

The Application of the Path to Intended Violence Model and the TRAP-18 in the Case of the Christchurch Mosque Shooter

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Abstract

Objectives and Method: In this case analysis, we applied the Path to Intended Violence model (PTIV) and the Terrorist Radicalization Assessment Protocol (TRAP-18) in order to study the 28-year-old shooter (herein referred to as BT) who perpetrated two consecutive mass shootings at mosques in Christchurch, New Zealand, during Friday Prayer on 15 March 2019. **Results:** Based on our analysis of the case using the PTIV model, it is clear that BT had significant grievances (Stage 1) which led him to the second stage of the model, Violent Ideation. In this second stage, BT joined online forums of like-minded individuals and saw violence as being his only option to address his grievances. He also read about previous mass shooters and was inspired by them. Regarding the threat assessment using the TRAP-18, in the week before his attack, BT exhibited five of the eight proximal warning behaviors including: pathway, fixation, identification, energy burst and last resort. In the same week, he exhibited seven distal characteristics. **Implications:** Based on their effectiveness as exemplified in this case, we recommend the application of the TRAP-18 and the PTIV model to individuals of concern.

Keywords: Path to Intended Violence; Mass Shootings; Mass Murder; Terrorist Radicalization Assessment Protocol; TRAP-18; lone-actor terrorism.

Public Significance Statement

- Based on our analysis of the case using the Path to Intended Violence (Calhoun & Weston, 2003), it is clear that BT had significant grievances (Stage 1) which led him to the second stage of the Path to Intended Violence (Violent Ideation).
- In the week before his attack, BT exhibited five of the eight proximal warning behaviors of the TRAP-18 including: pathway, fixation, identification, energy burst and last resort. In the same week, he exhibited seven distal characteristics.

Mass shootings have become more publicized, deadlier, and frequent (Lankford & Silver, 2020), presenting a significant public safety and public health challenge to the global community. Although there is variation in the definitions used to define a ‘mass shooting’ which may present policy challenges to preventing these incidents in the way the terrorism definition issue presents challenges to lawmakers (Weinburg, Pedahzur, & Hirsch-Hoefler, 2004; Martini & Njoku, 2017), some scholars argue that the majority of these horrific events are preventable (Lankford, Adkins, & Madfis, 2019; Peterson & Densley, 2021). For example, Lankford and colleagues (2019) found that the most lethal mass shooters displayed a greater number of warning signs and were more frequently informed to law enforcement compared to more general active shooters (no minimum threshold of victims; Blair & Schweit, 2014; Lankford et al., 2019). Identifying observable behaviors and characteristics that constitute warning signs presents an opportunity for law enforcement and other professionals charged with the prevention of violence to employ research-informed and fact-based strategies to identify and mitigate threats to life. It is at the intersection of combatting the challenge of public mass shootings and implementing evidence-based models focused on behavior rather than establishing a mass shooter profile that behavioral threat assessment models present a way forward.

The Attack

This paper will analyze the case of 28-year-old BT (an Australian national) who perpetrated two consecutive mass shootings at mosques in Christchurch, New Zealand, during Friday Prayer on 15 March 2019. He began his attack at the Al Noor Mosque in the suburb of Riccarton at 1:40 pm before continuing to the Linwood Islamic Centre at 1:52 pm. Because the attack occurred during Friday Prayer, the Al Noor Mosque was very crowded during the shooting, with somewhere between 300 and 500 people inside. The incident was made more chaotic because the shooter had attached a strobe-light to his weapon to disorient his victims. BT was arrested 21 minutes after the first emergency call, preventing further tragedy. Police stopped him while he was on his way to a third location (possibly the mosque in Ashburton or the An-Nur

Child Care Centre in Hornby, Christchurch; Wojtasik, 2020). His attack resulted in the deaths of 51 people and the injury of 40 (including a 4-year-old girl; Royal Commission of Inquiry, 2019).

The shootings at the two Christchurch mosques were livestreamed by BT to Facebook (with a helmet-mounted GoPro camera which was originally designed for extreme athletes), and he also pressed 'send' on a prepared email which was addressed to several senior politicians and prominent media outlets (Macklin, 2019; Every-Palmer, Cunningham, Jenkins & Bell, 2020). Despite all attempts to shut down the live-stream, copies of it went viral. About 35 New Zealanders were identified and prosecuted for sharing the recording (Crothers & O'Brien, 2020). The original video of the attack was viewed 4,000 times before it was removed. However, many people had copied the video and started reposting versions of the video online, some lengthy and uncensored (e.g., on Reddit, Twitter and YouTube; Firstpost.Com, 2019; Ibrahim, 2020). Additionally, news organisations also aired some of the footage of the attack while they were reporting on it (BBC News, 2019; Lapowsky, 2019). Some of the videos which were posted online were given names which were quotes from the shooter such as 'Let's get this party started' (Ibrahim, 2020; Royal Commission of Inquiry, 2019). Our methodology for examining this attack and the events that led up to it will be discussed in the following section.

Method

Case Study

This paper is a case study of the Christchurch Mosque Shooter. It examines the development to the event from both a theoretical perspective, using the Pathway to Intended Violence model (PTIV, Calhoun & Weston, 2003), and a practical perspective by conducting a retrospective threat assessment, using the Terrorist Radicalization Assessment Protocol (TRAP-18). A case study is an in-depth examination into one individual/case or a group of individuals. Though a case study cannot be statistically generalized, replicated, and subjective, there are many advantages to conducting these types of studies. Specifically, these methods allow for investigations that would otherwise not be practical or unethical to examine. For example, this type of research strategy is often used to study psychological disorders or neuropsychological challenges, and used to examine extremes and extreme events (Hartley, 2004). In the case of the current study, this type

of method fits for the realm of mass shootings. This exploration allows for an in-depth examination of a particular individual to provide insight on the events leading up to the attack, in hopes to curtail future events (Orum et al., 1991). Additionally, this type of exploration provides rich and detailed qualitative information and can provide insights for further research. Additionally, this research strategy allows for analytic generalizations (Yin, 2012). Specifically for the current study, the use of both a theoretical framework (the PTIV) and a threat assessment model (TRAP-18) can be applied to other similar situations.

The Study

This paper will investigate the pathway to intended violence in the case of the Christchurch Mosque Shooter using the PTIV which was developed by Calhoun and Weston (2003). The PTIV model has previously been retrospectively applied to other perpetrators of public mass shootings in order to map out their PTIV (Allely & Faccini, 2017; Allely & Faccini, 2018; Allely & Faccini, 2019, Faccini, 2016; Faccini & Allely, 2016; Schildkraut et al., 2022; Tassin & Allely, 2022). An important point about the PTIV model is that it is a non-linear model. For example, individuals can move up and down the steps and they can skip steps altogether. This paper will also apply the TRAP-18 to this case analysis. The TRAP-18 was designed to conduct a threat assessment on a terrorist. It is an evidence-based, structured professional judgment tool that includes the eight proximal warning behaviours and ten distal factors. These warning signs were identified through dozens of case studies, interviews, and other empirical research (Meloy & Gill, 2016; Meloy & O'Toole, 2011; Meloy et al., 2012; Silver et al., 2018). For a review of articles that have applied the TRAP-18 either to single case studies or larger samples, see Allely and Wicks (2022). This paper is not intended to glorify the acts of these extreme violent perpetrators. Rather we argue that it is important to investigate such cases and examine the pathway behaviours and warning behaviours exhibited in these individuals in the days, months or even years leading up to the attack in order to provide

more information and literature for law enforcement and associated personnel to use to attempt to prevent such events in the future.

The sources used for this case analysis included media articles and academic peer reviewed articles. There is a tendency for mass shooters to leave some final communication (e.g., manifesto, videos) which suggests their need to convey their innermost feelings in the event that they do not survive their attack (Leonard et al., 2014). These documents can provide rich insight into the motives and psychopathology of the individual which provides, for example, some degree of insight into what motivated the individual to carry out their attack (Knoll, 2010). Such information was available in the case of BT. One of the key sources used for this case analysis was the Royal Commission of Inquiry into the Christchurch attacks. On December 8, 2020, the Royal Commission of Inquiry into the Christchurch attacks published its findings in a 792-page report entitled “Ko tō tātou kāinga tēnei: Report of the Royal Commission of Inquiry into the terrorist attack on Christchurch masjidain on 15 March 2019.” The Royal Commission was requested by the New Zealand Government, just 10 days following the attack, to inquire into what public sector agencies knew about BT’s activities before his attack; what (if anything) they did with that information; what they could have done to prevent the attacks and what they should do to prevent future attacks (Maklin, 2019).

Individual’s Background

BT was born in October 1990 in Grafton, New South Wales in Australia. During his childhood he experienced a number of stressors. For instance, his parents separated and his mother had a subsequent relationship with a partner who was abusive. His father was diagnosed with a form of cancer (pleural mesothelioma) when BT was about 16 or 17. His father’s cancer was caused by exposure to asbestos. BT’s father settled a claim for damages which was related to his exposure to asbestos. He gave AU\$457,000 to each of his two children (BT had an older sister) – the majority of the money was from the settlement he received following his claim. BT’s father died by suicide in April 2010. Following the attack, information given to Australian Federal Police suggested that BT “discovered” his father’s body which was an

agreement [no further detail is given about this agreement in the Royal Commission of Inquiry, 2019] he had with his father that he would be the one to find his dead father (Royal Commission of Inquiry, 2019).

It appears that BT held racist beliefs from a young age. For instance, on two occasions he was disciplined for anti-Semitism behavior by one of his high school teachers (who also had the role in the school of Anti-Racism Contact Officer). After the death of his father, BT continued to play video games and would often chat online with the other gamers. During these online chats, BT would express racist and far-right views. As well as spending time gaming and going on the internet, he joined the Big River Gym in Grafton at the end of his final year in high school. He qualified as a personal trainer around mid-2009 and worked as a personal trainer at a local gym until 2012 when he sustained an injury. This was the last time he engaged in paid employment. He started to live off the money that he had received from his father and income from investments made with it. With the money, he travelled extensively. In 2013, he explored New Zealand and Australia, and travelled extensively around the world between 2014 and 2017 (Royal Commission of Inquiry, 2019).

With regards to BT's relationships, he had a close relationship with his sister. He also had a relationship with his mother but to a lesser extent than the one he had with his sister. Outside of his family, his relationships with others were limited and superficial. He believed he was an introvert and reported having suffered from social anxiety ever since his childhood. For example, he found it stressful when socialising with others. The fact he had no job also increased his social isolation, and his travel also meant that he did not form enduring relationships with others. There is no evidence that he had any sustained romantic or intimate relationships. BT told his sister that he thought he might be autistic and possibly sociopathic. He also said that he did not care for anyone, even his own family, but was aware that he should care. It appears he had no emotional need for close engagement with other people (Royal Commission of Inquiry, 2019).

BT believed that there was no other way to "save" the whites from what he described as "the invaders", than through violence (Williamson, n.d.). Specifically, BT focused his rage, racist, and radical outlook against individuals of the Muslim faith. Although he acted alone on March 15, 2019, he formed a

network of individuals who held similar views to him, and therefore cannot be viewed as being a “lone actor”. His network was largely cultivated over time through the internet and his radicalisation process can be partially tied to same. In 2017, he informed his mother that he had been using the 4chan internet message board since he was 14 years old. He was one of more than 120,000 followers of the United Patriots Front Facebook page, a far-right group based in Australia. He was not only a passive follower but interacted with this group. For instance, BT made about 30 comments on their Facebook page between April 2016 and early 2017 (Royal Commission of Inquiry, 2019). In 2017, he joined The Lads Society’s Facebook group, and later joined a related private group, The Lads Society Season Two Facebook page. On 19 September 2017 he posted his first comment and was a regular contributor to the page. He would post on topics related to issues taking place in Europe, New Zealand and his own life, far-right memes, media articles, YouTube links (most of which have since been removed for breaching YouTube’s content agreements), and posts regarding individuals who were either for or against his views. He also tried to encourage other people to give donations to Martin Sellner, who is a far-right Austrian politician (Royal Commission of Inquiry, 2019). BT’s online presence and interaction helped his radicalisation, in addition to his travels across Europe. For example, he tracked far-right websites (*R v. Tarrant, 2020*) and specifically noted in his manifesto how his beliefs originated and were established from the internet as, he believes that “You will not find the truth anywhere else.” (Tarrant, 2019, p. 23). This idea of going down the “rabbit hole” of the internet is a phenomenon that easily fits with BT. As mentioned, BT directly points to the internet, and more specifically YouTube, for his beliefs (Royal Commission of Inquiry, 2020).

It is also worth discussing here a firearm accident that BT experienced which the New Zealand Police were not informed of. On July 13, 2018, he injured his right eye and thigh following a firearms accident in his living room. He went to the Dunedin Hospital’s Emergency Department and told the Emergency Department registrar that the injury happened when he was cleaning a rifle barrel and a round of ammunition exploded. A metal fragment was removed from his right eye and he received a tetanus vaccination and was administered intravenous antibiotics. An x-ray revealed a small metallic fragment in his right thigh which was not removed as it was considered to not cause any adverse impact. Further testing

was carried out by the Ophthalmology Service who prescribed him eye drops, antibiotics, and paracetamol. A follow-up appointment was made for BT to attend the acute eye clinic on 23 July 2018. The New Zealand Police were not informed about the firearm accident by the treating Registrar in the Emergency Department (Royal Commission of Inquiry, 2019). Given a framework for who BT was and events that shaped him, the application of the six steps of the PTIV model will be applied to provide an analytical and nuanced view of the events leading to the attack.

Application of The Path to Intended Violence Model in the Case of BT

Step 1: Grievance

The first step on the path to intended violence involves an individual having persona and/or political grievances arising from or aggravated by mental illness. The individual believes that there is an injustice, a danger or loss, and has a desire for fame or recognition, or a need for retaliation. Important to note is that grievances may be real or perceived (Calhoun & Weston, 2003). There are many indications in BT's case towards this first step, where there are significant political grievances. BT's grievances are thought to have been significantly advanced from his experiences during his travels in Europe (*R v. Tarrant, 2020*). Evidence of BT's explicit political motives are reflected in his 74-page manifesto. This manifesto reveals his belief that there is a replacement of white Europeans resulting from "third world colonisation" arising out of unbalanced birth rates and sky-rocketing rates of immigration. Similar to the perpetrator who committed the Norway attacks on July 22, 2011 who included a self-interview in his manifesto, BT included a type of self-interview in his own manifesto which he titled "Answering possible questions" as a means of controlling the media narrative, giving him a "voice" should he be killed or apprehended while carrying out his attack (Macklin, 2019).

During the two years leading up to his attack, family members that were still in touch with BT noted a significant escalation in his drastic and extremist views and racist attitudes, which were worrisome.

BT stated that he felt “ostracised by society” and, in response, sought retaliation and wanted society to suffer (*R v. Tarrant, 2020*, p. 23). Therefore, it is evident that BT exhibited grievances, in particular politically motivated, that helped create the foundation for the violent ideation that followed.

Step 2: Violent Ideation

Ideation entails the belief that violence is the only option available to deal with the individual’s grievance. The individual may share their thoughts with others in discussions or conversations and may take inspiration from other perpetrators and configure themselves similarly (Calhoun & Weston, 2003). This is referred to as “leakage” behaviour (e.g., Meloy & O’Toole, 2011).

BT fundamentally believed that he was justified in his perpetration of violence according to his ideation founded in “ethnic antipathy and intolerance” (*R v. Tarrant, 2020*, p. 34). He partially felt justified through the actions of other perpetrators who committed similar acts, as well as receiving support from such individuals. For example, as mentioned previously, BT was influenced and motivated by the terrorist who committed the 2011 Norway attacks. First, he referenced this perpetrator several times in his manifesto (Royal Commission of Inquiry, 2019; Williamson, n.d.). Second, a copy of the Norway attacker’s manifesto was found on one of BT’s SD cards. Third, BT talked about the Norway attacker when he was interviewed by New Zealand Police on the afternoon and evening of March 15, 2019. Finally, BT received approval from the Norway perpetrator, which likely further resonated with BT that he was doing what was “necessary and right”. Therefore, this evidence suggests not only an idolization of a perpetrator of a prior public mass shooting, but it provided operational guidance for would-be extreme right-wing terrorists, much of which was adopted by BT in his own attack planning and preparations.

BT was an avid participant in right-wing, extremist organizations. For example, it was revealed that on January 15 and 17, 2017, BT had made a number of donations to right-wing organisations, Freedomain Radio (a podcast and YouTube channel which was created by Canadian Stefan Molyneux, who is a prominent far-right member) and the National Policy Institute (a white supremacist think tank and lobby

group based in the United States). It is also important to point out here that he continued to make these donations to right-wing organisations proximally to the attack when he was living in New Zealand. Specifically, he made at least an additional 14 donations to far-right, anti-immigration groups and individuals. BT made some of these donations directly from his Australian bank account through PayPal, totalling AU\$6,305.78. He also made five donations using Bitcoin, the biggest being one made on January 14 2018 and was the equivalent of US\$1,377 (Royal Commission of Inquiry, 2019). However, it is important to note that donations to extremist organizations and purchasing of racist ideology books are not clear evidence of violent ideations. They are certainly warning signs but not certain indicators of intended violence.

When questioned by the Australian Federal Police following the attack, BT's mother reported that in early 2017, she felt that her son's racism was starting to become more extreme. She recalls him telling her about how the Western world was coming to an end because of the Muslim migrants coming into Europe and out-breeding Europeans. She started to become concerned about his mental health (Royal Commission of Inquiry, 2019). BT purchased far-right books, e-books, publications, and accessories online to send to his family (e.g., a "black sun" patch and a Celtic knot necklace with symbols used by white supremacist groups). The books he bought included: "Fascism: 100 Questions Asked and Answered" by Oswald Mosley, "The Decline of the West" by Oswald Spengler and "A Short History of Decay" by E M Cioran. He sent his sister, Fascism: 100 Questions Asked and Answered by Oswald Mosley for her partner to read. He sent his mother The Decline of the West by Oswald Spengler and A Short History of Decay by E M Cioran. It is believed that he sent them these books in order to introduce his family to his beliefs (Royal Commission of Inquiry, 2019). Therefore, by BT's influence from other mass shooters, his participation with far-right organizations, and by trying to recruit his family members towards his beliefs we can see that no perpetrator acts in a complete vacuum without any external influence, even though they may be the only individual to carry out the act (i.e., often referred to as a lone actor terrorist).

Step 3: Researching and Planning

The third step towards intended violence revolves around gathering information related to the intended target(s) (Calhoun & Weston, 2003). BT had an extensive researching and planning process, which spanned two years. It appears that BT purposefully chose to travel to New Zealand and to live in the city of Dunedin as of 2017, knowing that this country is believed to be an extremely safe place in the world and that an attack on a perceived secure area would likely increase the attention surrounding the event. BT did not have any social support from friends or family in or clear associations to New Zealand, did not seek employment, and began planning either prior to arriving or soon after. In the sentencing comments, the judge noted that the sole reason BT came to New Zealand was to target the Muslim community in the country, as New Zealand is regarded as a multi-cultural country and mosques are sacred places (R v. Tarrant, 2020). This further highlights the level of detail sought by BT to invoke a massacre that would be more likely to receive extensive attention.

In his researching and planning phase, BT followed the direction and steps provided by the 2011 Norway terrorist (Royal Commission of Inquiry, 2019). For instance, becoming a member at a gym, using steroids to bulk up, acquiring firearms experience by joining rifle clubs, efforts at “operational security”, scrubbing electronic devices as an attempt to constraint what counter-terrorism agencies might discover after the attack, and a personal manifesto to be shared at the time of the attack (Royal Commission of Inquiry, 2019; p. 197). Thus, BT has meticulous about knowing all the steps that would be required for his planned events and took inspiration from others.

In his planning for the attack, BT emailed himself notes to refer to in the future (Royal Commission of Inquiry, 2019). Though he deleted his emails prior to the attack, a few were able to be salvaged and provide evidence of some elements of his planning process (Royal Commission of Inquiry, 2019). Prior to the attack, he also sent the drone and external hard drive to his sister which contained files relating to his planning and preparation (Royal Commission of Inquiry, 2019). Recovered from the SD card was a document made on February 9, 2018, which is thought to be the first piece of information in his planning, which was a budget (Royal Commission of Inquiry, 2019). In this budget, he would be out of funds by

August, which is consistent with the intended time of his attack (Royal Commission of Inquiry, 2019). Though he intended the attack during a Muslim festival, the date changed for a variety of reasons, including running out of money earlier than expected (Royal Commission of Inquiry, 2019). A document titled “to DO LIST” was made on July 18, 2018, salvaged from the SD card and shows that he had a general plan, though had not yet determined the specific location (i.e., he was referring to “other mosques”; Royal Commission of Inquiry, 2019). Additionally, three months prior to the attack, BT “went out of his way to create a trail of evidence in Poland” (Royal Commission of Inquiry, 2019, p. 219). It is believed that BT created this evidence to try to increase his credibility of international support, particularly from the Norway terrorist. This evidence was noted by his mother, in his manifesto, and shared with the New Zealand Police (Royal Commission of Inquiry, 2019). Therefore, it can be seen the extensive level of researching and planning undertaken by BT for the attacks.

Step 4: Preparation

The preparation step includes gathering all the necessary requirements to be able to fulfill the perpetrator’s intended act (Calhoun & Weston, 2003). This could include getting the weapon(s), the costume of choice, transportation, supplies, and potentially fulfilling “final act” deeds (Calhoun & Weston, 2003). BT joined a gym and used steroids to bulk up. On September 1, 2017 (which was only 15 days after he arrived in New Zealand) he started his application to obtain a firearms licence. The Royal Commission of Inquiry believes that, from this point on, BT’s primary focus in life was planning and preparing for his attack. He acquired his first firearm on the December 4, 2017 (Royal Commission of Inquiry, 2019). To prepare for his attack, he gained proficiency with firearms, attaining a high level of fitness and bulking up on his own (with the assistance of drugs). He received a New Zealand firearms license and frequented rifle clubs to practice with his guns. The type of weapons that BT acquired were specific to his quest of killing as many people as he could. He procured high-powered firearms (e.g., AR-15 semi-automatic rifles), an enormous amount of ammunition (over 7,000 rounds), additional military effects, and gear. BT went one

step further and altered the military style semi-automatic rifles to increase their fire rate (*R v. Tarrant, 2020*). On 24 March 2018, BT purchased AU\$1,358.00 of equipment at Gun City Dunedin (2,000 rounds of .223 calibre Remington 55Gr SP). It was also found that BT made 11 ammunition purchases online between 5 December 2017 and 12 July 2018. He made a number of modifications to some of his firearms. Some examples of the modifications he made included: adding sights to assist accuracy; adding a screw-in choke to the muzzle of a shotgun barrel, therefore reducing the spread of the pellets and improving the reach of the shot; adding a muzzle brake to reduce recoil and therefore keep the firearm on target; adding an ambidextrous charging handle to one of the semi-automatic firearms to make cocking the firearm easier; adding a bipod (an integral, adjustable front rest for use when firing) to the bolt action rifle to increase accuracy. The modifications which BT made to his firearms were not illegal. Firearm owners commonly make a number of these types of modifications to their firearms (Royal Commission of Inquiry, 2019).

Prior to March 15, 2019, only individuals who had an E Endorsement on their firearms licences were legally allowed to be in possession of military style semi-automatic firearms. The semi-automatic rifles he possessed were military style semi-automatic firearms (according to law) only if they were fitted with magazines which are able to hold more than seven cartridges. However, at the time he made the firearm purchases they were not military style semi-automatic firearms as none of them had been fitted with large capacity magazines. Although BT did not have an E Endorsement, he was still able to purchase these semi-automatic rifles (Royal Commission of Inquiry, 2019). The guns and magazines which BT used in the attack had been marked up with white text referencing historical events, people, and motifs related to historical conflicts, wars, and battles between Muslims and European Christians, extreme right-wing ideology and previous terrorist attacks (Daily Sabah, 2019). He sold some firearms on Trade Me (including, the Tikka T3X Lite stainless/synthetic rifle, Norinco SKS semi-automatic rifle, Ruger 10/22 semi-automatic rifle and Ranger TAC-12 SYN semi-automatic shotgun; (Royal Commission of Inquiry, 2019). Like the perpetrator of the 2011 Norway attacks, he prepared his manifesto to be released at the same time he carried out his attack (Royal Commission of Inquiry, 2019).

An investigation carried out by the New Zealand Police shows that the attack was entirely self-funded with an estimated total cost being approximately NZ\$60,000. About NZ\$30,000 was used to purchase firearms and related items (Royal Commission of Inquiry, 2019). BT's mother told the Australian Federal Police when questioned after the attack that her son told her, three months before he carried out his attack, that he had changed his travel plans in order to attend a rally in Poland in December 2018. He created a trail of evidence in Poland to provide support for what he later told his mother, wrote in his manifesto and told New Zealand Police when questioned. BT believed that this would provide some degree of credibility to his somewhat unconvincing argument that he had international support for his planned attack leading to unnecessary official inquiry (Royal Commission of Inquiry, 2019). This evidences the great attention to detail that BT took in his planning process.

More proximally to the attack, BT was continuing to prepare and to share his beliefs, with some evidence of leakage. On March 13, 2019, a few days before the attack, BT posted links to extreme right-wing material on Twitter and Facebook. He also posted pictures on Twitter of the firearms and equipment he used in his attack. On March 13, 2019, BT also created a Facebook album (titled "Open in case of Saracens"), where he uploaded 155 images (one of which was a picture of Masjid an-Nur which had been digitally altered to look as if it was in flames) and two right-wing videos advocating violence (Royal Commission of Inquiry, 2019). On the evening of March 14, 2019, BT uploaded his manifesto to a website, Mediafire21, and in the early hours of March 15, 2019, he uploaded "docx" and "pdf" versions of his manifesto. These documents which he uploaded on March 14 and 15 could not be accessed by the public until he posted links to them shortly before he carried out his attack. On the morning of March 15, 2019, BT posted a Tweet which included links to the file sharing sites where people could access his manifesto (Royal Commission of Inquiry, 2019). This would be described as leakage behaviour. The night before the attack, BT talked to his family members in out of character manners. He spoke on the phone with both his mother and sister. His mother reported to the Australian police, that during their call, BT seemed relaxed and happy. He also made a point of saying to her that he loved her – something which was out of character for him. His sister also told the Australian police that BT had twice told her that he loved her – which again

was out of character. He would typically only tell her that he loved her when he was leaving for a long trip (Royal Commission of Inquiry, 2019). The phone calls this perpetrator made to his sister and mother are considered “final-act” behaviors.

Step 5: Probing and Breaching

This fifth step towards intended violence is when the perpetrator determines the amount of security in the anticipated location of the violent act (Calhoun & Weston, 2003). The individual determines what “covert approach” (Faccini & Allely, 2016, p. 230) will be needed to fulfill their ideation. Though there is no evidence to suggest there was much security at the mosques prior to BT’s attack, there is a trail of evidence revealing the steps BT took to ensure a location that would be feasible, while covering his tracks in the process. BT’s need to conceal his intended acts were revealed when he tried to minimise his digital footprint in order to reduce the likelihood of relevant Public sector agencies being able to figure out his plans based on his internet activity. For example, BT removed the hard drive from his computer, used the dark web to make purchases, and used Virtual Private Networks (VPNs) when travelling (Royal Commission of Inquiry, 2019). This foresight further highlights BT’s planning and trying to remain covert prior to his attack.

With regards to finding the location for the intended violent act, the choice of which Mosques were deliberate and well-planned by BT. For example, he purposely chose the time and day (i.e., Friday prayers) to commit his attack, as he knew that there would be significantly more individuals present. It is clear from his planning and preparation that BT had the goal to have as many fatalities as possible (*R v. Tarrant, 2020*). This pervasive idea to have more victims than a public mass shooter predecessor is a common theme among those seeking fame or attention through violent acts (Lankford & Silver, 2020).

BT had narrowed down the exact location for his attacks three months prior, and the attack in March of 2019 was not BT’s first time at one of the mosques. BT drove to Christchurch via Ashburton on January 8, 2019. Later that same day, he carried out surveillance of Masjid an-Nur in Deans Avenue, Christchurch.

To carry out surveillance, he flew a drone over the building, recording an aerial view of the masjid grounds and buildings. He then flew the drone back over Masjid an-Nur focusing on the entry and exit doors and the alleyway where he parked his car on the day of the attack. A member of the public reported in May 2019 that they had seen a small drone flying over the length of Masjid an-Nur in Deans Ave on the evening of January 8, 2019. On the same day, BT reported that he drove past the Linwood Islamic Centre for the purposes of surveillance. Three days later, BT went to the Masjid Al-Huda, Dunedin Islamic Centre which he said was the only visit he made. Following his surveillance, he made the decision to not carry out an attack at the Masjid Al-Huda, Dunedin Islamic Centre for a couple of reasons. First, the building would not have much symbolic significance as the building did not look like a masjid. Second, he did not want to harm any Muslim university students, which he did not view as “invaders” as they were likely to return to their home countries after they completed their degrees (Royal Commission of Inquiry, 2019). Finally, once he settled on his location, he examined the blueprints of the mosques, noted the entry ways, and the probable exit paths that individuals at the mosque would use to try to escape his anticipated rampage (*R v. Tarrant, 2020*).

Step 6: Attack

On March 15, 2019, BT killed 51 individuals and harmed 40 others at the Al Noor Mosque and Linwood Islamic Center in Christchurch in New Zealand (Stoakes, 2020). Of significance, are his behaviours during the attack that showed his commitment to the far-right movement. For example, during the attack he had far-right anthems projecting from the stereo in his car and the magazine in the gun had names and words important to the movement. BT was captured within 20 minutes of the beginning of his attack (Williamson, n.d.). BT had the intention to drive off to a third mosque but was stopped by police officers before he was able to continue (*R v. Tarrant, 2020*). Overall, using the PTIV, there are clear indications of BT progressing through the six stages of the model which ultimately led to the unfortunate events on March 15, 2019.

Application of The Terrorist Radicalization Assessment Protocol (TRAP-18)

In this case study, the presence or absence of each of the 18 indicators of the TRAP-18 in the case of BT is outlined. The presence of any one of the warning behaviors would suggest the need for the case to be actively risk managed (Meloy, 2017). The presence or absence (or unknown) of each of the indicators will be examined approximately one year prior to the attack, on March 24, 2018, and the week prior to the attack. Two of the authors carried out the TRAP-18 independently and then met to discuss their coding. There was agreement on all codes. Although this is not the proposed way to conduct a TRAP-18 in practice, in the research realm, this was done in order to offer an additional layer of reliability rather than one author applying the TRAP-18 to this case without any type of verification. In the week before his attack, BT exhibited five of the eight proximal warning behaviors including: pathway, fixation, identification, energy burst and last resort. Additionally, in the week prior to his attack, BT had exhibited the following seven of the ten distal characteristics: personal grievance and moral outrage; framed by an ideology; dependence on the virtual community; changes in thinking and emotion; failure of sexually intimate pair bonding; mental disorder and criminal violence.

[Table 1 about here]

Discussion

BT is one example of a mass shooter who spent an extended time planning and preparing for his attack. This included foresight into how to make the attack more lethal, where he acquired a large number of powerful weapons which he modified to meet this need. From the case analysis, we also note that BT carried out his attack using unprecedented or unique elements. One key factor that was unique to this case, is that he livestreamed his attack on Facebook (Williamson, n.d.). Both the manifesto and the livestream

point to his desire for attention and/or fame (Lankford, 2016). These types of behaviours where an individual invents novel methods to achieve attention and/or fame as a result of their attacks has been speculated to become more common in perpetrators of public mass shootings (Lankford, 2016). This is already evident in the case of BT, as having a livestream would increase his chances to be reported on the media. It is important to highlight the role that media plays in infamously promoting the perpetrators of such events, and how this ultimately drives some individuals' desire for fame. Further, this leads to questions as to whether identifying these individuals by their names and focusing on the individuals who perpetrated these acts in the mainstream media, rather than the victims, causes more harm.

Based on our analysis of the case using the Path to Intended Violence (Calhoun & Weston, 2003), it is clear that BT had significant grievances (Stage 1) which led him to the second stage of the Path to Intended Violence (Violent Ideation). In this second stage, BT joined online forums of like-minded individuals and sees violence as being his only option to address his grievances. He also reads about previous mass shooters and was inspired by them. In particular, he makes explicit reference to the perpetrator of the Charleston church shooting on June 17, 2015 and the terrorist who committed the 2011 Norway attacks in his manifesto. BT directly points to the internet, and more specifically YouTube, for his beliefs (Royal Commission of Inquiry, 2020). O'Callaghan and colleagues (2015) found the presence of a radical right "ideological bubble" (p. 474) on YouTube, where one video leads to another consistent with the same or more extreme ideology based on YouTube recommendations. This further emphasizes the critical role that the media plays in the radicalisation and desire of these individuals.

Finally, regarding the threat assessment, BT exhibited a number of warning behaviours prior to his attack. Specifically, the week before his attack, BT exhibited five of the eight proximal warning behaviors and seven distal characteristics. This threat assessment highlights that there were clear indications of an impending attack, or at the very least, or grave concern for the potential actions of this individual. Though hindsight is 20-20, the number of characteristics and behaviors of concern that were exhibited by BT point to numerous areas for intervention that were missed. Recommendations and considerations from this case analysis will be addressed in the following section.

Recommendations and Considerations

Both proximal and distal warning indicators and observed phase behavior from the PTIV display the utility of employing the two models in operational settings. Both models provide clearly defined behavioral indicators to law enforcement and intelligence professionals. These behaviors can be used to assess the risk of premeditated violence, the circumstances in which violence may occur, to identify imminence, and to determine appropriate barriers to violence, mitigators, and countermeasures. While there is no profile of a terrorist or a non-ideologically driven attacker, there are behavioral warning indicators observed in cases of successful attacks and averted attacks. These behaviors are captured by both the TRAP-18 and the PTIV. Both models provide structure and allow public safety professionals to make fact-based, systematic, structured professional judgments grounded in research-informed indicators. The design and research-informed nature of these models provide value given that behavioral threat assessment is not intended to serve as a method of profiling ascribing dangerousness to characteristics and identity rather than behavior (Reeves & McCarthy, 2021). Furthermore, these models and threat assessments, in general, aid professionals in differentiating between persons making symbolic threats and individuals who pose credible threats. These models also allow prevention practitioners and researchers to leverage an idiographic or case-driven approach instead of a group-driven system, which is essential since the type of violence these models concern themselves with has a low base rate (Meloy & Hoffman, 2021). This is also a significant value added due to the number of threat cases law enforcement agencies have to deal with.

Additionally, leveraging a fact-based, systematic process in which information used to make an assessment is verified actively prevents many cognitive biases that may manifest when making assessments. These models also lend to iterative analysis needed to account for changes in behavior and disposition that occur over time as an individual's socio-political context changes and countermeasures are employed, allowing for rapid adjustments to intervention tactics. Lastly, because the models have consistent variables, the assessment process can be repeated by multiple assessors to ensure that assessments are valid and that

the correct behaviors have been observed and recorded. This also lends to multidisciplinary collaboration and intention because of shared language, variables, and models. Ultimately, we recommend the application of the TRAP-18 and the PTIV model in cases of individuals of concern. Both measures approach threat assessment in a different but complementary way. The application of both the TRAP-18 and PTIV to cases of concern assist with identifying a timeline of behaviors, which in turn provides insight into pathway to violence and warning signs that someone may be a threat of violence. Using both provides a more holistic approach to threat assessment. The PTIV model when applied to an individual of concern looks at what stage they are at on the pathway. It provides the assessor with a theoretical framework for the purposes of threat assessment. There are six relatively broad stages of the PTIV and an individual can move up and down the stages – they can also bypass some stages. The TRAP-18, on the other hand, does not utilise a pathway/stage model. Rather it looks at the presence or not of a wide range of warning behaviors (which were determined in the development of the TRAP-18 through case studies, professional experience and empirical peer reviewed articles). The TRAP-18 behaviors are considered patterns as opposed to being discrete variables. As previously mentioned by Tassin and Allely (2022), the TRAP-18 could be useful for clinicians to use as a screening tool to determine if a threat assessment or management plan is appropriate and can assist with early identification and intervention and the use of the PTIV model may assist clinicians or threat assessors in determining how quickly intervention may be needed as well as the most appropriate level of intervention. For example, an individual who displays probing and breaching behaviours may elicit more immediate and severe intervention in comparison to an individual who has not yet expressed violent ideation in addition to their identified grievance (Tassin & Allely, 2022). The TRAP-18 is recommended to be used in conjunction with the PTIV because the TRAP-18 can be applied a number of times over the course of a period of concern in order to see whether there is an increase in the number of distal warning behaviors and/or the presence of any proximal warning behaviors.

Finally, we also recommend other researchers use of TRAP-18 and the PTIV model, respectively, with individuals who have perpetrated acts of extreme violence in order to build up a detailed evidence-base of the temporal sequencing of warning behaviors in the days, weeks, months and even years leading

up the attack. While the TRAP-18 may be used to identify concerning behaviors and characteristics indicative of planned violence, organize that operational data, determine imminence, it is important to emphasize that the TRAP-18 is not predictive. The instrument may allow mental health, intelligence, law enforcement, and security professionals to determine where an individual is on the pathway to intended violence and to identify characteristics that may inform violence mitigation and threat management strategies. However, the TRAP-18 does not allow those professionals to predict future violence. As violence is similar to severe weather, in that one may observe the presence of “storm clouds forming on the horizon, but one does not know if or when they will constellate into a fierce weather event, or even a hurricane” (Meloy, 2018).

Limitations

There are some limitations with the present case study. First, none of the authors assessed BT themselves. The researchers' inability to assess the individual presents challenges as it relates to understanding the individual's true intent. Therefore, we are reliant on the stated intent within the primary source documents authored by the individual. The reliance on the primary source documents is a limitation and potentially a validity concern. Determining the motivations of individuals engaging in political violence can be made more difficult due to the nature of these acts, as individuals engage in the theatre of terrorism. This challenge is displayed in the subject's creation of his own video interview and manifesto that he disseminated before the attack, potentially to control the narrative. As Fletcher states, “like good theatre, terrorism always represents some moral drama acted out on a large stage” (Fletcher, 2006). The primary source materials created by the subject can be thought of as propaganda. Propaganda serves to justify acts committed based on the worthiness of a larger cause, condemn the “other side”, or perceived outsider, instill fear in the target population, seek to win approval from associates, and inspire new adherents (Ford, 2022). Although primary source documents such as the ones produced by the subject of this study present challenges to research and assessment, they still provide value and some level of insight. Second,

the TRAP-18 was conducted retrospectively. The authors acknowledge the benefit of examining a case and the events that lead to an incident. However, this is consistent with all the other case studies that have been published using the TRAP-18. Currently, there are no case studies published which explored the TRAP-18 applied operationally or prospectively. A retrospective examination is still warranted given the information that can be gathered and the lessons that we can learn from the multi-layered inaction towards intervening prior to the attack.

Future Research Directions

It would be useful for future research to investigate the utility of the TRAP-18 when applied to cases prospectively (when used operationally). Researchers in future studies should not only rely on publicly available information (public records) but also other data sources (e.g., collateral informants, interviews with family, friends, co-workers; Brugh et al., 2020). It is also important to highlight the need to interrogate suppressed court documents that may be accessed through The Foreign Intelligence Surveillance Act (FISA) in an American case and interviews with the subject when possible. Furthermore, there is a continued need for researchers to interrogate court documents and to interview attackers when possible, drawing on the established literature on how to conduct interviews with terrorists (Khalil, 2019; Horgan, 2012), especially in countries like the United States where authorities frequently deny researchers access. It also important for researchers to consider the difficulty in discerning motivations and intent for certain actions as it relates to individuals engaging in political violence. The theatre of terrorism often makes it difficult to know what a person's true intent is even when it comes to authoring primary source documents.

Conclusion

In conclusion, we recommend the application of the TRAP-18 and the PTIV model to individuals of concern. The retroactive use of these tools can assist in developing an evidence-base of the temporal sequencing of warning behaviors exhibited during the pathway to intended violence. Such knowledge can help with prevention efforts and ultimately, prevent future attacks from happening.

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