et al., 2010; Hodges et al., 2016; Hollister et al., 2014; Hollister et al., 2016). A notable study by the U.S. Secret Service evaluated 37 primary and secondary school attacks between 1974 and the late 2000s and found evidence of planning and preparatory behaviours in a large majority (93%) of cases, including threats and weapon acquisition, and this often caused others to be concerned (Vossekuil et al., 2000; Vossekuil et al., 2004). In 75% of cases, at least one other individual had some form of knowledge about the attack beforehand, and in 59% of cases, at least two individuals had such knowledge. This ranged from a mere inkling to specific details (Vossekuil et al., 2004). A similar trend was

observed in a small sample of German K-12 school shooters ($N = 9$; Meloy et al., 2014).

Compared to students of concern that did not go on to commit violence, German school attackers were more likely to exhibit behavioural indicators of research, planning, and preparation.

Terrorism related forms of targeted violence. In addition to the mounting literature that supports the existence of observable, pre-incident behaviours across various forms of non-terrorism related acts of targeted violence, preliminary research conducted within a terrorism context also suggests that such attacks are often preceded by behavioural commonalities. The pre-incident behaviours associated with terrorism, however, have been conceptualized according to two different, albeit similar models: the aforementioned pathway to intended violence model and the terrorist planning cycle. As shown in Figure 2, the terrorist planning cycle is a seven to eight-step model that highlights the various phases associated with planning an attack. This includes broad target selection, initial intelligence and surveillance, specific target selection, pre-attack surveillance and planning, attack rehearsal, attack execution, and escape/exploitation, respectively (U.S. Army Training and Doctrine Command, 2007).

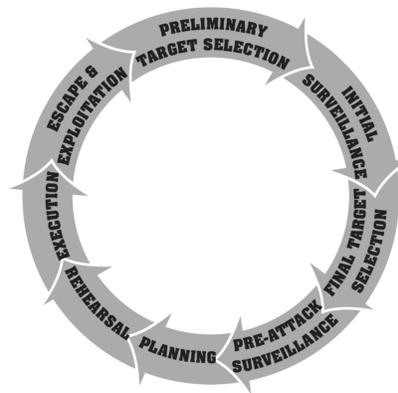


Figure 2. The terrorist planning cycle (Adapted from U.S. Army Training and Doctrine Command, 2007).

The terrorist planning cycle can be conceptualized as a model that capitalizes on the middle and latter stages of the pathway to intended violence model (i.e., the “research and planning,” “preparing,” “breaching security,” and “attacking” stages). The cycle begins by highlighting relatively observable indicators that are exhibited by an individual who has already conceded to commit violence. More specifically, the cycle recognizes that once individuals consider violence as their only option, they will typically first conduct surveillance on potential targets (stage 1) and gather preliminary information (stage 2) before settling on specific targets (stage 3) and gathering the necessary information (stage 4) to plan an attack (stage 5). Many individuals will rehearse their attacks (stage 6) prior to executing them (stage 7), and some might even exhibit post-attack intentions (stage 8; U.S. Army Training and Doctrine Command, 2007).

There is limited publicly-available research that directly evaluates the existence of pre-incident behaviours within the context of terrorism, from either the terrorist planning cycle or the pathway to intended violence model frameworks. There is, however, a growing body of empirical research and anecdotal evidence that indirectly supports the presence of pre-incident behaviours indicative of the various stages in each framework. An American study that assessed 67 local terrorist attacks documented the presence of approximately two-and-a-half behavioural indicators per attack (Smith et al., 2006). Weapon theft and the creation of false identities were two examples, which are indicative of the “pre-attack surveillance” and “planning” stages of the terrorist planning cycle, as well as the “preparing” stage of the pathway to violence model.

Other empirical studies also lend support for the existence of observable planning and preparatory behaviours that often precede acts of terrorism (Meloy & Gill, 2016; Meloy et al., 2019). Overt indicators may include committing criminal activity (e.g., robbery) to gain access to

necessary materials (Hoffman, 1998), arranging travel to or from target locations (Nance, 2013) and displaying “last resort” behaviours (Meloy et al., 2015; Meloy et al., 2019).

In addition to the growing empirical literature, there is anecdotal evidence to support the existence of pre-incident behaviours that typically precede various types of ideologically-motivated acts of terrorism. For example, Sirhan Sirhan (i.e., the Robert F. Kennedy Assassin), Dzhokhor Tsarnaev (i.e., the Boston Marathon Bomber) and Timothy McVeigh (i.e., the Oklahoma City Bomber) are infamous examples of individuals who committed terrorism for different ideological reasons, but exhibited similar patterns of planning and preparatory behaviours (Meloy, 2017).

Taken together, empirical research and anecdotal evidence support the existence of pre-incident behaviours across various types of targeted violence, including terrorism. Attackers tend to exhibit a pattern of overt behaviours as they plan and prepare for an attack, and this becomes increasingly observable as plans progress. Regardless of whether such behaviours are interpreted according to the pathway model or the terrorist planning cycle, it is clear that pre-incident behaviours are indicative of future violence and should not be ignored. Despite this, however, the literature on reporting suggests civilians are often exposed to pre-incident behaviours, yet fail to report them to the proper authorities for a variety of reasons.

Civilian Reporting of Pre-Incident Behaviours

Few studies have assessed civilian reporting behaviour within the context of terrorism specifically. However, a substantial body of empirical research has evaluated school violence related reporting. This research will be considered below, as it is conceivable that the findings

are extendable, to some degree, to other less researched forms of targeted violence, such as terrorism.

Research on school violence related reporting found in the majority of these types of attacks, at least one individual observes a pre-incident behaviour and there are a variety of reasons individuals report, or fail to report, these relevant indicators to the authorities. For example, a study conducted on a sample of primary and secondary U.S. school shootings found over 80% of cases involved at least one individual observing pre-incident behaviours prior to an attack, yet these indicators often went unreported (Pollack et al., 2008). Vossekuil and colleagues (2000) similarly found that in approximately 75% of cases, at least one individual was aware of a possible school attack prior to it occurring, and in the vast majority of cases (93%), school attackers exhibited planning and preparatory behaviours, which prompted concern from others. There are several documented reasons for failing to report behaviours indicative of a school violence attack, including students misperceiving the dangerousness of the situation or the imminence of violence (Pollack et al., 2008).

Similar reporting trends have also been documented in campus violence literature. Despite research conducted by Sulkowski (2011), which found that almost 70% of a Southern American college sample was “at least somewhat willing” to report concerning vignettes to the proper authorities, more recent literature suggests post-secondary students are largely unwilling to report actual or hypothetical pre-incident behaviours. One study conducted on a sample of Midwestern American university students found that approximately 35% of students had previously observed pre-incident behaviours on campus, yet 65% were unwilling to report hypothetical vignettes with concerning behaviours to the proper authorities (Hollister et al., 2014). Follow-up studies that were conducted on a larger sample of the same Midwestern

students found that the majority of students (52%) were unwilling to report many concerning hypothetical vignettes (Hollister et al., 2016) and most students who had previously witnessed suspicious behaviours on campus did not formally report them (Hodges et al., 2016; Hollister et al., 2016). In fact, Hodges and colleagues (2016) found only 12.3% of post-secondary students that had previously observed suspicious behaviours on campus reported them to the authorities. Approximately 45% of their sample took informal action (e.g., talking to the individual of concern) and about 43% took no action at all (Hodges et al., 2016). In other words, the literature suggests post-secondary students are largely unlikely to report actual or hypothetical scenarios possibly indicative of school violence planning to the proper authorities. There are a variety of documented reasons for failing to report. Similar to the K-12 literature, formally reporting pre-incident behaviours in a school violence context depends, in part, on the perceived dangerousness of the situation or awareness that such behaviours are indicative of future violence (Hollister et al., 2016).

In summary, the low reporting rates and reasons for failing to report in a school violence context, informs us, to some extent, of the expected reporting trends of less researched forms of targeted violence, such as terrorism. There are several reasons why failing to report relevant indicators of targeted violence planning, and in this case, terrorism, is problematic; most notably, because it impedes the terrorism prevention process.

Violence Prevention through Civilian Reporting

Civilian reporting can aid the crucial first step in the terrorism prevention process—threat identification. In comparison to violence reduction strategies that are used to mitigate more reactive types of crime, threat assessments are considered a useful method for preventing acts of

targeted violence, including acts of terrorism (Calhoun & Weston, 2009; Jenkins, 2009; Meloy, 2017; Meloy & Hoffman, 2014; Randazzo & Cameron, 2012; Scalora et al., 2008).

Threat assessments occurs in three phases: (1) identification, (2) assessment, and (3) management (Borum et al., 1999). More specifically, individuals who pose a possible threat to commit targeted violence must first be identified. Once detected, an individual's risk of committing planned violence can be assessed and strategies can be implemented to manage that risk (Meloy, 2017). In other words, suspicious individuals must first come to the attention of law enforcement in order to initiate the threat assessment process and to ultimately prevent acts of targeted violence.

Law enforcement and intelligence agencies rely on various strategies to detect threats of targeted violence. This includes the use of physical security measures (e.g., metal detectors) and physical surveillance. Agencies also rely on more traditional methods to gather intelligence, including informants and telecommunication interception (Calhoun & Weston, 2009). However, these methods pose certain limitations. They can be costly and physical security measures have been criticized for being defensive rather than preventative (Calhoun & Weston, 2009). That is, physical security measures are considered by some as a "last line of defense," which make them inherently less proficient at identifying threatening individuals prior to them reaching the latter, less intervenable stages of the pathway to violence model (e.g., "breaching security"; Calhoun & Weston, 2009). Given these limitations, and the potential consequences of failing to prevent an attack, this highlights the importance of relying on additional methods to maximize the threat detection rate.

Civilian reporting provides a source of information which could help with the detection of threatening individuals who might otherwise go undetected by other more traditional methods

(Pollack et al., 2008). Civilian reporting, also known as community-based prevention or informal crime control, is inherently less costly than other methods and is considered to be a more “pervasive” approach to intelligence gathering (Brank et al., 2007; Mourad, 2018). There is also empirical evidence to support its role in helping to detect acts of targeted violence (Brank et al., 2007; Jenkins & Butterworth, 2018). For example, many school violence attacks have been prevented with the help of reports made by concerned students, citizens, parents, and school employees, rather than through law enforcement efforts alone (Daniels et al., 2007; Vossekuil et al., 2000; Vossekuil et al., 2004).

There is limited research to support the role of civilian reporting in helping to prevent terrorist attacks more specifically. However, one notable study conducted on a global sample of terrorist plots targeting public transportation systems found civilian reporting helped detect attacks (Jenkins & Butterworth, 2018). More specifically, the researchers found that approximately 20% of detected plots were detected as a result of reports made by transportation employees and concerned bystanders (Jenkins & Butterworth, 2018). This preliminary research highlights the supplemental role civilian reporting can play in helping to prevent terrorism.

Awareness Training to Improve Civilian Reporting

As mentioned, the public’s reluctance to report pre-incident behaviours is problematic considering the role reporting has played in helping to prevent attacks. Relatively recently, methods have been suggested and initiatives launched to increase the public’s likelihood to report relevant indicators of terrorism planning to the proper authorities (Bakker & de Graaf, 2010; Zierhoffer, 2014). Public safety campaigns, such as the U.S. “See Something, Say Something” initiative, recognize the importance of civilian reporting as an additional strategy to

help identify and assess threats. As a result, these types of campaigns seek to increase accurate civilian reporting through awareness training (DHS, 2010).

The “See Something, Say Something” campaign was introduced by the U.S. Department of Homeland Security (DHS) in 2010. It is a national, public awareness campaign modelled after the New York Metropolitan Transportation Authority’s Anti-Terrorism Awareness Model (Reeves, 2012). The campaign is designed to increase the public’s likelihood to report relevant indicators of terrorism planning (i.e., “pre-incident” behaviours) to the proper authorities through awareness training and/or encouragement.

Two versions of the “See Something, Say Something” training material available online were considered in the current study: a comprehensive version and less comprehensive version. In the more comprehensive version, viewers are informed of 15 relevant indicators of terrorism planning, many of which reflect the various stages of both the pathway model and terrorist planning cycle. More specifically, viewers are encourage to report any individual, or group of individuals, that: (1) directly or indirectly threaten to commit a crime; (2) monitor a target; (3) commit theft as a means to access relevant materials, such as uniforms or equipment; (4) test or probe security; (5) interfere with aviation activities; (6) breach restricted areas; (7) acquire relevant skills and knowledge, such as IED designs; (8) elicit unusual information; (9) misrepresent themselves; (10) commit cyberattacks (11) fund suspicious activity; (12) vandalise or sabotage a site; (13) acquire or store suspicious materials; (14) collect weapons or destructive material; or (15) commit suspicious activities at relevant facilities (DHS, 2010). Viewers are also reminded of the critical role their reports can play in helping to prevent attacks and encouraged to report such behaviours to the proper authorities in a timely fashion. In the less comprehensive version of the campaign, viewers are exposed to a brief message that states, “If You See

Something, Say Something,” but are not informed of the relevant indicators of terrorism planning. The slogan is often strategically placed in densely populated, and therefore higher-risk settings, such as train stations and airports.

Similar efforts to improve civilian reporting through awareness training have been adopted across various states (e.g., Mississippi; Mississippi Office of Homeland Security, n.d.), countries (e.g., Canada; RCMP, 2016) and continents (e.g., United Kingdom; Jenkins & Butterworth, 2018). In Canada, for instance, the 2016 Terrorism and Violent Extremism Awareness Guide referenced a similar slogan, “If It’s Suspicious, Report It!” (RCMP, 2016). The Canadian report also listed several reportable pre-incident behaviours, many of which overlap with the indicators listed in the DHS’ campaign.

Effectiveness of civilian terrorism awareness training. Public safety agencies rely on civilian reports as a source of intelligence to maximize the terrorism threat detection rate. These agencies also recognize the need to increase accurate formal reporting, both by explicitly stating this in reports and implying it through the mass implementation of awareness campaigns, such as the “See Something, Say Something” initiative. There is, however, a lack of publicly-available, empirical evidence to support the effectiveness of some campaigns.

The merit of the “See Something, Say Something” campaign, for example, can primarily only be confirmed through information provided by exclusive sources in non-peer reviewed articles, such as newspaper outlets. In New York, a 2008 interview with the former chief spokesperson of the New York Police Department claimed the annual number of reports made by local residents increased from 8,999 in 2006 to 13,473 in 2007, and specified that “1,944 New Yorkers saw something and said something” in 2007 alone (Browne, 2008). This nearly 50% annual increase in civilian reporting was considered to be the result of the “See Something, Say

Something” campaign, but no external references were provided to validate the claim (Browne, 2008). An article by the Washington Post similarly reported an increased trend in civilian reporting following the implementation of the DHS’ campaign but cautioned that there is a lack of scientific support to substantiate this information (O’Haver, 2016). Although this preliminary data hints at the overall effectiveness of the DHS’ campaign, it also highlights a need for a more systematic and empirical review of terrorism awareness training programs, and in this case, the U.S. “See Something, Say Something” initiative.

Current Study

Purpose

The current study primarily sought to evaluate the overall effectiveness of the “See Something, Say Something” campaign introduced by the U.S. Department of Homeland Security in 2010. This initiative was focused on because it is a cardinal example of a public safety campaign implemented on a national level that aims to improve civilian reporting through awareness training; yet, there is a lack of publicly-available, empirically-supported literature to support its overall effectiveness. Due to the potential consequences of implementing an ineffective public safety initiative on a national level, this campaign warranted further research.

If the results of this research yields support for either version of the campaign (i.e., comprehensive or less comprehensive version), it would reinforce that it is a cost-effective, supplemental approach to identifying and preventing threats of terrorism. If, however, empirical research does not support the effectiveness of one, or both, versions of the campaign, this could pose practical (e.g., intelligence and law enforcement inundated with trivial reports), ethical (e.g., racial profiling) and financial ramifications (e.g., inappropriate allocation of time and resources). Furthermore, the effectiveness of the campaign may depend on the version an

individual is exposed to. It may be the case that only one version improves the rate of accurate reporting, which would suggest a need to reallocate resources towards advertising the more effective version.

As mentioned, two versions of the campaign's training material were considered in the current study—a comprehensive version and less comprehensive version—to understand how each type of training influences participants' likelihood to report relevant indicators of terrorism planning to the proper authorities, compared to no training at all. As such, participants were randomly assigned to one of three groups: (1) *Comprehensive training*, where they were trained to recognize relevant indicators of terrorism and encouraged to report these behaviours to the proper authorities; (2) *Less comprehensive training*, where they were encouraged to report suspicious behaviours to the proper authorities, without explicitly being trained on what constitutes a relevant indicator of terrorism; and (3) *Control*, where they were not trained to recognize any behaviours, nor were they encouraged to report suspicious behaviours to the proper authorities.

In addition to evaluating the impact of training on formal reporting, the study also sought to explore other factors that may impact terrorism-related reporting in order to gain a more comprehensive understanding of civilian reporting within the context of terrorism. More specifically, 13 additional variables were considered in this study based on their documented impact on reporting rates for other types of targeted violence. This included 13 behavioural, attitudinal, demographic, and historical variables.

Finally, the study also considered informal reporting (e.g., telling a friend or speaking directly to the individual of concern). This was of interest given that previous school violence research found students were more likely to informally than formally report a concerning

scenario (Hodges et al., 2016; Hollister, 2015). This information further expands the scant literature on terrorism-related reporting and could provide interesting insight for future campaigns.

Hypotheses

Two broad categories of hypotheses were made—one set of predictions were outlined for how training would affect the likelihood to formally and informally report relevant and nonrelevant indicators of terrorism, and another set was made for how the 13 additional factors would affect the likelihood to formally and informally report relevant and nonrelevant indicators. It should be noted that due to the novelty of the current study, analyses were largely exploratory in nature, although predictions were made when research was available.

Impact of training on reporting behaviour. When it comes to *formal* reporting, it was hypothesized that participants who received any type of encouragement to report (i.e., comprehensive or less comprehensive training) would be more likely to formally report *relevant* indicators compared to participants who received no encouragement (i.e., control; Hypothesis 1). This was guided by previous claims of an increased rate of reporting following the implementation of the “See Something, Say Something” campaign (Browne, 2008; O’Haver, 2016). No hypotheses were made to predict whether one type of training would be superior at increasing formal reporting of relevant indicators due to a lack of previous research. On the one hand, participants who were trained to recognize pre-incident behaviours (i.e., comprehensive training) may be more likely to report relevant indicators compared to participants who were trained to rely on their own discretion of what constitutes a “suspicious behaviour” (i.e., less comprehensive training). This is because some relevant indicators may not immediately be perceived as suspicious by the untrained eye; therefore, those who received less comprehensive

training may fail to recognize pre-incident behaviours and hereby fail to report them. On the other hand, it may be that encouraging participants to report, without explicitly stating the behaviours that ought to be reported (i.e., less comprehensive training), may increase the rate of indiscriminate reporting.

There was a lack of literature to predict how training would affect likelihood to *formally* report *nonrelevant* indicators compared to no training; thus, no predictions were made. In theory, participants who received comprehensive training should be the least likely to report nonrelevant indicators compared to their less comprehensively trained and untrained counterparts. This is because their training should render them a superior ability to differentiate between pre-incident and nonempirical indicators, and to disregard the latter, regardless of how suspicious they may (or may not) appear. As mentioned, it is possible that those who were encouraged to report but not trained to recognize pre-incident behaviours (i.e., less comprehensive training) may indiscriminately report all scenarios that provoke any level of suspicion, in which case they would be expected to be more likely to formally report nonrelevant indicators compared to their more comprehensively trained and untrained counterparts. It is alternatively possible that nonempirical indicators do not stand out as immediately suspicious to the untrained eye, and in that case, a similar rate of nonrelevant reporting would be expected for untrained and less comprehensively trained participants.

When it comes to *informal* reporting, it was predicted that participants would be more likely to informally report relevant indicators than to formally report them (Hypothesis 2). This was based on the limited body of school violence research that found students exhibit a greater tendency to informally report concerning scenarios, such as telling a friend, than to formally report them to the police.

No hypotheses were made to predict how *informal* reporting would differ across training groups (i.e., comprehensive, less comprehensive, and no training) and when exposed to *relevant* versus *nonrelevant* indicators. This was due to a lack of literature to guide such predictions.

Impact of additional factors on reporting behaviour. It was also hypothesized that participants would be more likely to *formally* report *relevant* indicators when they exhibited certain demographic, historical, attitudinal, and behavioural factors (Hypothesis 3). More specifically, a higher likelihood to report was expected for participants that were female, a visible ethnic minority, and lived in a middle- to upper-class household (i.e., demographic variables; Brank et al., 2007; Hollister et al., 2014; Hollister & Scalora, 2015; Slocum et al., 2010). Participants who were previously impacted by terrorism, formally reported terrorism or non-terrorism related criminal activity in the past, or had prior exposure to terrorism awareness training were also expected to be more likely to report (i.e., historical variables; Hollister, 2015). Finally, it was expected that participants would be more likely to formally report relevant indicators if they exhibited lower levels of delinquency, tendencies to diffuse responsibility, and perceptions of community safety, and higher levels of social connectedness, positive feelings toward the police, and self-efficacy toward service (i.e., behavioural and attitudinal variables; Brank et al., 2007; Brinkley & Saarnio, 2006; Buhi et al., 2009; Hollister et al., 2014; Hollister & Scalora, 2015; MacNab & Worthley, 2008; Slocum et al., 2010; Sulkowski, 2011).

There was a lack of literature to predict how the 13 variables would influence *formal* reporting of *nonrelevant* indicators. There was similarly a lack of literature to predict how these variables would impact *informal* reporting of *relevant* and *nonrelevant* indicators. Therefore, no predictions were made. It is possible the same, different, or none of the aforementioned variables would be meaningful predictors.

Method

Participants

A sample of 369 undergraduate students from Ontario Tech University were recruited to participate in this online study in exchange for course credit. Participants were recruited through SONA Systems, an online recruitment tool where students are able to sign up to participate in various ongoing studies. Nine participants were removed from the dataset as a result of incomplete data and 18 participants were removed for displaying extreme completion times (less than 5 minutes or greater than 60 minutes). This left a final sample of 342 participants, with a relatively equal distribution across the three training groups ($n_{comprehensive} = 107$; $n_{lesscomprehensive} = 114$; $n_{control} = 121$). Participants provided informed consent prior to participating (see Appendix A) and the study took approximately 20 minutes to complete ($M = 19.12$ minutes, $SD = 9.62$ minutes). All data was anonymous and confidential. Upon completion, participants were debriefed and encouraged to email the lead researcher with questions or concerns (see Appendix B).

The descriptive statistics for sociodemographic items are displayed in Table 1. The average age of participants was 20.10 years old ($SD = 3.63$; range = 17-53). Females comprised the majority of the sample (64.9%; $n = 222$), while males made up 34.8% ($n = 119$) and one participant identified as non-binary (0.3%). The sample was ethnically diverse, whereby 51.1% ($n = 175$) of participants identified as being part of a visible minority group (i.e., Arab, African or Black, Central or Latin American, Asian or Indigenous), 40.4% ($n = 138$) identified as being Caucasian or White, and 8.5% ($n = 29$) identified as “Other.” The majority of participants were enrolled in the Faculty of Social Sciences and Humanities (42.7%; $n = 146$), followed by Faculty of Health Sciences (24.6%; $n = 84$), Faculty of Science (18.1%; $n = 62$), Faculty of Business and

Information Technology (7.6%; $n = 26$), Faculty of Engineering and Applied Science (6.7%; $n = 23$), and Faculty of Education (0.3%; $n = 1$). Most participants self-identified as being either apolitical (34.5%; $n = 118$) or Liberal (31.3%; $n = 107$), while the remaining participants were spread across other affiliations (e.g., 17.8% NDP, 12.9% Conservative, 2.3% Green Party, 1% “Other” and 0.3% Bloc Quebecois). When asked whether or not they have been or are currently employed in the public safety sector, such as law enforcement, intelligence, or security, 93.3% ($n = 319$) of participants reported no and 6.7% ($n = 23$) reported yes.

Table 1*Sociodemographic characteristics of participants*

| Characteristic | <i>n</i> | % |
|-------------------------------|----------|------|
| Gender | | |
| Male | 119 | 34.8 |
| Female | 222 | 64.9 |
| Non-binary | 1 | 0.3 |
| Ethnicity | | |
| Arab | 26 | 7.6 |
| African or Black | 23 | 6.7 |
| Central American | 1 | 0.3 |
| Chinese | 13 | 3.8 |
| Filipino | 9 | 2.6 |
| Indigenous | 1 | 0.3 |
| Korean | 1 | 0.3 |
| Latin American | 8 | 2.3 |
| South Asian | 75 | 21.9 |
| Southeast Asian | 12 | 3.5 |
| West Asian | 9 | 2.6 |
| White or Caucasian | 135 | 39.5 |
| Other | 29 | 8.5 |
| Religion | | |
| Christian | 125 | 36.5 |
| Buddhist | 8 | 2.3 |
| Hindu | 42 | 12.3 |
| Jewish | 4 | 1.2 |
| Other | 96 | 28.1 |
| University Faculty | | |
| Business & Information Tech | 26 | 7.6 |
| Education | 1 | 0.3 |
| Engineering & Applied Science | 23 | 6.7 |
| Health Sciences | 84 | 24.6 |
| Science | 62 | 18.1 |
| Social Sciences & Humanities | 146 | 42.7 |
| Political Affiliation | | |
| Bloc Quebecois | 1 | 0.3 |
| Conservative | 45 | 12.5 |
| Green Party | 8 | 2.2 |
| Liberal | 112 | 31.2 |
| New Democratic Party (NDP) | 64 | 17.8 |
| None | 126 | 35.1 |
| Other | 3 | 0.8 |

Note. *N* = 342. Average age was 20.10 years old (*SD* = 3.63).

Procedure and Measures

Data collection occurred through an online survey programmed with Qualtrics Software between December 2019 and April 2020. Participants were randomly assigned to one of three training groups (comprehensive training, less comprehensive training, or no training) and exposed to six written vignettes, three of which described scenarios with a relevant, empirical indicator of terrorism planning that should be reported (i.e., surveillance, eliciting information, and probing security; DHS, 2010) and three of which included a nonrelevant, nonempirical indicator that should not be reported (i.e., ethnicity, religion, and foreign language). Thus, the study followed a 2 (*Vignette type*: relevant and nonrelevant) x 3 (*Training type*: comprehensive, less comprehensive, no training) research design.

Training groups. Participants in the *comprehensive training* group were shown an infographic, which was downloaded directly from the DHS' publicly-available online training material (see Appendix C). The infographic listed the 15 indicators of terrorism planning that were mentioned previously, encouraged viewers to report such indicators to the proper authorities, and reminded them of the importance of civilian reporting in helping to "protect your everyday" (DHS, 2010). In other words, participants that received a comprehensive level of training were told what behaviours should be reported, to whom they should report those behaviours, and why reporting is helpful. This condition was intended to mimic the real-world experience of civilians who have been exposed to a relatively comprehensive form of terrorism awareness training, such as hotel employees (DHS & American Hotel and Lodging Association, n.d.).

Participants in the *less comprehensive training* group were also exposed to an infographic from the DHS' online training material (see Appendix D). This simplified text-based infographic

instructed viewers to “report suspicious activity to the local authorities.” However, unlike the infographic in the comprehensive condition, participants who received less comprehensive training were not explicitly informed of the 15 pre-incident behaviours that commonly precede terrorist acts. In other words, participants in the less comprehensive training group were encouraged to report suspicious behaviours without being told what constitutes a relevant indicator of terrorism planning. This condition was designed to mimic the real-world experience of civilians who have been exposed to brief audio announcements or posters with the slogan, “If You See Something, Say Something,” such as those who frequently use public transit.

Participants in the *control* group received no training or encouragement to report and instead immediately proceeded to the vignettes. This meant that their likelihood to report was largely dependent upon their own discretion. In other words, those who received no training offered a baseline measure of reporting relevant and nonrelevant indicators prior to receiving training and/or encouragement. This condition was intended to mimic the reality of those who have had minimal, if any, previous exposure to terrorism awareness campaigns (e.g., rural citizens).

Vignettes. All three training groups viewed the same six vignettes, with the presentation of vignettes being randomized to control for order effects. Three vignettes described hypothetical scenarios with one of the 15 pre-incident behaviours that were listed in the DHS’ comprehensive infographic: one scenario described a stranger conducting surveillance on a local monument, another vignette depicted a stranger attempting to elicit peculiar information about a local government building, and the remaining vignette involved a stranger probing security at a local tourist attraction (see Appendix E). These behaviours are considered to be indicative of terrorism planning; thus, they should be immediately reported when observed (DHS, 2010). The other

three vignettes each described a scenario that involved a nonempirical indicator that should not be reported, yet the public may mistakenly consider them to be relevant: one vignette described a stranger standing at a train station who appeared to be part of a visible minority group that recently sought refuge in the country, another scenario depicted a stranger standing in front of a government building sharing their devout religious beliefs which contradict the country's religious majority, and the remaining scenario described a small group of strangers standing in front of a car park elevator who stopped speaking in a foreign language when the participant approached (see Appendix F).

The length and content of vignettes were designed to be consistent and realistic. As such, the suspicious individual in each vignette was consistently depicted as a stranger to the participant and the suspicious behaviour was consistently observed within a community setting. The decision to utilize a stranger relationship was guided by past literature that suggests bystanders often, knowingly or unknowingly, observe crimes or pre-incident behaviours (Pollack et al., 2008; Vossekuil 2004).

Reporting-related questions. Participants were asked a series of reporting-related questions after each vignette (see Appendix G). They were asked whether or not they would report each scenario to the proper authorities and should they or should they not report each scenario to the proper authorities, with these questions being asked in a no/yes format. Participants were next asked to rate how likely they would be to *formally* report each scenario to the proper authorities and how likely they would be to *informally* report each scenario (e.g., to tell a friend) on a 6-point Likert scale, with higher scores indicating a greater likelihood to report. In addition, participants were asked questions to further assess their willingness to report (6-point Likert scale), reasons for their responses on the previous questions (open-ended question), their

preferred method of reporting (multiple-choice question), their awareness of whether or not each vignette contained a pre-incident indicator (no/yes question), and to select factors that affect their reporting behaviour more generally (multiple-choice question). These questions included: (1) How willing would you be to report this scenario to the proper authorities? (2) Which specific element(s) of this scenario made you decide you would (or would not) report? (3) Does this scenario include a relevant warning sign indicating the stranger is possibly planning a terrorist attack? (4) If you were going to report a concerning scenario to the proper authorities, which method of communication would you prefer to use to do so? and (5) What circumstances would be important when deciding you would (or would not) report a scenario to the proper authorities?

Additional questions. A series of questionnaires were administered at the end of the study to assess additional factors that are known to influence reporting rates across other forms of targeted violence, particularly school violence (see Appendices H to M). The impact of certain demographic factors (see Appendix N), previous experience making a formal police report, and past exposure to terrorism and terrorism awareness training (see Appendix O) were also considered. More specifically, participants were assessed on their level of delinquency (Piquero et al., 2002), level of social connectedness (Lee & Robins, 1995), feelings toward the police (Hollister et al., 2014), level of self-efficacy toward service (Weber et al., 2004), tendency to diffuse responsibility (Cameron & Payne, 2011), perception of community safety (Hollister et al., 2014), previous experience reporting suspicious activity to the police, history of being personally impacted by terrorism, and past exposure to any type of terrorism awareness training.

The Self-Report Delinquency Scale is a 9-item scale designed to assess delinquency in youth (Appendix H; Piquero et al., 2002). The current study used a condensed 4-item version of the scale adapted by Sulkowski (2011) to assess delinquent behaviours in adults, with higher

scores indicating greater levels of delinquency. Previous research suggests this modified version yields high internal consistency in campus violence samples ($\alpha = 0.81$; Sulkowski, 2011). Within the current sample, the scale demonstrated an acceptable level of internal consistency ($\alpha = 0.62$). The decision to consider delinquency in the analysis was influenced by previous school violence research suggesting a relationship between delinquency and reporting, with higher levels of delinquency being associated with a lower likelihood to report (Brank et al., 2007; Hollister et al., 2014; Hollister & Scalora, 2015; Sulkowski, 2011).

The Social Connectedness Scale was included in the present study to evaluate the relationship between an individual's perceived level of social connection and reporting behaviour (Appendix I; Lee & Robins, 1995). Research suggests those who hold negative perceptions of their school or community tend to be less willing to report concerning behaviours compared to those who feel connected to others and their surroundings (Brinkley & Saarnio, 2006; Slocum et al., 2010). The 8-item scale yielded high internal reliability in the present sample ($\alpha = 0.95$). Note that higher scores on this scale are associated with greater perceptions of social disconnectedness.

The Feelings Toward Police Scale was adapted slightly from Hollister and colleagues' (2014) Feelings Toward Campus Police Scale in order to more broadly investigate an individual's perception of the police (Appendix J). The modified 5-item scale had excellent internal reliability in the present sample ($\alpha = 0.93$) and was included because of the well-documented relationship between positive perceptions of police and a greater likelihood to report (Buhi et al., 2009; Hollister et al., 2014; Hollister & Scalora, 2015; Sloan III et al., 1997; Slocum et al., 2010; Thompson et al., 2007). Higher scores indicate more positive feelings toward the police.

The Self-efficacy Toward Service Scale is a 5-item scale that predicts whether students will act responsibly within their communities (Appendix K; Weber et al., 2004). Self-efficacy, otherwise known as the recognition that prosocial actions can be impactful, has been shown to positively correlate with, or moderate, reporting behaviour (Hollister, 2015; MacNab & Worthley, 2008) and was therefore included in the current study. In the present sample, the measure had high internal consistency ($\alpha = 0.85$), with higher scores indicating greater levels of self-efficacy toward service.

The 2-item Diffusion of Responsibility Scale assesses the level of responsibility individuals personally and collectively feel toward assisting others (Appendix L; Cameron & Payne, 2011). The scale was slightly modified in the current study to specifically investigate an individual's perception of responsibility toward assisting the police. A similar, adapted version was used in a school violence context, which found a link between feeling a sense of responsibility toward the police and a greater tendency to report (Hollister, 2015). Thus, this scale was chosen to understand the impact within a terrorism context. The current sample demonstrated high internal consistency between the two items ($\alpha = 0.93$). Note that higher scores correspond to lower tendencies to diffuse responsibility

The Feelings of Community Safety Scale is a 2-item measure from Hollister and colleagues' (2014) Feelings of Safety on Campus Scale that was adapted to assess perceptions of community safety, rather than campus safety (Appendix M). This was included in the current analysis because previous literature found an inverse relationship between reporting and perceptions of community safety in a school violence context (Hollister et al., 2014). The adapted scale demonstrated an acceptable level of internal consistency in the current sample ($\alpha = 0.74$), with higher scores reflecting a greater sense of community safety.

Three sociodemographic items were considered due to their documented influence when it came to reporting other types of targeted violence: (1) gender, (2) ethnicity, and (3) annual household income (Appendix N). A limited body of research, primarily drawn from the literature on school violence, found that females, ethnic minorities (e.g., African Americans, Latinos), and those with higher annual household incomes demonstrate a greater likelihood to report suspicious activity compared to their counterparts (Brank et al, 2007; Hollister et al., 2014; Hollister & Scalora, 2015; Slocum et al., 2010). These variables were therefore included in the current analysis to understand their role within a terrorism-related reporting context.

Four no/yes questions were administered at the end of the survey to assess a history of making formal police reports (general crime or terrorism related), being personally impacted by terrorism, and being exposed to terrorism awareness training (e.g., the “See Something, Say Something” initiative; Appendix O). These items were largely exploratory in nature, although there is some school violence literature to suggest a positive relationship between reporting and having had previous interactions with police or being able to recall police advertisements (Hollister, 2015).

Results

Mixed Analysis of Variance (ANOVA)

Recall that the current thesis primarily sought to evaluate the effects of terrorism awareness training on the likelihood to report six hypothetical vignettes—half of which included one relevant, pre-incident behaviour commonly associated with terrorism and the other half included one nonrelevant indicator. As such, a series of 2 (*Vignette type*: Relevant and Nonrelevant) x 3 (*Training type*: Comprehensive, Less Comprehensive, or No training) mixed Analysis of Variances (ANOVAs) were performed, with the between-subjects factor, *Training*

type, and the within-subjects factor, *Vignette type*. A mixed ANOVA allowed for an investigation into the main effects of Training and Vignette type, as well as any potential interaction effect. The primary dependent variables were likelihood to formally report and likelihood to informally report vignettes. Scores on the dependent measures were summed according to Vignette type and ranged from 3 (extremely unlikely to report) to 18 (extremely likely to report). All assumptions were met prior to running both analyses, with the exception of normality. Analyses were conducted despite slightly skewed samples due to adequate, and similar, sample sizes across the three groups ($n_{comprehensive} = 107$; $n_{lesscomprehensive} = 114$; $n_{control} = 121$; see Appendix P for the statistical assumptions). Across analyses, the tests revealed training had no significant impact on reporting behaviour; yet interestingly, mean formal and informal reporting scores were influenced by the type of indicators present in the vignettes (relevant versus nonrelevant). See Table 2 for the summarized results.

Likelihood to formally report vignettes. A mixed ANOVA was conducted to compare the average likelihood to *formally* report based on the Vignette type (relevant and nonrelevant) and Training type (comprehensive, less comprehensive, or no training). There was a significant main effect for Vignette type, $F(1, 339) = 1038.60, p < 0.001$, indicating the likelihood to formally report differed based on the type of vignette participants viewed. Specifically, there was a significantly higher mean likelihood to report vignettes with relevant indicators ($M = 11.46$; $SD = 3.51$) compared to vignettes with nonrelevant indicators ($M = 5.33$; $SD = 2.56$), and this was a large effect size (partial $\eta^2 = 0.75$). The main effect of Training type was not significant, $F(2, 339) = 0.04, p = 0.97$, partial $\eta^2 < 0.001$, nor was the interaction between Vignette and Training type, $F(2, 339) = 0.87, p = 0.42$, partial $\eta^2 = 0.005$. See Table 3 for the descriptive statistics.

These results demonstrate that, regardless of the level of training received, participants indicated they were more likely to formally report vignettes when they depicted pre-incident behaviours associated with terrorism than vignettes that depicted nonempirical indicators. Although not significant, it is interesting to note that the mean reporting rates were in the expected directions of Hypothesis 1. More specifically, a higher mean proportion of participants who received comprehensive training, followed by less comprehensive training, indicated they would formally report relevant vignettes compared to those who received no training. Conversely, a higher mean proportion of participants who received no training indicated they would formally report nonrelevant vignettes compared to those who received comprehensive training and less comprehensive training, respectively. As mentioned, however, these group differences were not sufficient to achieve significance. It is also important to note that there was a negligible effect size found for Training type (partial $\eta^2 < 0.001$), which suggests the mean differences between training groups were trivial.

Likelihood to informally report vignettes. A similar mixed ANOVA was conducted to investigate whether the average likelihood to *informally* report differed by Vignette type (relevant and nonrelevant) and Training type (comprehensive training, less comprehensive training, or no training). The mixed ANOVA revealed that there was a significant main effect for Vignette type, $F(1, 339) = 610.50, p < 0.001$, with a large effect size (partial $\eta^2 = 0.64$). Participants showed a significantly higher mean likelihood to informally report when exposed to vignettes with relevant indicators ($M = 12.52; SD = 3.60$) than vignettes with nonrelevant indicators ($M = 7.54; SD = 3.39$). There was no significant main effect for Training type, $F(2, 339) = 1.12, p = 0.33$, partial $\eta^2 = 0.01$. There was also no significant interaction between Vignette and Training type, $F(2, 284) = 0.42, p = 0.66$, partial $\eta^2 = 0.002$. See Table 3 for the

descriptive statistics. Once again, this suggest that participants were more likely to informally report vignettes depicting pre-incident behaviours associated with terrorism than those depicting nonempirical indicators, regardless of being trained or untrained.

Recall that the current study examined informal reporting on a largely exploratory basis due to a lack of scientific literature on the topic to guide specific predictions. Although the results indicate that the mean difference in likelihood to informally report across training groups did not approach significance, and there was a notably small effect size (partial $\eta^2 = 0.01$), the reporting trends were in curious directions—comprehensive training yielded the highest mean proportion of participants to indicate they would informally report relevant vignettes; yet, it also yielded the highest mean proportion of participants to indicate they would report nonrelevant vignettes. In contrast, less comprehensive training yielded the lowest mean proportion of participants to indicate they would informally report either type of vignette, followed by no training. Once again, however, these differences are likely trivial due to the lack of significant findings and noticeably small effect size.

Table 2

Mixed between-within subjects ANOVA results for reporting by training and vignette type

| Measure | <i>F</i> | <i>df1</i> | <i>df2</i> | <i>p</i> | partial <i>n</i> ² |
|--|----------|------------|------------|------------|-------------------------------|
| <i>Likelihood to Formally Report</i> | | | | | |
| Vignette | 1038.60 | 1 | 339 | < 0.001*** | 0.75 |
| Training | 0.04 | 2 | 339 | 0.97 | < 0.001 |
| Vignette x Training | 0.87 | 2 | 339 | 0.42 | 0.005 |
| <i>Likelihood to Informally Report</i> | | | | | |
| Vignette | 610.50 | 1 | 339 | < 0.001*** | 0.64 |
| Training | 1.12 | 2 | 339 | 0.66 | 0.007 |
| Vignette x Training | 0.42 | 2 | 339 | 0.33 | 0.002 |

Note. Outcome scores were summed by Vignette type.

* *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001.

Table 3

Descriptive statistics for reporting by training and vignette type

| | Relevant Vignettes | | Nonrelevant Vignettes | | <i>n</i> |
|--|--------------------|-----------|-----------------------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| <i>Likelihood to Formally Report</i> | | | | | |
| Comprehensive Training | 11.65 | 3.39 | 5.22 | 2.56 | 107 |
| Less Comprehensive Training | 11.49 | 3.61 | 5.33 | 2.65 | 114 |
| No Training | 11.26 | 3.52 | 5.44 | 2.62 | 121 |
| Total | 11.46 | 3.51 | 5.33 | 2.56 | 342 |
| <i>Likelihood to Informally Report</i> | | | | | |
| Comprehensive Training | 12.97 | 3.60 | 7.72 | 3.60 | 107 |
| Less Comprehensive Training | 12.16 | 3.63 | 7.34 | 3.25 | 114 |
| No Training | 12.47 | 3.54 | 7.57 | 3.36 | 121 |
| Total | 12.52 | 3.60 | 7.54 | 3.39 | 342 |

Note. Scores ranged from 1 (“Extremely Unlikely”) to 6 (“Extremely Likely”) when analyzed individually. Scores were summed and ranged from 3 to 18 when analyzed by Vignette type (relevant versus nonrelevant).

Summary of mixed ANOVA analyses. To summarize, most mean likelihood to formally report relevant vignette values were in the hypothesized directions, although the nonsignificant differences between training groups failed to provide support for Hypothesis 1. That is, terrorism awareness training did not significantly impact whether participants would formally report pre-incident indicators compared to no training at all. Although there were no predictions made for informal reporting, it is notable that the results also demonstrated training had no significant impact on informal reporting behaviour.

Interestingly, participants were more inclined to report hypothetical scenarios when they depicted pre-incident indicators (i.e., surveillance, eliciting information, or breaching security)

than when they depicted nonempirical indicators (i.e., ethnicity, religion, or foreign language), regardless of the type of training received.

Paired-Samples T-Test

This study also sought to examine whether participants were more likely to formally or informally report pre-incident behaviours. As such, a paired-samples t-test was conducted to compare the mean likelihood to formally versus informally report relevant vignettes. A second, similar analysis was conducted with likelihood to report nonrelevant vignettes as the dependent variable. The decision to use paired-samples t-tests allowed for an investigation into the mean differences in formal and informal reporting by Vignette type across the same sample, hereby assessing Hypothesis 2. See Table 3 for the descriptive statistics and Table 4 for the summarized results.

Likelihood to report relevant vignettes. A paired-samples t-test was conducted to examine the mean difference between formal and informal reporting of *relevant* indicators. The results revealed a statistically significant mean difference in formal and informal reporting, $t(341) = -5.55, p < 0.001$, with a medium effect size ($\eta^2 = 0.08$). More specifically, participants were more likely to informally report when they observed vignettes with relevant indicators of terrorism ($M = 12.52; SD = 3.60$) than to formally report them ($M = 11.46; SD = 3.51$).

Likelihood to report nonrelevant vignettes. A similar paired-samples t-test was conducted to investigate whether the mean likelihood to report *nonrelevant* vignettes significantly differed for formal versus informal reporting. The results were statistically significant, $t(341) = -13.922, p < 0.001$, with a large effect size ($\eta^2 = 0.36$). Participants were more likely to informally report nonrelevant indicators ($M = 7.54; SD = 3.39$) than to formally report them ($M = 5.33; SD = 2.56$).

Summary of paired-samples t-test analyses. The results from this set of analyses were consistent with previous school violence literature and hereby provided support for Hypothesis 2. That is, participants were significantly more likely to engage in informal rather than formal reporting when they observed pre-incident behaviours associated with terrorism. This trend also occurred when participants observed nonempirical indicators.

Multiple Linear Regression

In addition to evaluating the impact of terrorism awareness training on formal and informal reporting, the current study also sought to identify other factors that play a role. As such, four standard multiple linear regression (MLR) analyses were performed to identify additional factors that predict the average likelihood to formally and informally report relevant and nonrelevant vignettes. As previously mentioned, 13 predictor variables were included in the analyses given their documented impact on reporting behaviours for other types of targeted violence (e.g., school violence). Predictors largely fell into one of four categories: (1) attitudinal factors (perceptions of community connectedness, feelings toward police, level of self-efficacy toward service, tendency to diffuse responsibility, perceptions of community safety), (2) problematic behavioural factors (delinquency), (3) demographic factors (gender, ethnicity, income) and (4) historical factors (impacted by terrorism, formally reported suspected terrorism, formally reported suspected general crime, exposed to terrorism awareness training).

Prior to running the analyses, scores were summed across attitudinal and behavioural factors, while demographic and historical items were dummy coded. See Tables 1, 5 and 6 for the descriptive statistics. The assumptions of multiple linear regression were examined prior to running the analyses and it was determined that no multicollinearity, linearity, normality, and homoscedasticity were met. The results of the regression analyses revealed that different

predictors were significant for relevant compared to nonrelevant vignettes, as was also the case for formal compared to informal reporting. See Tables 7 and 8 for the summarized results.

Table 4

Paired-samples t-test results for reporting by vignette type

| Vignette Type | <i>t</i> | <i>df</i> | <i>p</i> | η^2 |
|---|----------|-----------|------------|----------|
| <i>Relevant</i> | | | | |
| Formal Reporting/ Informal Reporting | -5.55 | 341 | < 0.001*** | 0.08 |
| <i>Nonrelevant</i> | | | | |
| Formal Reporting/ Informal Reporting | -13.92 | 341 | < 0.001*** | 0.36 |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5

Descriptive statistics for questionnaires

| Measure | Possible Range | <i>M</i> | <i>SD</i> |
|--------------------------------|----------------|----------|-----------|
| Delinquency | 4-34 | 5.30 | 3.09 |
| Social Connectedness | 8-48 | 18.91 | 9.97 |
| Feelings Toward Police | 5-25 | 16.03 | 3.74 |
| Self-efficacy Toward Service | 5-25 | 20.18 | 3.19 |
| Diffusion of Responsibility | 2-14 | 10.07 | 2.58 |
| Perception of Community Safety | 2-10 | 7.17 | 1.77 |

Note. Scores were summed, with higher scores indicating higher levels of delinquency, positive feelings toward police, self-efficacy toward service and perceived community safety and lower levels of social connectedness and tendencies to diffuse responsibility. $N = 342$.

Table 6*Descriptive statistics for historical factors*

| Factor | No | | Yes | |
|------------------------|----------|------|----------|------|
| | <i>n</i> | % | <i>n</i> | % |
| Impacted by Terrorism | 290 | 84.8 | 52 | 15.2 |
| Reported Terrorism | 339 | 99.1 | 3 | 0.9 |
| Reported General Crime | 254 | 74.3 | 88 | 25.7 |
| Exposed to Training | 255 | 74.6 | 87 | 25.4 |

Note. $N = 342$.

Likelihood to formally report relevant vignettes. A standard MLR analysis was conducted to determine which of the 13 variables predicted participants' likelihood to *formally* report *relevant* vignettes. It was found that the regression model explained a significant amount of the variance, $F(13, 299) = 3.12, p < 0.001$, with 8.1% being explained. Further analysis revealed Diffusion of Responsibility was the strongest predictor ($\beta = 0.23, t(299) = 3.22, p = 0.001, sr^2 = 0.03$), followed by Perception of Community Safety ($\beta = -0.17, t(299) = -2.93, p = 0.004, sr^2 = 0.03$), such that for every 1-unit increase in diffusion and community safety scores, there was a 0.31 unit increase and 0.34 unit decrease in reporting scores, respectively. Recall that an increase in diffusion scores is associated with a greater perceived level of personal and collective responsibility to assist the police (i.e., lower levels of diffusion). In other words, as perceived levels of personal and collective responsibility to assist the police increased and perceptions of community safety decreased, the likelihood to formally report relevant vignettes increased. None of the 11 remaining predictor variables included in the regression model were found to be statistically significant, $ps > 0.05$.

Likelihood to formally report nonrelevant vignettes. A MLR analysis with the same 13 predictors demonstrated that only 2.1% of the variance in likelihood to *formally* report across *nonrelevant* vignettes was explained, with the regression model failing to reach significance, $F(13, 299) = 1.51, p = 0.11$. Only two predictor variables approached significance: Self-efficacy Toward Service ($\beta = -0.12, t(299) = -1.93, p = 0.055, sr^2 = 0.01$) and Impacted by Terrorism, $\beta = 0.10, t(299) = 1.83, p = 0.069, sr^2 = 0.01$). This suggests lower levels of self-efficacy and having been personally impacted by terrorism were associated with increased formal reporting of nonrelevant vignettes. None of the remaining predictor variables were found to be significant, $ps > 0.05$.

Likelihood to informally report relevant vignettes. An additional MLR analysis was conducted to evaluate the impact of the 13 predictor variables on the likelihood to *informally* report across *relevant* vignettes. The regression model was found to be significant, $F(13, 299) = 2.59, p = 0.002$, and accounted for 6.2% of the variance. Delinquency was the only significant predictor in the model ($\beta = -0.21, t(299) = -3.50, p = 0.001, sr^2 = 0.04$), with every 1-unit increase in delinquency being associated with a 0.25 unit decrease in likelihood to informally report relevant vignette scores. The 12 remaining predictor variables did not reach significance, $ps > .05$, although it should be noted that a marginal effect was observed for Diffusion of Responsibility ($\beta = 0.13, t(299) = 1.79, p = 0.075, sr^2 = 0.01$), with increased levels of perceived personal and collective responsibility to assist the police being associated with a greater likelihood to report.

Likelihood to informally report nonrelevant vignettes. Finally, the regression model for likelihood to *informally* report across *nonrelevant* vignettes was significant, $F(13, 299) = 2.19, p = 0.01$, and explained 4.7% of the variance. Feelings Toward Police ($\beta = 0.14, t(299) =$

2.16, $p = 0.03$, $sr^2 = 0.01$) was the strongest predictor, followed by Prior Exposure to Terrorism Awareness Training ($\beta = -0.13$, $t(299) = -2.31$, $p = 0.02$, $sr^2 = 0.02$), Social Connectedness ($\beta = 0.12$, $t(299) = 1.99$, $p = 0.05$, $sr^2 = 0.01$), and Previously Impacted by Terrorism ($\beta = 0.11$, $t(299) = 2.03$, $p = 0.04$, $sr^2 = 0.01$), respectively. More specifically, the results indicate that previous exposure to terrorism awareness training was associated with a 1.04 unit decrease in likelihood to informally report nonrelevant vignette scores, whereas being personally impacted by terrorism was associated with a 1.10 unit increase in reporting scores. Furthermore, for every 1-unit increase in positive feelings toward the police and social connectedness, there was a 0.10 unit and 0.04 unit increase in reporting scores. Recall that higher scores on the Social Connectedness scale are associated with lower perceived levels of social connection. In other words, higher levels of social disconnectedness were associated with increased reporting. No other predictor variables were found to be significant, $ps > .05$, although History of Reporting General Crime ($\beta = 0.11$, $t(299) = 1.96$, $sr^2 = 0.01$) approached significance ($p = 0.052$), such that previous experience reporting general crime to the police was associated with increased reporting.

Summary of multiple linear regression analyses. The series of regression analyses offered partial support for Hypothesis 3, with select variables being predictive of some but not all outcome measures. When it came to *formal* reporting, Diffusion of Responsibility and Perception of Community Safety significantly predicted whether participants would report *relevant* vignettes, with lower levels being associated with greater reporting. This provides partial support for Hypothesis 3. In contrast, no variables were significantly predictive of whether participants would formally report *nonrelevant* vignettes. Although it should be noted that Self-efficacy Toward Service and Impacted by Terrorism approached significance, such that participants who

behaved less responsibly in their communities or were previously impacted by terrorism were more likely to report.

Interestingly, a different set of variables significantly predicted whether participants would *informally* report vignettes. Delinquency was the only significant predictor of whether participants would informally report across *relevant* vignettes, with lower scores being associated with greater reporting. Although it should once again be noted that Diffusion of Responsibility was marginally predictive, whereby lower levels were associated with a greater likelihood to report. Conversely, various factors predicted informal reporting of *nonrelevant* vignettes. This included Feelings Toward Police, Social Connectedness, Exposure to Terrorism Awareness Training, and Impacted by Terrorism. Participants were more likely to informally report nonrelevant vignettes if they endorsed more positive feelings toward the police, felt less socially connected to their communities, were previously impacted by terrorism, or had no prior exposure to terrorism awareness training, such as the “See Something Say Something” campaign.

Table 7

MLR results for formal reporting by vignette type

| Predictor | Likelihood to Formally Report | | | | | | | | | |
|--|-------------------------------|------|---------|-------|---|-----------------------|------|---------|-------|-------|
| | Relevant Vignettes | | | | | Nonrelevant Vignettes | | | | |
| | B | SE | β | t | p | B | SE | β | t | p |
| Constant | 10.09 | 2.64 | | 3.82 | < 0.001 | 4.66 | 1.98 | | 2.35 | 0.02 |
| Delinquency | -0.09 | 0.07 | -0.08 | -1.28 | 0.20 | 0.06 | 0.05 | 0.08 | 1.24 | 0.22 |
| Social Connectedness | -0.01 | 0.02 | -0.02 | -0.40 | 0.69 | 0.01 | 0.02 | 0.05 | 0.88 | 0.38 |
| Feelings Toward Police | 0.03 | 0.05 | 0.04 | 0.59 | 0.56 | 0.05 | 0.04 | 0.09 | 1.32 | 0.19 |
| Self-efficacy to Service | 0.02 | 0.07 | 0.02 | 0.27 | 0.79 | -0.10 | 0.05 | -0.12 | -1.93 | 0.055 |
| Diffuse Responsibility | 0.31 | 0.10 | 0.23 | 3.22 | 0.001*** | 0.08 | 0.07 | 0.08 | 1.14 | 0.26 |
| Community Safety | -0.34 | 0.11 | -0.17 | -2.93 | 0.004** | -0.05 | 0.09 | -0.04 | -0.62 | 0.53 |
| Gender | -0.12 | 0.42 | -0.02 | -0.28 | 0.78 | -0.14 | 0.31 | -0.03 | -0.44 | 0.66 |
| Annual Income | -0.09 | 0.41 | -0.01 | -0.21 | 0.83 | -0.13 | 0.30 | -0.02 | -0.41 | 0.68 |
| Ethnicity | 0.68 | 1.99 | 0.02 | 0.35 | 0.73 | 0.91 | 1.49 | 0.04 | 0.61 | 0.54 |
| Impacted by Terrorism | -0.61 | 0.54 | -0.06 | -1.12 | 0.27 | 0.75 | 0.41 | 0.10 | 1.83 | 0.07 |
| Reported Terrorism | 0.79 | 2.05 | 0.02 | 0.39 | 0.70 | 2.70 | 1.53 | 0.10 | 1.76 | 0.08 |
| Reported Crime | 0.69 | 0.46 | .09 | 1.51 | 0.13 | -0.05 | 0.34 | -0.01 | -0.15 | 0.88 |
| Prior Training | -0.23 | 0.45 | -0.03 | -0.50 | 0.62 | -0.23 | 0.34 | -0.04 | -0.69 | 0.49 |
| Adjusted R ² = 0.081 Global F Test, $F(13, 299) = 3.12$ $p < 0.001$ *** | | | | | Adjusted R ² = 0.021 Global F Test, $F(13, 299) = 1.51$ $p = 0.11$ | | | | | |

Note. Higher scores indicate higher levels of delinquency, positive feelings toward police, self-efficacy toward service and perceived community safety and lower levels of social connectedness and tendencies to diffuse responsibility. Reference categories are female (gender), 50K+ (annual household income) and “Yes” (for having previously been impacted by terrorism, reported terrorism, reported general crime, and past exposure to terrorism awareness training).

* $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$.

Table 8

MLR results for informal reporting by vignette type

| Predictor | Likelihood to Informally Report | | | | | | | | | |
|---|---------------------------------|------|---------|----------|--|-----------------------|------|---------|----------|----------|
| | Relevant Vignettes | | | | | Nonrelevant Vignettes | | | | |
| | B | SEB | β | <i>t</i> | <i>p</i> | B | SEB | β | <i>t</i> | <i>p</i> |
| Constant | 12.82 | 2.76 | | 4.64 | < 0.001 | 5.01 | 2.63 | | 1.90 | 0.06 |
| Delinquency | -0.25 | 0.07 | -0.21 | -3.50 | 0.001*** | -0.05 | 0.07 | -0.05 | -0.75 | 0.45 |
| Social Connectedness | 0.001 | 0.02 | 0.001 | 0.03 | 0.98 | 0.04 | 0.02 | 0.12 | 1.99 | 0.05* |
| Feelings Toward Police | 0.07 | 0.05 | 0.09 | 1.32 | 0.19 | 0.10 | 0.05 | 0.14 | 2.16 | 0.03* |
| Self-efficacy to Service | -0.03 | 0.07 | -0.03 | -0.49 | 0.62 | -0.05 | 0.07 | -0.05 | -0.78 | 0.44 |
| Diffuse Responsibility | 0.18 | 0.10 | 0.13 | 1.79 | 0.08 | 0.09 | 0.10 | 0.07 | 0.97 | 0.33 |
| Community Safety | -0.13 | 0.12 | -0.07 | -1.08 | 0.28 | -0.08 | 0.11 | -0.04 | -0.72 | 0.47 |
| Gender | -0.19 | 0.44 | -0.03 | -0.43 | 0.67 | -0.02 | 0.42 | -0.003 | -0.05 | 0.96 |
| Annual Income | 0.06 | 0.42 | 0.01 | 0.15 | 0.88 | 0.01 | 0.40 | 0.002 | 0.03 | 0.98 |
| Ethnicity | -0.32 | 2.08 | -0.01 | -0.15 | 0.88 | 1.01 | 1.98 | 0.03 | 0.51 | 0.61 |
| Impacted by Terrorism | 0.24 | 0.57 | 0.02 | 0.41 | 0.68 | 1.10 | 0.54 | 0.11 | 2.03 | 0.04* |
| Reported Terrorism | 1.49 | 2.14 | 0.04 | 0.69 | 0.49 | 3.49 | 2.04 | 0.10 | 1.71 | 0.09 |
| Reported Crime | 0.72 | 0.48 | 0.09 | 1.51 | 0.13 | 0.89 | 0.45 | 0.11 | 1.96 | 0.052 |
| Prior Training | 0.09 | 0.47 | 0.01 | 0.20 | 0.85 | -1.04 | 0.45 | -0.13 | -2.31 | 0.02* |
| Adjusted R ² = 0.062 Global F Test, <i>F</i> (13, 299) = 2.59 <i>p</i> = 0.002** | | | | | Adjusted R ² = 0.047 Global F Test, <i>F</i> (13, 299) = 2.19 <i>p</i> = 0.01** | | | | | |

Note. Higher scores indicate higher levels of delinquency, positive feelings toward police, self-efficacy toward service and perceived community safety and lower levels of social connectedness and tendencies to diffuse responsibility. Reference categories are female (gender), 50K+ (annual household income) and “Yes” (for having previously been impacted by terrorism, reported terrorism, reported general crime, and past exposure to terrorism awareness training).

* *p* ≤ 0.05, ** *p* ≤ 0.01, *** *p* ≤ 0.001.

Discussion

This thesis primarily sought to evaluate the impact of terrorism awareness training on the self-reported likelihood to formally report pre-incident behaviours associated with terrorism using infographics from the U.S. “See Something, Say Something” campaign as training material. In addition to evaluating formal reporting behaviour, the study also considered self-reported likelihood to *informally* report, such as telling a friend. Thirteen additional factors known to impact the reporting of other forms of targeted violence were also considered to gain a more comprehensive understanding of the various factors that influence terrorism-related reporting. This research expands the largely unexplored intersection of civilian reporting and terrorism and offers practical implications to improve accurate reporting rates (i.e., increasing the likelihood civilians will report empirical indicators of terrorism, while decreasing the likelihood they will report nonempirical indicators).

There are three novel characteristics in the current study worth mentioning prior to further discussion. It is one of the first studies to empirically evaluate reporting behaviour within the context of terrorism. More specifically, to the researcher’s knowledge, there is no published research to date that empirically evaluates the impact of the U.S. “See Something, Say Something” infographic training material on the likelihood to report.

Second, it may also be the first study to consider both pre-incident behaviours and nonempirical indicators. Of the limited research that has evaluated reporting behaviour for other types of targeted violence, it has solely focused on pre-incident behaviours. This makes sense, given the overarching goal is to increase the reporting rate of indicators known to precede acts of targeted violence in hopes that increased reporting will aid the prevention process. However, it is important to include nonempirical indicators that should not be reported as a comparison group

to ensure training improves the rate of accurate reporting and does not simply increase the rate of indiscriminate reporting, as the latter outcome would pose unintended challenges for agencies.

Finally, this is one of the first studies to consider the concept of informal reporting within the context of terrorism. The decision to consider informal reporting was based on a limited body of scientific literature examining other forms of targeted violence, specifically school violence, which found students were more likely to informally, rather than formally, report a concerning scenario (e.g., tell a friend; Hodges et al., 2016; Hollister, 2015). It is important to understand if the same trend occurs for terrorism-specific reporting, given that informally addressing pre-incident behaviours, rather than reporting them to the police, may hinder violence prevention efforts. In other words, terrorism-related threats cannot be mitigated if law enforcement are not made aware of them. Therefore, the results from this study on informal reporting could be used to inform future prevention efforts that seek to improve accurate formal reporting rates among those who historically tend to informally report.

Taken together, these novel characteristics demonstrate the importance of the current study, with the results offering practical implications to real-world terrorism prevention initiatives—specifically those targeting reporting behaviour. However, it should be cautioned that due to the limited research on terrorism-specific reporting, the results should be interpreted modestly and future research is strongly encouraged. Below is a summary of the key findings and practical implications from the current study, as well as its limitations and future directions for research.

Impact of Training on Likelihood to Report

Unexpectedly, the analyses revealed that training had no significant influence on reporting behaviour for both relevant and nonrelevant vignettes (i.e., Hypothesis 1 was not

supported). Participants' self-reported likelihood to formally or informally report either type of vignette (relevant or nonrelevant) did not significantly increase (or decrease) based on the type of training they received (comprehensive, less comprehensive, or no training). Put differently, being informed of the several pre-incident behaviours indicative of terrorism planning and/or being encouraged to report suspicious behaviours to the police did not impact whether participants would report relevant (or nonrelevant) indicators, compared to those who received no terrorism-related training.

These findings contradict claims made by exclusive sources reported by news outlets, that allege civilian reporting increased following the implementation of the "See Something, Say Something" campaign on a state (Browne, 2008) and national level (O'Haver, 2016). Regardless of training, however, participants were significantly more likely to report vignettes depicting pre-incident behaviours (i.e., "surveillance," "eliciting information," or "breaching security") than vignettes depicting nonempirical indicators (i.e., ethnicity, religion, or foreign language). This effect was found for both formal and informal reporting.

Interpretation of formal reporting. A variety of interpretations can be made from these results. Although it should again be emphasized that the results for training did not approach significance, and the effect sizes were notably small, the mean likelihood to report across training groups were in the expected directions when it came to *formal* reporting of relevant and nonrelevant vignettes. As expected in Hypothesis 1, a higher mean proportion of participants who received training, in this case comprehensive training followed by less comprehensive training, indicated they would report *relevant*, pre-incident indicators of terrorism compared to those who received no training. In comparison, a higher mean proportion of untrained

participants indicated they would report *nonrelevant* indicators of terrorism, compared to less comprehensively trained and comprehensively trained participants, respectively.

These non-significant findings may hint at a broader issue with the current “See Something, Say Something” material. Alternatively, the infographics may have been an effective tool at increasing accurate reporting but the study’s limitations prevented this finding from reaching significance.

In terms of study limitations, the current research involved an online survey where the amount of attention paid to the training, as well as to the vignettes, could not be controlled for, and the length of exposure to the training material and previous exposure to similar types of terrorism awareness training was also not controlled. Although instructions were provided to encourage participants to carefully examine the material, it is possible that participants entirely disregarded the training manipulation, or only briefly engaged with it. In fact, 18 participants were removed from the current sample because they exhibited unreasonable completion times (i.e., less than 5 minutes or greater than 60 minutes), which suggested that those participants likely did not thoroughly read the study material or got distracted partway through. As well, the online survey was likely completed on a variety of devices (e.g., smartphone, tablet, laptop) and in environments with distractions, which could have impacted the effectiveness of the infographic training material. Lastly, slightly more than a quarter of participants ($n = 87$, 25.4%) indicated they had previous exposure to similar, if not the same, training material in the real-world, with a relatively equal distribution across the three training groups—comprehensive training: $n = 23$ (21.5%); less comprehensive training: $n = 34$ (29.8%); and no training: $n = 30$ (24.8%). Thus, the true effects of the training manipulations on reporting behaviour may have

been dampened by some participants having previous exposure to terrorism awareness campaigns.

Future research should consider replicating the study on an in-person sample or enforcing a minimum exposure period to ensure participants receive a consistent and sufficient amount of exposure to the training material. The inclusion of a manipulation check in future research would also help ensure that the final sample consists of participants who actively paid attention to, and engaged with, the training. Moreover, future research could consider prior exposure to similar types of terrorism training material in their analyses. If a significant effect of training emerges in future research that addresses these limitations, in the same direction as the slight trend found in the current thesis, then this would provide empirical support for the effectiveness of terrorism awareness training, specifically the “See Something, Say Something” material. It would demonstrate that infographics, such as those used in the DHS’ (2010) campaign, are an effective form of training that can be used to increase civilians’ likelihood to formally report pre-incident behaviours associated with terrorism, while not increasing their likelihood to report nonempirical indicators.

The lack of significant differences across training groups, coupled with the small effect sizes, may alternatively indicate a broader issue with the DHS’ current training material. There are several factors inherent to the campaign material that could account for the non-significant findings, including the training content (i.e., infographic) or platform (i.e., print). Both infographics that were used for training were sparsely populated with text, and the infographic used from the comprehensive training depicted pre-incident behaviours through ambiguous images and brief captions. It is therefore possible that participants engaged with the training material for a sufficient period of time, but simply failed to adequately learn. Future research

should embed training checks to ensure participants are comprehending, and actually learning, the training material before being exposed to concerning scenarios. If the infographics are not readily comprehensible in their current form, then alternative ways to more effectively portray the same information should be considered (e.g., more detailed descriptions or inclusion of exemplars).

Furthermore, future research should replicate the study using different platforms for training. By comparing the mean likelihood to report when exposed to print material (i.e., the current study) compared to when exposed to the same message in audio or video format, for example, it could demonstrate what, if any, platform is better at increasing accurate reporting. The results of future research could be used to update the DHS' initiative to ensure the campaign is achieving its intended goals, one of which is to presumably increase the rate of accurate reporting while not increasing the rate of non-relevant reports. The results could also be used to inform other, similar types of campaigns across the globe.

Interpretation of informal reporting. When it came to *informal* reporting, the mean likelihood to report *relevant* vignettes was significantly higher for informal compared to formal reporting, hereby providing support for Hypothesis 2. This was consistent with previous literature on school violence, which found students are more likely to informally address concerning scenarios than to report them to the proper authorities (Hodges et al., 2016; Hollister et al., 2015). The same trend was also found for *nonrelevant* vignettes, whereby participants were more likely to informally report nonempirical indicators than to report them to the police.

Although no specific predictions were made comparing informal reporting of relevant and nonrelevant vignettes across training groups due to a lack of existing literature, the outcome of these exploratory analyses are worth mentioning. Similar to the results seen with formal

reporting, the results revealed training was an ineffective tool at increasing participants' likelihood to informally report both relevant and nonrelevant vignettes. Unlike formal reporting, however, it is interesting to note that the mean informal reporting values were in curious directions. Compared to participants who received no training, a higher mean proportion of participants who received training, specifically comprehensive training, indicated they would report *relevant* indicators of terrorism, as well as *nonrelevant* indicators. In contrast, less comprehensive training yielded the lowest mean proportion of participants to indicate they would report *relevant* or *nonrelevant* indicators. However, same as with formal reporting, it must be emphasized that these differences did not approach significance, and the effect sizes were very small. Many of the same limitations and future areas of research mentioned above are applicable to these results, while there are additional considerations worth mentioning.

From a methodological standpoint, the non-significant effect of training on likelihood to informally report could be due, in part, to the vague definition provided to participants in the current sample. To understand their informal reporting behaviour, participants were asked a single question: "How likely would you be to **informally** report this scenario (e.g., tell a friend, talk to the stranger, have a third party besides the authorities talk to the stranger)?" Conversely, participants were asked several questions to assess their formal reporting behaviour. Participants may have therefore failed to recognize the focus on informal reporting, or misunderstood the definition, despite bolding the text and providing a brief description. Future research should replicate the study with a more intentional focus on informal reporting, or conduct a more comprehensive comparison between informal and formal reporting, to gain a better understanding of the relationship between training and both types of reporting.

Interpretation of reporting by vignette type. Despite training being largely ineffective at improving the rate of accurate (i.e., pre-incident behavioural) reporting in the current sample, the study consistently found that participants were significantly more likely to both formally, and informally, report vignettes depicting pre-incident behaviours associated with terrorism than those depicting nonempirical indicators. This means that regardless of whether participants were untrained or trained to recognize relevant indicators and/or encouraged to report suspicious behaviours, all groups yielded a higher mean likelihood to report relevant, rather than nonrelevant, indicators. This may reflect the natural reporting tendencies of civilians and suggest training is not necessary for accurate reporting. As previously mentioned, the findings could also suggest that participants already had a sufficient level of terrorism-related knowledge to allow them to perform similarly on the vignettes, regardless of whether or not they received training in the current study. However, it is important to note study limitations prior to drawing concrete conclusions.

One particular challenge in the current study was the development of various vignettes that were descriptive yet appeared relatively consistent, especially ones involving nonempirical indicators. As a result, the nonrelevant vignettes in the current study may have unintentionally been written in such a way that made them stand out from the relevant vignettes, which could have resulted in participants being more likely to report relevant over nonrelevant vignettes, regardless of whether they were trained or untrained. The nonempirical indicators in the current study also loosely capitalized on common stereotypes associated with ethnicity, devout religiosity, and foreign languages. Participants may have therefore initially considered reporting nonrelevant indicators, but due to social desirability, opted to report less controversial (and unknowingly, more relevant) indicators. Alternatively, it may be that regardless of whether

civilians are trained or untrained, pre-incident behaviours may inherently stand out more than nonempirical indicators, and thus, are more likely to be reported. For example, participants in this study viewed a relevant vignette that described a stranger fleeing from security after attempting to enter a restricted area at a tourist attraction. Viewing this pre-incident behaviour (i.e., “probing security”) is arguably a less common encounter for the average individual compared to viewing a nonrelevant vignette that described a stranger standing in front of a government building while publicly sharing their religious beliefs (i.e., devout religiosity). As a result, pre-incident behaviours may naturally stand out as being more salient or peculiar, and consequently, more suspicious than the more mundane, nonrelevant indicators. More research is necessary to explore these possible interpretations further and to identify which, if any, of the 15 pre-incident behaviours are more (or less) likely to be reported. If vignettes are used in future research, pilot testing could help ensure that the relevant and nonrelevant vignettes are as consistent as possible.

Impact of Additional Factors on Likelihood to Report

In addition to assessing the impact of terrorism awareness training on reporting behaviour, the current study also explored the impact of 13 variables known to influence the reporting rates for other types of targeted violence. This was largely exploratory in nature due to a lack of existing literature, although it was hypothesized that the variables would significantly predict likelihood to formally report pre-incident behaviours based on previous school violence literature (Hypothesis 3). The results revealed different variables to be significant predictors, depending on the type of reporting behaviour (formal versus informal) and the type of indicator included in the vignettes (relevant versus nonrelevant). This provided partial support for Hypothesis 3 and was consistent with some existing research (Hollister, 2015; Hollister et al.,

2014; MacNab & Worthley, 2008), but contradicted others (Brank et al., 2007; Hollister & Scalora, 2015; Hollister et al., 2014; Slocum et al., 2010; Sulkowski, 2011).

Interpretation of formal reporting. When it came to *formal* reporting, two attitudinal variables (Diffusion of Responsibility and Feelings of Community Safety) significantly predicted whether participants would formally report *relevant* vignettes. In line with previous literature, lower levels of perceived community safety and tendencies to diffuse responsibility were associated with increased formal reporting. This provided partial support for Hypothesis 3. In contrast, one attitudinal variable (Impacted by Terrorism) and one historical variable (Self-efficacy Toward Service) were only marginally predictive of whether participants would formally report *nonrelevant* vignettes ($p = 0.069$ and $p = 0.055$, respectively). Recall that no predictions were made for nonrelevant vignettes due to a lack of literature on the topic. It is nonetheless interesting to note that these results suggest participants may have been more likely to formally report nonempirical indicators if they had been personally impacted by terrorism or behave less responsibly within their communities. However, this should be interpreted with caution since these differences only approached significance and there is limited research to meaningfully interpret the results related to nonrelevant formal reporting.

Interpretation of informal reporting. Interestingly, a different set of variables predicted participants' likelihood to *informally* report the vignettes. Recall no predictions were made for the impact of training on informal reporting; yet, it is interesting to note that several of the variables known to predict formal reporting for other types of targeted violence also predicted informally report in the current sample.

Only one attitudinal variable (Delinquency) was a significant predictor of informal reporting across *relevant* vignettes. Consistent with previous research on formal reporting, lower

levels of delinquency were associated with a greater likelihood to informally report pre-incident behaviours. Furthermore, one attitudinal variable (Diffusion of Responsibility) approached significance ($p = 0.075$), whereby a lower tendency to diffuse responsibility was associated with a greater likelihood to informally report. In contrast, several attitudinal variables (Feelings Toward Police and Social Connectedness) and historical variables (Exposure to Terrorism Awareness Training and Impacted by Terrorism) predicted informal reporting of *nonrelevant* vignettes. Participants were more likely to informally report if they exhibited positive feelings toward the police, were personally impacted by terrorism, or had not been previously exposed to a terrorism awareness initiative, such as the “See Something, Say Something” campaign. These results indicate certain variables that predict formal reporting across different forms of targeted violence also predict informal reporting in a terrorism context. Inconsistent with the literature on formal reporting, however, participants who felt less, rather than more, socially connected to their communities were more likely to informally report nonrelevant vignettes.

It is unclear why different variables were predictive depending on whether reporting was examined from a formal or informal perspective, as well as whether scenarios included relevant or nonrelevant indicators. This is largely due to the novel aspects of the current study and, consequently, the lack of existing literature in the field, which would have resulted in the development of more informed hypotheses and provided potential explanations for these findings. Future research should explore the impact of these, and several other variables, on reporting behaviour to better understand the role that personal characteristics and experiences play in terrorism-related reporting behaviour.

Practical implications. The regression results nonetheless provide helpful insight into the various factors, other than training, that may contribute to a civilian’s decision to report, or

not report, suspicious activity to the police. This offers practical implications from a campaign perspective. Knowing which factors influence civilian likelihood to report can be strategically utilized by campaigns to help improve the rate of accurate formal reporting, by mitigating the impact of certain characteristics that predict inaccurate reporting and promoting or capitalizing on characteristics that predict accurate formal reporting. Tailored messaging or strategically-placed messages are two methods that could be used by campaigns to exploit this information. If decision makers are aware of the characteristics of populations that exhibit problematic reporting behaviour, including those that exhibit high rates of inaccurate reporting (i.e., formally report nonrelevant indicators) or informal reporting of relevant vignettes, or low rates of accurate reporting (i.e., failing to formally report relevant indicators), this provides insight into the tactics that might be most effective at increasing accurate formal reporting. For example, in a city with a relatively low crime rate and a greater perception of community safety, it could be beneficial to tailor messages around the importance of reporting suspicious activity, despite feeling relatively safe. It could also be helpful to highlight relevant statistics, such as the number of thwarted attacks in their own community or attacks in other similarly-perceived communities, to convey that no community is immune to terrorism. In theory, this should counteract the results seen in this study, which expects greater perceptions of community safety to result in lower reporting rates.

Furthermore, since the current study also found lower rates of formal reporting as tendencies to diffuse responsibility increased, it may be beneficial to target populations that exhibit relatively low levels of accountability, such as youth. Advertisements could be placed in frequently visited locations (e.g., schools or recreation centres) with messages that emphasize the role youth can play in helping to prevent terrorism. This signage would presumably help

decrease diffusion of responsibility by including messaging that emphasizes the role that each individual plays in preventing acts of terrorism through informed reporting. It is expected youth additionally lack the knowledge of where and when to formally report, therefore such information might be helpful to incorporate into future messaging.

Given the utility of this information, and its potential to contribute to terrorism prevention efforts, this area warrants further research.

Limitations and Future Directions

The study has additional limitations that are worth noting. First, data was solely collected through self-report measures. As a result, participants may have responded in socially desirable ways, resulting in the underreporting of traits, behaviours, and reporting decisions perceived to be undesirable. Participants were reminded that their data would be anonymous and reported in aggregate form, and the survey was completed online without the researcher's presence potentially biasing their responses; however, this would not have eliminated participants responding in socially desirable ways. Future research should consider embedding social desirability checks to account for potentially untruthful answers.

The study design also included the use of hypothetical vignettes, which allowed for a greater degree of control over the conditions. However, the decision to include vignettes likely limited the generalizability of the findings. Extensive time was invested in ensuring the vignettes mimicked real-world scenarios, however, reading hypothetical scenarios is presumably different from actually experiencing what is being described. As well, this study asked participants to indicate how likely they think they would be to report each vignette, yet research has shown that thoughts and actions do not always correlate, especially in higher-stress scenarios (Darley & Batson, 1973). Participants in the current sample may have therefore over or underestimated

their likelihood to report in comparison to what they would do in a real-world scenario. Thus, their self-report responses may have been a poor reflection of their actual reporting behaviour. Future research should compare the results of the current study to a field study where behavioural measures of reporting are considered.

In addition, the current study focused specifically on the likelihood to report a stranger described in the various vignettes, as opposed to an acquaintance or a spouse, for example. Presumably those closest to an individual are in the best position to witness concerning behaviour. It would therefore be interesting to examine whether the results differ depending on the nature of the relationship with the potentially concerning individual being described (e.g., acquaintance, close friend, family member) and the setting (e.g., church, home).

Finally, the current sample was primarily comprised of young, undergraduate students from one specific university, which is not representative of the larger Canadian population. This relatively homogenous sample may have responded in a distinctly different manner than what would be observed in a more diverse sample, hereby potentially limiting the generalizability of the results. Researchers should consider replicating this study on a more representative sample prior to drawing conclusions on the overall effectiveness of civilian terrorism awareness training and other factors that impact terrorism-related reporting behaviour.

Conclusion

This study expanded the largely neglected area of research on terrorism-related reporting by examining the impact of various factors on participants' self-reported likelihood to formally and informally report relevant and nonrelevant indicators of terrorism. The results demonstrated the training material from a national terrorism awareness campaign (i.e., the U.S. "See Something, Say Something" campaign; DHS, 2010) was largely ineffective at increasing

accurate formal reporting in the current sample. This is concerning given an ineffective national public safety initiative may pose practical (e.g., intelligence and law enforcement inundated with trivial reports), ethical (e.g., racial profiling) and financial ramifications (e.g., inappropriate allocation of time and resources).

This study also found participants were more likely to informally address a concerning scenario, such as directly speaking to the individual of concern or telling a friend, than to report it to the police. This preference is potentially problematic if it results in missed opportunities by law enforcement to identify and investigate serious threats.

Moreover, this thesis identified various attitudinal, behavioural, and demographic factors that impact terrorism-related reporting behaviour. Future research should compare the effectiveness of different training platforms (e.g., auditory announcements, commercials, in-person training) and tailored messaging that targets specific characteristics (e.g., perceptions of community safety) to identify strategies that are most effective at increasing the likelihood civilians will report relevant indicators of terrorism to the proper authorities.

It is imperative that researchers expand the literature on terrorism-related reporting so that appropriate efforts can be made to ensure pre-incident behaviours indicative of terrorism planning come to the attention of law enforcement in a timely manner; otherwise, threats may go undetected and attacks may occur.

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Appendix A

Informed Consent Form

Title of Research Study: Civilian Likelihood to Report Hypothetical Scenarios.

Research Investigators: Dr. Karla Emeno (Primary Investigator, karla.emeno@ontariotechu.ca, 905-721-8668 ext. 5972) and Renee Bencic (Student Lead, renee.bencic@ontariotechu.net).

Departmental and Institutional Affiliations: Faculty of Social Sciences and Humanities, Ontario Tech University.

Purpose and Procedures: You, along with approximately 250 other participants, have been invited to participate in this research study because our team is interested in investigating the safety-related behaviours of post-secondary students. If you participate in this study, you will first be asked to complete a demographics questionnaire. You will then be exposed to hypothetical scenarios and asked to specify how you would respond in each situation. Finally, you will be asked to answer a series of questionnaires about yourself. This study will take approximately 20-30 minutes to complete. This study has been reviewed by the Ontario Tech University's Research Ethics Board (REB #: 15495) and was approved on November 15, 2019.

Potential Benefits: There are no direct benefits to participating. However, the results of this study could assist law enforcement with understanding the public's safety-related behaviours.

Potential Risks or Discomforts: This study involves no more than minimal risks. The survey will ask you to read about hypothetical, potentially distressing scenarios. If you anticipate that such material may cause you discomfort or anxiety, you may choose not to participate. If you decide to participate, but at any point during the study feel discomfort or anxiety, you can skip any questions that you do not wish to answer or withdraw, and you will not experience any negative consequences. After you complete the study, you will be textually debriefed and information about relevant resources will be provided to you.

Use and Storage of Data: Basic demographic information and responses to all other questions will be collected via an online survey. No information will be stored that will make it possible to identify you through your answers. Once you begin the survey, you will never be required to provide your name at any point during the survey. Instead, your responses to the survey will only be identifiable by a participant number, which cannot be linked to your name. Data collected via this survey will be securely-stored and password-protected. Only the research team will have access to the data. The data will be used for teaching and research purposes, but it will only be presented in aggregate/group form (i.e., individual data will never be used/identified). The anonymous aggregated/grouped data may be shared with other researchers as required by the ethics and publication guidelines of psychology. Data will be kept indefinitely to potentially allow for additional statistical analyses and in accordance with the practices of open and transparent science.

Confidentiality: Your privacy shall be respected. All responses will be anonymous, meaning that no names, contact information, or other identifiers will be linked to your responses. Confidentiality will be provided to the fullest extent possible by law, professional practice, and ethical codes of conduct. Please note that confidentiality cannot be guaranteed while data is in transit over the Internet. This research study includes the collection of demographic data which will be aggregated (not individually presented) in an effort to further protect your anonymity. Despite best efforts, it is possible, although highly unlikely, that your identity can be determined even when data is aggregated.

Voluntary Participation and Freedom to Withdraw: Your participation in this study is voluntary and you may partake in only those aspects of the study in which you feel comfortable. You may also decide not to be in this study, or to be in the study now, and then change your mind later. If you withdraw from the research project at any time, you will not be penalized, you will still receive credit, you will not need to offer any reason for your withdrawal, and any data that you have contributed will be removed from the study. However, once your data is submitted, it cannot be removed from the study due to the anonymous nature of the survey.

Compensation: You will receive 0.25% course credit for online participation and 0.5% course credit for in-person participation. You can choose to withdraw from the study at any time during the study and still receive the credit. Participants will not receive any other compensation.

Debriefing and Dissemination of Results: You may ask any questions concerning this research and have those questions answered before, during, or after the study. You may contact the researchers using the above contact information if you're interested in learning the results of this study or have questions. The data from this study may be presented in aggregate/group form through posters, presentations or manuscripts.

Participant Rights and Concerns: If you have questions about your rights as a participant in this study, complaints, or adverse effects, contact the Research Ethics Office (905-721-8668 ext. 3693 or researchethics@uoit.ca). If you have any questions concerning the research study or experience any discomfort related to the study, contact the researchers using their contact information above. By signing this form you do not give up any of your legal rights against the investigators, sponsor or involved institutions for compensation, nor does this form relieve the investigators, sponsor or involved institutions of their legal and professional responsibilities.

Consent to Participate:

By clicking the arrow below, I am indicating that:

1. I have read the consent form and understand the study being described.
2. I have had an opportunity to ask questions and my questions have been answered. I am free to ask questions about the study in the future.
3. I freely consent to participate in the research study, understanding that I may discontinue participation at any time without penalty. A copy of this Consent Form has been made available to me.

Appendix B

Debriefing Form

Thank you for your participation in the study, Civilian Likelihood to Report Hypothetical Scenarios, conducted by Dr. Karla Emeno (Primary Investigator) and Renee Bencic (Student Lead) in the Forensic Psychology graduate program at Ontario Tech University. This study was approved by the Ontario Tech University Research Ethics Board (REB # 15495) on November 15, 2019.

Purpose: This study evaluated if the public's reporting rates of pre-incident behaviours could be improved through two types of awareness training initiatives modelled after the U.S. Department of Homeland Security's (DHS) "See Something, Say Something" campaign. This information can improve civilian reporting rates with the overall goal being to offer empirical evidence to help improve the terrorism prevention process. Please remember that your answers cannot be deleted due to the anonymous nature of the data.

Background information on Pre-Incident Behaviours: Many actions described in three of the six hypothetical vignettes that you viewed are considered "pre-incident" behavior, which are indicators that often precede terrorist attacks and should therefore be reported if they are viewed (DHS, 2010). See below for the list of pre-incident behaviours. Please note that the other three hypothetical vignettes that you viewed contained indicators that are **not** currently considered empirically-supported indicators of terrorism (e.g., ethnicity) and should not be the primary reason behind a report.

(1) Direct or indirect threat to commit a crime; (2) Monitor a target; (3) Theft as a means to access relevant materials; (4) Test security; (5) Interfere with aviation activities; (6) Breach restricted areas; (7) Acquire relevant skills and knowledge; (8) Elicit information; (9) Misrepresent themselves; (10) Commit cyberattacks (11) Fund suspicious activities; (12) Vandalise or sabotage a site; (13) Acquire or store suspicious materials; (14) Collect weapons or destructive material; or (15) Commit suspicious activities at relevant facilities (DHS, 2010).

Concerns: If by participating in this experiment, you experienced anything that you would like to further discuss with a psychological counselor, please contact one of many mental health services available to you through the university. This includes the Ontario Tech University Mental Health Services (905-721-3392, studentlifeline@ontariotechu.ca), Oshawa Psychological and Counselling Services (free short-term psychological assistant for Ontario Tech University students), Aspiria (free 24/7 Student Assistance Program), and Good2Talk (1-866-925-5454).

Research Investigators: If you have any questions or concerns about this study, please contact the student lead, Renee Bencic (renee.bencic@ontariotechu.net) or the primary investigator/faculty supervisor, Dr. Karla Emeno (karla.emeno@ontariotechu.net, 905-721-8668 ext. 5972).

Appendix C

Comprehensive Training Form

Please carefully **examine all of the information below** before proceeding to the next section. This will be your only opportunity to view this information.

Protect your every day.

RECOGNIZE THE SIGNS OF TERRORISM-RELATED SUSPICIOUS ACTIVITY

| | | | | |
|---|---|---|--|--|
|  <p>EXPRESSED OR IMPLIED THREAT</p> <p>Threatening to commit a crime that could harm or kill people or damage a facility, infrastructure, or secured site</p> |  <p>SURVEILLANCE</p> <p>A prolonged interest in or taking pictures/videos of personnel, facilities, security features, or infrastructure in an unusual or covert manner</p> |  <p>THEFT/LOSS/DIVERSION</p> <p>Stealing or diverting items—such as equipment, uniforms, or badges—that belong to a facility or secured site</p> |  <p>TESTING OR PROBING OF SECURITY</p> <p>Investigating or testing a facility's security or IT systems to assess the strength or weakness of the target</p> |  <p>AVIATION ACTIVITY</p> <p>Operating or interfering with the operation of an aircraft that poses a threat of harm to people and property</p> |
|  <p>BREACH/ATTEMPTED INTRUSION</p> <p>Unauthorized people trying to enter a restricted area or impersonating authorized personnel</p> |  <p>ACQUISITION OF EXPERTISE</p> <p>Gaining skills or knowledge on a specific topic, such as facility security, military tactics, or flying an aircraft</p> |  <p>ELICITING INFORMATION</p> <p>Questioning personnel beyond mere curiosity about an event, facility, or operations</p> |  <p>MISREPRESENTATION</p> <p>Presenting false information or misusing documents to conceal possible illegal activity</p> |  <p>CYBERATTACK</p> <p>Disrupting or compromising an organization's information technology systems</p> |
|  <p>RECRUITING/FINANCING</p> <p>Funding suspicious or criminal activity or recruiting people to participate in criminal or terrorist activity</p> |  <p>SABOTAGE/TAMPERING/VANDALISM</p> <p>Damaging or destroying part of a facility, infrastructure, or secured site</p> |  <p>MATERIALS ACQUISITION/STORAGE</p> <p>Acquisition and/or storage of unusual materials such as cell phones, radio controllers, or toxic materials</p> |  <p>WEAPONS COLLECTION/STORAGE</p> <p>Collection or discovery of unusual amounts of weapons including explosives, chemicals, or other destructive materials</p> |  <p>SECTOR-SPECIFIC INCIDENT</p> <p>Actions which raise concern to specific sectors, (e.g., power plant) with regard to their personnel, facilities, systems, or functions</p> |

If you **see** something, **say** something®

REPORT SUSPICIOUS ACTIVITY TO LOCAL AUTHORITIES OR CALL 9-1-1 IN CASE OF EMERGENCY

dhs.gov/see-something-say-something




*If You See Something, Say Something® used with permission of the NY Metropolitan Transportation Authority.

Appendix D

Less Comprehensive Training Form

Please carefully **examine all of the information below** before proceeding to the next section. This will be your only opportunity to view this information.

if you
SEE
something | **SAY**
something™

**REPORT
SUSPICIOUS
ACTIVITY**
to local authorities.

If You See Something Say Something™ used with permission of the NY Metropolitan Transportation Authority.



Homeland Security

Appendix E

Pre-Incident Behaviour Vignettes

You are now going to view six hypothetical scenarios. After each scenario, you will be asked to select what you would do if you viewed this exact scenario in real life.

Please **carefully read** each scenario and give as accurate of answers as possible. **Do not** consider information from other scenarios you read during this research study when selecting your anticipated actions for each scenario.

Vignette 1

You notice a stranger at a local monument you regularly visit and you have never seen this person here before. You see a diagram of the monument's floor plan sticking out of the stranger's bag and they are taking photos of the exit door. This person does not appear to work at the monument or in a job where they would require access to this type of information.

Vignette 2

You are at a government building you often visit when you overhear a stranger asking for detailed information about the building. The stranger asks an employee about the daily operations and procedures of the building and the busiest times to visit, and then asks the security guards when their shift changes occur.

Vignette 3

You notice a stranger attempting to enter into a restricted, employee-only area at a tourist attraction. This employee-only area explicitly states that it requires key card access, which the stranger does not appear to have. As an employee at the attraction approaches the stranger, the stranger quickly turns around and exits the area.

Appendix F

Nonrelevant Indicator Vignettes

You are now going to view six hypothetical scenarios. After each scenario, you will be asked to select what you would do if you viewed this exact scenario in real life.

Please **carefully read** each scenario and give as accurate of answers as possible. **Do not** consider information from other scenarios you read during this research study when selecting your anticipated actions for each scenario.

Vignette 1

You are at a busy train station when you notice a stranger who physically appears to be from a country located in a region of the world that has been associated with conflict in the past. This stranger is also wearing a hat and a backpack. You are aware that there are some people in our country who are unhappy with our recent acceptance of refugees from this region of the world.

Vignette 2

You overhear a stranger sharing their religious beliefs to members of the public while standing in front of a government building. You consider many of the stranger's beliefs offensive and opposite to your own religious beliefs. At one point, you hear the stranger say they dislike the religion you follow. This stranger sounds devoted to their religious beliefs and appears to be wearing traditional religious clothing.

Vignette 3

You are parking your car in the underground parkade of a shopping mall when you hear two individuals you do not know speaking in a language you are not familiar with and it is not a dominant language in this country. These individuals are waiting near the elevator in the parkade and become quiet when you approach the elevator.

Appendix G

Reporting-Related Questions

Please carefully read and answer the following questions:

1. **Would** you report this scenario to the proper authorities (e.g., police or a security guard)?

No

Yes

2. **Should** you report this scenario to the proper authorities (e.g., police or a security guard)?

No

Yes

3. How likely would you be to report this scenario to the proper authorities (e.g., police or a security guard)?

Extremely unlikely

Moderately unlikely

Somewhat unlikely

Somewhat likely

Moderately likely

Extremely likely

4. How willing would you be to report this scenario to the proper authorities (e.g., police or security guard)?

Definitely unwilling

Probably unwilling

Somewhat unwilling

Somewhat willing

Probably willing

Definitely willing

5. Which specific element(s) of this scenario made you decide you **would** report? (specify in 50 words or less)
6. Which specific element(s) of this scenario made you decide you **would not** report? (specify in 50 words or less)
7. Does this scenario include a relevant warning sign indicating the stranger in this scenario is possibly planning a terrorist attack?

No
Yes

8. How likely would you be to **informally** report this scenario (e.g., tell a friend, talk to the stranger, have a third party besides the authorities talk to the stranger)?

Extremely unlikely
Moderately unlikely
Somewhat unlikely
Somewhat likely
Moderately likely
Extremely likely

9. If you were going to report a concerning scenario to the proper authorities, which method of communication would you prefer to use to do so

In-person
Text
Phone call
Social media
Email
Online reporting form
Other (please specify):

10. What circumstances would be important when deciding you **would** report a scenario to the proper authorities (e.g., police or security guard)? Please select all that apply. (This question was slightly adapted from Hollister, 2015).

A dangerous situation appeared immediate
A dangerous situation appeared likely
The behaviour or attitudes of the stranger
The stranger’s behaviour or attitudes were harmful to me or someone else
My relationship with the stranger
I had a “gut feeling” that the stranger was going to be dangerous
The stranger had made serious and/or specific threats of violence
I was aware of available community or police resources, such as where to make a report
I was aware of the relevant behaviours that tend to come before acts of terrorism
Other (please specify):

11. What circumstance would be important when deciding you **would not** report a scenario to the proper authorities (e.g., police or security guard)? Please select all that apply. (This question was slight adapted from Hollister, 2015).

A dangerous situation did not appear immediate
A dangerous situation did not appear likely
No one was being harmed by the stranger

My relationship with the stranger

I did not have a “gut feeling” that the stranger was going to be dangerous

The stranger had made no serious and/or specific threats of violence

I was not aware of available community or police resources, such as where to make a report

It seemed like a personal matter, not a police matter

I did not believe the police could do anything

I did not believe the police would do anything

I thought it might make the situation worse

I did not want to get involved/it was none of my business

I did not want to put myself in danger

I am not aware of the relevant behaviours that tend to come before acts of terrorism

Other (please specify):

Appendix H

Self-Report Delinquency Scale (adapted from Piquero, MacIntosh, & Hickman, 2002)

Please rate your response for each of the following questions.

1. How many times in the past year have you used illicit drugs?

Never

Once or twice

Once every 2-3 months

Once a month

Once every 2-3 weeks

Once a week

2-3 times a week

Once a day

2-3 times a day

2. How many times in the past year have you stolen more than \$5?

Never

Once or twice

Once every 2-3 months

Once a month

Once every 2-3 weeks

Once a week

2-3 times a week

Once a day

2-3 times a day

3. How many times in the past year have you used physical aggression to get money or things?

Never

Once or twice

Once every 2-3 months

Once a month

Once every 2-3 weeks

Once a week

2-3 times a week

Once a day

2-3 times a day

4. How many times in the past year have you hit or threatened somebody?

Never

Once or twice

Once every 2-3 months

- Once a month
- Once every 2-3 weeks
- Once a week
- 2-3 times a week
- Once a day
- 2-3 times a day

Appendix I

Social Connectedness Scale (Lee & Robins, 1995)

Please rate how much you disagree or agree with each of the following statements.

1. I feel disconnected from the world around me.

Strongly disagree
Moderately disagree
Slightly disagree
Slightly agree
Moderately agree
Strongly agree

2. Even around people I know, I don't feel that I really belong.

Strongly disagree
Moderately disagree
Slightly disagree
Slightly agree
Moderately agree
Strongly agree

3. I feel so distant from people.

Strongly disagree
Moderately disagree
Slightly disagree
Slightly agree
Moderately agree
Strongly agree

4. I have no sense of togetherness with the people around me.

Strongly disagree
Moderately disagree
Slightly disagree (3)
Slightly agree (4)
Moderately agree (5)
Strongly agree (6)

5. I don't feel I can relate to anyone.

Strongly disagree (1)
Moderately disagree (2)

Slightly disagree (3)
 Slightly agree (4)
 Moderately agree (5)
 Strongly agree (6)

6. I catch myself losing all sense of connectedness with society.

Strongly disagree (1)
 Moderately disagree (2)
 Slightly disagree (3)
 Slightly agree (4)
 Moderately agree (5)
 Strongly agree (6)

7. Even among my friends, there is no sense of brotherhood/sisterhood.

Strongly disagree (1)
 Moderately disagree (2)
 Slightly disagree (3)
 Slightly agree (4)
 Moderately agree (5)
 Strongly agree (6)

8. I don't feel connected with anyone or any group.

Strongly disagree (1)
 Moderately disagree (2)
 Slightly disagree (3)
 Slightly agree (4)
 Moderately agree (5)
 Strongly agree (6)

Appendix J

Feelings Toward Police Scale (adapted from Hollister et al., 2014)

Please rate your response for each of the following statements.

1. I believe the police do their job well.

- Not at all true (1)
- A little true (2)
- Moderately true (3)
- Very true (4)
- Completely true (5)

2. I believe the police are adequately trained to deal with safety issues.

- Not at all true (1)
- A little true (2)
- Moderately true (3)
- Very true (4)
- Completely true (5)

3. I believe the basic rights of people are well protected by the police.

- Not at all true (1)
- A little true (2)
- Moderately true (3)
- Very true (4)
- Completely true (5)

4. My confidence in the police is high.

- Not at all true (1)
- A little true (2)
- Moderately true (3)
- Very true (4)
- Completely true (5)

5. I trust the police to perform their duties as they should.

- Not at all true (1)
- A little true (2)
- Moderately true (3)
- Very true (4)
- Completely true (5)

Appendix K

Self-Efficacy Toward Service Scale (Weber, Weber, Sleeper, & Schneider, 2004)

Please rate how much you disagree or agree with each of the following statements.

1. I can have a positive impact on social problems.

Strongly disagree (1)

Disagree (2)

Undecided (3)

Agree (4)

Strongly agree (5)

2. I can help people with disabilities.

Strongly disagree (1)

Disagree (2)

Undecided (3)

Agree (4)

Strongly agree (5)

3. I have confidence in my ability to help others.

Strongly disagree (1)

Disagree (2)

Undecided (3)

Agree (4)

Strongly agree (5)

4. I can make a difference in my community.

Strongly disagree (1)

Disagree (2)

Undecided (3)

Agree (4)

Strongly agree (5)

5. Each of us can make a difference in the lives of the less fortunate.

Strongly disagree (1)

Disagree (2)

Undecided (3)

Agree (4)

Strongly agree (5)

Appendix L

Diffusion of Responsibility Scale (adapted from Cameron & Payne, 2011)

Please rate your response to each of the following statements.

1. How much do you feel it is your moral responsibility to help the police?

- Not at all important (1)
- Very unimportant (2)
- Somewhat unimportant (3)
- Neither unimportant nor important (4)
- Somewhat important (5)
- Very important(6)
- Extremely important (7)

2. How much do you feel that others are responsible for helping the police?

- Not at all important (1)
- Very unimportant (2)
- Somewhat unimportant (3)
- Neither unimportant nor important (4)
- Somewhat important (5)
- Very important(6)
- Extremely important (7)

Appendix M

Feelings of Safety in the Community Scale (adapted from Hollister et al., 2014)

1. I feel safe in my community during the day.

- In no areas (1)
- In few areas (2)
- In some areas (3)
- In most areas (4)
- In all areas (5)

2. I feel safe in my community during the night.

- In no areas (1)
- In few areas (2)
- In some areas (3)
- In most areas (4)
- In all areas (5)

Appendix N

Demographic Form

Please tell us a bit about yourself. Keep in mind all answers will remain anonymous and confidential.

1. Please indicate your age (in years):

2. Please indicate your gender:

Male

Female

Other (please specify):

3. Please indicate your ethnic background:

Arab

African/Black

Central American

Chinese

Filipino

Indigenous (e.g., First Nations, Inuk, Metis)

Japanese

Korean

Latin American

South Asian (e.g., East Indian, Pakistani, Sri Lankan)

Southeast Asian (e.g., Iranian, Afghan)

West Asian

White/Caucasian

Other (please specify):

4. Are you fluent in English?

No

Yes

5. Please indicate your household's approximate annual income before taxes:

\$0-\$24,99

\$25,000-\$49,999

\$50,000-\$74,999

\$75,000-\$99,999

\$100,000-\$149,999

\$150,000 or more

6. Please indicate your religion:

Christian

Muslim

Jewish

Hindu

Buddhist

Other (please specify):

7. Please indicate the faculty you are in:

Faculty of Business and Information Technology

Faculty of Education

Faculty of Engineering and Applied Science

Faculty of Health Sciences

Faculty of Science

Faculty of Social Science and Humanities

8. Please indicate your political affiliation:

Block Quebecois

Conservative

Green Party

Liberal

New Democratic Party (NDP)

None

Other (please specify):

9. Have you been employed in the public safety sector (e.g., law enforcement, security, intelligence, military, etc.)?

No

Yes

Appendix O

Previous Exposure to Terrorism and Awareness Training

1. Have you, or someone you know, been personally affected by terrorism?

No
Yes

2. Have you previously reported suspected terrorist activity to the proper authorities (e.g., police or a security guard)?

No
Yes

3. Have you previously reported general (non-terrorism related) crime or suspicious activity to the proper authorities (e.g., police or a security guard)?

No
Yes

Terrorism awareness campaigns, such as the “See Something, Say Something” campaign, are designed to increase the public’s willingness to report behaviours that often signal an individual, or group of individuals, are planning a terrorist attack. This is typically done by training the public to report specific warning signs if they are observed. For example, these campaigns sometimes use posters to advertise the slogan “If You See Something Suspicious, Report it!” on public transportation.

4. Prior to participating in this study, have you had previous exposure to terrorism awareness campaigns (for example, the “See Something, Say Something” campaign)?

No
Yes

5. Prior to participating in this study, how much exposure have you had to terrorism awareness campaigns (for example, the “See Something, Say Something” campaign)?



Appendix P

Mixed Between-Within ANOVA Assumptions for Training and Vignette Type on Reporting

| Measure | Levene's test <i>F</i> (2, 339) | Box's M Value | <i>F</i> (6, 2686546.48) |
|--|------------------------------------|---------------|--------------------------|
| <i>Likelihood to Formally Report</i> | | | |
| Relevant Vignettes | 0.37 | 2.04 | 0.34 |
| Nonrelevant Vignettes | 0.40 | | |
| <i>Likelihood to Informally Report</i> | | | |
| Relevant Vignettes | 0.32 | 4.98 | 0.82 |
| Nonrelevant Vignettes | 0.21 | | |

Note. Box's M is significant at $p < 0.001$. Scores were summed according to Vignette type.